MINISTERUL EDUCAȚIEI ŞI CERCETĂRII
UNIVERSITATEA DIN CRAIOVA
FACULTATEA DE AGRICULTURĂ

AGRICULTURA DURABILĂ
AGRICULTURA VIITORULUI

CRAIOVA
22-23 NOIEMBRIE 2007

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THE SCIENTIFIC CONFERENCE WITH INTERNATIONAL PARTICIPATION „DURABLE AGRICULTURE – AGRICULTURE OF THE FUTURE”

HOMAGIAL SYMPOSIUM “60 YEARS OF HIGH AGRONOMIC EDUCATION IN OLTENIA”

THURSDAY 22TH NOVEMBER

9^{00} – 10^{00}	**Registration of participants**
10^{00} – 10^{30}	**Official Opening; Messages – Amphitheatre „Al. BUIA”;**
10^{30} – 11^{30}	**Awarding of prizes – Amphitheatre „Al. BUIA”;**
11^{30} – 14^{00}	**Plenary Session;**
14^{00} – 15^{30}	**Lunch time;**
15^{30} – 18^{00}	**Plenary Session;**
18^{00} – 19^{30}	**Dissemination of culture – Amphitheatre „Al. BUIA”;**
20^{00} –	**FAREWELL DINNER – HOUSE OF THE GOWNSMEN.**

FRIDAY 23TH NOVEMBER

8^{00} – 9^{00}	**Breakfast – Student canteen „Complex Agronomie”;**
9^{00} – 11^{00}	**Plenary Session;**
11^{00} – 12^{00}	**Coffee break and posters time;**
12^{00} – 14^{00}	**Plenary Session;**
14^{00} – 15^{00}	**Lunch time;**
15^{00} – 17^{00}	**Debate ”How to access the European structural funds - *PC7*”;**
17^{00} – 18^{00}	**Conclusions, suggestions.**
18^{00} –	**Closing off the Conference.**

SECTION I

CHAIRMAN: IANCU STANCU
MODERATORS: MOCANU ROMULUS
LAZUREANU AUREL
NETOIU CONSTANTIN
NICULESCU MARIANA

ON HERBICIDE EFFICACY IN WEED CONTROL IN A LAWN GRAMINACEAE ASSOCIATION RESEARCH CONCERNING CHEMICAL CONTROL OF WEEDS IN GRAIN MAIZE CROPS

Alda S., Lăzureanu A., Cârciu Gh., Popoviciu Gheorghina Lenuța

Abstract: Controlling lawn weeds with the help of herbicides is a concern of great importance if we take into account that proper lawn setting depends on the way we manage to control weeds efficiently. Weed control needs complex weed control systems such as manual tillage, repeated sows, and use of herbicides – the latter ones being efficient and especially relatively easy to apply. Starting from these considerations, we set on the territory of the Didactic Station in Timişoara an a stationary experiment on lawn on which we tested selectivity and efficacy of some herbicides in weed control (Lancet, Mustang, DMA_6, Lontrel, Icedin super, Buctril universal, Esteron extra, Lintur, Premiant). The highest percentage of weed control during the two experimental years was in the variants treated with Buctril universal 0.8 l/ha, Mustang 0.5 l/ha, and Lancet 1.20 l/ha.

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STUDIU PRIVIND ÎNMULȚIREA GENERATIVĂ LA *MURRAYA PANICULATA (L.)* JACK. STUDY REGARDING THE GENERATIVE PROPAGATION AT THE *MURRAYA PANICULATA (L.)* JACK.

Doina Anton, Sonia Cruceru, Manuela Manda

***Abstract*:** *Murraya paniculata (L.)* Jack., is a sempervirescent shrub, original from Asia, with beautiful ramification,

who decorate from his green leaves, white and fragrance flowers like a jasmine. He has a decorative effect from his small and red-orange berry. We make inquiries about generative multiplication by date of crops fruits and by soils.

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EVOLUTION TRENDS OF PLANT COMMUNITIES ON ABANDONED FIELDS IN THE BANAT (S-W ROMANIA)

TENDINȚE DE EVOLUȚIE A COMUNITĂȚILOR DE PLANTE DE PE TERENURILE ARABILE ABANDONATE DIN BANAT (SUD-VESTUL ROMÂNIEI)

Gicu-Gabriel ARSENE, Alina-Georgeta NEACŞU
Universitatea de Ştiințe Agricole şi Medicină Veterinară a Banatului din Timişoara

Abstract: The paper presents the main directions in evolution of plant communities installed on abandoned fields in the Timiş and Caraş-Severin counties. Data was collected during the period 2003-2006 in more than 50 communes, according to phytosociological methodology. Observations were made on the vicinities of the sample areas, in order to establish the possible evolution in vegetation. For some studied areas, kept under observation many years, the succession was studied in situ. The diversity of conditions, both natural and anthropic, gives a complex image on ways of successions; however, we present a scheme of main directions that these communities, segetal ones in all cases at the beginning, could follow. Implications of the cultivation abandon are discussed from an agronomical point of view and for regional and landscape diversity.

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OBTAINING AND TESTING IN FIELD EXPERIMENTS OF SOME MICROBIAL BIOINOCULANTS

OBTINEREA SI TESTAREA IN CONDITII DE CAMP A UNOR BIOINOCULANTI MICROBIENI

Narcisa Babeanu[1], Doru Ioan Marin[1], Ovidiu Popa[2], Marina Pamfil[3]

1. Faculty of Biotechnology, University of Agronomical Sciences and Veterinary Medicine, 59 Marasti Bld., Bucharest - 011464 ROMANIA
2. Research Centre for Applied Biochemistry and Biotechnology, 59 Marasti Bld., Bucharest - 011464
3. The National Institute for Chemical Pharmaceutical Research and Development ICCF Bucharest, 112 Vitan Av, sector 3, ROMANIA

Abstract: The main target of our research team's work was to obtain and to test some microbial bioinoculants with biostimulatory and antagonistic activity against plant pathogens. *Bacillus subtilis* and few other *Bacillus* spp. are used as biofertilizers and biocontrol agents of fungal diseases caused by different plant pathogens. *Trichoderma* spp. are known as antagonists of other fungi and have been shown to be very potent biocontrol agents of several soilborne plant pathogenic fungi under both greenhouse and field conditions.

25 soil samples from fields cultivated with wheat were collected for isolating *Bacillus* spp and *Trichoderma* sp. We isolated 6 strains of *Bacillus* spp. and 4 strains of *Trichoderma* spp. Among these, two strains of *Bacillus subtilis*, noted as BS1 and BS2 proved a increased phophate solubilizing capacity-BS1 and cellulolytic activity –BS2, respectively. They were grown on a glucose and corn-steep liquor based medium, resulting in a biomass concentration of around 15 g/L (dry substance), in a 15 L New Brunswick fermenter (7 working volume). The results for the cultivation of *Trichoderma* spp. (noted as T) in approximate same conditions were of 13 g/L biomass (dry substance).

The resulted biomass was tested as bioinoculant for wheat crops in field experimental conditions. The best results were obtained with a mixture of the strains BS1, BS2 and T. The yield (kg/ha) for the best tested variant V4 was of 41% greater against the blank (N_0P_0), respectively 12% greater against V2 (N_{60} P_{30}).

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PROCESE PEDOGENETICE SPECIFICE CÂMPIEI BĂRĂGANULUI NORDIC LA EST DE VALEA IENCII

PEDOGENTETIC PROCESSES SPECIFIC IN NORTHEN BARAGAN PLAIN TO EAST FROM IENCII VALLEY

Nicoleta Balaban, Luminița Grigore, Ioana Pănoiu, E. Georgescu
University of Agronomical Sciences and Veterinary Medicine from Bucharest, 59 Marasti, Bucharest, Romania, Telephone: 3182567, e-mail bal_nicoleta@yahoo.com

Summary: Solis cover research regardless of studied area it can be completed when is presented aspects concerning pedogenetics process. O that kind of research I have effected in north Baragan plane at east of Iencii Valley. Northern Baragan Plain to east from Iencii Valley is located in eastern of Romanian Plain and represents a part of Braila Plain.

As result at effected research, and because of the interactions between pedological factors (rock, relief, climate, etc), in North Baragan Plane has putting in evidence a complex soils cover, formed by classes: Protisoils, Cernisoils and Salsodisoils.

Pedogenetic processes specific in this area are: bioaccumation, eluviation-iluviation, gleization, alteration, salinization and alkalization.

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CALCULUL SI IMPORTANTA RAPORTULUI C/N DIN SOL

THE CALCULUS AND THE IMPORTANCE OF THE C/N RATIO FROM THE SOIL

Becherescu C., Dobre M., Dascalu D., Susinski M. Florina Grecu

Abstract: The paper presents the definition of the critical value of the C/N ratio, the calculus way of the critical value, there is calculated the N mass that can be used by the soil microorganism or by the crop. There are also presented experimental data for several soils, from which the C/N ratio can be calculated.

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EVALUAREA RISCULUI DE CONTAMINARE A MEDIULUI PRIN MODELARE MATEMATICĂ
ENVIRONMENT CONTAMINATION RISK EVALUATION USING A MATHEMATICAL MODEL

Despina-Maria Bordean, Octavian Ungur, Iosif Gergen, Monica Hărmănescu
Universitatea de Ştiințe Agricole şi Medicină Veterinară a Banatului Timişoara
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Abstract: The aim of this paper is to emphasis the application modality of a mathematical model to evaluate the risk of environment contamination correlating spectrophotometrical analysis data of soil, bees honey and pollen samples, able to evaluate and predict the pollution level of a geographical area only based on the heavy metals content analysis of bees products. The mathematical model consists of some mathematical methods practiced in different fields, like: risk management, optimization and statistics and which implementation in agro-chemistry, ecology, toxicology, pharmacology etc will permit the prediction of noxious cumulative effects, from macro to micro level.

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ALCHEMILLA MOLLIS, O SPECIE SINANTROPICĂ?

ALCHEMILLA MOLLIS, AN SYNANTHROPIC SPECIES?

Violeta Boruz
University of Craiova, "Al. Buia" Botanical Garden,
violetaboruz@yahoo.com

Abstract: *Alchemilla mollis* (Buser) Rothm. is thoroughly analyzed in this paper, from the taxonomic, chorologic, ecologic, coenologic and blastogenic point of view, primarily in the Ciucaş Massif, where it is largely spread.

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RESEARCHES REGARDING THE GROWTH OF CUCUMBERS IN NURSERIES, ON DIFFERENT TYPES OF NOURISHING SOILS

Chilom Pelaghia, Răducanu Nicolae

Abstract Researches were made for Renato cucumbers, by using fermented soil obtained by composting a variety of vegetal materials.

The results of the analyzed elements show differences between the variants, which are related to the soil recipe used in culture, this differences being highly significant.

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STABILIREA UNOR SOIURI VALOROASE DE PRUN PENTRU ZONA CENTRALĂ A OLTENIEI
THE ESTABLISHMENT OF SOME PLUM TREE VARIETIES OF GREAT VALUE FOR THE CENTRAL AREA OF OLTENIA

Cichi M.[1], Luminita Radu Militaru[2], Larisa Păun[2], Iancu D[3].
[1]University of Craiova, Faculty of Agriculture – Libertatii Street, no19, Craiova, Romania, mihaicichi@yahoo.com
[2]Scholar Group C.D. Nenitescu – Pascani Street, no9, Craiova, Romania
[3]Student of Faculty of Agriculture – Libertatii Street, no19, Craiova, Romania

Abstract: The plum tree varieties have well defined genetic requirements, restricted adaptive capacity, thus in each and every area it can be cultivated only certain varieties, adding to this local custom, the taste of consumers, the imposed technological parameters.

The trees under consideration are in full swing of fructification period (maximum potential) and realize sufficient annual average increases so to provide a good fruit production.

Relatively constant and high productions they were realized in the studied years to the varieties of: Centenar, Stanley, Tuleu gras, Tita, Minerva.

The quality of the fruits for dehydration or for processing it is not always at a high level.

In the case of fruits for dehydration or for processing it is necessary that they present a high content of sugar and a low content of acid because the dehydrated fruits become sours if this ratio is low (Anna Spath, Stanley).

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THE STUDY OF RADICULAR SYSTEM FOR PLUM SPECIES *RECORD* AT S.D.E. BANU MĂRĂCINE
STUDIUL SISTEMULUI RADICULAR LA SOIUL DE PRUN *RECORD* LA S.D.E. BANU MĂRĂCINE

Ciobanu Andi, Cichi Mihai

Abstract*:* This research paper present the architecture of the radicular system for plum variety RECORD from S.D.E. Banu Mărăcine plantation, started in 1995.the research were made in spring of 2007 for record plum variety, grafted on 3 rootstocks, respective: oteşani 8, miroval and roşior văratec, the method of research used was the profiler method.

Categorized by the thickness of roots was found the way of roots positioning taking in consideration also the depth the roots appeared on the cavity wall.

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THE PROTEIN ELECTROPHORESYS IN POLIACRYLAMIDE GEL FOR 7 STRAINS OF *SACCHAROMYCES CEREVISIAE* ISOLATED FROM THE ECOTOPE BANU MĂRĂCINE

Daniela Eleonora Ciupeanu Călugăru

Abstract: The research has been made at the vineyard Dealurile Craiovei, S. D. Banu Maracine; the microbiological, biochemical, oenological analyzes has been made at the Microbiology and Biotechnology Laboratory within S.D.Banu Maracine.

The electrophoresys is an analitical and preparative method use for the separation of the particles or particle ensemble electrical charged, under the action of an uniform electric field apllied from the exterior.

The method is based on the physycal-chemical phenomenon of the different particle species differentiated migration into an

electrical field. The particles can be: ions, macromolecule, coloids or substances particle, macromolecular agregate, cells organite, viable cells or even inert material (Bambeck S.G.,1996).

The biological material used for this experiment has been constitute by seven strains of *Saccharomyces cerevisiae* consider to be susceptible of killer type, strains preserved in our collection. For identification, we have coded them: BM-K101, BM-K305, BM-K312, BM-K313, BM-K316, BM-K317 and BM-K319.

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METHYL POLYMETHACRYLATE RECYCLING

Cojocaru Ileana, Dinca Daniela, Spiridon Gherghina

Summary: Plastic materials recycling can be achieved through a large variety of methods.
A method of chemical recycling can be applied for the methyl polymethachrylate when after a heating process the methyl polymethachrylate (PMMA) depolymerizes and forms the bases monomer (methyl methacrylate).

This research studies the obtaining of methyl monomere methacrylate by methyl polymethachrylate thermal decomposing, with the view to its chemical recycling. Using a new PMMA there has been obtained a 89,2 % efficiency. If a PMMA powder waste is used the efficiency drops to 72.8%. This can be explained by the presence of impurities in the waste. The efficiency of PMMA waste can be improved if the process is repeated. The methyl polymethachrylate obtained by the polymerization of the methyl methacrylate resulted following distillation has similar proprieties to the methyl polymethachrylate obtained from new monomer.

Applying this recycling method ensures a durable development as it leads to the saving of non-regenerating energy sources. All recycling methods have a series of advantage and disadvantages, therefore studies regarding the improvement of these methods have still been conducted.

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RESEARCH REGARDING THE PRESENCE OF SOME MICROMYCETES ON SEEDS AND CAPSULE'S OF *PAPAVER SOMNIFERUM* L. AFTER MUTAGEN AGENTS TREATMENTS

Elena Cozmei, Ana – Maria Popa, Ionuț Drobotă
U.S.A.M.V. Iaşi

Abstract: Researches were made in 2007 year on seeds and capsule's of Papaver somniferum L. The seeds were treated with next mutagen agents: ethidium bromide and colchicines, in different concentrations.

The capsule's, witch were determinate the micromycetes types, come from M1 generation. These have been resulted from treated seeds with the same mutagen agents.

The samples were examined in point of phytopatological view, to establish the presence of micromycetes.

The aim of this scientifically paper is to evidence the micromycetes spectrum founded on the studied material, after the treatment with mutagen agents.

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APRECIERI PRIVIND CUANTIFICAREA INFLUENȚEI MINERALELOR ARGILOASE ASUPRA UNOR PROPRIETĂȚI ALE SOLURILOR
ASSESSMENTS CONCERNING THE QUANTIFICATION OF THE CLAY MINERALS INFLUENCE ON SOME SOIL PROPERTIES

C. Crăciun, Sorina Dumitru, Victoria Mocanu, M. Eftene
National Research and Development Institute for Soil Science, Agrochemistry and Environment Protection, Bucharest

Abstract: The paper presents some aspects related to the quantification of the clay minerals influence on some soil characteristics through establishing relationships between certain mineralogical parameters (the clay minerals contents at the level of clay fraction and soil) and indicators which express certain physical (bulk density,porosity,degree of compaction),chemical (pH and cation exchangeable capacity) and biological (number of bacteria and fungi) properties of soil.

From the used correlations (linear, parabolic, exponential, logarithmic, power) the best results (from their significance point of view) were obtained, generally, with linear corelations and for this reason the presented information reffers to this type of relation.

Taking into consideration the values of correlation coefficients ,in majority of cases the relationships between indicators which express certain properties of soil and clay content are similar with those in which the smectite minerals are involved,suggesting that these minerals are fundamental components from the point of view of clay influence on soil properties. In situation of investigated soils the established linear relationships between smectite and some soil properties are direct for the bulk density,degree of compaction, pH, cation exchange capacity and inverse for the porosity,number of bacteria and fungi.

There are and situations when the results of established relationships between mineralogical properties and the other soil properties show that the indicators which express certain soil properties (especially the microbiological indicators) appear more closely related to the clay quality than the clay quantity.

The obtained results suggest that in certain situations, considered favorable, the mineralogical information could be used for predictive purposes, in spite of the fact that such of predictions are limited from the quantitative point of view.

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ASPECTE PRIVIND CULTURA SPECIEI BEGONIA MASONIANA IRMSCH. FOLOSIND DIFERITE TIPURI DE AMESTECURI DE SUBSTRAT

GROWING ASPECTS OF BEGONIA MASONIANA IRMSCH. ON DIFFERENT TYPES OF SUB-LAYERS MIXTURES

Cruceru Sonia, Niculescu Mariana, Osiceanu Silvia

Abstract: For experiments, there has been used young and adult Begonia masoniana species, in the collection of the collection of the Botanical Garden in Craiova.

These have been grown on sub layers mixtures, with natural and mineral-like natural components, cured and uncured. As about

the sub-layer for growing ornamental begonias it must correspond to the needs of every species, bath physical needs, and also the needs of content and nourishing elements and pH. There a many receipts for sub-layers mixtures, and horticulturists have their own receipts for choosing and mixing sub-layers.

There was studied the evolution of plants, in 5 month-time growing, and were estabilished the most favorable growing sub layers mixtures for Begonia masoniana.

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CERCETĂRI PRIVIND INFLUENȚA PRODUSELOR PENNASOIL ŞI CROPMAX ASUPRA UNOR MODIFICĂRI MORFOLOGICE ŞI DE PRODUCȚIE LA ARDEIUL GRAS CULTIVAT ÎN SOLAR

RESEARCHES REGARDING THE INFLUENCE OF PENNASOIL AND CROPMAX SUBSTANCES TO THE MORPHOLOGICAL AND CROPS CHANGES AT PEPPER CULTIVATED IN HOTHOUSE

Maria Dinu, Vily Marius Cimpoiaşu
University Of Craiova, Faculty Of Horticulture

Abstract In the hot house crops, the pepper culture is relative low represented in surface terms, but, this crop have very high food values and also the diversification of species requires necessity of crop augmentation in this protected areas.

At the world level, the actual research concerning this species is very extensive and, in our country, this research is represented by creation of new hybrids, varieties and species especially by I. Pintilie works. The great importance for characterization of culture is the comparative study of new cultivars in specific conditions of cultivated area.

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CERCETĂRI PRIVIND MODUL DE COMPORTARE AL UNUI NOU SORTIMENT DE HIBRIZI DE TOMATE PENTRU CULTURA ÎN SOLARII
RESEARCHES REGARDING THE BEHAVIOR OF THE NEW TOMATO HYBRIDS FOR CULTURE IN HOTHOUSE

Maria Dinu, V.M.Cimpoiasu
University Of Craiova, Faculty Of Horticulture

Abstract In vegetable science the plant crop value are monitories by the value of biological material, like as sort or hybrid. When the cultivar are qualitative superior the technological investments are economically profitable.

Today, for the culture in to hothouse area is strong recommendable to test many cultivars for establish their adaptability at culture condition, at vegetation factors or for improve technological sequences.

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SISTEMUL NATIONAL DE MONITORING AL CALITATII SOLURILOR SI UNELE ASPECTE ALE APLICARII LUI IN JUDETUL DOLJ
THE NATIONAL SYSTEM OF MONITORING OF THE SOIL QUALITY AND SOME ASPECTS OF ITS USE IN THE DOLJ DISTRICT

Ana Maria Dodocioiu, Elena Rosculete, M. Susinski.

Abstract: The system of monitoring of the soil quality describe the status of the evolution of the soil yielding capacity within several ecosystems, accounting the soil use (agricultural, forest) as well as the specific of use (arable, pastures, orchards, vineyards) and of the human activity by industrial pollution, urban activities, transport, cropping systems, chemisation, land improvement works.

Within the Dolj District there have been identified 8 soil classes and 19 types.

The agricultural surface of the Dolj District of 585,785 ha has the following using way: arable 487,516 ha – 83.23%; pastures 68,679 ha – 11.73%; lawns 2,952 ha – 0.50%; vineyards 18,260 ha – 3.12%; orchards 8,352 ha – 1.42%.

STUDIES REGARDING THE CONTAINER SIZE INFLUENCE TO TOMATO TRANSPLANT QUALITY

Draghici Elena Maria and Hoza Gheorghița

Abstract: The study was realized in warm greenhouses at the Faculty of Horticulture from Bucharest during the February and April months 2005-2006. The hybrid Marissa was used as biological material for producing the nurseling. The transplanted was realized in different types of pots. Experimental variants were: V1(control) - nutritive cubes with 7 cm length;V2- Jiffy pot, container with 6,5 cm maximum diameter;V3-Jiffy pot, container with 6,0 cm maximum diameter;V4- alveolar pallets(cells) with 4,5 cm diameter; and V5- alveolar pallets(cells) with 3,5 cm diameter.

We made some observations regarding the growing during the vegetative periods of transplant. We also made some calculations regarding the height, number of leaves, the total mass of the plant, the mass of the roots, the radicular volume of the nurseling produced in different types of pots in order to distinguish the differences between variants.

If we take into account the statistical determinations and interpretations, we could appreciate that although there were differences between these variants, and they are not significant.

The purpose of the study was to appreciate the nurseling grown on the Plantaflor nutritive substrate and to recommend to the producers the best suitable variant of producing the nurseling.

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TECHIRGHIOL LAKE'S SOUTH-WESTERN HILLS' FLORA

FLORA COLINELOR DIN ZONA SUD-VESTICĂ A LACULUI TECHIRGHIOL

Marius Făgăraş Ph.D
Ovidius University of Constanta
Faculty of Natural and Agricultural Science

Summary: Tuzla hills from the south-western side of Techirghiol Lake are low hills (40-50 m maximum height), included in

the Lake avifaunistic protected area (IBA), recent sit Natura 2000 (SPA). The hilly relief, the limestone soil and the submediteranean climate influences are reflected in the steppe vegetation composition, rich in Pontic, Balkans, Submediteranean and Mediteranean floristic elements.

Our floristic study, finalized with identification of 216 vascular taxa is meant to call botanist's attention upon this less-known but very interesting floristic area, rich in rare plants, many of them (18,05% from all taxa) included in the Romanian Red Lists and Bern Convention (Appendix I).

We must also take into consideration the setting up of a Natural Reserve in this area in order to proper preserve the natural habitats.

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THE PLANT COMMUNITIES FROM HERGHELIE MARSH (MANGALIA) NATURAL RESERVE
ASOCIATIILE VEGETALE DIN REZERVATIA NATURALA MLASTINA HERGHELIEI (MANGALIA)

Marius Făgăraş Ph.D.

Abstract: The paper's aim is to present the main vegetation types and the plant communities from Herghelie Marsh, a less-known Natural Reserve situated near Mangalia city, in the proximity of the Black Sea shore. The actual marsh surface is 98 hectares. As a result of our researches, 22 plant communities have been identified and are presented in the coenotaxonomical conspectus; among these, 13 plant associations are newly found in the studied area, unmentioned in the older scientific papers. We describe in this paper only the hygrophilous plant communities belonging to Phragmitetea australis vegetation class, very well represented in the marsh area. Twelve habitat types have been observed already in the researched area according to Habitats Directive and Palearctic Habitats Classifications; some of them are of European interest for conservation.

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ÎMBURUIENAREA CULTURII PORUMBULUI ÎN JUDEȚUL TIMIŞ (ANUL 2006)
THE WEEDING OF MAIZE CROPS IN TIMIS COUNTY (YEAR 2006)

Alina Margareta Fărcăşescu, K. F. Lauer
University of Agricultural Sciences and Veterinary Medicine of Banat, Timişoara

Abstract : This paper aims at establishing the inventory of the segetal flora and the weeding degree from the maize crops in Timis County. From our study results a several corelation between altitude and weeding degree and the presence of perennial weeds. There was observed an importand tendency to expansion of some species during the last 50 years and the presence of a new adventive species in Banat – Eriochloa villosa – since 2006. We studied 52 parcels cultivated with maize, from 36 sites that were located in each geographical unit from the Timis County (low plains, high plains and hills), so we could observe the weeding in different pedo-climatic conditions.

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NOTE PRIVIND FLORA SEGETALĂ ŞI GRADUL DE ÎMBURUIENARE ALE CULTURILOR DE PLANTE PRĂŞITOARE DIN JURUL LACULUI SURDUC (JUDEȚUL TIMIŞ)

NOTES REGARDING SEGETAL FLORA AND WEEDING DEGREE OF ROOT CROPS FIELDS AROUND SURDUC LAKE (TIMIS COUNTY)

Alina Margareta Fărcăşescu, G. G. Arsene, Alina Georgeta Neacşu
University of Agricultural Sciences and Veterinary Medicine of Banat, Timisoara

Abstract: In this paper we present an inventory of segetal flora and the weeding degree of 15 root crops fields (maize, sunflower and potatoes) around Surduc Lake.

The study pursues the influence produced by the fluctuation of the water level in Surduc Lake, during 2006.

The studied area makes the pass from poiana Rusca Mountains to plain, wich influence the segetal ceneozeon biodiversity. This aspect is revealing by the relation between segetal flora, altitude *and soil type.*

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CERCETĂRI PRIVIND INFLUENȚA TĂIERILOR ÎN VERDE ASUPRA FORMAȚIUNILOR DE ROD ŞI ASUPRA DIFERENȚIERII MUGURILOR LA CAIS
RESEARCHES CONCERNING CUTTINGS IN GREEN INFLUENCE UPON FRUITS FORMATIONS AND APRICOT'S TREE BUDS DIFFERENTIATION

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Abstract: The apricot tree represents an early tree species; that is why its buds may be affected by late spring frosts.

Green cuttings rely on the feature of this species of having two or three growth periods.

Regarding those mentioned above, we have carried out some researches upon the behavior of some apricot trees with different ripening epochs, submitted to green cuttings at different moments.

Based on the results achieved, we could conclude that successive to the green cuttings carried out in the apricot trees at different moments, we were able to differentiate a much bigger number of fruit buds and the tree fruit load has been amplified.

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INFLUENTA SISTEMULUI DE LUCRARE A SOLULUI ASUPRA GRADAULUI DE TASARE A PRELUVOSOLULUI ROSCAT DE LA SDE BANU MARACINE LA CULTURA DE GRAU

THE INFLUENCE OF THE TILLAGE ON THE COMPACTION DEGREE WITH THE REDDISH PRELUVOSOIL FROM BANU MARACINE WITH THE WHEAT CROP

Florina Grecu, Vasile D., Popescu C.

Abstract: This paper presents the influence of the tillage system on the compaction degree of the reddish preluvosoil. The reddish preluvosoil has the following profile: Ao – AB – Bt1 – Bt2 – C. Within the variants where the soil was tilled there can be observed a moderated loosening and with the direct drilled variant, the soil is light loosened.

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THE SCIENTIFICAL EVALUATION OF THE PHYSICAL AND GEOGRAPHICAL CONDITIONS FROM THE SOUTH EASTERN EXTREMITY OF THE MOUNTAIN PARANG (THE MOUNTAINS OF CAPATINII – Basarab – Narotiu) IN THE AIM OF THEIR INTRODUCTION IN THE NATIONAL PARK OF COZIA

Dr. Eng. Ion Greere
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Forestry Rm.Valcea

Abstract: Such a mountain, impressing through the enrichment of the species and his sunny landscapes, of a special beauty, could not be possible not to keep the attention of the men of science, of the researchers of the nature secrets, as well as the attention of the simple men, of the folk, who passed it in legend, near the mountain of Cozia. Indeed, about those mountains were written and told a lot of stories and legends, as if it were a fabulous character, said to fight the evil in this world, establishing the lost balance. On the otter hand, regarding the researching line, the science man, from early times entered in this mountain, and evidenced many private traces, being of interest under the knowledge report, of the geological structures and of vegetation, offering us a complete picture of the natural kept treasures, by this mountain space. The section Basarab – Narotiu from the Capatinii Mountain, for the preservation of the complex diversity of the land biotopes, most of them being in primary state, not antropic influenced and bringing them in the scientifically circuit of some natural special values, important for science and the environment protection , was included in the National Park of Cozia.

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CERCETĂRI PRIVIND DENSITATEA LEMNULUI SPECIEI *ACER PSEUDOPLATANUS*
RESEARCHES CONCERNING WOOD DENSITY OF *ACER PSEUDOPLATANUS* SPECIES

Hernea Cornelia

Abstract: In forestry, great importance is given to wood apparent density commonly known as wood compactness. The researches were developed considering four fundamental natural stand that contain also sycamore maple trees, for each population tree cores have been taken in order to determine wood density in anhydrous state as a ratio between mass and volume of wood samples in anhydrous state, conventional wood density as ratio between wood sample mass in anhydrous state and apparent volume of wood with humidity higher than the saturation humidity and dry wood density in open air representing the ratio between mass of dry wood samples in open air and apparent volume of dry wood in open air.

Wood density was the main objective used to study the sycamore maple populations and served to assess the similarities between these.

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CERCETĂRI PRIVIND VARIABILITATEA INETRPOPULAȚIONALĂ ŞI CORELAȚIILE CARACTERELOR FRUNZELOR LA PALTINUL DE MUNTE

RESEARCHES CONCERNING THE INTERPOPULATIONAL VARIABILITY AND CORRELATION BETWEEN LEAF CHARACTERS OF SYCAMORE MAPLE

Hernea Cornelia

Abstract: Sycamore maple represents one of the noble woody species and it is often disseminated in stands found in hilly and mountain regions.

The results obtained from performed measurements on sycamore maple leaves were statistically processed, the study of variability concerning leaf characters for the studied populations

were performed on the ground of dispersion indices, standard deviation and variability coefficient, these clearly indicating the level of variability for the observed values near the center of distribution grouped values. The significance of calculated correlation coefficients was assessed for transgression probabilities of 5%, 1% and 0.1%. For all studied sycamore maple populations close values were obtained for leaf characters (leaf blade length, leaf blade width, petiole length and foliar surface) as well as very significant correlations between each of them.

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INFLUENȚA SISTEMULUI DE LUCRĂRI DE CONSERVARE A SOLULUI (SLCS) ASUPRA PRINCIPALELOR SALE PROPRIETĂȚI
THE INFLUENCE OF THE SOIL PRESERVE SYSTEM (SLCS) ON ITS MAIN PROPERTIES

Iancu S., Popescu Cr., Prioteasa Marilena-Alina, Popescu C.V.

Abstract: The unconventional work or the soil preserve system includes, as example, the minimum tillage, the pile works

system, the narrow bands work system, the direct sowing system (No-tillage) etc.

In the SLCS frame, the percentage pg hidrostable soil structure is maximized, the soil is better ventilated. The vegetal layer protection is eliminating the risk of crust forming, is reducing the waste of water and the drainage on the hill slope, helps the enzymatic activity, is increasing the microbial populations, and is increasing the energetic efficiency.

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MONITORINGUL POLUĂRII MEDIULUI ÎN CONTEXTUL AGRICULTURII DURABILE
THE MONITORING OF THE ENVIRONMENT POLUTION IN THE CONTEXT OF DURABLE AGRICULTURE

Iancu S., Iordache Costela, Cichi M., Iancu D.

Summary: For the improvement of the environment factors quality, the United Nations Program for environment has organised a system of international network for environment polution monitorization with the help of GEMS, Infotera and IRPTC. The Headquarter is in Nairobi, Kenya.

In Romania, the monitoring of environment's polution is realized with the help of GEMS-Ro and IGBM-Ro systems, through three networks: for water, air and soil.

There are base stations, regional stations and local stations (of impact), wich supplies informations to the national oversee (supervise) system of water, air, soil quality and biota (flora, fauna and people's health).

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INFLUENCE OF THE DIFFERENT TILLAGE SYSTEMS ON CULTIVARS OF WINTER WHEAT IN EASTERN CROATIA

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Abstract: On the brown soil in eastern Croatia different influence of tillage systems was researched (A_1 – conventional tillage, ploughing 25-30 cm, A_2 – subsoilng to 35-40 cm, A_3 – discharowing to 10-15 cm, A_4 – no tillage) and a reaction of different cultivars of winter wheat on yield and the quality of winter wheat (B_1 – Soissons, B_2 – Fiesta, B_3 – Gabi) with a method of split-plot in a quadrennial field experiment (from 2003 to 2006). Wheat yield was under the strong influence of climate conditions but it was very high in average.

Concerning the different tillage systems there were no significant differences in yield although there was a lower yield of the variant with no tillage – 5,80 t ha^{-1} (A_4) while the yield of the other variants was moving from 5,90 to 6,06 t ha^{-1}. These differences weren't significant.

The Soissons cultivar achieved the highest yield (6,15 t ha^{-1}) and Fiesta achieved the lowest (5,74 t ha^{-1}). The tillage system didn't

affect the differences in quality of 1000 seeds nor the hectoliter mass. However, we can notice that cultivar Soissons had the lowest mass of 1000 seeds and Fiesta had the highest.

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LEONARDO DA VINCI - INTERACTIVE LEARNING OF ENERGETIC UTILISATION OF AGRICULTURAL PRODUCTS AND BY-PRODUCTS

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Abstract: "Human Support in Renewable Agriculture for a Sustainable Europe"

Researches and experiments have been carried out on bioenergy production all over the world for the utilisation of renewable sources. Based upon their results the biomass of forestry, agricultural by-products, animal by-products and energy crop cultivation are main factors that should be count upon.

Although there are courses, modules in the frame of university education, that partially meet certain expectations (e.g: waste-management, technology) in different EC member countries, there is no certified e-learning training and education program

offered with a special focus devoted to Energetic Utilisation of Agricultural Products and By-products.

The main aim of this project is to develop a certified e-learning training and education program and guidelines that includes e-learning elements through a step by step procedure, based on the experience of different partners, to support target group in their professional advancement.

Our project is financed by the Leonardo da Vinci Community vocational training action programme. The project is coordinated by Hatarok Nélkül Iroda (without Frontiers Office) working together with partners from Romania, Hungary, Greece and Austria.

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INFLUENŢA PORTALTOIULUI ASUPRA NUMĂRULUI DE FLORI LA TRANDAFIR DIN CLASA TEAHIBRIZILOR ŞI FLORIBUNDELOR
THE INFLUENCE OF THE STOCK ON THE GROWTH AND FLOURISHING OF THE HYBRID TEAS AND FLORIBUNDA ROSES

Ing. Kentelky Endre, Ing. Katalin Somodi, dr. ing. Thiesz Rezső
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Abstract: The production of roses has an outstanding economical importance from the point of view of the cut flowers as well as from the point of view of the production of planting material for the decoration of the gardens and green areas.
The experiment has the main goal to find answers to the following question: **in which way the most used stocks in Ardeal influence the growth and flourishing of Hybrid Teas and floribunda roses.**

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RESEARCH CONCERNING CHEMICAL CONTROL OF WEEDS IN GRAIN MAIZE CROPS

Lăzureanu A.,* Cârciu Gh.,* Alda S.,* Alda Liana Maria,

Abstract: The great diversity of the ecological area on which maze is cultivated and the permanent change of the weed associations infesting the crops due to selection, due to the agricultural systems applied, and to the sue of a very narrow assortment of herbicides with a unilateral control spectrum made the issue of weed control a very present one. Starting from these considerations, we have chose for the research carried out in 2005-2006 in the conditions of the Didactic Station in Timisoara the following herbicides: Frontier 900, Alazine 33/14 SE, DMA 6, Guardian, Guardian Extra, Dual Gold, Butizin 40 SC, Primextra Gold, and Merlin Mix. The weed control degree oscillated between 51.24% and 92.37% in 2005 and between 47.39% and 93.30% in 2006. The

most efficient herbicides proved to be the following: Guardian extra (6 l/ha), Primextra Gold 720 SC (3 l/ha), and Butizin 40 SC (8 l/ha), herbicides containing two active substances.

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CERCETĂRI PRIVIND ÎNSUŞIRILE TEHNOLOGICE ALE UNOR SOIURI DE STRUGURI PENTRU VIN ÎN CONDIȚIILE CENTRULUI VITICOL RECAŞ
RESEARCHES REGARDING TECHNOLOGICAL FEATURES OF SOME WINE GRAPES VARIETIES IN RECAS VITICULTURAL CENTER CONDITIONS

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Abstract: Wine quality depends categorically upon the variety cultivated, grape quality at harvesting and upon the technology of vinification.

With regards to these aspects, our researches have supervised the evolution of grape maturation in some wine grape varieties, cultivated in the private vineyard from the win-growing centre Recaş, in order to establish the optimal moment for harvesting.We have determined the sugar and acid content and the mass for 100 grapes. We have also performed determinations related to the quantitative and qualitative yield, in order to find out the most proper varieties for the creation of a new sort specific to this vineyard.

REALIZAREA SISTEMULUI DE FERTILIZARE LA SOL, CU PROTECȚIE ECOLOGICĂ LA CARTOF ÎN ZONA MUNȚILOR APUSENI
THE CREATION OF AN ECOLOGICALLY PROTECTIVE SOIL FERTILIZATION SYSTEM FOR POTATO CULTIVATION IN THE APUSENI MTS AREA

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Abstract: The paper emphasizes the implementing of a soil fertilization system, which is both economically optimum and ecologically protective, applied to the potato crop in the Apuseni Mts., in an „adverse" natural climate, characteristic for unfavoured mountainous areas. Therefore, the moist cool climate and the poor soil quality in the area are limiting the assortment of agricultural crops on these fields and provide suitable conditions solely to non-thermophilous plants with short vegetation periods.

The assortment of cultivated agricultural plants is limited to potato, rye, oat, certain fruit trees and vegetables, while the rest of the surface is covered with natural pastureland and forests. However, the potato holds the preponderance, as it is an essential human and animal food and the primary food support for the population in the area.

Nutritionally speaking, the potato is considered to be a highly-demanding plant in nutritive elements, as it forms an abundant vegetative mass and a high tuber quantity corresponding to the surface unit. Its nitrogen, phosphorus, potassium, magnesium and calcium consumption is high, as well as the micro-element consumption.

The specific nutritive consumption of the potato, according to REMY, (1928), HARDENBURG, (1949), CIMORA, (1953), varies between: 5,0 – 6,9 kg N; 1,3 – 2,0 kg P_2O_5; 6,3 – 8,3 kg K_2O; 2,5-4,6 kg CaO and 1,3-2,2 kg MgO, for the production of one ton of tubers and the corresponding biomass.

The export of soil mineral elements accompanying the potato yield is very high, which triggers the quick soil depletion and the need for suitable potato fertilization, for the mountainous management system.

It is well-known that the basic occupation of people in the area is animal breeding and therefore the production of a significant manure quantity. This is the main fertilization source in the area, conditioned however, by its rational employment.

The organic matter formed in the soil as a consequence of natural fertilizer application, positively influences physical soil traits, contributes to diminishing aeolian and water erosion, diminishes nutrition problems and enhances the effect of mineral fertilizers

applied in supplementing the necessary quantity of nutritive elements for plants.

The paper is designed for the creation of an ecologically protective soil fertilization system, applied to potato cultivation, in accordance with the climatic specific of the mountain area and to the specific and overall consumption requirements of potato assortments in the area.

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CONTINUOUS TEN-YEAR USE OF CONSERVATION SOIL TILLAGE – PRODUCTION AND ECONOMICAL ASSESSMENT

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ABSTRACT: The results, during 2002 – 2004, of a long-term field experiment with winter wheat, spring barley, and pea growing in crop rotations was evaluated from production and economy standpoints. In this experiment, three soil tillage methods were used before drilling: 1) *Conventional tillage (CT),* 2) *Minimum tillage (MT),* 3) *No tillage (NT)*. Provided that the basic conditions at a site are ensured, then by use of conservation soil tillage technologies, it is possible to achieve comparable (or higher) production, than with conventional tillage. Minimum soil tillage, with possible incorporation of straw and post harvest residues, was shown to be the cheapest method, compared with the other two assessed soil tillage treatments. Catch crop use with MT technology turns out to be the most expensive of the observed methods; and in the case of comparable yields, the cost effectiveness is lowest. The no-till technology was anticipated to be the cheapest, but the costs often increased due to the necessity to use more expensive pesticides. The highest demand for total input of supplementary power was calculated for winter wheat with the CT technology; the lowest for pea with CT, as well.

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MITIGATION OPTIONS FOR NUTRIENT REDUCTION IN SURFACE WATER AND GROUNDWATERS (COST action 869)

METODE DE REDUCERE A PIERDERILOR DIN NUTRIENȚI ÎN APELE DE SUPRAFAȚĂ ŞI FREATICE

R. Mocanu, Ana Maria Dodocioiu, M.Susinski, M.Dobre

Abstract*:* COST is an European organization from Bruxelles that is involved with the scientifical research in all science domains. It launches researching programmes on different domains and actions.

The COST Programme – The 869 Action has as objective The migration of the nutritive elements in surface and ground waters.

Romania participates to this action and has two representants in the board.

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EFECTUL DIFERITELOR DOZE SI TIPURI DE INGRASAMINTE CHIMICE ASUPRA CULTURII PORUMBULUI PE HALDELE DE STERIL DE LA HUSNICIOARA – MEHEDINTI
THE EFFECT OF SEVERAL CHEMICAL FERTILIZER DOSES ON THE CORN CROP CULTIVATED ON THE STERILE DUMPS FROM HUSNICIOARA – MEHEDINTI

Mocanu R., Osiceanu N., Ana Maria Dodocioiu

Abstract: The sterile dumps from Husnicioara, District Mehedinti have not favorable phisico-mechanical features for the plant growth. In this manner, the texture is sandy and sandy silty, the humus content is very low, 0.1-0.3%, the total nitrogen of 0.02-0.16%, available phosphorus of 5.09-11.09 ppm and available potash of 33.24-44.16 ppm K make these terrains not suitable for crops.

In order to recultivate these soils there was set up an experiment with corn during 4 years. On these sterile dumps, without any chemical fertilizers the corn does not produce any grain.

The using of chemical fertilizers in N 136, P 80 or N 136, P 80 K 80 doses determine the obtaining of 1,993-2,208 kg/ha yield. The applying of these fertilizer doses on a 25 t/ha manure

background determine almost the doubling of the yield, 3,802 and 4,064 kg/ha.

The using of a nitrogen fertilizers assortment with the equivalence of N 120 excels the urea and the organo-mineral fertilizers.

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EVALUAREA INFLUENȚEI CAPACITĂȚII ANTIOXIDANTE ASUPRA CONȚINUTULUI DE Na^+, K^+, Ca^{2+} DIN TOMATE PRIN ANALIZĂ STATISTICĂ

EVALUATION OF ANTIOXIDANT CAPACITY INFLUENCE ON THE Na^+, K^+, Ca^{2+} CONTENT IN TOMATOES BY STATISTICAL ANALYSIS

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Abstract: The aim of the present study is to emphasis some correlation between antioxidant capacity and Na^+, K^+, Ca^{2+} content in two tomatoes species (Campbell and Ace Royal) cultivated in the vest region of Romania using differentiated fertilizations doses: Control, $N_{30}P_{30}K_{30}$, $N_{45}P_{45}K_{45}$, $N_{60}P_{60}K_{60}$, $N_{120}P_{60}K_{60}$. Numerous studies, show that supplementing the diets with tomatoes and tomatoes food products reduce the appearance risks of different cancer types as well as providing protection against chronical lungs diseases.(Kim D.J, 2000)

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STUDIUL FLOREI DIN ZONA ACUMULĂRII LIEBLING (JUDEȚUL TIMIŞ)
THE STUDY OF THE FLORA IN THE LIEBLING ACCUMULATION AREA (TIMIŞ COUNTY)

Alina NEACŞU, G.-Gabriel ARSENE, Iacob BORZA
University of Agricultural Sciences and Veterinary Medicine of Banat, Timişoara

Abstract: The Liebling Accumulation is located in Timiş County, 30 km away from Timişoara. The observations on the flora have been conducted in the period 2005 – 2007. Until present, there have been identified 137 species, belonging to 38 botanical families. The characteristic flora is the aquatic and paludicolous one, with many segetal and ruderal elements.

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REGIMUL NUTRIENȚILOR ÎN CÂTEVA ACUMULĂRI DIN JUDEȚUL TIMIŞ
NUTRIENT'S REGIME IN SOME ACCUMULATIONS IN THE COUNTY OF TIMIŞ

Alina NEACŞU, Iacob BORZA
University of Agricultural Sciences and Veterinary Medicine of Banat, Timişoara

Abstract: The paper aims to establish the quality of the water in some water accumulations in the county of Timiş, depending on the regime of the nutrients. The accumulations from where there were assayed the samples are: Surduc, Pişchia, Liebling, Sânandrei. If the phosphor's concentration was determined with values that allow the studied ecosystems to be included in the 1st quality class, the values for nitrogen are high, influencing in a negative way the water quality.

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ASSOCIATIONS OF SUBALPINE BUSHES FROM LEAOTA MASSIF AND THE WESTERN SECTOR OF BUCEGI MOUNTAINS
ASOCIAȚII DE TUFĂRIŞURI SUBALPINE DIN MASIVUL LEAOTA ŞI SECTORUL VESTIC AL MUNȚILOR BUCEGI

Monica Neblea

Abstract: The present paper analyses two plant associations which are developed in the subalpine and alpine level: Rhododendro kotschyi-Vaccinietum Borza (1955)1959 em. Boşcaiu 1971 and Rhododendro kotschyi- Pinetum mugo Borza 1959 em. Coldea 1985 These associations are described both

phytocoenologically, as well as by the type of bioformes, floristic elements, ecological and cariological index.

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CERCETĂRI PRIVIND UNELE MODIFICĂRI FIZIOLOGICE PRODUSE DE *CUCUMBER MOSAIC VIRUS* LA PLANTELE DE ARDEI
RESEARCH REGARDING SOME PHYSIOLOGICAL MODIFICATIONS PRODUCED BY THE *CUCUMBER MOSAIC VIRUS* IN PEPPER PLANTS

I. NICOLAE *

Abstract: Research regarding some physiological modifications produced by **cucumber mosaic virus** was made in pepper plants, cultivated in hot house.

In connection with the climatic conditions, as a result of the action virus on the contaminated pepper plants one can also observe the rise of respiration as a result of the intensification of the activity of the respiratory enzymes. At the plants attacked by the virus one can observe the diminution of the total water content determines the withering and premature drying of the plants and the decrease of the contents in chlorophyllian pigments because of the deterioration of the chloroplasts. The content in mineral substances varies in plants as a result of the modifications of the processes of metabolism.

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DINAMICA DIURNĂ A UNOR PROCESE FIZIOLOGICE LA PLANTELE DE ARDEI ATACATE DE *TOBACCO MOSAIC VIRUS*

DIURNAL DYNAMICS OF SOME PHYSIOLOGICAL PROCESSES IN PEPPER PLANTS ATTACKED BY THE *TOBACCO MOSAIC VIRUS*

I. NICOLAE *

Abstract: Research regarding of the diurnal dynamics of the physiological processes was made in Bianca pepper plants cultivated under conditions of unwarmed hot house.

At the pepper plants attacked by the **tobacco mosaic virus** one can observe the diurnal dynamics of the photosynthesis and of transpiration presents a minimum in the morning, a maximum after lunch and a minimum toward the evening, is similar to that in healthy plants but presents specific variations of the action virus.

At the plants attacked by the virus one can observe the rise of respiration as a result of the intensification of the activity of the respiratory enzymes, the decrease of the total water contents determines the withering and premature drying of the plants, the decrease of the contents in chlorophyllian pigments because of the intensification of the chlorophylases and the deterioration of the chloroplasts and the modification of the contents in mineral substances as a result of intensifying the catabolism.

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FLORA PAJIŞTILOR DIN BAZINUL SUPERIOR ŞI MIJLOCIU AL RÂULUI TIMIŞ (SUD - VESTUL ROMÂNIEI)
MEADOW'S FLORA FROM THE UPPER AND MID TIMIŞ RIVER BASIN (SOUTH-WEST OF ROMANIA)

Alma L. Nicolin, Mariana M. Niculescu, Ilinca M. Imbrea

Abstract: The meadow's flora from the upper and mid Timiş river basin contains 671 species, included to the 71 botanical families. The paper presents some aspects about the species adaptations to the ecological conditions, but also their economic value and their importance to the Banat's vegetation diversity. The majority of the species are hemi- cryptophytae. The terophytae are also abundant indicating the anthropic influences. The geo-elements spectrum is dominated by the Eurasian, European and the circumpolar species. Some Mediterranean influences can be observed, too. Related to the humidity, temperature and soil reaction, the flora has a xero-mesophilous, meso-thermal, and slightly acido-neutrophilus character.

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CERCETĂRI PRIVIND SUCCESIUNEA VEGETAȚIEI DE PAJIŞTI DIN BAZINUL SUPERIOR ŞI MIJLOCIU AL RÂULUI TIMIŞ (BANAT)
RESEARCH CONCERNING THE MEADOW VEGETATION SUCCESSION IN THE UPPER AND MID TIMIŞ RIVER BASIN (BANAT REGION)

Alma L. Nicolin, Ilinca M. Imbrea, Mariana M. Niculescu

Abstract: Meadow vegetation in the upper and mid Timiş River basin shows two main evolving trends. If, in the past, over-exploitation meadows, and particularly that of meadows in the high mountain area, resulted in the expanding of Violo declinatae – Nardetum pasture on large areas, because of economic problems from the last 15 years that led to the decrease of livestock, there is nowadays an evolving trend of grassy vegetal cover to potential forest vegetation restoration, characteristic to each region. This vegetation succession is quite often done through the intermediary of an evolving stage dominated by Pteridium aquilinum, a species extremely resistant that forms compact and stable phyto-coenoses. This paper presents other evolving trends of the meadows too, on an altitude interval of over 2000 m, from the Lugoj area up to the Țarcu Peak.

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PLANT COMMUNITIES OF *ASPLENIETALIA SEPTENTIONALIS* OBERD ET. AL. 1967 ORDER IN THE CĂPĂȚÂNII MOUNTAINS

ASOCIAȚII VEGETALE DIN ORDINUL *ASPLENIETALIA SEPTENTIONALIS* OBERD ET. AL. 1967 ÎNTÂLNITE ÎN MUNȚII CĂPĂȚÂNII

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Abstract: The territory under research is located in the Căpățânii Mountains, part of the Southern Carpathians. From the geo-morphological point of view, this area comprises two distinct units: the mountainous area, pertaining to the Capățânii Mountains and the Horezu SubCarpathian Depression, which is part of the SubCarpathian region of Oltenia.

The present paper aims at presenting the associations of the **ASPLENIETALIA SEPTENTIONALIS** Oberd. et. al. 1967 Order,identified in the Căpățânii Mountains. In the territory under research, there were identified three vegetal associations as being part of this order: **1. Asplenio trichomanes-Poëtum nemoralis** Boşcaiu (1970) 1971, **2. Hypno cupressiformis-Polypodietum vulgaris** Jko. et Pec. 1963, **3. Diantho henteri-Silenetum lerchenfeldianae** Stancu 2002.

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RESEARCH ON THE CAMPANULACEAE FAMILY IN THE CĂPĂȚÂNII MOUNTAINS
CERCETĂRI PRIVIND FAMILIA CAMPANULACEA ÎN MUNȚII CĂPĂȚÂNII

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Abstract: The territory under research is located in the southern catena of the Carpathians between the Jiu and the Olt Rivers, that is the mountainous region known as the Căpățânii Mountains. The research on the field was carried out from 1997 to 2007, with planned itineraries. For the identification of the taxa, we have used the Romanian Flora, vol. IX, and Flora Europaea, vol. I. Regarding the nomenclature, we have adopted the classified list solutions which are considered correct, according to the International Code of Botanic Nomenclature. Following the research carried out in

the Căpățânii Mountains, we have identified 20 species to which 2 varieties and 3 forms were added.

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PRETABILITATEA CERNOZIOMULUI GLEIC DE LA S.D. TIMIŞOARA PENTRU DIFERITE CATEGORII DE FOLOSINȚĂ ŞI FAVORABILITATEA LUI PENTRU CULTURILE DE GRÂU, PORUMB ŞI FLOAREA SOARELUI
ON THE SUITABILITY OF THE GLEYIC CHERNOZEM AT THE DIDACTIC STATION IN TIMISOARA FOR DIFFERENT USE CATEGORIES AND ITS FAVOURABILITY FOR WHEAT, MAIZE, AND SUNFLOWER CROPS

L. Niță, F. Sala, K. Lațo, Alina Lațo
U.S.A.M.V.B. TIMIŞOARA

Abstract: The increasing yield and soil fertility are directly determined by a detailed knowledge of soil-formation processes, of the evolution and of the state of ensuring soils with main nutrients. Previous researches concern numerous analytic data for a period of over 40 years, an interval in which numerous changes occurred both in soil properties and in research methodology, in mapping and in appraisal works. As soil features are dynamic and in close relation to soil-formation conditions, it is necessary to re-evaluate physical and chemical properties, nutrient ensuring state and yielding capacity of the main crops in the Didactic Station area in Timisoara.

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ON THE PRETABILITY OF SOILS FROM RECAS, TIMIS COUNTY FOR GRAPEVINE CULTURE

PRETABILITATEA TERENURILOR DIN ZONA LOCALITĂȚII RECAŞ JUDEȚUL TIMIŞ PENTRU CULTURA VIȚEI DE VIE

Asist. drd. Adalbert, Őkrős *, Prof. dr. Rusu Ioan*
***USAMVB Timişoara adalbertokros@yahoo.com**

Abstract: The culture of grapevine in Recas village is an old and powerful tradition. From 1600 until now the land occupied with grape culture has known an expansion, reaching in 1990 up to 2000 ha. After that, the area with grapevine seemed to have a descending

trend, but very recently it has started to revigorate and new lands are available for such cultures. This paper tries to establish which are the best lands and soil types from Recas village, Timis County, favorable for grapevine culture.

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PRICNICIPAL SOIL UNIT FROM RECAS GRAPE CENTER TIMIS COUNTY
PRINCIPALELE UNITĂȚI DE SOL DIN CENTRAL VITICOL RECAŞ JUDEȚIL TIMIŞ

Asist. drd. Adalbert, Őkrős *, Prof. dr. Rusu Ioan*
***USAMVB Timişoara adalbertokros@yahoo.com**

Abstract: In the following paper work we present the principal soil units on the research area from Recas grape center, with their characteristic.

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THE EVALUATION OF THE PHENOTYPICAL FEATURES FOR SOME ROMANIAN TRADITIONAL VARIETIES OF GRAPEVINES

EVALUAREA UNOR INSUSIRI FENOTIPICE LA UNELE SOIURI AUTOHTONE DE VITA DE VIE

Olteanu I.[1], Daniela Doloris Cichi[1], Gheorghita Mandrila[1]
[1]University of Craiova, Faculty of Horticulture- A.I. Cuza Street, no. 13, Craiova, Romania

Abstract: The observations and determinations in the paper hereby go deeply into the ampelometric measurements for some national varieties of grapevines that were recently introduced in the national grapevine assortment. Thus, there were established the value limits for some ampelographic features of leaves and codification of the values that were obtained, according to the I.O.V. (International Office of Vine and Wine), I.U.P.V.(International Union for the Protection of New Varieties of Plants), I. B. G. R.(International Board for Plant Genetic Resources), and the I.C. V.V. Valea Calugareasca.

TEHNICI ŞI PRACTICI FOLOSITE PENTRU CONTROLUL POLUĂRII SOLULUI DATORAT FOLOSIRII ÎNGRĂŞĂMINTELOR CHIMICE
TECHNIQUES AND PRACTICES USED IN SOIL POLLUTION CONTROL DUE TO CHEMICAL FERTILISERS USE

OLIMPIA PANDIA., NICOLA LELIOARA

Summary: In present are searching practically solutions for decrease or eficiently using of nutrients – which represent one of the main polution sources. Thus are presented the most efficient practices/techniques which ensure the erosion control and nitrogen and phosphor looses.

The most of these techiniques decrease the tricklings of the soil surface and increase the infiltrations in soil. That is the reason to take in consideration the type of soil and depth of the freathical tissue. Indiferent of briefing system used establish the quantity of nutrients based on nitrogen and phosphor and those administration

way must be definite from the base of tests soil. Soil erosion is an important factor of natural degration. For ensuring the control of erosion and nitrogen and phasphor dameges we can use many practices and in the same time increasing the infltrations in soil funcion of the type soil and the depth of the freathical tissue.

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VOCATIA AREALELOR VITICOLE DIN OLTENIA, PENTRU OBTINEREA VINURILOR DE CALITATE SUPERIOARA CU DENUMIRE DE ORIGINE CONTROLATA (D.O.C)
THE VOCATION OF WINE-GROWING HABITATS FROM OLTENIA-ROMANIA TO OBTAINING HIGH QUALITY WINES HAVING CONTROLLED ORIGIN DENOMINATION (C.O.D.)

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Abstract: Multiple microclimates and soil types met in the wine-growing regions of Oltenia, but also a complete scale of wine

types (white, red, aromatic, distilled of wine) and the table grapes and raisins, are arguments that Oltenia should be named a veritable wine-growing Romania, in miniature. On the basis of long studies that were realized, the wine-growing habitats have been established, having vocation to obtain quality wines, with the denomination of controlled origin.

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METHODS OF E EVALUATING THE EFFICIENCY OF THE MYCORRHIZAL PROCESSES TO THE PLANTS OF *SOLANUM LYCOPERSICUM* L. TO BE CULTIVATED ON THE ASHES DUMPS

Daniela Popa*, V. Hanescu*, M. Coyne**
***University of Craiova – Romania, Horticulture Faculty**
****University of Kentucky – USA, Agricultural College**

Abstract: Taking into account the fact that a healthy environment is essential for assuring the quality of life and the fact that in this moment the damages of the climatic changes and of the pollution process should be considered, this paper is representing part of a project of excellency – CEEX – as an example of an ecological concept, running for the first time in Romania, with a view to pointing out the needed processes for stabilizing the ashes dumps through controlled populates of bio-products and through horticultural species suitable for the development of the mycorrhizal processes. Landing of such an eco-technology is conceptually justified by the fact that the horticultural species suitable for the mycorrhizae processes are considerably improving the resistance to the stress factors through their cultivation on the ashes dumps. This paper is representing an earlier study with a view to have a presentation of some partial results concerning the installing phenomenon of the mycorrhizal processes to the axenic plants of Solanum lycopersicum L, following the inoculation with spores of Glomus intraradices – a biological material from United States of America, as a result of a collaboration between the University of Carioca – Romania and University of Kentucky – USA. Through the chemical and biochemical results, this study is pleading for the recommendation of the mycorrhizal processes as a bio-remediation method for the ashes dumps from the thermo-electric power stations, based on the accumulation of the micro- and macronutrients, favourable for the

plant's development, critically present in soluble forms in the ashes transport waters and in the dump of ashes.

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STUDY OF THE COLONIZATION RATE WITH GLOMUS INTRARADICES TO THE PLANTS OF *PHASEOLUS VULGARIS*, CULTIVATED ON THE ASHES DUMPS

Daniela Popa*, V. Hanescu*, M. Coyne**
***University of Craiova- ROMANIA**
****University of Kentucky – USA**

Abstract: Realising a study on the association modality between partners: superior plants and microorganisms presents a theoretical and practical importance, optimal for the development of the vegetal world, with practical applications in recommending the technologies of bio-remediation. The diversity of the associations root-fungi endowing the plants with a register of strategies concerning the functioning and the development in the field of the plant-soil system. The paper is proposing to present some partial results from an excellency research contract – CEEX – in partnership, concerning the landing of some new methods of biotechnological investigation, respectively the measurement of the roots infections efficiency to the plants of Phaseolus vulgaris with spors of arbuscular mycorrrhizae – Glomus intraradices species, using as substrate different mixtures of ashes-compost. The obtained results are strengthening the multiplied phosphorus accumulations in the plants organs, and also the significant increases of Ca and Mg, as mineral elements rendered soluble from the ashes, in all the plants organs.

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RESEARCHES ON THE MAIZE CROP ON THE LEVELED AND NOT LEVELED SANDY SOILS FROM TAMBURESTI - DOLJ (2002-2004)

Prioteasa Marilena-Alina, Iancu S., Prioteasa I.A., Pătru I.

Abstract: The irrigation and fertilization of the leveled and not leveled sandy soils from Tainburesti – Dolj, are the main positive soil management measures that influence the yield on these kind of soils.

With the corn crop, the leveling has determined the decreasing of the yield over the not leveled soil. In this manner,

the corn yield, in average on the three years of experimentation was 7,097 kg/ha with the not leveled. soil and of 4,479 kg/ha with the leveled soil.

The chemical fertilization has influenced the yield in parallel with the increasing of the fertilizer doses the yield has progressively increased from 3,083 kg/ha with the not fertilized control to 7,088 kg/ha with the $N_{200}P_{60}K_{40}$ dose.

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RESEARCHES ON THE VIGNA SINENSIS CROP (AS A SUCCESIVE CROP AFTER BARLEY) AS GREEN MANURE ON THE IRRIGATED LEVELED AND NOT LEVELED SANDY SOILS FROM TAMBURESTI - DOLJ (2002-2004)

Prioteasa Marilena-Alina, Iancu S., Prioteasa I.A., Pătru I.

Abstract*:* The green manure represents ati important organic matter source for the fertilization of the sandy soils. The crops used for green manure ave successive crops and intermediary winter crops, especially on the irrigated sandy soils.

The Vigna sinensis crop does contribute to the increasing of the productive potential of the sandy soils by the accumulated nitrogen.

The leveling of the sandy soil has had an influence to the Vigna sinensis crop (as a successive crop after barley') for green manure. There was recorded a higher level of the yield with the not leveled soil (22,792 kg/ha) and with the leveled soil it was 16,160 kg/ha recording a yield shortage of 6,623 kg/hathat is very significant.

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ASPECTE MICROMORFOLOGICE PRIVIND CARACTERISTICILE STUCTURALE ALE UNUI FAEOZIOM
STRUCTURAL CHARACTERISTICS OF A PHAEOZEM AT MICROMORPHOLOGICAL LEVEL

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Abstract: The paper emphasizes the characteristics of soil structure at micromorphological level. The studied soil was a Phaeozem formed in loess deposits. The results showed that the research at micromorphological level, could give important information concerning soil structure genesis and the seasonal evolution of porosity. At this detailed level, the characterization of soil structure and porosity could not be separate from the fauna activity. The aggregates are very rare in the profile, due to a high compaction of the soil under the tillage influence. The dominant structure in the studied soil is the structure with planar voids, generated by the physico-mechanical processes and the vughy structure as a result of mezofauna activity. The macrofauna (lumbricides) are also very active, but their channel and chambers are deformed by compaction.

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VEGETAȚIA DE TĂIETURĂ DE PĂDURE DIN BAZINUL CERNEI DE OLTEȚ

THE VEGETATION OF FOREST CUT FROM THE CERNA OF OLTEȚ BASIN

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Abstract: The grassy plant formations from the Cerna of Olteț Basin situated at Atropetalia Vlieger 1937, Epilobion angustifolii Soó 1933 em. Tx. 1950 set in after the land clearing of the beech or mixture of beech with coniferous trees forest. It have in the floristic composition characteristic species of this kinds of habitats: Calamagrostis arundinacea, Digitalis grandiflora, Chamerion angustifolium, Senecio sylvaticus, S. viscosus, Eupatorium cannabinum, Gnaphalium sylvaticum, Galeopsis speciosa, Fragaria vesca, Rubus idaeus etc.

The ones belonging to the order Sambucetalia Oberd. 1957, Sambuco - Salicion capreae Tx. & Neumann in Tx. 1950, are presente at the mountainous region level, at altitudes between 800-1000 m. Vegetate on brown or brown-moist clay, rich in nourishing substances, soils. This kinds of soil are often met at the mountainous beech forest level, fact that proves once more that the forests of deciduous are in a major declin because of the land clearings.

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CONSIDERAȚII MORFO-ANATOMICE LA SCILLA BIFOLIA subsp. SUBTRIPHYLLA

MORPHO- ANATOMICAL CONSIDERATIONS AT SCILLA BIFOLIA subsp. SUBTRIPHYLLA

Maria Ionela RĂDUȚOIU

Abstract: This taxon has a bigger size (15-30 cm), has the bulb of about 3 cm diameter and the leafs till 1 cm width.

The adventive roots have a primary structure and a diameter of 549 μm. They have the rizoderm unislaty, with no absorber hair like subsp. bifolia. The floral stalk has primary structure, has 12 selvages and 12 fascicles and has the diameter of 1530 μm. The leaf has a thicknes of 621 μm, a bifacial structure, fact that can be noticed at the leading fascicles and between the two fascicles where can be seen 2-3 layers of ovoid cells disposed orderly with spaces between them and chloroplasts inside. Between 2 nerviers the cells from the median zone of the leaf have been resorbed leaving a big space

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CONSIDERAȚII MORFO-ANATOMICE LA SPECIA SCILLA BIFOLIA subsp. BIFOLIA

MORPHO - ANATOMICAL CONSIDERATIONS AT SCILLA BIFOLIA subsp. BIFOLIA

Maria Ionela Răduțoiu

Abstract: Geophyte with variable lengths between 10-15 cm. The floral stalk is a less or more cylindric, alone, long of 6-30

cm, scape. At the superior part it finishes with a bunch type inflorescence. The leafs are two, basal, of green color, plane and canaliculate, linear wide and hood (cuculat) form in the top. From the anatomical point of view the floral stalk and the root have primary structure,at the level of the stalk can be noticed 16 fascicles disposed on 2 cycles accordingly to the 8 selvages at the stalk's level. The leaf has inverse structure dorsiventral, at the level of the leading fascicles with the thickness 657 μm.

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THE EFFECT OF SOME FOLIAR FERTILIZERS ON THE FREQUENCY AND ON THE INTENSITY OF THE BLISTER RUST ATTACK (*CRONARTIUM RIBICOLA* FISCHER D. W.) ON BLACKCURRANT CULTURE UNDER THE CONDITIONS OF THE LACK OF CONTROL TREATMENTS.

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Abstract: The blister rust generated by the parasite fungus Cronartium ribicola is one of the most dangerous diseases for the pine and for the Ribes species in Europe and North America. The pathogenic agent has its origin in Asia. It appeared in Europe during the 18th century. On the species of Ribes, the pathogenic agent manifests a complete cycle of development. The varieties of redcurrant can tolerate or they are resistant to the attack of this pathogenic agent, but the blackcurrant varieties show a high sensitivity to it.

In an experiment made for the black currant regarding the effect of several foliar fertilizers on its growth and fructification, we monitored the frequency and the intensity of the blister rust attack under the conditions of the lack of the specific chemical treatments. We discovered some differences of the attack in different types of foliar fertilizers.

The intensity of the attack was kept at an inferior level in all the situations, although the weather conditions were propitious for the attack in the years of the study. We can draw the conclusion that

by their complex composition and rapid absorption, the foliar fertilizers provide a superior physiological balance that increases the resistance capacity of the plats towards the attack of the pathogenic agent.

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STUDIES OF PHYSICAL CHARACTERISTICS ON NATURAL POPULATION OF WALNUT (*JUGLANS REGIA*) FRUITS IN EASTERN TRANSYLVANIA

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Abstract: In Europe, walnut can not be considered as a social species, in the sense that no large monospecific stands are found, as it is usually found as isolated trees with a high spacing and producing a dense cover of the ground, or in small groups of trees. One of the main characteristics of the species is its multiple uses, which have affected the present increase of the distribution area of the species. Walnut is planted for producing both nuts and timber.

The ornamental value of the tree is of great importance in all the European range of the species, in parks or in the countryside by the houses. In Romania, walnut Juglans regia L. is an important fruit crop, although most of the fruit production comes from non-grafted walnut trees, which are natural hybrids. Breeding programs have been launched during last 30 years to develop new cultivars with uniform fruit quality. In addition, foreign cultivars have been introduced and tested to establish a valuable walnut genepool. To improve the present assortment of generative rootstocks in walnut from Eastern Transylvania, 147 prospective elites were studied in order to study the main biological characteristics and the main physical characteristics of fruits, together with their behaviour in the tree nursery.

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CULTIVAREA FLORII-SOARELUI PE HALDELE DE STERIL DE LA CARIERA HUSNICIOARA - JUD. MEHEDINȚI
THE CROPPING OF SUNFLOWER ON THE STERILE DUMPS AT HUSNICIOARA MINING ENTREPRISE- MEHEDINTI COUNTY

Roşculete C., Roşculete E., Petrescu E., Dadulescu N.

Abstract: During a period of three years in the conditions of the Husnicioara sterile dumps it was cultivated sunflower as part of corn –sun flower and chick pea rotation. It was used an organo – mineral fertilization with different doses and time intervals of application. There is presented the influence of these fertilizers on the plant size, yield and of the main physical quality of the seeds.

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EFECTUL UNOR DOZE DE AZOT PE FOND CONSTANT DE FOSFOR ASUPRA PRODUCTIEI DE FLOAREA SOARELUI DE LA SCDA CARACAL IN CONDITII DE IRIGARE OPTIMA SI DE LUCRARE DIFERITA A SOLULUI

THE EFFECT OF SOME NITROGEN FERTILIZER DOSES ON A CONSTANT PHOSPHORUS BACKGROUND ON THE SUNFLOWER YIELD AT SCDA CARACAL IN OPTIMAL IRRIGATION CONDITION AND DIFFERENT TILLAGE

**Elena Rosculete, Ana Maria Dodocioiu,
R. Mocanu and M. Susinski**

Abstract: The paper presents the experimental results gained with a sunflower crop on a chernozem soil from SCDA Caracal. The researches have envisaged the effect on the sunflower yield of some different nitrogen doses on a constant phosphorus background in optimal irrigation and different tillage.

The nitrogen fertilization has been made with increasing doses of 0-120 kg N/ha, and the uniform phosphorus background was of 80 kg/ha.

The results have shown that the yields with optimal irrigation increases along with the increasing of the nitrogen dose and in function of the tillage, the best yields were given when the soil was tilled with the chisel at the 20-22 cm depth.

MODIFICĂRI AGROCHIMICE ESENȚIALE ÎN SOLURILE CU FOLOSINȚĂ AGRICOLĂ
ESSENTIAL AGROCHEMICAL MODIFICATIONS IN AGRICULTURAL SOILS

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Abstract: The lack of certain cyclic agrochemical studies, especially after 1990, proved a superficial approach to the analysis and the control of soil fertility, thus leading to notable repercussions in the increase of the surface covered by degraded soils and the achievement of productions irrespective to soil potential and reaching under average levels.

The paper presented envisions the processing of analytical data, especially on a long term, certifying the seriousness of certain negative agrochemical modifications and the importance of other changes towards balanced or stable levels, both specific and determining for soil fertility and the level of agricultural productions. Therefore, the acidifying soil effects, the dephosphatizing effects are interpreted to benefit agricultural practice and certainly, the long term reduction modifications in the humifiable organic matter content. The essential modifications relevant for soil quality are interpreted in comparison with the normal states within the agrochemical optimum and according to climatic changes, especially humidity deficits.

The knowledge and assessment of agrochemical soil modifications allow for certain prevention decisions of negative states and the determination of positive changes in soil fertility and the stabilization of agricultural productions.

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THE INFLUENCE OF MINIMUM TILLAGE SYSTEMS UPON THE SOIL PROPERTIES AND YIELD IN SOME ARABLE CROPS
INFLUENTA SISTEMELOR MINIME DE LUCRARE ASUPRA PROPRIETATILOR SOLULUI SI A PRODUCTIEI LA UNELE CULTURI AGRICOLE

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Abstract: The paper presents the influence of the conventional ploughing tillage technology in comparison with the minimum tillage, upon the soil properties, weed control and yield in the case of maize (Zea mays L.), soya-bean (Glycine hispida L.) and winter wheat (Triticum aestivum L.) in a three years crop rotation. The use of minimum soil tillage systems within a three years rotation: maize, soya-bean, wheat favorites the rise of the aggregates hydro stability with 5.6-7.5% on a 0-20 cm depth and 5-11% on 20-30 cm depth. The soil tillage system influences the productivity elements of cultivated species and finally the productions thus obtained. The results of investigations showed that the yield is a conclusion soil tillage systems influence on soil properties, plant density assurance and on weed control.

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THE RESEARCHES REGARDING THE INFLUENCE OF THE ANY CANNED AGENTS ACROSS THE A- AND E- VITAMINS FROM PLEUROTUS OSTREATUS MUSHROOMS
CERCETARI CU PRIVIRE LA INFLUENTA UNOR AGENTI DE CONSERVARE ASUPRA VITAMINELOR A SI E DIN CIUPERCILE PLEUROTUS OSTREATUS

Petre Săvescu*, Ion Bala, Gheorghe Manolea***
***University of Craiova**
The Environmental Agency of Craiova

Abstract: The used Pleurotus Ostreatus mushrooms were treated with an establish solution of Boron Complex thorugh a new

growning technology. Follow the new technology its obtain the Pleurotus Ostreatus like as functional foods. These functional foods were studying through a great researches CEEX Project called BIAF.

In this work paper it is studying the effect of any canned agents across the retinols and tocopherols from these mushrooms.

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STUDY REGARDING THE VARIATION OF MANGANESE PEROXIDASE CONCENTRATION FOR THE CANNED PLEUROTUS OSTREATUS MUSHROOMS
STUDIU CU PRIVIRE LA VARIAȚIA CONCENTRAȚIEI MANGAN PEROXIDAZEI LA CIUPERCILE PLEUROTUS OSTREATUS SUPUSE CONSERVĂRII

Petre Săvescu*, Ion Bala, Gheorghe Manolea***
***University of Craiova**
****The Environmental Agency of Craiova**

Abstract: The used Pleurotus Ostreatus mushrooms were treated with an establish solution of Boron Complex thorugh a new growning technology. Follow the new technology its obtain the Pleurotus Ostreatus like as functional foods. These functional foods were studying through a great researches CEEX Project called BIAF.

In this work paper it is studying the effect of any canned agents across the manganese peroxidase – the main oxido reductases from these mushrooms.

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AGRO-FORESTRY- O PRACTICĂ VECHE, DAR ACTUALĂ

AGRO-FORESTRY – AN OLD BUT ACTUAL PRACTICE

Soare Marin*, Nețoiu Constantin**

Abstract: The paper represents a short crossing by of the specialty literature on the objective importance and the possible use of land systems combining agriculture and forestry techniques.
Agro-forestry might be defined as simply: trees on farms. Hence, agroforestry, farm forestry and family forestry can be broadly understood as the commitment of farmers, alone or in partnerships, towards the establishment and management of forests on their land.

Agro-forestry is a land-use method that allows trees to grow in crop and livestock areas. It is one way to conserve biodiversity. Human activity and specifically habitat destruction have dramatically increased rates of biodiversity loss. It is extremely important to maintain the proper functioning of ecosystems and society. Agro-forestry is a sustainable land management system which increases the overall yield of land, combines the production of crops (including tree crops) and forest plants and/or animals simultaneously or sequentially, on the same unit of /and, and applies management practices that are compatible with the cultural practices of the local population.

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THE PEDOLOGICAL AND AGROCHEMICAL FEATURES OF THE ENTIANTROSOIL FROM THE ROSIA STERILE DUMP, DISTRICT GORJ
ÎNSUŞIRILE PEDOLOGICE ŞI AGROCHIMICE ALE ENTIANTROSOLULUI DIN HALDA DE STERIL ROŞIA - JUDEȚUL GORJ

Susinski M.

Abstract: Our country has important inferior coal reserves that, by their features, can by extracted from the soil surface. After the extraction processes large surface of land can not be cultivated; they are represented by the excavation and depositing surfaces as sterile dumps. These surfaces must be cropped again.

In this respect there is need to know their main pedological and agrochemical characteristics in order to establish the most suitable measures for cropping.

The paper presents the main agropedological features of the sterile dump from Rosia, District Gorj, in order to set up the most suitable strategy of its recovery.

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THE IMPACT OF THE STERILE DUMP FROM HUSNICIOARA – DISTRICT MEHEDINTI ON THE ENVIRONMENT

IMPACTUL HALDEI DE STERIL DE LA HUSNICIOARA – JUDEȚUL MEHEDINȚI ASUPRA MEDIULUI ÎNCONJURĂTOR

Susinski M., Mocanu R., Becherescu C., Dodocioiu Ana Maria, Dobre M.

Abstract: The paper presents the pedological and agrochemical features of the sterile dump Husnicioara, District mehedinti that has a surface of 190 ha. There are presented the polluting effects of the sterile dump Husnicioara on the environment.

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EFECTUL UNOR INTERACȚIUNI FERTILIZANTE LA CULTURA CARTOFULUI
THE EFFECT OF THE FERTILIZING INTERACTION ON THE POTATO CROP

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Abstract: The potato is a plant with a high nitrogen, potassium and calcium consumption, whereas its phosphorus consumption is lower, but constant however. It was previously proved experimentally that normally, the potato crop responds significantly to a multitude of fertilizing combinations (with a mineral or an organic substratum) containing essential nutritive elements, especially those for specific and overall potato consumption.

The paper presented thus emphasizes the effect of fertilizing interactions ensured by the organo-mineral substratum (based on a manure and mushroom farm residual compost), which focuses on the complementary character of organic fertilization along a complex mineral supply. The same context proves the weak effect of complex mineral fertilization lacking any organic support and a significant differentiation

(according to the assortment) of foliar fertilization, which can capitalize soil natural fertility or the remnant effect of previous fertilization.

The paper brings significant contribution in the differentiated effect of K resources, according to the assortment and the accompanying anion Cl^-; SO_4^{2-}). The superiority of the potassium organic origin (from animal manure) is undoubtedly proven, as well as from potassium sulphate (K_2SO_4 on an NP background) or from a well-balanced NPK complex fertilizer ($C_{15\text{-}15\text{-}15}$).

Inferior results compared to previous ones originate in the KCl application, confirming that the effect of potassium application can be diminished or even conditioned by the nature of the accompanying anion. (Cl^- compared to SO_4^{2-}, the latter is easily tolerated by the plant).

The data included can be applied to potato cultivation technology, towards the capitalization of nutrient interaction and the production of yields specific to the cultivation area.

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THE VIRTUAL FILE SYSTEM USED BY LINUX OPERATING SYSTEM
SISTEMUL VIRTUAL DE FIŞIERE UTILIZAT DE SISTEMUL DE OPERARE LINUX

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Abstract: In this paper a study of the virtual file system used by the LINUX operating system is proposed. As we know very good at this moment, an very important problem for any user of the computer is the security of the dates and the LINUX operating system can to offer this pressing requirement.

Through this manner of implementation the LINUX operating system can to use some different types oh file systems: XFS, EXT2, EXT3, JFS and Reiser. For that reason, in the present paper the capacity of LINUX operating system through the mediation of the virtual file system to offer the support for this types of file systems is analyzed.

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CERCETĂRI PRIVIND INFLUENȚA FERTILIZĂRII CHIMICE CU AZOT ŞI FOSFOR ASUPRA UNOR PROCESE FIZIOLOGICE LA HIBRIDUL DE PORUMB START
RESEARCHES CONCERNING THE INFLUENCE OF CHEMICAL WITH NITROGEN AND PHOSPHORUS DOSES ON SOME PHYSIOLOGICAL PROCESSES OT THE CROP HYBRID START

Carmen Vlădulescu, Olimpia Pandia

Abstract: The soil, as a component of the ecosystem, represents a biological opened system which is full of life. Because of the important resources, the soil permanently interacts to human activities and applied technology.

The experiment took place on a cambic chernozem, at Sarbatoarea, Dolj County, a non-irrigated and irrigated system was used, and different doses of phosphorus and azoth fertilizers were applied on a wheat crop in order to observe on some physiological processes ot crop hybrid Start, to forward-looking more efficient hybrids for this area which owns no irrigation systemand 50 000 plants/ha.

Studied parameters:

Parameter **A**: using N60 P40, N8OP60, N100P40, N80P40, and N120P100

Parameter **B**: using a non-irrigated and irrigated system;

Parameter **C**: Start sowed plant

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COMPORTAMENTUL UNUI CONDITIONATOR STRUCTURAL IN SOL

LE COMPORTEMENT D'UN CONDITIONNEUR STRUCTUREL DANS LE SOL

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ABSTRACT: The paper emphasised, by the aim of micromorphological analyse on soil thin sections, the distribution of a conditioner (ponilit gt-1) into the soi.

Undisturbed soil samples (from the upper horizon of a clay loam Chernozem) had been collected and treated with a stained conditioner. For better observation of Ponilit GT-1 distribution into the soil, the conditioner have been stained using haematoxylin and methylene blue. The micromorphological analysis pointed out the distribution of the conditioner as: bridges between aggregates, thin films on soil aggregate surfaces and coatings on the pore walls.

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SECTION II

CHAIRMAN: VOICA NICOLAE
MODERATORS: ROMAN VALENTIN
BRANKO MARINKOVIC
SOARE MARIN
MATEI GHEORGHE

STUDY ON PERIOD CONTINUANCE FROM VEGETATIVE AND REPRODUCTIVE PHASE IN SEED PRODUCTION FROM BROCCOLI BREEDING LINES

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Abstract: A seed-producing sowing from two broccoli breeding lines, grown by two schemes of planting (80\60 cm and 80\40 cm) and two cultivation variants – control and variant with central flower head decapitation was set experimentally during the period 2004 – 2005. The purpose of the investigation was to establish the continuance of the period from the planting till central flower head formation, lateral flower head formation, flowering, set formation and seed- vessels ripening in growing of broccoli lines for seed production.

It was established that in growing by 80\40 cm planting scheme the greater sowing density determinates shorter continuance for almost all studied periods from the vegetative and reproductive phase. Reciprocal effect of the planting scheme was observed only for the period from planting to seed-vessels ripening, where shorter continuance was registered in plants, grown in smaller sowing density (80\60 cm). The determining effect of the variant with central flower head decapitation was emphasized in all characters of this study. As a result of this shorter continuance of the investigated periods in both variants was observed in comparison with the plants from the control variant that are grown without elimination of the central flower head

EVALUATION OF PRODUCTIVITY MANIFESTATIONS IN BULGARIAN VARIETIES OF LATE HEAD CABBAGE GROWN IN ORGANIC PRODUCTION SYSTEMS

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Abstract: During the period 2004 -2005 four Bulgarian late head cabbage varieties – Kyose 17, Balkan, Pazardzhishko podobreno and Pazardzhishko cherveno, grown in two schemes for organic production and as a control – conventional production were studied in the "Maritsa" Vegetable Crops Research Institute, Plovdiv. A biological fertilizer "Biohumus" was used in the organic production systems and the plant protection was performed in two variants – with biological insecticide and without insecticide treatment. The purpose of investigation was the productivity manifestations of Bulgarian late head cabbage genotypes in organic production to be studied. The following characters were investigated: total plant biomass, cabbage weight and total yield.

It was established that the studied varieties have different potential of productivity manifested depending on the production system. The varieties Kyose 17, Balkan and Pazardzhishko podobreno have higher total plant biomass 4.547-5.124 kg, greater average weight of the cabbage 3.100-3.150 kg and higher total yield 6 448-6 968 kg/da in organic system growing and by using of biological insecticides for plant protection. Reciprocally expressed variety response was observed in Pazardzhishko cherveno where the studied characters have higher values in organic systems growing of the variety without applying of insecticides compared to the parameters, read in growing in "Biohumus" systems with applying of bioinsecticides.

The response of the variety Balkan is of interest in this study because regardless of the kind of the studied system for organic production the productivity characters were the highest ones.

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THE VALUE OF FOREIGN AND NATIVE CO-SANGUINE LINES IN OBTAINING ADEQUATE CORN HYBRIDS FOR THE AGROECOLOGICAL CONDITIONS IN OLTENIA

Badescu H., Ilicevici S., Voica N.

Abstract: This research proposes a comparison of the value of different sources of germoplasma used to create co-sanguine lines, parental forms of some corn hybrids. The material we have studied represents the result of the improvement works on some co-sanguine lines extracted from the local corn population in Oltenia as well as the result of testing under the conditions of SCDA Simnic of some co-sanguine lines and corn hybrids from renowned abroad firms operating in Romania with their own genetic material.

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DIADEGMA LONGICAUDATA HORST. (HYMENOPTERA: ICHNEUMONIDAE) - UN PARAZITOID IMPORTANT AL LARVELOR MOLIEI STRUGURILOR, *LOBESIA BOTRANA* DEN. ET SCHIFF., ÎN PODGORIA ŞTEFĂNEŞTI-ARGEŞ

DIADEGMA LONGICAUDATA HORST. (HYMENOPTERA: ICHNEUMONIDAE) - AN IMPORTANT PARASITOID OF GRAPE MOTH *LOBESIA BOTRANA* DEN. ET SCHIFF. IN ŞTEFĂNEŞTI-ARGEŞ VINEYARDS

Daniela Bărbuceanu

Abstract: Diadegma longicaudata Horst. is an ichneumonid parasitizing the larvae of some tortricids. Individuals of this species were obtained in the laboratory by growing Lobesia botrana DEN. et SCHIFF. larvae, collected during the years 1996-1998 from the Ştefăneşti-Argeş vineyards.

The host-parasitoid relationship is new to science. Our observations showed that Diadegma longicaudata individuals parasitized internally the young larvae of the host. They hibernated as mature larva either in the caterpillars body of the last stages of host development, or as the female cocoons in the host shelter. From the hibernal stages of parasitoid were resulting especially females, and therefore they were dominant in the spring. Within the individuals of this species collected during 1996, the sex-ratio was

0,26%. D. longicaudata species was proven to be in that period the main parasitoid of the grape moth L. botrana in the Ştefăneşti vineyards, which contributed to the reduction of the host population with 11,6%.

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INFLUENȚA UNOR FACTORI TEHNOLOGICI ASUPRA ELEMENTELOR DE PRODUCTIVITATE LA GRAMINEE FURAJERE PERENE PENTRU SĂMÂNȚĂ

THE INFLUENCE OF CROP MANAGEMENT ON PRODUCTIVITY ELEMENTS IN GRASS SEED PRODUCTION

Ana-Maria Bârzu
"Ion Ionescu de la Brad" University of Agricultural Sciences and Veterinary Medicine of Iaşi

Abstract: Perennial grasses are wide spread in permanent pastures; the area occupied by these species represents around 25% of the land. The pastureland biomass is a cheap fodder to obtain, but the pastures do not have a uniform production. This is why, it is important to have new, better and highly productive grass varieties. Researchers have been always interested in grass seed production. The purpose of this experiment was to study the crop management measures used in grass seed production, in the Moldavian forest steppe, such as the influence of row distances and grass species on seed yield, as well as the interaction between the two factors.

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CORELAȚIILE DINTRE CARACTERE – SURSĂ A VARIABILITĂȚII FLORII-SOARELUI
THE CORRELATIONS – SOURCE OF THE SUNFLOWER VARIABILITY

Bonciu Elena

Abstract: The identification of the correlation between morphological and productivity traits to sunflower is very important, because makes selection of most valuable genotypes easier and reduces the time necessary for obtaining new cultivars. There paper

describes the correlations which were established between the characters who determine the sunflower productivity. These were established after the calculation of correlation coefficient.

Heritability, genetic gain and path analysis correlation between investigated traits and oil yield were evaluated. Investigation hybrids showed significant difference for all analyzed traits. High value heritability for plant height, MMB value, and oil content were evaluated. Heritability for grain and oil yield showed lower value. The biggest genetic gain showed plant height and oil content, and the lowest grain and oil yield. The strongest direct effects to oil yield were assessed for grain yield and oil content. The significant negative correlation between MMB and the content of seeds leads us to the idea that, for improvement must be permanently observed the evolution of the two characters and to promote the genotypes that are not fitted in this correlation to avoid the excessive decreasing of seeds, once with the selection for a raised content of oil in seeds.

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SECETA ŞI INFLUENȚA EI ASUPRA AUTOFERTILITĂȚII LA FLOAREA-SOARELUI
THE DROUGHT AND ITS INFLUENCE TO SUNFLOWER SELF-FERTILITY

Bonciu Elena, Iancu Paula, Soare M.

Abstract: With a wiew to obtain the consanguinity lines which, subsequently, they will to be useful in breeding programme, like parentales sunflower genotypes for make the new productives and top quality hybrids, resistants to hydric stress, to Banu-Maracine, in the year 2004 were initiated one consanguinity program for 8 native and foreign sunflower hybrids. These paper describes the drought strong negative impact on the year 2007 to self compatibility percentage to sunflower consanguinity hybrids studied.

The self-compatibility percent as well as the biological depression manifestation, were very variables, after the 4 experimentation years.

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DEPENDENCE OF CORN PRODUCTION ON PLUVIOMETRIC REGYME
DEPENDENTA PRODUCTIEI DE PORUMB BOABE DE REGIMUL PLUVIOMETRIC

Dorina Bonea, Viorica Urechean, Emilia Constantinescu

Abstract: The study of relations between the production of corn grains and the rain gange regime has been conducted during five years (2002-2006) for three maize hybrids: Neptun, Olt, F 376 (belonging to different maturity groups), for two phases: sowing time – the appearance of stigmata and sowing time – physiological maturity. The interpretation of experimental data have been done on the basis of the variability coefficient (v%), the regression coefficient (b) and the correlation coefficient (r). From the analysis of these data we can observe that the production of grains has been positively influenced, by the rain gauge: both of the regression coefficient and the correlation coefficient having positive values. The variability coefficient registered middle values for the sum of rainfall until the appearance of stigmata and low values for the sum of rainfall until the physiological maturity. In order to analyze the dependence of maximum and minimum productions of each hybrid studied in 2002-2006 period, on rain gauge regime there were established the deviations from the average which were expressed in absolute and percentage values. We can observe that maximum productions have been obtained in 2005 for all the hybrids while minimum productions have been obtained in 2003 for all hybrids. The most obvious contribution to obtaining the maximum productions belongs to the sum of the rainfall registered until the appearance stigmata. The analysis of dependence of grains production on rain gauge regime was obtained by correlation coefficients between production of grains and rain gauge regime of each month. Beginning with may the rainfall registered have influenced positive by the production of grains for all the hybrids and especially very significant positive and were have been all hybrids for sum rainfall registered in august

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THE ECOLOGICAL VALENCE OF SOME NATIVE MAIZE HYBRIDS
VALENȚA ECOLOGICĂ A UNOR HIBRIZI DE PORUMB AUTOHTONI

Dorina Bonea, Viorica Urechean, Emilia Constantinescu, Mitrache Aurola

Abstract: The obtaining of the stable and high productions and other crop depends on the cultivating of proper hybrids that are able to capitalize the loco soil and clime conditions. The most adequate spreading of the hybrids of maize depends on the comparative cultures set up during several years in different soil and clime conditions. In this paper are presented the results obtained by the eight hybrids of maize (F 322, Paltin, Rapid, Soim, Campion, Olt and Faur), studied in the climatic terms of the year 2005 in four different localities. The capacity of adaptation of the hybrids, expressed through ecovalence, was calculated with the Wriche's, formula took over by Coles (1971). The hybrids: Campion, Rapid and Paltin remark themselves through a high capacity of production. A bigger vegetation period is registered in the case of Faur, Olt and Campion hybrids, and a breaking resistance in the case of Paltin hybrid. From point of view of stability, Partizan and Olt hybrids remark themselves. For a carefully analysis of each hybrids there are presented the correlations between researched features. These have emphasized the positive correlation between productions and the grains humidity (the vegetation period), and a negative correlation between production and the breaking resistance, as between the grains humidity and the breaking resistance. The agronomical value of the researched hybrids has been done using the synthetic indicator and the average rank obtained by each hybrids with the analyzed features. From this point of view, there are emphasized the following hybrids: F322 and Faur, that are on the first and the second places.

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INFLUENTA FERTILIZARII ASUPRA RECOLTEI ŞI CONŢINUTULUI DE PROTEINĂ LA DOUA SOIURI DE SOIA CULTIVATE IN CONDIŢIILE PEDOCLIMATICE DIN CÂMPIA TIMIŞULUI

INFLUENCE OF FERTILIZATION ON THE SOYBEAN CROP AND PROTEIN CONTENT IN THE PEDOCLIMATIC CONDITIONS FROM TIMIS PLAIN

Lucian. Botoş, I. Borcean
Universitatea de Ştiinte Agricole si Medicina Veterinara a Banatului Timişoara
Facultatea de Agricultură

Abstract: Research carried out in the Timiş Plain concerning the behaviour of some soyben cultivars in conditions of differentiated fertilising pointed out the possibility of getting yields above 2000 kg/ha. Protein content varied between 27,9% and 30%, and protein yield varied between 493 kg/ha and 850 kg/ha.

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RESEARCHES REGARDING THE FERTILIZATION REACTION OF TWO NEW OLEAGINOUS SPECIES

CERCETĂRI PRIVIND REACŢIA LA FERTILIZARE A DOUĂ NOI SPECII OLEAGINOASE

Cornelia Bugnarug, Simona Nita

Abstract: Camelina sativa Crantz and Crambe abyssinica Höchct are two species of the Cruciferae family with a fat oil content in bones of over 30%. This oil is easy to refine and has satisfactory culinary qualities.

The two species are not too pretentious when it comes to climatic and soil conditions.

The own researches have shown that, depending on the fertilization, the crops have varied between 1000 – 1500 kg/ha in the case of Camelina sativa and between 800 and 1800 kg/ha in the case of Crambe abyssinica.

The fat oil content had an amplitude of between 39 and 41 % at Camelina sativa and of between 33 – 34% at Crambe abyssinica.

According to the fertilization, the oil production had an amplitude of 445 kg/ha at Camelina and of 571 kg/ha at Crambe.

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FENICUL (FOENICULUM VULGARE MILL.) – PLANTA CONDIMENTAR-AROMATICĂ ŞI MEDICINALĂ CULTIVATĂ ÎN GRĂDINA BOTANICĂ (I) A A.Ş. A MOLDOVEI

FENNEL (FOENICULUM VULGARE MILL.) – SPISY-AROMATIC AND MEDICINAL PLANT CULTIVATED IN THE BOTANICAL GARDEN OF ACADEMY OF SCIENCES OF MOLDOVA

Nina Ciocârlan

Botanical Garden (Institute) of Academy of Sciences of Moldova, Chisinau

Summary: In the present study were used plants of Foeniculum vulgare Mill. of German provenience (Duisburg Botanical Garden, Germany). Taking into account the fennel's food and pharmaceutical value, we have studied its growing peculiarities in conditions of Republic of Moldova. At the same time were revealed the essential oil composition obtained from the seeds of F. vulgare. The study of fennel's essential oil comprises: extraction, quantitative and qualitative analysis. The identification of the constituents in the essential oil was analyzed by reverse phase high resolution liquid chromatography (RP-HPLC) method. The main constituents of the essential oil were anethole (34, 70%), fenchone (11,06%), carvone (4,56%), ocimene (4,25%) and α-pinene (2,94%).

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REZULTATE PRIVIND ÎNSĂMÂNȚAREA VACILOR DUPĂ FĂTARE
RESULTS REGARDING COWS INSEMINATION AFTER CALVING

Colă Florica, Colă M.

Abstract: The fecundity percent after the first insemination is lower at the cows impregnated within the first month after calving (37,1%). The highest percent (52,1%) was registered when the cows

were inseminated within over 50 days after calving. However, the heat period and the insemination of 38% from the cows within their first post-partum month led to the highest percent of gestated cows (32,8%).

As a result, cows insemination within their first heat cycle may be an economical one, giving forth frequent calving. But in the case of the cows giving great milk productions (over 5000 kg) the research underlined that it is highly necessary to inseminate the females within 40-50 days after calving in order to regenerate their mammary gland.

The best results were obtained when the cows were inseminated within 60-90 days after calving, namely of 73,1% in 2005 and 62,2% in 2006.

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POTENȚIALUL PRODUCTIV PENTRU CARNE AL METIŞILOR LA TAURINE
PRODUCTIVE MEAT POTENTIAL OF METIS AT COWS

Colă M., Colă Florica

Abstract: Within the whole period of fattening the daily average growth is of 1059 g, with a specific consumption of 6,40 U.N. and a growth of 621 g PBD/kg.
If we compare the Charolaise x Romanian Baltata metises with the pure Romanian Baltata we can register a greater daily average growth at metises by approximately 10% and a higher final weigh by approximately 11%. The specific consumption is lower by 3,2% at U.N. and by 16% at PBD.

The meat quantity in the carcass was superior in comparison with other metis groups, and the suet proportion in the carcass was lower, namely:

- 75% meat in the semi-carcass at Charolaise x Romanian Baltata and 64% at Romanian Baltata;

suet in proportion of approximately 0,93% at Charolaise x Romanian Baltata metises and 15% at Romanian Baltata.

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POSIBILITATI DE VALORIFICARE IN SCOP TERAPEUTIC SI MELIFER A UNOR SPECII DE ARBUSTI INTALNITI IN FLORA SPONTANA DIN NORDUL OLTENIEI

THE POSSIBILITIES OF VALORIFICATION IN THERAPEUTICAL AND MELIFEROUS PURPOSE OF SOME SPECIES OF BUSHES MET IN THE SPONTANEUS FLORA IN THE NORTH OF OLTENIA

Emilia CONSTANTINESCU[1], Marcel Matei DUDA[2], Dorina BONEA
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Abstract: In our country there is a rich flora with medicinal and meliferous herb which presents a various scale of utilities,with the purpose of the ecological and biological quality increase of the obtained products.The accelerated rhythm of the social-economical development, concerning all the aspects, led to a vertiginous increase of the human impact over the nature,so that we assist at the decimation of numerous species of plants and animals,to the landscape weathering,of the ecosystems, to the diminution of the natural resources.In these conditions,keeping the biological equilibrium,the application of ecological principles in the rational housekeeping of the nature,preventing the distortion of the environment conditions,can be realized by accounting the medicinal and meliferous herb,knowing their utility in more domains.Taking into consideration the severe adverse effects of the synthesis medicines,correlated with the constant actions of a chemistried nourishment,in the classic Medicine it was manifestated a psychological reaction determining ecological orientation in Agriculture,zootechny and even industry developing a favourable current for naturist therapies.

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CERCETARI PRIVIND COMPORTAREA UNOR HIBRIZI DE PORUMB IN CONDITII DE NEIRIGARE PE LUVOSOLUL DE LA S.C.D.A.SIMNIC
RRESEARCH CONCERNING THE BEHAVIOR OF CERTAIN MAIZE HYBRIDS IN CONDITIONS OF UNIRIGABLE ON LUVOSOIL FROM S.C.D.A. SIMNIC

Constantinescu Emilia[1], Urechean Viorica[2], Mitrache Aurola Constanta[1]
University of Craiova, Faculty of Agriculture[1]
S.C.D.A. Simnic[2]

Abstract: Numerous experimental data, concerning the behavior of the hybrids under conditions of irrigation or non-irrigation, allowed the elaboration of a judicious (accurate) division into zones of the hybrids registered, authorized and admitted in the crop. Thus, the research performed under the pedo-climatic conditions from S.C.D.A. Simnic is intended to emphasize the hybrids that may express the best of their productive and qualitative potential as part of the ecosystem in the South area of Oltenia, by means of testing a number of 10 homologated and non-homologated corn hybrids.

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IMPLICAREA GENEI COX-2 IN RĂSPUNSUL IMUN (EXPERIMENTE PE ANIMALE, *MUS MUSCULUS* L.)
THE COX-2 GENE IMPLICATION IN THE IMMUNE RESPONSE (EXPERIMENTS ON ANIMALS, *MUS MUSCULUS* L.)

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[4]Babes-Bolyai University, Electron Microscopy Center, Cluj-Napoca.

Abstract. This experiment was performed in mice (Mus musculus), being analyzed the ultrastructural features at the liver level and spleen level, under single or combined action of the X-irradiation of the whole body, in presence or not of a total alkaloid extract from Nigella sativa seeds (five intraperitoneal injections, one at two days) with 0.5 ml solution diluted in depleted-deuterium water (DDW) with 30

ppm deuterium. The total alkaloid extract manifested a protective effect at the spleen level, at the irradiation of the whole animal body, the ultra structural features being similar to the unirradiated Control. Cyclooxygenase-2 (COX-2) modulates many normal functions, and appears toplay a role in a wide variety of patho-physiologic conditions. COX-2 gene expression is induced in many different cell types, in response to many distinct stimuli (Ishikawa and Herschman, 2006). The DDW level, can influence the COX-2 gene expression, being need many researches in this field.

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O PRESTIGIOASA MANIFESTARE STIINTIFICA: ECO SUMMIT 2007 - *ECOLOGICAL COMPLEXITY AND SUSTAINABILITY* - SCHIMBARI SI OPORTUNITATI PENTRU ECOLOGIA SECOLULUI 21 - BEIJING, CHINA, 22-27 MAY 2007

A PRESTIGIOUS SCIENTIFIC MANIFESTATION: ECO SUMMIT 2007 - *ECOLOGICAL COMPLEXITY AND SUSTAINABILITY - CHALLENGES AND OPPORTUNITIES FOR THE 21st CENTURY'S ECOLOGY* - BEIJING, CHINA, MAY 22-27 MAY 2007

CORNEANU GABRIEL[1], CORNEANU MIHAELA[2]
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Abstract: Among 22-27 May 2007, take place in Beijing, China, the **3rd Eco Summit**, **Ecological Complexity and Sustainability – Challenges and Opportunities for 21st Century's Ecology**. In this world scientific manifestation, participate over 1400 scientific personalities from over 70 countries. The scientific program was development in 4 plenary sessions, 50 symposia, 20 oral sessions, 4 evening sessions and 3 poster sessions. Romania was represented by 5 participants and one accompanying person, who presented 2 oral papers and 5 poster papers. At the end of Conference was elaborates the **Beijing Ecological Declaration**, in which are stipulate: "Our future is in our hand. Ecology is one of the tools we must use in our effort to make this a better world".

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PAJIŞTILE TEMPORARE PE CENUŞA DE TERMOCENTRALĂ ÎN ZONA CENTRALĂ A OLTENIEI
TEMPORARY PASTURES OF THE ASH FROM POWER STATION IN THE CENTRAL AREA OF OLTENIA

C. COTIGĂ
UNIVERSITY OF CRAIOVA

Abstract: The research done on the ash layers in central Oltenia stood out the fact that temporary pastures can be set in order to prevent sweeping.

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ECOSISTEME DE PAJIŞTI ŞI IMPLICAȚIILE LOR ÎN REABILITAREA ECOLOGICĂ A HALDELOR DE CENUŞĂ DIN ZONA CENTRALĂ A OLTENIEI
MEADOWS ECHOSYSTEMS AND SOME OF THEIR IMPLICATIONS IN THE ECOLOGICAL REABILITATION OF THE ASH LAYERS FROM THE CENTRAL AREA OF OLTENIA

C. COTIGĂ
UNIVERSITY OF CRAIOVA

Abstract: Natural conditions offered by the ash layers are proper for setting temporary pastures. A major possibility of growing the fodder production is temporary pastures (C. Cotigă, 2004; 2005).

Pastures and meadows must be made more productive by growing the best adapted grasses and legumes. Because of their morpho-biologycal characteristics, perennial plants have the ability of fixing the ash.

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CONTRIBUTIONS TO THE IMPROVEMENT OF THE SALT-LOVING PASTURELANDS FROM THE NOTHEASTERN MOLDAVIAN FOREST-STEPPE

Cătălina Cozma
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Abstract: The salt loving pasturelands from the Central Moldavian Plateau are spread on middle up to strong salted soils and they have a low productivity due to the unfavorable characteristics of the edaphic factors which determine a small number species with a decrease cover rate. From the salt loving associations, the most common is Puccinellietum distantis which reacts favourable to amendments and organic-mineral fertilization. In this paper are prezented the results obtained after the treatment with 6 t/ha calcium sulphate, 10t/ha charcoal powder, with and without fertilization. The best results were registred for the 6t/ha calcium sulphate and 10t/ha charcoal poweder treatment combined with 30t/ha manure+ $N_{40}P_{40}$ fertilization, where the production increased with 15-45%.

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CONTRIBUTII LA CUNOASTEREA PATOGENILOR SI DAUNATORILOR CARE AFECTEAZA CONIFERELE DIN MUNICIPIUL PITESTI
CONTRIBUTIONS TO THE KNOWLEDGE OF THE PATHOGENS AND PESTS WHICH AFFECTS THE CONIFERS FROM THE PITESTI

Cristescu Cristina
University of Pitesti, Faculty of Sciences

Abstract: Softwood or coniferous trees can be harmed or killed by disease-causing organisms called pathogens and pests. The most common tree diseases are caused by fungi. Many fungi are microscopic but some are visible in the form of mushrooms. Also some tree diseases are caused by pests, bacteria and viruses.

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COMPARISON OF FUNGICIDE RESIDUES IN APPLE FLESH DEPENDING ON SPRAYING CATEGORIES

***Czaczyk, Zb., **Gnusowski B.**
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Abstract: This study is comparing an influence of applied fungicides with different spraying categories (droplet size: fine, medium and coarse) and different active substance concen-trations of the copper oxychloride (inorganic - contact) and flusilazol (organic – systemic) residues content in Golden delicious apple flesh. The results show, that spraying category and droplet size have influence on fungicides residues level. Higher concentration of fungi-cides applied with fine droplets resulted with lower residues of tested pesticides in apple flesh. Washing of tested fruits resulted higher reduction of residues in apple flesh for me-dium and coarse spraying categories.

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THE INFLUENCE OF FERTILIZATION AND PLANT DENSITY ON QUALITY OF THE OBTAINED OIL AND TELLIA SUNFLOWES HYBRID IN CLIMATIC CONDITIONS OF JIJIA PLANE

Danalache Cristina-Loredana
Ifrim Sandel
„Ion Ionescu de la Brad"University of Agricultural Sciences and Veterinary Medicine

Abstract: The purpose of this experiment is to quantify the influence of fertilizing applied on soil, fertilizer applied on different density of the plants for some hyribrids of sunflower (Heliasol Ro, Huracan si Tellia) cultivated in diferent annual ecological conditions in the Jjijia Plain on the seeds and oil production and also on the quality of the obtained oil. It witl be studied the ratio between the main and secondary production and also the corelation between production and oil concentration.

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STUDII PRIVIND VARIABILITATEA TALIEI PLANTELOR LA GAMETOCLONELE ŞI SOMACLONELE SOIULUI LOVRIN 41

STUDIES REGARDING PLANTS HIGH VARIABILITY FOR THE CULTIVAR LOVRIN 41'S GAMETOCLONES AND SOMACLONES

DANCI M.*, NEDELEA G.*, DANCI OANA*

Abstract: The biological material used for these experiments was represented by 14 somaclones and 4 gametoclones, obtained through in vitro culture from two types of explants, anthers and immature embryos. The cultivar Lovrin 41 was taken as control. The somaclones and gametoclones of the cultivar Lovrin 41 were studied in two comparative cultures as for the randomized blocks by three repetitions.

Comparing the results obtained for the cultivar Lovrin 41's somaclones and gametoclones on observed that the average somaclones high is sensibly superior to the gametoclones high, but both are inferior to the control high.

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RESEARCH STUDIES REGARDING THE BEHAVIOUR OF THE WHITE, BLACK AND DARK BLUE MUSTARD IN THE PEDOCLIMATERIC CONDITIONS OF THE BANAT REGION

CERCETĂRI PRIVIND COMPORTAREA UNOR SPECII DE MUŞTAR ALB, NEGRU ŞI VÂNĂT ÎN CONDIȚIILE PEDOCLIMATICE DIN BANAT

DAVID GH., PÎRŞAN P., IMBREA FL., BOTOŞ L.,
University of Agricultural Sciences Timisoara-Romania

Abstract: The research activity in agriculture is continuously concerned with the introduction of new varieties in a culture, regarding the aspect of production, quality and resistance to stress factors, as well as the constant improvement of culture technologies.

This paper brings a comparative study regarding the behavior of the white, black and dark blue mustard, in the pedo-climateric conditions of the Banat region, with a focus on the influences on: the ramification degree, the number of hulls/plant; the

1000 grain mass and the hectolitric mass, as well as the oil content in mustard seeds and the oil production.

INFLUENȚA CONDIȚIILOR DE STRES SALIN ASUPRA RĂSPUNSULUI GERMINATIV ŞI ANALIZA PROLINEI LA UNELE POPULAȚII LOCALE DE FASOLE DIN ZONA BANATULUI

THE INFLUENCE OF SALT STRESS CONDITIONS IN GERMINATIVE RESPONSE AND PROLINE ANALYSIS OF SOME BEAN LANDRACES FROM BANAT AREA

Dobrei Carmen*, Camen D.*, Şumălan R.*, Velicevici Giancarla*

Abstract: Phaseolus vulgaris has a great variability regarding the tolerance to saline stress, starting with values of 40-46 mM NaCl and up to 196-207 mM NaCl.

We have studied five white bean landraces (Phaseolus vulgaris L.) from Banat`s area in order to observe their germinative response to saline stress conditions induced with the help of an aqueous NaCl solution (41.4 mM, 124.9 mM, 207.04 mM). The seeds from the control variant were moistened with distilled water. Also we have studied the proline content in stresed bean variant.

The experimental results achieved made evident the existence of some bean genotypes with a good tolerance to salinity during germination (Sacu and Dudestii Noi).

These genotypes have recorded during germination normal intensities of radicle growth and cotyledon development, and they have synthesized important amounts of free proline with osmoprotector role. Regarding the content of free proline the best results was obtained at genotypes: Sacu and Dudestii Noi.

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RESEARCH REGARDING THE FREE COMPOUNDS EXTRACTS OF *MELISSA OFFICINALIS* L.
CERCETĂRI PRIVIND EXTRAGEREA COMPUŞILOR LIBERI DIN *MELISSA OFFICINALIS* L.

Duda M.M.*, F. Imbrea, Emilia Constantinescu***, Gh. Matei*****
**University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca*

*** Banat University of Agricultural Sciences and Veterinary Medicine Timişoara*
**** University of Craiova, Agricultural Faculty*

Abstract: In this paper there are presented several results regarding the chemical composition of the prime vegetal matter at "Populația de Cluj" of *Melissa officinalis* cultivated in Cluj-Napoca. The culture from which the samples were taken for analyze is ecological. There were achieved 3 extracts: 1. prime dry vegetal matter 10% in ethylic alcohol 35%; 2. prime dry vegetal matter 10% in propilenglicol: water 1:1 and 3. prime dry vegetal matter 10% in tap water with boiling for 10 minutes. Compared with watered extracts and (3) and alcoholic (1), propilengliceric extract (2) allows the obtained of a more concentrated bioactive compound from phenolic acids class, in flavonoids and chlorophylls.

The identification of phytoactive compounds was made with the help of spectrophotometer method UV-VIS, the specific maximum being marked.

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THE STUDY OF *TAGETES* SP. COLLECTION FROM MORPHOLOGICAL AND PRODUCTIVE POINT OF VIEW
STUDIUL UNEI COLECȚII DE CRĂIȚE (*TAGETES* SP.) DIN PUNCT DE VEDERE MORFOLOGIC ŞI PRODUCTIV

Duda M.M.*, Gh. Matei, F. Imbrea***, Emilia Constantinescu****

**University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca*
*** University of Craiova, Agricultural Faculty*
**** Banat University of Agricultural Sciences and Veterinary Medicine Timişoara*

Abstract. In this paper we present several morphological and productive characteristics of nine varieties of Tagetes sp cultivated in the experimental field from Jucu, CJ, in 2007. Varieties cultivated were: (A) Tagetes patula var. nana soiul Flacăra; (B) T. patula var. nana Delia cultivar; (C) T. patula Flore Plenno cultivar; (D) T. patula var. nana, GTN-78 line; (E) T. patula Honeycomb; (F) T. patula var. nana Carmen cultivar; (G) T. patula var. nana, Pitic

Melanj; (H) T. erecta Focul cultivar; (I) T. erecta, Uriaş Melanj and (N) T. erecta yellow.

The biggest flowerings form at Tagetes erecta specie H (6 cm diameter) and I (9 cm), and the smallest ones at T. patula var. nana – varieties A (3,3 cm), B (3,0 cm) and D (3,0 cm). There are also the intermediary varieties as size of the flowering: C (4,3 cm), E (4,6 cm) and F (4,0 cm). The flowering size is reflected also by the weight of 100 dry flowerings: 36,8 g var. A; 14,07 g var. B; 40,95 g var. C; 16,28 g var. D; 53,80 g var. E; 51,40 g var. F; 79 g var. H and 90 g var. I.

Regarding the quantity of fresh flowerings harvested, the highest productions up to 31st August were obtained at D variety (2,46 kg/mp), followed by B variety (2,36 kg), both from 7 harvests. Dry rentability (natural dry) was of 20% la at E-I varieties, of 21% at B and C varieties, of 22% at D variety and of 23% at A variety.

There is noticed H variety due to its orange color, flowering size and production.

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CERCETARI PRIVIND EFICACITATEA UNOR INSECTICIDE FOLOSITE IN COMBATEREA AFIDELOR CARTOFULUI IN CAMPUL EXPERIMENTAL DIN COMUNA VARFURILE

RESEARCHES REGARDING THE EFFICIENCY OF SOME INSECTICIDE USED IN POTATO APHID CONTROL ON EXPERIMENTAL FIELDS FROM VARFURILE CAUNTY

Liana, Mihaela FERICEAN, I. PĂLĂGEŞIU, A. JIVAN

Abstract: The researches, carried out during 2005-2006 in potatoes field at Varfurile, revealed the fact that the most efficient products in aphids control were: Mospilan 20 SP and Regent 200 SC. There were tested two insecticides for treatment of tubercles and four insecticides for treatment during the vegetation.

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CERCETĂRI PRIVIND STRUCTURA AFIDOFAUNEI CARTOFULUI LA VARFURILE
RESEARCHES REGARDING THE OF POTATO APHID FAUNA STRUCTURE FROM VARFURILE

Liana, Mihaela Fericean, I. Pălăgeşiu

Abstract: Paper presents data referring to the abundance and dominance of aphid species from potato cultivations, for a period of two years 2005-2006, from Varfurile. The potato aphid fauna is not yet studied in West part of Romania. The knowledge of potato aphid fauna structure constitute a basic element of the integrated potato pest control.

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METODOLOGIA DE TESTARE A REZISTENȚEI LA STRESUL CHIMIC A CULTURII DE HAMEI *IN VITRO*
THE METHODOLOGY OF TESTING RESISTANCE TO CHEMICAL STRESS OF HOP CULTURES IN VITRO

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Abstract: In this research we test the influence of some chemical stress factors on the resistance of hop neoplants generated by minicuttings and cellular suspensions.

The basic media was Murashige-Skoog (1962) with addition of phytohormones (auxines and cytokinins) and the chemical factor of stress was NaCl in three concentration (0,3%, 0,5% and 1%). We selected the most vigorous plants, which were relayed and passed on the same basic media. The operation was repeated several times in order to obtain forms highly resistant to salinity.

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PREVIOUS CROP INFLUENCE ON PEA SEED GERMINATION
INFLUENȚA PLANTEI PREMERGĂTOARE ASUPRA GERMINAȚIEI SEMINȚELOR DE MAZĂRE

H.V. Halmajan, Maria Muset, Mali-Sanda Manole, Gina Vasile

Abstract: Sometimes, pea and other grain legumes have a relatively small emergence level in the field (about 75% of lab measurements). This phenomenon affect crop establishment and the yield cost.

The aim of this paper is to study previous crop influence on pea seed germination.

The pea seeds germinated under different conditions: rolled towels for control and rolled towels and added top soil from plots previously cultivated with winter wheat and pea. Some seeds were passed through the seeder in order to stimulate the mechanical influence on planting on seed germination.

The germination had the highest value in control (92%). The results when the topsoil was used were significantly smaller: 80% for the winter wheat as pre-crop and 58% for the pea. When the seeds were passed through the seeder, more seeds were infected by Fusarium sp.

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INVESTIGAREA CONȚINUTULUI TOTAL DE AZOT ÎN AMESTECURI DE PLANTE FURAJERE PRIN SPECTROSCOPIA NIR
INVESTIGATION OF TOTAL NITROGEN CONTENT IN FORAGE MIXTURES BY NIR SPECTROSCOPY

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2. Banat's University of Agricultural Sciences and Veterinary Medicine, Faculty of Food Technology, Timisoara, Calea Aradului nr. 119, RO-300645, Romania.

Abstract: Four experiment variants with four forage plants mixtures were analyzed for total nitrogen content using NIR Spectroscopy and classic Kjeldahl method. The four experimental variants were: Lolium perrene + Festuca pratensis; Lolium perrene + Festuca pratensis + Trifolium repens; Lolium perrene + Festuca pratensis + Lotus Corniculatus; Lolium perrene + Festuca pratensis + Trifolium repens + Lotus Corniculatus. It was made correlations between the values obtained for total nitrogen content using NIR Spectroscopy with those obtained using classic Kjeldahl method.

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APLICAȚII ALE SPECTROSCOPIEI NIR ÎN DETERMINAREA CALITĂȚII PLANTELOR FURAJERE: REVIEW
NIR SPECTROSCOPY APPLICATIONS IN QUALITY OF FODDER PLANTS ANALYSES: A REVIEW

Monica Hărmănescu[1], Alexandru Moisuc[1], Iosif Gergen[2]
3. Banat's University of Agricultural Sciences and Veterinary Medicine, Faculty of Agricultural Sciences, Timisoara, Calea Aradului nr. 119, RO-300645, Romania.
4. Banat's University of Agricultural Sciences and Veterinary Medicine, Faculty of Food Technology, Timisoara, Calea Aradului nr. 119, RO-300645, Romania.

Abstract: The classic methods used to determine the quality of fodder plants from pastures are limited by money, reagents acquisition, a long time for sample preparation, necessity of qualified personal capable to make the analyzes.

NIR Spectroscopy (Near Infrared Reflectance Spectroscopy) is a quick, non-destructive and chip qualitative and quantitative analyzes method. This method depends on types and number of N-H, O-H and C-H bonds present in constituents of analyzed fodder plants. The main NIR Spectroscopy applications in fodder plants analyzes are: the determination of legumes percent in legume-grasses mixtures, qualitative and quantitative determinations of total nitrogen, protein, fiber, lignin, starch, amino acids, polyphenols, tannins, alkaloids.

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ADAPTABILITATEA FENOTIPICĂ A UNOR GENOTIPURI DE ARAHIDE STRĂINE ÎN CONDIȚIILE DE LA S.D. TÂMBUREŞTI

PHENOTIPIC ADATABILITY OF SOME FOREIGN GROUNDNUT GENOTYPES IN THE CONDITIONS FROM TAMBURESTI RESEARCH STATION

Paula Iancu

Abstract: Plant breeding activity is an important way of increasing agricultural yield.

Mozingo, R.W., (1987) emphasized both variety role and technology cultivation in groundnut yield, concluding that to obtain high yield is necessary to use some productive varieties in the conditions of applying the adequate cultivation technology.

Using and working with diverse biological material (initially material) and creating a rich genetic hereditary variability, it can obtain varieties and hybrids with the most valuable characters and issues, carrying the most valuable genes.

Scientific breeding is fulfilled after the rules and the actual genetic principles, the whole process of breeding and seed production being controlled in a well precise practical aim.

Present paper describes the phenotypic evaluation, homeostasis and adaptability of some foreign and Romanian groundnut genotypes in the conditions from Tamburesti R.S. The biological material comes from USA, Brazil, Spain, Bulgaria and Romania and these were obtained by different breeding methods.

During vegetation period it was made biometric measurements of all morphological characters, especially the height of plants, the assimilation surface and seed yield.

From the foreign experimented genotypes, along with the Romanian ones, it proved to be well adapted Spanish 9184 and Black Brazilian genotypes. These were capable to pass the developing stages in the experimented area. T_{25} Romanian line presented the highest foliar surface, but with a relative low yield.

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STUDIUL CORELAȚIILOR ŞI ANALIZA COEFICIENTULUI H^2 PENTRU UNELE CARACTERE CANTITATIVE LA ARAHIDE
CORRELATIONS STUDY AND H^2 INDEX ANALISIS OF SOME QUANTITATIVE CHARACTERS TO GROUNDNUT

Paula Iancu, Soare, M., Elena Bonciu

Abstract: Plants breeding pursue the obtaining of a cultivar type which combines a bigger number of valuable characters. To do that, it is necessary cu calculate the correlation index to establish the way and the intensity of the relationship between different characters. So, it was calculated this index for some characters with practical importance to groundnuts.

Biological material was represented by 6 groundnut genotypes which were initially analyzed in comparative crops in 2001 - 2003 periods, using randomized blocks method in 4 repetitions.

The number of pods and seeds and also their weight presents special importance in plants yield. Plants height has indirect positive influence on plants productivity. For the 6 groundnut genotypes taken in research, the environment effect was higher than genetic effect.

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COMPORTAREA HIBRIDULUI DE PORUMB ANDREEA ÎN FUNCȚIE DE NIVELUL DE FERTILIZARE ORGANO-MINERALĂ ŞI CONDIȚIILE PEDOCLIMATICE
THE BEHAVIOUR OF ANDREEA CORN HYBRID IN RELATION TO THE LEVEL OF ORGANIC AND MINERAL FERTILISATION AND TO THE PEDO-CLIMATIC CONDITIONS

Imbrea Fl., Pîrşan P., David Gh., Bungescu S., Botoş L
University of Agricultural Sciences Timisoara-Romania

Abstract: Corn detains, in Romania, the first place among culture plants.

Good favourableness towards this culture and large possibilities of valorising this product will make it keep the first place among cultures.

The researches have been carried out during 2004-2006 in specific pedo-climatic area the Didactic Station in Timisoara (District of Timis).

From the point of view of the climate, the Timisoara area has an average multi-annual temperature of 10.8°. As for rainfalls, their average multi-annual amount is of 631 mm, of which 255 mm during vegetation period. Air relative moisture is, on the whole, favourable to crop productions, with an annual value of 74,7%.

The frequency of dry years is 20-30%, and that of extreme rainfall is up to 11-12%.

The experimental field in the Timisoara area was set on a cambic moist chernozem (weakly gleyied), weakly decarbonated, on loess-like deposits, argyle dusty/clayish-argyllous clay

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STUDIU PRIVIND INFLUENȚA FERTILIZĂRII ORGANO-MINERALE ASUPRA PRODUCȚIEI DE CARTOF ÎN CONDIȚIILE PEDOCLIMATICE DIN DEPRESIUNEA ALMĂJULUI

ON THE INFLUENCE OF ORGANIC AND MINERAL FERTILISATION ON POTATO YIELD IN THE PEDO-CILMATIC CONDITIONS OF ALMĂJ DEPRESSION

Imbrea Fl*., Matei Gh., Duda M.,*** Bungescu S.,*, Mircov D.V.,***
*University of Agricultural Sciences Timisoara,
** University of Craiova
*** University of Agricultural Sciences Cluj Napoca

Abstract: The potato is considered the fourth food crop of humanity at present, after wheat, rice and corn. Together with corn, it is the most valuable plant brought to Europe from the New World, nowadays being cultivated on all continents. The present paper deals with the behaviour of four types of potato, from different precocity groups, in relation to pedo-climatic factors and organic and mineral fertilization, as well as the starch content and yield.

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STUDIES CONCERNING THE BEHAVIOR OF BEES DURING THE FLOWERING OF THE SUNFLOWER IN WEST ROMANIAN FLATLAND

Alin JIVAN, Gh. POPESCU, Ioana GROZEA, Mihaela FERICIAN
- U.S.A.M.V.B. Timişoara -

Abstract: In the period june-july 2007, for four weeks time, in the Bulgăruş locality (Timis county) 10 families of bees from the own hive, located on the out-skirt of the locality, were studied under the aspect of behavior in the flowering period of the sunflower in the conditions of treatment of the hybrid seeds PR64A71 with insecto – fungicide (imidacloprid and procloraz)

As a result of the studies it was found out that the sunflower hybrid was visited by the bees which picked up pollen and nectar from the bloomed flowers.

In the four day in which the bees were counted in the sunflower field, bees of different ages were observed; the most though were young bees who were gathering for their first time. The young bees were observed picking up only pollen, and nectar was picked up by the young bees but also by the older ones with their chest cavity and abdomen without hair and their wings cankered at the ends.

In the case of the bees that gathered pollen, the hour with the highest flight attendance was 10 am when a maximum number of bees was registered that gathered and brought pollen on the field but in the beehive as well. In comparison to the time gap in which the number of bees was quite small(3).The maximum number of bees(36) that picked up nectar was to be found in the interval between 10-11am. ;until 19-20 pm. their number shrank gradually up to (7) bees.

Regarding the bees that entered the beehive pollen loaded, this reached a maximum (487-F_3) at the interval between 9^{00}-9^{15}am.

The treatment with systematic pesticide that was carried out on the sunflower seeds didn't weaken the bee families as mentioned in the specialty literature. The influence of the pesticide on the bees is very complex.

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INFLUNTA TRATAMENTELOR IN VEGETATIE CU PRODUSE PE BAZA DE COMPUSI ORGANICI AI BORULUI LA CULTURA DE SOIA (GLYCINE MAX (L) MERR.) ASUPRA UNOR ELEMENTE CANTITATIVE ALE PRODUCTIEI

THE INFLUENCES OF THE TREATMENTS OF VEGETATION WITH PRODUCTS BASED ON ORGANIC COMPOUNDS OF BORON WITH SOY (GLYCINE MAX (L) MERR.) UPON SOME QUANTITATIVE ELEMENTS OF THE PRODUCTION

N.LASCU*, M. GIRGOTA*, C.NAIDIN**
* Universty of Craiova
** SCDA Simnic

Abstract: The soy cultivated belongs to the Glycine max (L) Mernill species, Leguminosales rank, Papilonaceae (Fabaceae) family, synonym Leguminosae.
The boron content of the plants varies within 5 ppm and 654 ppm depending on the species. The plant organs containing the most bor are the reproductive ones (anther, stem, stigmata, ovary) which explains the part of the bor in the fructification process.

The usage of the products based on the organic compounds of the boron for the soy cultivated in the field had positive influences upon the main production elements, going to crop increase up to 41.6%, the maximum difference of 1028 kg/ha being statistically determined at a different level.

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NEW BIOPHYSICS METHODS IN AGRICULTURE

NOI METODE BIOFIZICE ÎN AGRICULTURĂ

Marinkovic, B., Crnobarac, J., Marinkovic Jelena, Imbrea, F., Mircov, D.V.
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[2] Mr Marinković Jelena, Institute of field and vegetable crops, Maksima Gorkog 30, Novi Sad, Serbia
[3] Dr Imbrea F., Dr Mircov Dragoslav–Vlad, Banat's University of Agricultural Sciences and Veterinary Medicine, Faculty of Agriculture – Timisoara, Romania

Abstract: Agriculture production in XX century is marked with the intensive usage of chemical preparations-which display not only positive but negative effects as well. Present day technology in agriculture production will be marked with the application of biophysical activity. In this paper work will be shown the results accomplished with the application of biophysical activity in agriculture. Best of all used biophysical activity are electromagnetic field of extreme low frequency (EMF ELF), cold plasma electron or so called fast electrons (e^-).

With these methods yield can be significant increased. Also we must not forget that these methods are ecological correct and economic sustainable because for their act low amounts of energy are needed.

Investigation conducted in Novi Sad were contributed development of these methods.

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CERCETĂRI PRIVIND COMPORTAREA UNOR HIBRIZI DE FLOAREA SOARELUI CULTIVAȚI ÎN CONDIȚII DE NEIRIGARE ÎN SUDUL OLTENIEI.

RESEARCH REGARDING THE BEHAVIOR OF SOME SUNFLOWER HYBRIDS CULTIVATED IN NONE IRRIGATED CONDITIONS IN SOUTH OF OLTENIA.

Gheorghe MATEI, Florin IMBREA, Marcel DUDA

Abstract: The sunflower crop in Romania has registered a large variation related to the cultivated area. In average in Romania in every year were cultivated about 850 000 ha with a medium yield/ha of 1300 kg/ha (FAO Statistical Databases - 2006).

The present research present the most valuable hybrids recommended for no irrigated conditions in the South of Oltenia. The best hybrids proved to be PR64A71 and PR64A89 with seed yields of over 3200 kg/ha.

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AGROBIOLOGICAL INVESTIGATION OF EARLY POTATO LINES I. MORPHOLOGICAL AND ECONOMIC CHARACTERISTICS

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Abstract: The purpose of the study was to investigate morphological and economic qualities of six early potato lines bred in the Maritsa Vegetable crops Research Institute, Plovdiv.

The lines were tested during the period 2004-2007 under the requirements of early field production. The experiments were conducted by using the block method in 7 variants (6 lines and the standard variety-Concorde), in 4 replications (100 plants per replication). The parameters of the basic characters as plant height, stem number, number of tubers per plant, mean tuber weight, shape, shallowness of eyes, standard and total productivity have been established.

On the average for the studied period three of the lines (D 1210, D 974 and D 112) exceeded by yield Concorde. These lines show the most intensive tuberformation, the quickest tuberization and the highest portion standard productivity.

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AGROBIOLOGICAL INVESTIGATION OF EARLY POTATO LINES II. PHENOTYPIC STABILITY OF THE DURATION OF VEGETATIVE PERIOD

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Abstract: The purpose of the performed investigation was the studied genotypes to be evaluated by stability of the character duration of vegetative period. Six potato lines (D 112, D 974, D 1210,

E 36, E 38, E 63) and standard variety-Concorde, cultivated by the technology for early field production were studied in the Maritsa Vegetable Crops Research Institute, Plovdiv during the period 2004-2007. It was established that new germ plasm in potatoes with increased potential for earliness and stability was created. Breeding lines D 112 and E 63 possessing complex value combine relatively short vegetation period with high level of stability of the character in change of the environmental conditions.

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STUDY REGARDING SOME VARIETIES OF ZEA MAYS EVERTA STURT WHICH GROW UNDER THE PEDO-CLIMATIC CONDITIONS IN ALMAJ DEPRESSION

STUDIU PRIVIND COMPORTAREA UNOR VARIETĂȚI DE ZEA MAYS EVERTA STURT ÎN CONDIȚIILE PEDOCLIMATICE DIN DEPRESIUNEA ALMĂJULUI

Simona Nita, A. Borcean

Abstract: The popcorn maize Zea mays everta Sturt is one of the sub-species cultivated long ago, having rostred (the oryzoides, xanthornis and oxyornis varieties) or unrostrated bones (leucorins, gracillima, haematornis and melanornis varieties).

The work contains the harvest results of the varieties oryzoides, xanthornis, oxyornis and leucorins according to the agro-fond and to the density of cultivation.

Compared with the other factors, the increase of fertilizer doses from N_{74} to N_{150}, on a base of P80K80 has enriched the harvest with 18%.

The optimal seeding density is of 60.000 harvesting plants per ha.

Among the varieties, the best harvest has been obtained for the oryzoides variety, for which there can been obtained crops of more than 5.000 kg/ha.

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INFLUENȚA UNOR GENE DE TIP RHT ASUPRA TALIEI PLANTEI ŞI UNOR UNOR ELEMENTE DE PRODUCȚIE LA UNELE LINII IZOGENE DE GRÂU

THE INFLUENCE OF SOME *RHT* GENES TYPE OVER THE PLANT WAIST AND THE VARIATION OF THE FEW YIELD ELEMENTS OF SOME IZOGENIC WHEAT CULTIVARS

Pănițâ O., Paunescu Gabriela, Soare M., Zaharie Oana

Abstract: Some izogene lines of wheat were studied at the Şimnic Research Station in the typical climate of SV Romania. The results showed that in the unfavorable pedoclimatic conditions, the influences of this type of genes are very limited

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INFLUENȚA ASOLAMENTULUI ASUPRA ATACULUI PATOGENILOR ŞI ASUPRA PRODUCȚIEI LA GRÂU ÎN ZONA S.C.D.A. ŞIMNIC CRAIOVA LA CULTIVARUL FLAMURA 85

THE INFLUENCE OF CROP ROTATON TO FLAMURA 85 CULTIVAR YIELD IN S.C.D.A. SIMNIC CRAIOVA AREA

MARIUS PARASCHIVU*, GABRIEL PĂUNESCU**

Abstract: The study present the results using one – crop system and crop rotation for 2,3 and 4 years in long time experience to S.C.D.A. Simnic. The results set off the crop rotation in connection with yield and Helminthosporium tritici repensis attack, witch realised attack degree values of 21.23% in three years crop rotation after pea

using N100. The bigest yields were obtained in four years crop rotation, wheat after sun-flower using N100P60.

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EFICACITATEA TRATAMENTULUI SEMINȚELOR DE GRÂU LA CULTIVARUL DROPIA CU DIVERSE NOI FORMULĂRI DE FUNGICIDE LA SCDA ŞIMNIC

THE SEEDS TREATMENT EFFICIENCY TO DROPIA CULTIVARS WITH NEW DIVERS FORMULATIONS OF FONGICIDES TO S.C.D.A. ŞIMNIC CRAIOVA

Mirela Paraschivu*, Marius Paraschivu, Gabriela Păunescu*****

Abstract: This experiment followed the seeds treatement efficiency to Dropia wheat cultivar with new divers formulations of fongicides to Şimnic Craiova area. The best results was obtained with ACH 75-312 FS 2,5 l/t, CIG 3FS 1 l/t, MCW 675 2l/t, Maxim Extra 050FS 1 l/t, S 230 2.5 l/t, S 345 3.5 l/t, S 380 2 l/t, S 570 3 l/t,Tebuconazol CIG 6 FS 0.5 l/t, ICP – Cloros 10 kg/t, witch assured a very good protection and the Tilletia caries attack frequency was 0.

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CETĂRI PRIVIND ATACUL DE *CHAETOCNEMA TIBIALIS* ASUPRA SFECLEI FURAJERE ÎN JUDEȚUL TIMIŞ ÎN ANUL 2006
RESEARCH CONCERNING THE ATTACK BY *CHAETOCHNEMA TIBIALIS* ON FODDER BEET IN THE TIMIS COUNTY IN 2006

Petanec Doru, Micu Lavinia Mădălina, Craia Milan
U.S.A.M.V.B. Timişoara

Abstract: In the paper realization having in view the attack frequency, and the attack degree produced by Chaetocnema tibialis on 28 cultivars and 8 lines de beet set in four crops.

The present research was carried out within on the experimental plots of the Department of Plant Protection of the Didactic Station of the Agricultural and Veterinary University of the Banat in Timisoara in the years 2005-2006.

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EVOLUȚIA IN VIVO ŞI IN VITRO A SISTEMULUI RADICULAR LA ANEUPLOIZII DE GRÂU LA TOXICITATEA IONILOR DE ALUMINIU
THE RADICULAR SYSTEM EVOLUTION IN VIVO AND IN VITRO AT WHEAT ANEUPLOIDS OF ALUMINIUM IONS TOXICITY

Petrescu Irina

Abstract: Researches carried out under field conditions or in green houses concluded that the toxicity and acidity of aluminium ions in the soil affected mostly the radicular system. The study of aluminium plants tolerance has been accomplished by using some methods and techniques on nutritive solutions in vivo and in vitro. Both of them offer control of nutritive elements, allow simultaneous estimation of a great number of genotypes, establish the long-expected level of pH and the time of a test cycle is short.

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ASPECTE PRIVIND DEZVOLTAREA UNOR GENOTIPURI MUTANTE DE *DROSOPHILA MELANOGASTER* IN CONDITII DE STRESS ABIOTIC
ASPECTS OF MUTANT GENOTYPES DEVELOPMENT BY *DROSOPHILA MELANOGASTER* IN STRESS ABIOTIC CONDITIONS

Petrescu Irina

Abstract: Heavy metals with major involvement in organism are chemical elements existing in nature and which accomplish a biological complete circuit, that is ground – plant – animal – human, without being involved in the body's function – are toxic. They reach in the living person by contact, ingestion or respiration. If the heavy metals penetrate and if they gathered in the body's texture in a higher way than they are detoxificated by the humand body through certain ways, then gradual accumulation will take place. The work offers information about the copper influence upon the larvar degree development of Drosophila melanogaster.The toxicity rate of heavy metals has been estimated in accordance with the critic concentration which the organism have a normal development at. Copper exposure in different concentrations has finally affected larva

development regarding the normal genotypes and mutant of vinegar little flyes that have been tested.

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RESEARCH CONCERNING THE BEHAVIORS OF SOME WINTER WHEAT CULTIVARS IN DIFFERENT FERTILISATION CONDITIONS

COMPORTAREA UNOR SOIURI DE GRAU DE TOAMNĂ ÎN CONDIȚII DE FERTILIZARE DIFERENȚIATĂ

Pîrşan Paul, David Gh., Imbrea Florin,Bungescu Sorin, Botoş L.
University of Agricultural Sciences Timisoara-Romania

Summary: Research carried out during the experimental cycle 2004-2006 in the Western Plain of Romania in order to improve cultivar structure and cultivar response to fertilization (influence on yield and bread-making quality).

Regarding the climate, in the Western Plain of Romania is classified in the climatic region Cfbx (according to *Monografia geografică a RPR*, 1960); besides the general character, which is temperate-continental, the climate bears some Mediterranean influences. This means that the winters are milder and not too long, the springs are early and short, the summers are hot and the autumns are long, sometimes droughty. All these provide good conditions for the cultivation of winter wheat.

Yield results in the Western Plain showed on the average for the three years and per experimental fertilization levels the following yields in the cultivars under study: Romulus – 5,368 kg/ha, Partizanka – 5,134 kg/ha, Europa 90 – 4,916 kg/ha, Alex – 4664 kg/ha, and Flamura 85 – 4354 kg/ha.

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STUDIES ON THE BIOLOGY OF *PHASEOLUS VULGARIS* L. SPECIES, AVANS AND VERA VARIETIES, UNDER CONTROLLED CONDITIONS

Elena Loredana POHRIB, Gheorghe Valentin ROMAN

Abstract: The experiment is part of a thorough study carried out on several leguminous for grain species under controlled conditions. The climatic chamber used for this purpose was SANYO

GALLENKAMP belonging to the Field Crops Department Bucharest. The chamber provides an accurate multipliable control of air temperature, relative air humidity, light intensity and duration. The experiment was performed on two varieties of common beans: Avans and Vera. The experiments were made on pots of suitable sizes, in three replications for each variety. For the experiment, in the programmer/controller of the climatic chamber (FORMAT 650) there were introduced the values of the four daily metheorological measurements of air temperature, air relative humidity, light intensity, and light duration characteristic for the Experimental Field at Moara Domnească.The program of phenological observations and biometric determinations by non-destructive methods included: emergence date, the rate of node setting up, the rate of leaf setting up, the evolution of the leaf surface, the evolution of the flower setting up, the evolution of the pods setting up, the evolution of the senescence process, and the water consumption of the plants.

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RESEARCH ON THE BIOLOGY OF *PISUM SATIVUM* L. SPECIES, DORA VARIETY, UNDER CONTROLLED CONDITIONS

Elena Loredana POHRIB, Gheorghe Valentin ROMAN

Abstract: Among the numerous plants used for food, grain legumes can meet, both quantitatively and qualitatively, the demand of protein and oil-substance consumption. Together with the importance given by the quality of the products obtained, grain legumes are particularly important from an agronomic viewpoint. The experiments were performed both in the climatic chamber (phytotron) and under field conditions, on reddish preluvosoil, at the Didactic Farm of Moara Domnească.

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RESEARCH CONCERNING THE USE AND YIELD CAPACITY OF *CALENDULA OFFICINALIS* L.
CERCETĂRI PRIVIND UTILIZAREA PRODUCȚIEI LA CALENDULA OFFICINALIS L.

Georgeta POP, T.Mateoc-Sîrb, Iuliana TABARA
Banat University of Agricultural Sciences and Veterinary Medicine, Timisoara,

Abstract. During the last two decades there has been a strong trend to returning to plant therapy. Literature acknowledges that the species Calendula officinalis is a medicinal plant used in the treatment of a large number of diseases. They use both the inflorescence and isolated flowers, and the leaves and stems. Flowers contain saponosides, carotinoides, flavonoides and flavonic oils, volatile oil, mineral substances, mucilages, vitamin C, etc. Given the importance of this species in the treatment of a large number of diseases of the human body it is very important that plants be cultivate and the technology to be improved. The paper aims to establish that the yield capacity of the analysed cultivars was significant influenced by the cultivation technology. Sowing densities is one of the most important technological step for marigold. Regarding to this the best results were obtain by sowing 70 pl/m^2 witch led to an increase in dried inflorescence yield with 155 kg/ha compared to the control. Much lower results were obtained at a density of 30 pl/m^2 (947 Kg/ha). Concerning the polifenol content we can observe that the density of 70 pl/m^2 lead again to best results. The lowest value was unregistered at 30 pl/m^2 (0.275%). Fertilisation also had great influence on yield capacity. Optimum nitrogen dose was N_{90}, resulting a difference of 133 kg/ha dried inflorescences compared of the non fertilised variant. This means that calendula has great needs of fertilisation. All this values conclude that Marigold is one of the most values medicinal plant and we need to improve the cultivation technology in order to obtain best results.

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EFICIENTA ECONOMICĂ A CULTIVĂRII RAPIȚEI PENTRU ULEI IN ROMÂNIA
ECONOMIC EFFICIENCY OF THE OIL RAPE CROP IN ROMANIA

Georgeta Pop,T. Mateoc-Sîrb, L. Botoş
Agricultural and Veterinary University of the Banat, Timişoara, Romania

Abstract*:* Oil rape is one of the oil crops in which they have recorded increases of cultivated areas these years. In Romania, rape has been cultivated on larger areas before World War

I and between the Wars. Thus, in 1913, it occupied 80.38 thousand ha, and in 1930, about 77.32 thousand ha. Expanding this crop in Romania as a result of increasing demand on the external market is hindered by the poor results below the productive potential of the cultivars. Irrigation is of importance during the sprouting period, or the sowing time for rape is droughty. In our research the income per ha after valorizing the production was 777.00 Euro, if we have in mind the production of 3.5 t/ha and the price of rape in 2006 (220 Euro/t).

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FUNGI TOXIGENICI SI MICOTOXINE IN SEMINTELE DE GRAU SI PRODUSELE DE PANIFICATIE DIN ROMANIA

TOXIGENIC FUNGI AND MYCOTOXINS IN GRAINS AND BAKERY PRODUCTS FROM ROMANIA

Carmen Puia, Stefania Gadea, Rodica Pop, Cornelia Braicu*
*Department of Plant Protection, *Department of Chemistry, University of Agricultural Sciences and Veterinary Medicine, Cluj Napoca, Romania, carmen_puia@yahoo.com*

Abstract: Our researches want to establish the mycoflora and the natural occurrence of mycotoxins in grains for industrialization and fodder, bread and bakery products in our country. We intend to compare these levels with the international ones and to change the legal level of mycotoxins admitted by our laws and to align these levels with the European legislation.

The authors reported the identification of mycoflora in 130 samples of grains, bread, biscuits and cereal flakes from different districts of Romania. Moulds evaluation was determined using conventional methods as blotting test and Ulster test.

The predominant genera were those of toxigenic fungi: Penicillium, Aspergillus and Fusarium.

Our studies were focused on finding rapid methods for screening of aflatoxins B1, (AB1), aflatoxin B2 (AB2), aflatoxin G1 (AG1), aflatoxin G2 (AG2) and ochratoxin A. Mycotoxins were extracted in chloroform, separated on silicagel thin-layer chromatography plates and quantificated using densitometric analysis. There were analyzed 39 cereal samples (wheat and maize) from different Romanian districts.

The contamination range was: aflatoxin B1: 1.7 - 5.7 µg/kg, aflatoxin B2: 0.02 -2.8 µg/kg, aflatoxin G1: 1.1 – 5.7 µg/kg, aflatoxin G2: 0.12 – 1.8 µg/kg, total aflatoxins: 1.2 – 10.8 µg/kg and ochratoxin A: 4.4 - 30.0 µg/kg. The higher number of contamination rate was in the case of wheat samples.

The mycotoxin analyses reveal to us a high and dangerous level of ochratoxin A and total aflatoxins. Our food and fodder are dangerous and our legislation is way too permissive. We have to align our legislation with the European one to take care about our grains.

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POSIBILITATI SI LIMITE DE FOLOSIRE A GERMOPLASMEI LOCALE PENTRU OBTINEREA DE HIBRIZI DE PORUMB SUPERIORI
POSSIBILITIES AND LIMITS OF LOCAL GERMPLASM UTILIZATION FOR RELEASING SUPERIOR MAIZE HYBRIDS

Salceanu C., Voica N.

Abstract: The study of the most adequate methods for genetic breeding of local maize germplasm showed that mass selection was more efficient in the first section cycles, while recurrent selection on the basics of S1 progeny performance gave better results in the next cycles. Selection of inbred lines from local maize populations proved to be a long and difficult process and the utilization of these lines din not conduct to the releasing of superior hybrids.

Local germplasm has transmitted to the hybrids a low stalk quality and a limited yielding ability. Good results were obtained by infusing the valuable second cycle lines with local germplasm, which transmitted to the hybrids its good drought tolerance and subsequently a better yield stability.

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CERCETĂRI CU PRIVIRE LA COREALȚIA EXISTENTĂ ÎNTRE PROLIFICITATE ŞI STERILITATE LA UNII HIBRIZI DE PORUMB, DE ORIGINE STRĂINĂ
RESEARCHES CONCERNING THE EXISTENT CORRELATION BETWEEN THE PROLIFICITY AND THE STERILITY OF SOME FOREIGN CORN HYBRIDS

Soare M., Pănițâ O., Soare Rodica, Zaharie Oana

Abstract: Lately, in the South area of Oltenia, the main limitative factor of the production was the drought (the high temperature and a reduced quantity of rain fall), which is a phenomenon that has the biggest range of action and the highest frequency in time.

In order to determine the drought resistance, at the Banu Mărăcine R.S. an experience with some corn hybrid took place, and they have established the correlation between the percent of prolificity and the sterility one.

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CERCETĂRI PRIVIND ACUMULAREA NITRAȚILOR LA UN SORTIMENT DE GENOTIPURI DE SALATĂ (*LACTUCA SATIVA* L.) ÎN CONDIȚII DE CULTURĂ ECOLOGICĂ
RESEARCHES CONCERNING THE NITRATS ACCUMULATION TO AN GENOTYPES ASSORTMENT OF LETTUCE (*LACTUCA SATIVA* L.) IN ECOLOGICAL CONDITIONS

Rodica Soare, Duță Adriana

Abstract: To Banu Maracine Research Station it was followed the behaviour of five lettuce cultivars (LACTUCA SATIVA L.): Attraction, Lollo Bionda, Cora, Mona and Great Lakes, in ecological conditions, under the productivity elements aspect and biochemical composition.

Lettuce is a nitrophilus plant which can accumulate high quantity of nitrates. The presence of increased concentrations can determine by human consumption, a series of negative aspects upon organisms. By examining the values of nitrates to the five studied

cultivars the concentration was higher in rosette stage and to dead harvest it was established an accented diminution. The values do not outrun the maximum admitted limit of **2000 ppm NO_3**.

For ecological crop it is recommended Lollo Bionda cultivar which emphasised superior biochemical composition in TDS of 6.82%, SDS of 6.31%, C vitamin 12.71 mg/100 g fresh matter and to harvest the nitrated did not identified.

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A RESEARCH REGARDING THE INCIDENCE OF PUERPERALE AFFECTIONS ON MILK PRODUCING COWS ACCORDING TO THE SEASON

SONEA COSMIN
University of Agronomic Sciences and Veterinary Medicine in Bucharest

Abstract: In order to establish the parameters of the reproduction there has been taken into account the diagnosis of the puerperale affections such as: laborious birth (distociile), placental retentions, uterine prolaps, uterine subinvolutions and endometritele (according to Laing A.J.1970, Boitor I. 1983 and Wattiaux M.A 2006).

Perperal affections on the milk producing cows that have taken part in this research have a 38.23 % of the total. A higher incidence has been recorded on the uterine subinvolutions with a 36.92% value, higher in summer 12.30%, and lower in spring 6.16%, and the placental retentions with a 32.30% value, higher in winter 16.14% and the lowest in summer 2,30%.

The incidence of the distociile has been relatively low, with a 6.16% value and the uterine prolaps with a value of 7.70%.

The improvement in both cows producing milk raising management and the management of the reproduction can contribute substantially to the rising of both the reproductive parameters and the profit (according to Flowers W.L 1995, Drugociu D&colab. 2003, and Knights M., Todd H 2003).

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SOME ASPECTS OF BRANCHIAL PARASITISM IN TWO CYPRINIDS SPECIES FROM SOMEŞ BASIN

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University Of Agronomic Sciences And Veterinary Medicine Bucharest

Abstract: The data of the current study come from own research done on a fish sample caught by electrofishing technique from Someş basin (at Ilva Mică, "Leşul Ilvei" point) in November 2006.

We analyzed branchial microhabitats for 46 specimens of Alburnoides bipunctatus (parasited in 91.3% of cases) and for 13 specimens of Alburnus alburnus (all specimens parasited), both fish species belonging to Cyprinidae family.

By deparasiting fish gills, we collected two monogeneans octomacrids species: Paradiplozoon alburni and Octomacrum europaeum, who, through their spatial distribution at that microhabitat level, showed a competitive interaction phenomenon. Thus, we observed that the branchial cavities (left and right) are asymmetrical parasited: when Paradiplozoon alburni is in majority in one branchial cavities, Octomacrum europaeum is totally eliminated or there is in a low percentage at the level of that cavity.

According to the majority authors who analyzed spatial distribution at microhabitat branchial level, monogeneans prefer certain fixing sites. This phenomenon of exclusion was also noticed in the two host specimens from the current study, which have in one branchial cavity a large infection with Octomacrum europaeum, as a result the other species is eliminated from that microhabitat.

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RESEARCHES CONCERNING THE USE OF FERTILIZERS WITH NITROGEN AND PHOSPHORUS AT MAIZE CULTIVATED ON THE CERNOSIUM SOIL FROM SOUTHERN OLTENIA, JUD.DOLJ

CERCETARI PRIVIND FOLOSIREA INGRASAMINTELOR CU AZOT SI FOSFOR LA PORUMBUL CULTIVAT IN CONDITIILE SOLULUI CERNOZIOM TIPIC DIN ZONA DE SUD A OLTENIEI, JUD. DOLJ

M.Stefan, V.Radu, M.Stefanoiu

Abstract: The researches have been made in Portaresti-Segarcea area from Southern Oltenia, on a cernosium soil, between 2002-2005, having in view the influence of fertilizers with nitrogen and phosphorus in different doses and at different thicknesses of seeding upon the maize production. The fertilizers administered to the maize have led to the obtaining of high productions, of over 10 000 kg/ha.

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RESEARCHES CONCERNING THE INFLUENCE OF NITROGEN FERTILIZERS, APPLIED IN DIFFERENT DOSES, UPON THE PRODUCTION OF WHEAT, CULTIVATED ON THE PSAMOSOILS FROM THE SOUTH OF OLTENIA

CERCETARI PRIVIND INFLUENTA INGRASAMINTELOR CU AZOT APLICATE IN DIFERITE DOZE ASUPRA PRODUCTIEI LA GRAUL CULTIVAT PE PSAMOSOLURILE DIN SUDUL OLTENIEI

M.Stefan

Abstract: The N fertilizers efficacy when N_{150} dose is applied in three fractions, increases. The biggest winter wheat yield, of 25.6- 26.4 q/ha, are obtained when N_{150} dose is applied in the following way:N_{150} with seedbed preparation, N_{50} in February or march and N_{50} during the stem formation.

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CERCETĂRI PRIVIND BIOLOGIA ŞI CALITATEA RECOLTEI LA SPECIA *AMARANTHUS CRUENTUS* L. ÎN CONDIȚIILE DIN PARTEA CENTRALĂ A CÂMPIEI ROMÂNE

RESEARCH ON BIOLOGY AND YIELD QUALITY OF *AMARANTHUS CRUENTUS* L. UNDER CLIMATIC CONDITIONS FROM CENTRAL PART OF ROMANIAN PLAIN

Maria TOADER, Gheorghe Valentin ROMAN
University of Agronomic Sciences and Veterinary Medicine
Bucharest, Romania
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Abstract*:* The focus of our research was the study of some aspects regarding to biology and yield quality of a new species of agricultural crop, *Amaranthus cruentus* (pseudocereal) of greets importance in organic farming system.

Research was organized under conditions of climatic chamber, in a Sanyo SGC Gallemkamp phytotron. The meteorological data (air temperature, relative air humidity, day length and light intensity registered in the year 2006 at Moara Domneasca Experimental Field, situated in Central Romanian Plain) were introduced in the climatic chamber computer, on the period April – September.

The duration of the vegetation cycle of *Amaranthus cruentus* plants was of 131 days or 775.1 ^{o}C GDD (Growing Degrees Days) ($\Sigma t>15^{o}C$).

On their main stem, the Amaranth plants formed 8 nodes and 28 leaves, whereas their height was 116.5 cm.

The first flowers started to open at the basis of the inflorescence, after 100 days of emergence. The flowering duration was 12-15 days, and the harvest maturity was recorded on 17th of September, after 131 days of emergence.

The weight of 1000 seeds had an average value of 1.49 g, and seed moisture was 11.93% at harvesting.

The nutrition quality of yield is done by chemical components of grain: 15.6% proteins, 61.5% carbohydrates (starch), 6.79% lipids, and other compounds (vitamins, ash). The research demonstrated that, in the meteorologically conditions of the year 2006, *Amaranthus cruentus* grains was richer in proteins (0.49%), starch (1.8%) and lipids (0.75%) than Slovenian seeds.

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CONCORDANCE BETWEEN DIFFERENT METHODS USED FOR TESTING THE TOLERANCE TO DROUGHT OF SOME AUTUMN BARLEY CULTIVARS

Velicevici Giancarla, Madoşă E., Ciulca S., Cioroga Adriana.

Abstract: In this paper, we have taken into study a colection consisting of autumn barley in order to test drought tolerance and to study the concordance of different testing models. The genotype

clasification for drought tolerance may be useful for identification of the best varieties and lines The clasification of genotypes was done in term of drought sensibility index (ISS) in ascendent sens (the genotypes wich present the smaller value of this index was considered the best tolerant of drought).

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INSECT PEST ON THE CULTIVARS WITH DIFFERENT GROWTH STAGES OF WINTER OILSEED RAPE

Florica Vilău, Nicolae Vilău
SCDA CARACAL

Abstract: In this paper are prezented the experimentally results done at the Caracal Agricultural Researches and Development Station, concerning the infestation with specific pests of winter oilseed rape. The researches were done on the many cultivars of winter oilseed rape with different growth stages.

At same day was done a chemical treatment on the winter oilseed rape , which was in different growth stages.

The results showed the importance of the optimum moment for chemical control in the protection of the winter oilseed rape.

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EVALUATION OF DIVERSITY AND DENSITY OF PESTS IN WINTER OILSEED RAPE CROPS AND EFFICIENCY OF CHEMICAL PRODUCTS ON PESTS CONTROL

Florica Vilău, Nicolae Vilău
SCDA CARACAL

Abstract: Winter oilseed rape are the crop which is sowing on the vaste surfaces. The increase of the cultivated surfaces with winter oilseed rape determinated the increase of the specific pests number, with singnificant economic effects on the production.

The paper present the results concerning the winter oilseed rape infestation from start to end of flowering and efficiency of some chemical products in the pest control.

The pest species were: the pollen beetle (Meligethes aeneus), the rape stalk weevil (Ceutorrhynchus quadridens), the cabbage seed weevil (Ceutorrhynchus assimilis), the flea beetles (Phyllotreta atra), (Epicometis hirta), the thrips (Hercinothrips femoralis), the brassica pod midge (Dasineura brassicae), the bug (Eurydema oleracea), the cabbage aphid (Brevicoryne brasicae).

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WEEDS FROM WINTER OILSEED RAPE AND CHEMICAL CONTROL

Nicolae Vilău, Florica Vilău
SCDA CARACAL

Abstract: In the last years, in Romania, the winter oilseed rape surface increase from 83,600 ha in 1999 to 349,000 ha in 2007. The winter oilseed rape crops suffer because of competition with the anual and peren dicotyedons and monocotyledons weeds which are significant nitrogen cosumers, theerefore the herbicide treatments are necesary.

In the spring, in the Caracal Station area, the perene weeds Cirsium arvense and Sorghum halepense are the most damage in the winter oilseed rape.

The herbicide tratments for weeds control from winter oilseed rape crops determined the clean crops and the signifiant products increase.

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STUDII PRIVIND INFLUENȚA CONTROLULUI MASTITELOR ASUPRA NUMĂRULUI DE CELULE SOMATICE DIN LAPTELE DE VACĂ

STUDIES CONCERNING THE MASTITIS CONTROL INFLUENCE OVER SOMATIC CELLS NUMBER FROM COW MILK

M. Vladu, Frank O'Sullivan

Abstract : The mastitis control in the frame of a live stock is more efficient through prevention than treatment. Usually, the established infection persists even after treatment. The efforts need to be focused in direction of decrease the news infections number.

The battle against mastitis need to be a continual effort because it is practically impossible to prevent transmission of the specific pathogenic microorganisms.

SECȚIUNEA III

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AGRICULTURE WATER RUNOFF AND HYDROPOWER PLANTS INFLUENCE TO RIVERS WATER QUALITY

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Abstract. One of impacts to the river's water pollution is runoff of agriculture NO_3 from the soil to the rivers. Another source of river's pollution is water runoff from the dams. Various sediments usually concentrate on the bottom of the dam. If a hydro power station is built on the dam, water streams through the dam and lifts sediments from the bottom. Though the process of sediments mixing with water depends on functioning mode of the plant, in all cases the down-streamed water from the dam is polluted with substances of different origin.

This article deals with the mathematical description of river water diffusive pollution and self-purification stream down the river. The mathematical model includes many parameters of water stream as well the distribution of pollution through section of the river's channel. Several trends of relations between stream parameters and pollution parameters are given.

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PROSPECTS FOR SUSTAINABLE DEVELOPMENT DESIGN AND MANAGEMENT ON ORGANIC FARMS IN BULGARIA

Atanas Atanasov, Chavdar Vezirov

Abstract: The paper considers the current policy regime with respect to organic farming, the scope for the continued growth of the sector and the debate regarding the design of future policy.

Taken into consideration are several basic stages in the design and management of the organic farm including: agro-marketing; information service – preliminary, current, computer; practical preparation and enrolling workers – fulltime and part-time courses, practical training, applicants' knowledge and skills evaluation; selecting the place for organic farm – reading the macro- and micro-relief, requirement about soil, locating the area necessary; technology selection – planting schemes, cultivation methods, methods for production initial treatment; specifying the life-time assets demanded – kind and brand selection of plants and animals, determination of seedlings needed, required machinery and constructions; consumer material required – compost by kind and amount, wrapping by kind and amount; financial insurance – business plan, prices and realization, credit; guidelines and control on mechanization and unmechanization processes; online market research.

Applying of such design and management approach for organic farm creates favourable premises for achieving high output of the machines, labour resources, full-value and sustainable utilization of the nature resources without negatively effect on environment and people health. The receive on sufficiently by quantity and quality organic production, successful realize and reasonable earnings.

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METODA PROTOTIPARII VIRTUALE APLICATA PENTRU TRACTOARELE AGRICOLE CU SASIU ARTICULAT
VIRTUAL PROTOTYPING METHODS APPLIED FOR AGRICULTURE TRACTORS WITH ARTICULATED CHASSIS

Ion Barbu

Abstract*:* The paper presents a lot of aspects regarding the usage of modern technologies, such as virtual prototyping and digital mock-up, in mechanical systems engineering (the components of the virtual prototyping platform, the connections between them in a prototyping scheme, and the virtual prototyping phases,

respectively). Finally, using the MBS software ADAMS of MSC, licensed to DPR Department, the virtual prototype of an agriculture tractor is developed.

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A COMPARATIVE STUDY OF TWO DIFFERENT WAYS OF DESIGNING A PISTON FOR AN INTERNAL COMBUSTION ENGINE – BY CLASSIC METHODS AND BY USING SOLIDWORKS PROGRAM
PROIECTARE COMPARATIVĂ CLASIC - MEDIU PROGRAMARE SOLIDWORKS A PISTONULUI DE MOTOR CU ARDERE INTERNĂ

Boiangiu Gheorghe*, PhD. Student, Eng, Assistant Cataneanu Mihnea, PhD. Student, Eng,**
Oprica Theodor George, Student*, Berceanu Cosmin, Student**, Dumitru Ilie, Ph.D. Eng.****
** CAD WORKS Craiova, ** Faculty of Mechanics Craiova, Faculty of Mathematics Craiova*

Abstract: The paper presents the designing of an important component of the vehicle's engine, the piston. Comparing it with the classical means of designing does the outlining of the use of a method with finite elements, from point of view of the advantages.

The present tendencies are towards the development of future models with hybrid and mixt solutions, therefore the authors have conceived a way for designing using Solidworks software, with evaluations based on the results of the study of thermal and mechanical stresses, thus offering a constructive solution optimum from point of view of running conditions.

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REPARTIŢIA FORŢELOR VERTICALE LA MIŞCĂRI TRANZITORII ALE AUTOVEHICULULUI
THE DISTRIBUTION OF THE VERTICAL FORCES AT THE MOTOR VEHICLE'S NON-STEADY MOTION

Lecturer Ph.D eng. Dumitru BOLCU*
Lecturer Ph.D Student eng. Gheorghe POPA*
Lecturer Ph.D eng. Ilie DUMITRU*
*Faculty of Mechanics, University of Craiova

Abstract: The number of unknowns is more numerous than the number of equations in the motion equations of a motor vehicle. For that reason to determine the distribution of the contact forces with the road there are necessary additional suppositions. One of these suppositions takes into account the neglect of the car body's strains. Under the circumstances it is considered that the vertical forces are proportional to the displacements on vertically of the suspension fixing points.

Consequently there are determined the vertical forces at the four wheels.

There are presented the dependences of these ones depending on: the acceleration on the longitudinal direction, the speed and the angular acceleration of the motor vehicle, the mass and the additional weight and the distribution of this one by the coordinates compared to the theoretical center of the road vehicle.

These are particularized the relations obtained for the passing over from the rectilinear motion to the circular motion, presenting the variations of the vertical forces depending on the angle between the speed of the mass center and the longitudinal axis of the vehicle.

There are also determined the limit values of these forces taking into account that the motion of the mass center is circular. Therefore it is observed a burden of the vehicle's exterior part, overloaded being the front wheel exterior to the bend. At the same time it is observed a discharged especially at the back wheel interior to the bend.

It is also determined the critical velocity at which the vertical reactions at the back interior wheel becomes null, so appearing the danger of the side slipping.

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STABILITATEA AGREGATULUI TRACTOR - MAŞINĂ DE PRELUCRAT SOLUL PE RÂNDUL DE POMI LA DEPLASAREA PE PANTĂ TRANSVERSALĂ
THE STABILITY OF THE AGGREGATE TRACTOR – ROW TILLAGE MACHINE WHEN MOVING ON A CROSS-SLOPE

Sorin BORUZ, Mircea BĂDESCU
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Abstract: In this paper it is presented the analysis of the system of external forces that react on the aggregate tractor-row tillage machine when moving on a cross-slope having a real inclination angle β on the level curve and the way of calquing them depending on the geometrical elements of the technical system formed so.

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CERCETĂRI FUNDAMENTALE PRIVIND METODELE DE DEPUNERE ANTIUZURĂ, ADAPTABILE COMPONENTELOR PENTRU ECHIPAMENTELE AGRICOLE
FUNDAMENTAL RESEARCH REGARDING THE METHODS OF ANTI-WEAR DEPOSIT, ADAPTABLE TO COMPONENTS FOR AGRICULTURAL EQUIPMENTS

Braharu D., Gângu V., Vlăduț V.,Băjenaru S., Postelnicu E.

Abstract: The study proposes to present the main tillages, that involve a serious active organs wear, to identify them ,to analyze and to present the methods of anti-wear deposit used today and that are suitable to increase wear durability of the agricultural equipments.

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CERCETĂRI PRIVIND ALEGEREA MATERIALELOR PENTRU FABRICAREA ORGANELOR DE LUCRAT SOLUL. MATERIALE ŞI TRATAMENTE UTILIZATE ÎN CONSTRUCTIA ACESTORA
RESEARCHES REGARDING MATERIALS SELECTION OF THE OPERATING PARTS MANUFACTURING FOR SOIL CULTIVATION. MATERIALS AND TREATMENTS USED FOR THEIRS DESIGN

Braharu Delia, Băjenaru Silviu, Vlăduț Valentin, Matache M.

Abstract: The purpose of the paper is to present the way the material selection is done for the agricultural operating parts for soil and the treatments applied in view of wear diminution from soil contact.

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POSIBILITĂȚI DE REALIZARE A RĂCITOARELOR DE LAPTE CU TUBURI TERMICE
REALIZATION POSSIBILITIES OF MILK COOLERS WITH THERMAL TUBES

Prof. univ. dr. ing. Brătucu Gh., Drd. ing. Peligrad S.

Abstract. The primary milk processing contains many heating-cooling operations, for which the used technical equipments are much more upgraded. In the work is proposed the use of heat changers with thermal tubes, for which the efficaciousness is superior for all other types of equipments. The larges possibilities of utilization for these types of heat changers increase the disadvantage of the initial big costs of these components.

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IMPORTANȚA CONDIȚIONĂRII SUPERIOARE A GRÂULUI ÎNAINTE DE MĂCINARE
IMPORTANCE OF WHEAT SUPERIOR CONDITIONING BEFORE MILLING

Prof. univ. dr. ing Brătucu Gh., Drd. ing. Căpățînă I.

Abstract. Wheat conditioning before milling solves two important problems: the elimination of the impurities and it bring the beans to the optimum humidity for milling. In this work is demonstrated that through the assurance of wheat optimum conditioning is obtained a crest of the flour extracted interest with 1,5… 2,5 %, a decrease of ashes with 0,2… 0, 3% and a crests of the superior flour types weight with 3…5%. Also, is reduced the specific consumption of energy for milling with 1,5… 2,5 kWh on the ton of flour.

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UTILIZAREA FIABILITĂȚII LA STABILIREA TERMENULUI DE GARANȚIE AL ECHIPAMENTELOR AGRICOLE
RELIABILITY UTILIZATION FOR ESTABLISHING THE GUARANTEE LIMIT OF AGRICULTURAL EQUIPMENTS

Prof. univ .dr. ing. BRĂTUCU Gh.

Abstract: The permanent improvement of reliability indicators of the agricultural equipments has been made mainly on the expense of costs increase. The reliability /cost indicator is extremely eloquent for the potential buyers of same equipments, but his real value is hard to establish. The buyer is guyed in most of the cases after the guarantee limit /cost indicator. In this work is studied the normal bind between reliability and guarantee limit give from different firms as the factors how influence this correlation To the settlement on analytic path of the guarantee limit is used the calculus relations validate of practical results and the reliability indicators were determined with a big accuracy.

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CALCULUL NECESARULUI DE SPATIU PENTRU INGRASAREA SUINELOR FOLOSIND PLANUL DE PRODUCTIE
THE DETERMINATION OF THE SPACE REQUIRED FOR THE PIGS GROWTH USING THE PRODUCTION PLAN

Brumar D., Cioboata M.

Abstract: The most important thing when begin an economic activity is its efficiency. In order to do so, we have used some important economical parameters belonging to the production plan (the time period, the number of series and places, the capacity and the compartments number) in order to establish the space required for the growth of the pigs.

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AMPLASAREA UNUI DEPOZIT DE PRODUSE AGRICOLE UTILIZÂND STUDIUL GEOTEHNIC
ADEQUATE PLACING OF A WAREHOUSE USING THE GEOTECHNICAL STUDY

Brumar D., Cioboata M.

Abstract: Geotechnical study is necessary for the foundation soil knowledge for the warehouse adequate placed and is rely on geotechnical soil research works a view to define: rock arrangement; physical and mechanical properties of the fields; allowable bearing

pressure of the setting levels; soil settlement; frost depth; seism framing; hidrogeological dates.

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MOODELUL MATEMATIC AL PROCESULUI DE OSCILAȚIE AL MAŞINILOR AGRICOLE REMORCATE

МАТЕМАТИЧЕСКАЯ МОДЕЛЬ КОЛЕБАНИЙПРИЦЕПНОГО СЕЛЬСКОХОЗЯЙСТВЕННОГО МАШИННОГО АГРЕГАТА

Volodymyr BULGAKOV, PhD, Professor
National Agricultural University of Ukraine, Kiev, Ukraine

Abstract: Исследовано и проанализировано колебательное движение прицепного сельскохозяйственного машинного агрегата в процессе его движения по неровностям поверхности почвы. Составлены дифференциальные уравнения движения механической системы в продольно-вертикальной плоскости с одной степенью свободы.

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DES ÉTUDES COMPARATIFS DES ÉTATS DE TENSION CHEZ LES VERSOIRS CLASSIQUES ET LAMELLAIRES EN UTILISANT LE PROGRAMME D'ORDINATEUR COSMOS/M

Bungescu Sorin[1], Pîrşan Paul[1], Valentin Vlăduț[2], Biriş Sorin[3], Imbrea Florin[1]
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Abstract: L'analyse de l'état de tension et deformation du versoir, représente un problème extremement important, en ce qui concerne l'optimisation des parametrés du versoir conformément au critère du poids minimum. Ce calcul peut être effectué très bien à l'aide de la méthode d'analyse avec des elements finis.

L'étude a été effectué sur deux ensembles formés par le versoir et le soc avec des versoirs lamellaires, l'une d'origine allemande et l'autre d'origine roumaine et deux ensembles formés

par le versoir et le soc avec des versoirs classiques (avec des versoirs culturels et des versoirs semi – hélicoïdal), en utilisant La Méthode de L'Élément Fini et le paquet de programmes COSMOS/M, qui, pour une modelation géometrique meilleure ont été partagé en plusieurs zones, convenablement choisies.

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LANDSLIDES – A CASE STUDY

Dr. Eng. Cristian Burada

Abstract: The current paper defines the concept of landslides, describing the general conditions in which landslides form, the most frequent causes which lead to their production, the types of landslides, as well as the newest and most appropriate landslide prevention and reinforcement methods. Concomitantly, the thesis presents as case studies the landslides produced on the location of the second auger Field in Ocnele Mari- Valcea County, where a collapse cone has formed.

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INTERVENTION MEASURES FOR BUILDINGS DAMAGED BY EARTHQUAKES

Dr. Eng. Cristian Burada

Abstract: The current paper analyzes the consequences of seismic movements, the disastrous effects that they have on any type of construction, within Romanian borders. At the same time, it also presents the main intervention methods applied in order to ensure appropriate levels of anti-seismic protection.

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STADIUL ACTUAL AL DEGRADARII SOLURILOR PRIN PROCESE DE EROZIUNE
CURRENT STATUS OF SOIL DEGRADATION THROUGH THE EROSION PROCESS

Burtea Mihaela

Summary: Soil degradation is an ancient process that appeared at the same time with agriculture, but its extension and

impact on the circumambience are more alarming now, more acute and of great importance for mankind. The effects are felt in the diminishing of the production capacity of ecosystems and in the modification of the global climate and of the environment, in general.

The use and the management of the natural resources by man and especially those of the soil, has had and still has a series of favourable, desired consequences, but also unfavorable, unexpected or unwanted ones. At this time, many soil are more or less eroded or affected by other forms of degradation, diminishing their production capacity or losing it completely, becoming sterile.

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EVOLUTIA UNOR INDICI AGROCHIMICI DIN CADRUL UNOR EXPERIENTE CU PAJISTE NATURALA SI PAJISTE SEMANATA DE LA CENTRUL EXPERIMENTAL PREAJBA GORJ
THE EVOLUTION OF CERTAIN AGRO-CHEMICAL VALUES WITHIN CERTAIN EXPERIMENTS WITH NATURAL LAWN AND SEEDED LAWN FROM THE EXPERIMENTAL CENTER PREAJBA GORJ

Burtea Mihaela

Summary: In this work is presented the evolution of agro-chemical indexes as: pH, mobile phosphorus content and loam content as a result of the application of different doses of NPK, from experiments with natural grassland and sowed grassland, from Experiments Center from Preajba, Gorj, in 2 years of experiments, 2006 and 2007.

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MONITORIZAREA EVOLUȚIEI EROZIUNII SOLULUI ŞI A EFECTELOR EI ÎN BAZINUL HIDROGRAFIC SLĂNIC-BUZĂU
MONITORING THE EVOLUTION OF THE SOIL EROSION AND OF ITS EFFECTS IN THE SLĂNIC-BUZĂU HYDROGRAPHIC BASIN

Ioan-Alexandru Călin, Sebastian Costel Mustață, Silviu Beciu, Camelia Slave
U.S.A.M.V.B.

Abstract: According to the land areas of the state, 62% from the entire Romanian territory is represented by agricultural land, which presents the natural condition of erosive process. Besides natural factors, the human activity plays an important role in the release and the intensification of the erosive processes. The total annual soil loss on the agricultural lands on the entire country represents 126 million tons solid eroded material. Taking into account the erosion manifested on the agricultural lands with less than 5% declivity, it can be estimated that the total annual soil loss through erosion may amount to 150 million ton per year, in some years.

This paper presents a short synthesis of the anti-erosion process and the development of a Geographical Information System on a hydrographic basin of 55440 hectares, in attempting of monitoring the evolution of the soil erosion and its effects.

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CERCETAREA EXPERIMENTALA A SOLICITARII ORGANELOR DE LUCRU ALE SUBSOLIERELOR

EXPERIMENTAL RESEARCH OF THE SUBSOILERS WORKING ORGANS SOLICITATION.

Drd. ing. Căpățînă I., Prof. univ. dr. ing Brătucu Gh.

Abstract: The advance resistance of the subsoilers active organs depends on a big number of factors, and in the specialty literature this appearance is little emphasized. In the work is presented the results of experimentally researches realized with an active fixed organ of chisel type, whereat is modified: the work depth, the soil type and the degree of subsidence, the banking angle, the work speed etc. On the strength of these results is can be achieved an optimum resizing of this parts.

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RESEARCHES REGARDING NON CONVENTIONAL METHODS USED FOR MICROORGANISM INACTIVATION IN LIQUID FOOD
CERCETĂRI PRIVIND METODELE NECONVENȚIONALE UTILIZATE PENTRU INACTIVAREA MICROORGANISMELOR DIN ALIMENTELE LICHIDE

Andreea-Manuela CONSTANTIN

Abstract: This article is a literature review on the use of non conventional methods for the microorganism inactivation in liquid food. It presents background and also latest information on the methodology being used in non conventional treatments putting emphasis on the newest developments of the technology being used today.

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DETERMINAREA TEORETICĂ A PUTERII NECESARE PENTRU ACȚIONAREA AGREGATUL COMBINAT DE PREGĂTIT PATUL GERMINATIV ACPG-3
THEORETIC DETERMINATION OF THE NECESSARY POWER FOR THE DRIVEN OF THE COMBINED SEEDBED PREPARATION DEVICES ACPG-3

Augustin CONSTANTINESCU, Ph. D. Student, Lecturer*
Simion POPESCU, Ph. D, Professor**
University of Craiova*
Transilvania University of Braşov**

Abstract: In the paper it is presented the combined seedbed preparation devices ACPG-3 in combination with the four- wheel driven (4 WD) tractor T195 and it is analysed from theoretic point of view the input power for work driven of the combiner. In the study it takes into consideration the work condition when the combiner is used for the preparation of the germinate soil on would, and in heavy conditions, including the heavy soil at maximum deepness working.

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CERCETĂRI TEORETICE PRIVIND DETERMINAREA PARAMETRILOR ACUSTICI ŞI INFLUENȚA PUTERII ULTRASONICE LA PROCESAREA LICHIDELOR ALIMENTARE

RESEARCHES CONCERNING TO DETERMINATE OF THE ACOUSTIC PARAMETERS AND INFLUENCE OF THE ULTRASONIC POWER AT FOOD LIQUIDS PROCESSING

Ph.D. Student Eng. Mihaela Danciu

Abstract: The beneficial use of the sound is realized through the mechanical, physical and physical- chemical effects that it generates upon the liquid medium in which it transmits. In this later present the major functions that power ultrasound can perform in assisting food conditioning and the basic mechanisms involved. In addition to these, basics of power ultrasound generation and equipment will also be surveyed together with some proposals for conjoining an ultrasonic device to some existing food conditioning processes.

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CERCETĂRI PRIVIND INFLUENȚA ULTRASUNETELOR LA OMOGENIZAREA ŞI ACCELERAREA REACȚIILOR CHIMICE ÎN LICHIDELE ALIMENTARE

RESEARCHERS CONCERNING INFLUENCE OF ULTRASOUND WAVES AT HOMOGENIZING AND INCREASING CHEMICAL REACTIONS IN FOOD LIQUIDS

Ph.D. Student Eng. Mihaela Danciu

Abstract: In this article is present influence of the ultrasound wave in food liquids with realize the ultrasonic cavitation may cause fast and complete degassing: initiate various chemical reactions by generating free chemical ions (radicals); accelerate chemical reactions by facilitating the mixing of reactants; enhance polymerization and depolymerization reactions by temporarily dispersing aggregates or by permanently breaking chemical bonds in polymeric chains; increase emulsification rates; improve diffusion rates; produce highly concentrated emulsions or uniform dispersions of micron-size or nano-size materials.

DETERMINATION OF PHYSICAL CHARACTERISTICS OF CHIVE BULBS, IN ORDER TO ESTABLISH THE APPROPRIATE SEPARATING SIEVE TYPE

Ph.D.Eng. Ganea Ioan – INMA Bucharest,
Prof.Ph.D.Eng. Brătucu Gheorghe –TRANSILVANIA University Braşov

Abstract : In the paper are presented the results of tests performed within INMA laboratories in order to find out the separating characteristics of chive bulbs, as well as the bulb floating speed during the process of impurities removing – with applications on two different chive varieties.

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MODELAREA SISTEMULUI MECANIC MECANISM DE CUPLARE-PLUG PURTAT MECHANICAL SYSTEM LINK DEVICE – CARRIED PLOW MODELING

Eng. Ionuț Daniel Geonea

Abstract: In this paper is presented the virtual model for the link device – carried plow from the farming tractor. We present the motion simulation by means the Visual Nastran software.

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ASPECTE PRIVIND ANALIZA PROCESULUI DE REPARTIZARE A SEMINȚELOR PE RANDUL DE PLANTE ASPECTS CONCERNING THE ANALYSE OF PROCESS OF SEEDS REPARTITION BY ROW OF PLANTS

Phd. Student Eng. HODÎRNĂU Marius
Phd. Student Eng. LOGHIN Florin Lucian

Abstract: This paper present a method of analyses of the process of seeds repartition by row of plants on cereals sowing, the analyses based on determinations made in laboratory by means of stall formed by a sowing section, a system of transcribers of impact and a systems of acquisition of data.

USAGE SIMPLEX METHOD TO DETERMINE REQUIRED NUMBER OF TRACTOR SYSTEMS FOR PLOUGHING

Savin L, Nikolić R, Furman T, Tomić M, Simikić M.

[1] Doc. Lazar Savin Ph.D., prof. Ratko Nikolić Ph.D., Timofej Furman Ph.D., Milan Tomić MSc, Mirko Simikić BSc, Faculty of Agriculture, University of Novi Sad

Summary: Presented in this paper is application of simplex method to determine required number of tractor systems for ploughing. Using simplex method to optimize parameters of ploughing tractor systems on a 2000 ha production unit, 800 m plot length and a 0.8 daN/cm^2 specific soil resistance, it was established that 2.79 units of the 40 kN category tractors was required.

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ASPECTE PRIVIND REZISTENȚEI LA PENETRARE A SOLULUI IN URMA LUCRARII DE SUBSOLAJ ASPECTS CONCERNING THE SOIL PENETRATION RESISTANCE AFTER DEEP SOIL LOOSENING WORK

Drd. ing. LOGHIN Florin, Drd. ing. CĂPĂȚÎNĂ Ionuț, Drd. ing. HODÎRNĂU Marius

Abstract: The advance resistance of the working organs for deferent types of agricultural machines depends to a great extent, also on his penetration resistance. In this work are presented the results of experimental researches over the penetration resistance of the soil after and before deep soil loosening, a soil work which encourage the power consumption decrease to the other soil works that follow to be made with the purpose of cults set up.

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INSUSIRILE APEI FLUVIULUI DUNAREA SI ALE RAULUI JIU THE WATER FEATURES OF DANUBE AND JIU RIVERS

Lulea C., Burtea Mihaela

Abstract: The water from the Danube and Jiu rivers is a „treasure" for the Romanian agriculture if it is used rationally and we keep its quality parameters within the admissible limits.

The water from the two sources can be used for irrigation without any risk or by animals or even by the population after purification.

Till 1989 Romania had 3,200,000 ha, only from Danube there can be irrigated 2-2.5 million hectares.

There is need the urgent reparation of all irrigation systems from Romania.

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STUDII PRIVIND TEHNOLOGIA DE ÎNFIINȚAT CULTURI DE CEREALE PĂIOASE ÎN SISTEM DURABIL PRIN UTILIZAREA PENTRU DIFERITE CONDIȚII DE LUCRU A SEMĂNĂTORILOR MECANO-PNEUMATICE

STUDIES REGARDING THE STRAW CEREALS CROPS SETTING UP IN DURABLE SYSTEM USING THE MECHANO-PNEUMATIC SOWING MACHINES FOR VARIOUS WORKING CONDITIONS

Dragoş MANEA, Iosif COJOCARU, Eugen MARIN
INMA Bucharest

Abstract: The durable (sustainable) agriculture essentially supposes the elaboration of some modern technologies for soil work, setting up and maintenance for agricultural crops which satisfies qualitative and quantitative the people present needs without compromise the requests or the options of the next generations and in the same time without the environment non-reversible damage. For this aim, in this paper there is presented the mechanization technology for straw cereals setting up in durable system and its technical equipments

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ELABORAREA CARTOGRAMELOR NECESARE EVALUĂRII EROZIUNII SOLULUI PE TERENURILE AGRICOLE DIN VALEA TUTANEI, AFLUENT AL RÂULUI ARGEŞ.

THE EXECUTION OF CARTOGRAMS NEEDED TO RESEARCH EROSION OF THE SOIL OF TUTANA VALLEY, AFFLUENT OF ARGES RIVER.

Mădălina Marian lector univ. dr. ing.
Université de Pitesti, Roumanie

Abstract: The natural background of the area is made up based on the research of specialists and on own surveys on the field. The ground is presented with all the elements which determine the geographical allocation of the soil, knowing the ground is of a great importance in establishing and projecting different improving works.

The study of hydrography and hydrology explains the presence of the springs that feed the valley, the level of precipitations in the area and the high level of forest vegetation.

The lithology and the pedology represent some of the most important studies used to establish the opportunity of agricultural lands, of the structure of crops and of the culture technology, in projecting and exploiting all kinds of works. Studying the types of soil allowed the notice of the changes at the surface according to environment changes. The erosion degree was established based on the remaining soil after different layers of soil had been removed by erosion. The surface of the soil in this hydrographic sub-basin is the result of interaction between the applanation processes and the pedo-genetic processes, interaction which realizes an unstable equilibrium which differs from one place to another, depending on the slope and on the vegetation. Different intensity of the relief modelling processes (erosion and slumps) is directly proportional with the slope, with the density of vegetation, with the resistance of rocks to erosion.

The climatic conditions refer to the study of precipitations. The medium quantity for a year was analyzed, the maximum and the minimum level of precipitations over a year, the rainfall, especially torrential rains which can produce erosion and flows.

The study of the types of use and vegetation underlines the main vegetal associations that define this sub-basin. The vegetal layer (the cultivated vegetation and the spontaneous vegetation) from here differs according to the component species and to the productivity related to relief, micro-relief, texture, pH, the humidity of the soil and, of course, to the interference of man.

The research method was based on mapping the erosion of the soil. The homogeneous units from the erosion triggering factors point of view were determined on the 1:25000 scale situation plan in order to do the mapping.

The distribution in degrees of danger was made according to the methodology established by ICPA in 1987, depending on the estimated soil losses (t/hectare*year). The estimation and the recording of erosion were made based on the regulations established by ICPA, according to thickness of the layer lost by erosion. The potential erosion of the whole sub-basin was calculated using the universal equation of surface erosion, based on the data gathered on the field and on the maps containing the delimitation of erosion units.

State indicators for surface erosion and risk indicators were used in order to read the obtained data, indicators proposed by A Moțoc and A. Vătau – 1992, indicators grouped into the following categories: state or present status of degradation, impact on productivity and risk. The map of the surface erosion degree and the map of the degrees of surface erosion danger were made according to these results.

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CERCETĂRI PRIVIND TESTAREA MAŞINILOR PENTRU PROTECȚIA PLANTELOR, CONFORM NORMELOR EUROPENE ÎN VIGOARE
RESEARCHES ABOUT TESTING PLANTS PROTECTION MACHINES, ACCORDING TO WORKING EUROPEAN NORMS

Matache Mihai, Bolintineanu Gheorghe, Uceanu Eugen, Postelnicu Elena

Abstract: The large variety of phyto-sanitary equipment and plants existing on the Romanian market (various brands, various levels of wear), the users' training level and the requirements Romania has for its accession to the EU demand the adoption of some

precise regulations concerning the control of the spraying equipment according to the present-day international norms. This paper presents the spraying testing equipments in INMA Bucharest, using the specifically modern equipments, which let the checking respect of the European norms from domain.

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MECANIZAREA IN CONTEXTUL URMATOAREI REVOLUTII DIN AGRICULTURA: AGRICULTURA CONSERVATIVA (AC) SI REZULTATE RECENTE PRIVIND NO TILL IN ROMANIA

MECHANIZATION FOR THE NEXT AGRICULTURAL REVOLUTION: CONSERVATION AGRICULTURE (CA), AND RECENT NO-TILL RESULTS IN ROMANIA

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Abstract: The paper deals with the most recent issues concerning the mechanization for the conservation agriculture as well as with the principles involved. Also, there are shown recent results on the no till technology aspects concerning the water loss in an experiment with vegetation vessels carried out by the Soil Management and Machinery Departments of the Faculty of Agronomy from Craiova. The best results were given by the mulch covered variant that has kept the highest amount of water in comparison with tilled and not tilled bare soil.

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STAREA ACTUALĂ A ÎNVELIŞULUI DE SOL DIN BAZINUL HIDROGRAFIC VALEA BALAURULUI, JUD. BUZĂU ŞI INFLUENȚA ACESTUIA ASUPRA ECOSISTEMULUI BIO-TEHNO-ECONOMIC AL ZONEI

THE CURRENT STATE OF SOIL COVER IN VALEA BALAURULUI HYDROGRAPHIC BASIN, BUZAU COUNTY AND ITS INFLUENCE ON THE BIO-TECHNO-ECONOMIC ECOSYSTEM OF THE AREA

Muşat M., Radu Alexandra Teodora, USAMV Bucureşti, Fac. Agricultură
Măgureanu Ileana, ICPA Bucureşti

Burcea Mariana USAMV Bucureşti, Fac. Management

Summary: Valea Balaurului hydrographic basin is situated on Valea Slanicului de Buzău, in the middle third of the right slope.

In this hydrographic basin research has been carried out regarding soil survey, on alignments placed on the highest slope direction, that include soils from the height to the slope foot, with a view to identifying and spatially determining the existing soils, as well as their degradation degree through erosion and the influence on the obtained yield.

The studied area is known for forage production, but, as a result of irrational exploitation and the intensification of erosion procession, the obtained yield has diminished, being used at most in local homesteads for consumption.

In order to improve the current state of soil cover it is necessary to apply a complex of improvement measures so as to diminish erosion effects on soil and to preserve it.

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CONSIDERATII TEORETICE ASUPRA STUDIULUI STABILITĂȚII AUTOVEHICULELOR PRIN CALCULUL REACȚIUNILOR
THEORETICAL CONSIDERATIONS OVER THE STABILITY STUDY USING THE COUNTERACTING FORCES CALCULUS

Dumitru NEAGOE, Dumitru BOLCU, Loreta SIMNICEANU

Abstract*:* In this paper is presented an equivalent mechanical model of wheel, suspension and the vehicle useful to find the vehicle movement and also is presented the matriceal form of mathematical model who are determinate for this mechanical model. It is determinate the vertical, longitudinal and tangential counteracting forces between wheels and the rolling road, taking into account that a stability analyzing must start with them.

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RESEARCHES ON AGROTECHNICAL AND ZOOTECHNICAL TECHNOLOGIES AND DEMANDS OF FARM EQUIPMENTS USED FOR RAISING CATTLE
STUDII ASUPRA TEHNOLOGIILOR ŞI CERINȚELELOR AGROTEHNICE ŞI ZOOTEHNICE ALE MASINILOR FOLOSITE ÎN CRESTEREA TAURINELOR

PhD.Eng. Nedelcu Ancuta, PhD.Eng. Popa Lucretia, PhD.Eng. Ciuperca Radu,
PhD.Eng. Cojocaru Iosif - INMA Bucuresti

Abstract*:* The paper details the researches directions in the field of cattle foddering and agro technical, zootechnical and technological demands of used technological equipments.

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NOUĂ TEHNOLOGIE DE LUCRARE A SOLULUI ÎN SUBSTRATUL ARABIL CU ECHIPAMENTUL SCAR 5

NEW WORKING TECHNOLOGY OF SOIL ARABLE SUBSTATUM WITH SCAR 5 EQUIPMENT

Ph. D. Eng. Nicolae Constantin, Ph. D. Eng Iosif Cojocaru, Ph. D. Eng Vasile Nitescu, Eng. George Bolintineanu

Abstract: The Romanian surfaces occupied by soils with high degree of Quality deterioration are about 19.8% out of the whole agricultural surface. The new technology of soil working mechanization in arable substratum aims to increase the lacunary area of soil horizon , subjacent to arable layer, without performing the mixing , overturning as inversion of soil horizons. Its application in compliance with the appropriate agro-pedological requirements at a as low as possible cost and with minimum power consumption imposes the promotion of a new technical equipment , with high constructive and functional parameters , designed to wheeled tractors of 140-240 H.P. – equipment with five acting parts such as: reversible knife – chisel and two claw rollers . the new technical equipment – named SCAR 5 performs working depths of maximum 40 cm at soil chisel working and of at most 60 cm at soil arable

substratum working , the working width being of about 2.55 m and the working capacity of 1.56 ha/h .

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METODE MATEMATICE DE SIMULARE A DEBITULUI MASIC DE DOZARE AL MATERIALELOR SOLIDE ÎN VRAC CU MELCI DOZATORI
MATHEMATICAL SIMULATION METHODS FOR DOSED MASS FLOW OF BULK SOLIDS DOSED WÍTH SCREW FEEDERS

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Simion POPESCU, Ph.D, Professor*
Christian FUERLL, Dr.- Ing. Habil, Professor**
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Abstract: This paper describes a mathematical simulation method for screw dosing feeders that are used for dosing of bulk solids from agriculture and food industry. The method of calculation represents an important task in the design of dosing screw feeders destined for food industry since to achieve uniform extraction of the agro-food bulk solids from storage silo requires a well knowing of the working parameters of the dosing feeder.

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STUDIUL PARAMETRILOR FUNCȚIONALI PENTRU AUTOMATIZAREA CU AUTOREGLARE A UNUI STAND DE DOZARE CU VIBRAȚII
STUDY OF WORKING PARAMETERS FOR THE SELF ADJUSTING AUTOMATION SYSTEM FOR THE VIBRATING DOSING STAND

Daniel OLA, Ph.D Student, Univ. Assistant*
Mihai MANESCU, Eng., Ph.D Student *
Simion POPESCU, Ph.D, Professor*
Sorin SÂRBU, Eng., Ph.D Student**
***Transilvania University of Brasov, Romania**
****INTELPAK Craiova, Romania**

Abstract: The paper presents the optimization of a vibrating dosing stand used in food industry and agriculture that is controlled by an 8-bit Atmel microcontroller that uses an AD7730

integrate for the conversion of the analog to digital signal from the sensors.

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STUDIES AND RESEARCHES ON THE INFLUENCE OF THE VERTICAL OSCILLATIONS OF PRECISION SOWING MACHINE SECTIONS ON THE OPERATIONAL PARAMETERS OF THE MACHINES

STUDII ŞI CERCETĂRI PRIVIND INFLUENȚA OSCILAȚIILOR VERTICALE ALE SEMĂNĂTORILOR DE PRECIZIE ASUPPRA PARAMETRILOR DE LUCRU AI MAŞINILOR

Orlando Sorin OPRIŞ, PhD *
Simion POPESCU, PhD, Professor**
***Politehnica University of Bucharest**
****Transilvania University of Brasov**

Abstract: In the paper is presented the dynamic model of the oscillations for SPC type precision seeders. The first part presents the mathematical model of the seeder frame in order to study its vertical oscillations and the stability of the compaction wheels is simulated on the computer. In the second part it is developed the mathematical model of the seeder frame, in order to study its oscillations. It is showed the influence on its sections and finally isit deduced the mathematical modells which express the oscillations of the frame. Finaly is established the mathematical conditions which have to be fulfilled so that the evolution of the seeder of the support wheels to be stable

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CERCETĂRI PRIVIND NECESARUL DE APĂ AL PORUMBULUI PENTRU BOABE ÎN CONDIȚIILE CÂMPIEI CARACALULUI RESEARCHES ON THE WATER REQUIREMENT OF THE MAIZE CROP IN THE CONDITIONS OF THE CARACAL PLAIN

Petrescu E., Rosculete C., Constantinescu E.

Abstract: The irrigation is a hydrological improvement that allows water application to the crops in a controlled way, making the agriculture an efficient and sustainable activity. The field experiment was conducted at The Caracal Agricultural Research Station. The climate of the region is characterized by an annual average rainfall of 537.4 mm and an average air temperature of 10.6^0C. The changes of the corn water consumption during the year are justified and there is demonstrated that the irrigation can increase the yield more than 70%. Furthermore, there are presented useful data for water application forecast and warnings from the corresponding methods and equipment standpoint. The management of the irrigation systems and the managers themselves can use the evaporation coefficients that are useful to forecast and warn through the BAC evaporimeters class A.

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PREOCUPARI IN VEDEREA PERFECTIONARII TEHNOLOGIEI DE FERTILIZARE ECOLOGICA
PREOCCUPATIONS WITH THE IMPROVEMENT OF THE ENVIRONMENTAL-FRIENDLY FERTILISING TECHNOLOGY

Eng. Lucreția POPA Ph.D, Eng. Ancuța NEDELCU Ph.D, Eng. Radu CIUPERCA Ph.D, Iosif COJOCARU Ph.D., INMA

Abstract: This paper presents new results concerning the INMA researchers' preoccupation to design and implement a new manure spreader, for improvement of the fertilising technology, according to the sustainable agriculture concept.

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METODICĂ ŞI APARATURĂ PENTRU CERCETAREA EXPERIMENTALĂ PRIVIND UTILIZAREA TRANSMISIILOR HIDROSTATICE SUPLIMENTARE PENTRU OBȚINEREA

VITEZELOR LENTE LA TRACTOARE AGRICOLE
METHOD AND INSTRUMENTATION FOR THE EXPERIMENTAL RESEARCH REGARDING THE USE SUPPLEMENTARY HYDROSTATIC TRANSMISSIONS FOR OBTAINING THE SLOW SPEEDS OF THE AGRICULTURAL TRACTORS

Gheorghe POPA, Ph.D. Student , Lecturer*

Simion POPESCU, Ph.D, Professor**
***University of Craiova**
****Transilvania University of Brasov**

Abstract: In the paper is presented the research method, the testing variants and the schema of the measurement chain used to the experimental of the tractor – brake machine system. At respect to these characteristics is choused the agricultural wheel tractors type U 650 (made in Romania) and it is established the location of transducers and measurement circuits for making the experimental determinations.

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OPTIMIZAREA PROCESULUI DE LUCRU A SEPARATORULUI DE VREJURI DE LA COMBINELE DE RECOLTAT CARTOFI
OPTIMIZING OF THE SPINDLES DIVIDER WORKING PROCESS FROM THE POTATOES HARVESTERS

Popescu Aurelian, Bria Nicolae

Abstract: In this paper is made a theoretical analysis regarding the potato tubercles detaching process in the working process of the potatoes harvesters. By experimental researches on establish that the dip angle of spindles conveyer most adequate is between 60°...70° when the potato losses are ignorable and on assure the total spindles evacuation. Through results there are confirmed the theoretical hypothesis.

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EXPERIMENTELLE FORSCHUNG DER DYNAMIK VON TRAKTOR – FRONTLADER SYSTEMEN
CERCETĂRI EXPERIMENTALE ASUPRA DINAMICII SISTEMELOR TRACTOR-ÎNCĂRCĂTOR FRONTAL

Prof. univ. dr. ing. Simion POPESCU
Lecturer dr. ing. Vlad POPESCU

Transilvania Universitaty of Braşov, Romania

Zusammenfassung: In dem Beitrag wird eine komplexe Messeinrichtung vorgestellt, entwickelt für die experimentelle Forschung betreffend Dynamik von Traktor-Frontlader-Systemen,

zwecks Analysieren des dynamischen Verhaltens des Systems in verschiedenen Fahrsituationen, auf ebenem Grund oder auf Hängen (Transport, Bremsen, Beschleunigen). Die Messeinrichtung erlaubt das gleichzeitige Messen und Aufnehmen der Werte von 13 Parametern, gefolgt von computergestützter Verarbeitung der erhaltenen Daten.

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DIAGNOSE METHODS FOR THE MAINTENANCE OF GRAIN HARVESTING COMBINES
METODE DE DIAGNOZĂ LA MENTENANȚA COMBINELOR DE RECOLTAT CEREALE

Prof. univ. dr. ing. Simion POPESCU*
Prof. univ. dr. ing. Mircea BĂDESCU**
***Transilvania Universitaty Braşov**
*****University of Craiova***

Abstract: The paper presents and analysis current methods employed in the maintenance of grain harvesting combines, with a focus on the role of diagnose in increasing combine availability for operation. The authors describe and exemplify a selection criteria for the combine components to be included in the diagnose process. Further technical solutions for achieving a complex diagnose are presented, based on the simultaneous use of on- and off-board sensors.

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COEFICIENȚII DE TRANSFORMARE AI EVAPOTRANSPIRAȚIEI DE REFERINȚĂ (ETp) ÎN CONSUM DE APĂ LA CULTURA DE GRÂU
THE CROP COEFFICIENTS USED TO CONVERT THE REFERENCE EVAPOTRANSPIRATION (ETp) IN WATER USE AT THE WHEAT CROP

Popescu C. V.

Abstract: The research has been carried out at the wheat crop in irrigated and rain fed conditions on the brown-reddish soil from the Research and Development Agricultural Station „SIMNIC”. There were determined the wheat crop water requirements through

field water balance theory's methods, the evaporation from Class A Pan evaporimeters, and the crop's converting coefficients based on their definition - the ratio of water use/requirement of the crop to reference evapotranspiration. The obtained coefficients are to be used in irrigation scheduling.

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EVAPOTRANSPIRAȚIA DE REFERINȚĂ ŞI COEFICIENȚII DE TRANSFORMARE AI ACESTEIA ÎN CONSUM DE APĂ LA CULTURA DE FLOAREA SOARELUI
THE REFERENCE EVAPOTRANSPIRATION AND THE CROP COEFFICIENTS USED FOR ITS CONVERSION INTO WATER USE AT THE SUNFLOWER CROP

Popescu C. V.

Abstract: The research has been carried out at the sunflower crop in irrigated and rain fed conditions on the brown-reddish soil from the Research and Development Agricultural Station „SIMNIC". There were determined the sunflower crop water requirements through field water balance theory's methods, the evaporation from Class A Pan evaporimeters, and the crop's converting coefficients based on their definition - the ratio of water use/requirement of the crop to reference evapotranspiration. The obtained coefficients are to be used in irrigation scheduling.

***

DINAMICA UMIDITĂȚII SOLULUI DIN AGROECOSISTEMELE ZONEI COLINARE BUZĂU, ÎN VEDEREA CONSERVĂRII ŞI VALORIFICĂRII SOLURILOR DEGRADATE PRIN INTERVENȚIE ANTROPICĂ
THE DYNAMICS OF SOIL MOISTURE IN THE AGROECOSYSTEMS OF BUZAU COUNTY HILLY AREA, WITH A VIEW TO PRESERVING AND USING SOILS DEGRADED THROUGH HUMAN INTERVENTION

Radu Alexandra Teodora, M. Muşat, USAMV Bucureşti, Fac. Agricultură
Măgureanu Ileana, ICPA Bucureşti

Burcea Mariana USAMV Bucureşti, Fac. Management

Summary: Studies were carried out in the Soil Erosion Control Station Aldeni-Buzau situated on the right slope of Slanic hydrographic basin. In 1985 a plum orchard was established in the station in pasture regime. The plantation is situated on the middle third of the left slope of Valea cu Drum hydrographic basin, with South-Eastern exposition and an average slope of 15%. In the orchard a perimeter was set from which soil samples were taken for physical and chemical analyses, moisture dynamics being particularly observed.

In order to determine soil moisture the method recommended in the Methodology for carrying out pedological studies, ICPA Bucharest, 1987. The moisture samples were taken from three points, initially established, P1, P2 and P3, up to the depth of 80 centimetres, at every 20 cm, in three repetitions, in the period 01.04.07-15.05.07.

The studies and research which were carried out highlight that fruit tree plantations (orchards) in pasture regime prove to be efficient in the conditions of Buzau county hilly area on land of 15% slope, the trees being provided with the necessary amount of water even when monthly precipitations are lower than the multiannual average.

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UTILAJE DE LUCRAT SOLUL SI PLANTAT PUIETI FORESTIERI
GEARS FOR SOIL WORKING AND PLANTING WILD SEEDLING PLANTS

Ing Mircea RADU; Dr ing. Ciupercă RADU;
Dr. Ing Cojocaru IOSIF. -INMA Bucureşti

Abstract: This paper presents an innovative technology and a multifunctional technical that comes to modernize the forestation technologies used in Romania in view to achieve the strategy for forest durable administration, regarding the importance it has for the environmental protection and for its ecosystems.

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METODĂ DE PROIECTARE A DIMENSIUNII ŞI AMPLASĂRII DISPOZITIVELOR DE DEBLOCARE PRIN ŞOCURI DE AER COMPRIMAT PE PEREȚII BUNCĂRULUI

DESIGN METHOD FOR SIZE DIMENSIONING AND PLACEMENT OF AIR BLASTERS ON BUNKER WALLS

Adrian Roşca, Daniela Roşca
University of Craiova

Abstract : The paper presents a design method for the effective sizing and placement of air blasters on silos walls. The mathematical evaluation method is compared with design methods derived from commercial suppliers' recommendations.

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ANALIZA CU PRIVIRE LA TIPURILE CONSTRUCTIVE DE FRĂMÂNTĂTOARE PENTRU PANIFICAȚIE
THE ANALYSE CONCERNING CONSTRUCTIVES TYPES FROM KNEADERS FOR PANIFICATION

PhD. Stud. Eng. Mihaela Roşu (Nițu),
Prof. PhD. Eng. Ioan Cândea

Abstract: In this paper there is presented a technological diagram variant, with continuous flux, completely mechanized. In the framework of a technological diagram, there are remarked the operations of preparing and kneading doughes in the panification process for which some theoretical considerations are presented. There are presented a series of kneadings used in the panification process, constructive and functional types, diagrams of kneadings used in different type of process.

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THE EVOLUTION OF THE USING AND FRICTION PROCESS IN THE BEARING AND THE AUTO LUBRICANT INFLUENCE UPON THIS PROCESS
REDUCEREA UZĂRII LAGĂRELOR PRIN FOLOSIREA MATERIALELOR AUTOLUBRIFIANTE ÎN CONSTRUCȚIA LOR

I. Sărăcin., M. Gheorghe., T. Popescu., Nicola Ilie

Summary:The paper presents synthetically certain aspects concerning the evolution of friction, as well as of wear within the same manner, the evolution of this complex phenomenon is correlated. Starting from the remark, that wear is randomly produced, whereas friction is permanent, the author suggests a relation among the parameters acting durring the process, with which their influence degree and the error occurring when the Amontone-Coulomb theory is used may be estabilished with more accuracy.

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HAZARDELE NATURALE LOCALE ŞI GLOBALE DATORATE MODIFICĂRILOR CLIMATICE ACTUALE
GLOBAL AND LOCAL NATURAL HAZARDS DUE BY ACTUAL CLIMATICS MODIFICATIONS

Asist. dr. Slave Camelia
Asist. drd. Călin Alexandru
Fac. de Imbunatatiri Funciare si Ingineria Mediului Bucureşti

Summary: The purpose of this paper is to presented some natural and local hazards due by permanent climatic changes. This hazards are influencing today a lot of persons. It consisted as last years this hazards had demonstrate extrems on the earth surface.

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TESTS CONCERNING THE GYROCOPTER UTILISATION FOR GRANULATED CROP PROTECTION PRODUCTS ADMINISTRATION

Walter Stahli,
Jörg Pape (DPG/Germania),
Sorin Tiberiu Bungescu, USAMVB Timişoara.

Summary: The occurred transformations in Romania's agriculture in the last few years, respectively the agricultural surfaces structures change, renders more difficult the classical aircraft's utilisation for the pest control treatments application.
Other countries from European Union confront themselves with the same unfavourable conditions, too. This fact led to the demand of alternative solutions in order to make possible the application of treatments with crop protection products under granules form or under liquid form.

One of the proposed solutions is that of the light agricultural aircrafts' using: Hang-gliders, mini aircrafts and gyrocopters (gyroplanes), which require small sizes landing-take off runways, of below 100 meters.

This paper presents the administration tests results of the crop protection products for pest control under granules form, tests effected in Germany with the gyrocopter.

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CONSIDERAȚII PRIVIND CINEMATICA UNUI MECANISM PLAN DE TIP R-RRT UTILIZAT ÎN INDUSTRIA ALIMENTARĂ

CONSIDERATIONS REGARDING THE KINEMATICS OF R-RRT PLAN MECHANISMS UTILIZED IN THE FOOD INDUSTRY

Cezar-Alin UNGUREANU, Ilie DUMITRU, Gheorghe POPA
University of Craiova, Faculty of Mechanics, 106, Calea Bucuresti Str., 200521, Craiova, Romania, e-mail: ca_ungureanu@yahoo.com

Abstract: In this paper some theoretical results obtained using procedures and computational programmes for the drawing of coupler curve for plan linked bars mechanism are presented. There are showed some of the trajectories for a coupler point obtained with computational programmes applied to the three bar R-RRT linkages. Because it is possible to modify both the element's dimensions and the position of the tracing point, the range of these trajectories and the motion laws can be extremely diverse. Starting from this point we can optimise the mechanisms. The programmes, allow the finding a numerous groups of solutions, which can be registered into bi-dimensional vectors, forming that way, a base of data.

CONSIDERAȚII PRIVIND LEGILE DE MIŞCARE PENTRU UN MECANISM PLAN DE TIP R-RRT UTILIZAT ÎN INDUSTRIA ALIMENTARĂ

CONSIDERATIONS REGARDING THE LAWS OF MOTION FOR THE R-RRT PLAN MECHANISMS UTILIZED IN THE FOOD INDUSTRY

Cezar-Alin UNGUREANU, Ilie DUMITRU, Gheorghe POPA
University of Craiova, Faculty of Mechanics, 106, Calea Bucuresti Str., 200521, Craiova, Romania, e-mail: ca_ungureanu@yahoo.com

Abstract: In this paper some theoretical results obtained using procedures and computational programmes for the drawing the laws of motion for some plan linked bars mechanism are presented. There are showed some of the zero order function of transmission so-called laws for the three bar R-RRT linkages. Because it is possible to modify both the element's dimensions and the position of the fixed joints, the range of these motion laws can be extremely diverse. The programmes, allow the finding a numerous groups of solutions, which can be registered into bi-dimensional vectors, forming that way, a base of data. Starting from this point we can optimise the mechanisms by choosing from the data base the proper ones.

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METODICA PRIVIND DETERMINAREA CONTINUTULUI DE ULEI DIN PRODUSELE VEGETALE
THE METHODIC CONCERNING DETERMINING OF OIL CONTENT FROM VEGETABLES PRODUCTS

Vlăduț V., Pirnă I., Postelnicu E., Manea D., Bungescu S.

Abstract: This paper proposes itself to present a scientific research method of the cold pressing process of the oleaginous plant seeds which is necessary for increase the extraction performances and the qualitative level of the technical equipments used in the context of the Romanian farmers „energetically independence".

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CERCETĂRI PRIVIND DETERMINAREA CONȚINUTULUI DE ULEI DIN PRODUSELE VEGETALE
RESEARCHES REGARDING THE DETERMINATION OF OIL CONTENT FROM VEGETABLES PRODUCTS

Vlăduț V., Gângu V., Băjenaru, S. Biriş S., Paraschiv G.

Abstract: The aim of paper are the determination of oil content from 5 oil plants, cultivated with predominance in Romania: sunflower, soya, rape, flax and ricinus, using a press type SK 130, made in Germany. Also, we follow up the determination of oil content from every type of plant, the viscosity of these and heat capacity, in view of the settlement of work methodic which will be use by the little farmer and enterprising whence working in the domain.

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A NEW METHOD FOR GREEN FODDER ENSILAGE

**Ph.D. Eng. Voicu Emil, Ph.D. Eng Gângu Vergil,
Ph.D. Eng Cojocaru Iosif, Eng. Ciurel Gica, INMA Bucharest**

Abstract: The paper presents and analyses a new ensiling method for green fodder, by manufacturing a specialised machine which answers the pressing of chopped fodder into a polyethylene tunnel, in view of its ensiling.

Further on, we present the working process and the main technical characteristics of green fodder ensiling machine MIF, as well as the social and, economic advantages of fodder ensiling in polyethylene.

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SECȚIUNEA IV

CHAIRMAN: PANZARU PADU LUCIAN
MODERATORS: CALINA AUREL
SIMBOTIN LIVIU
POPESCU AGATHA
FRANK O'SULLIVAN

IMPLICAȚIILE AGROTURISMULUI ÎN RELANSAREA ECONOMICĂ A SPAȚIULUI RURAL
AGROTOURISM IMPLICATIONS IN THE ECONOMIC REFRESHMENT OF RURAL AREA

Adamov Tabita Cornelia, Iancu T., Nişu S., Toader Cosmina-Simona
Universitatea de Ştiințe Agricole şi Medicină Veterinară a Banatului Timişoara

Abstract: Agrotourism is a new concept related to the various tourism forms directly linked with agricultural activities and/or with constructions with non-agricultural destinations. This specific form of rural tourism is supported by the small owners from rural area, usually as secondary activity, and the activity performed in their own household represent the main source of income.

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ANALIZA EXPLOATAȚIILOR DE VACI DE LAPTE ÎN ROMÂNIA ŞI UE ŞI POSIBILITĂȚILE DE ADAPTARE A EXPLOATAȚIILOR DE VACI DE LAPTE DIN ROMÂNIA LA NIVELUL CELOR EUROPENE
ANALYSIS UPON DAIRY CATTLE EXPLOITATIONS IN ROMANIA AND E.U. AND POSSIBILITIES TO ADAPT THE ROMANIAN DAIRY CATTLE EXPLOITATIONS TO THE EUROPEAN LEVEL

Adamov Tabita Cornelia, Iancu T., Nagy Andrea, Găvruța A.
Universitatea de Ştiințe Agricole şi Medicină Veterinară a Banatului Timişoara

Abstract: The current situation of Romanian agriculture is characterized by multiple economic-social problems. There are

important gaps between the Romanian agriculture's level of development and the one belonging to the European countries, determined by a series of factors: property and production structure; economic organization; production, marketing and financing systems; modalities of social support and protection; dimension of agricultural exploitations. The improvement of the agricultural structures must aim at the modernization of the current agricultural exploitations, respectively at the efficient organization of the product networks, able to lead to the increase of competitiveness on the internal and external markets.

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MARKETING OF DURABLE DEVELOPMENT IN THE CONTEXT OF EUROPEAN INTEGRATION
MARKETINGUL DEZVOLTĂRII DURABILE ÎN CONTEXTUL INTEGRĂRII EUROPENE

Ec. Aurel ANCA, PhD
"Tibiscus" University of Timişoara
Dipl.eng. Camelia Lidia CIOBAN, PhD
University for Agricultural Sciences and Veterinary Medicine, Timişoara

Abstract: The durable development as an economic and social process that aims the balanced and optimum development of national economies at international level, under long-term productive conditions, becomes a major factor of the European Union economic policy but also a main concern of managerial factors in all sectors of activity.

Romania, a country that has recently joined the European Union, shall find internal resources to meet the performance and competitiveness criteria promoted at international level, by putting into value its material, human and creative potentiality, in the conditions of exploiting the world experience and the results of scientific research.

The survey based on a questionnaire achieved in a representative area of Bihor County,(a locality of 8 villages, with a surface of 14.000 ha and a population of 7,000 inhabitants), has provided numerous local opportunities for the develop0ment of the

region, to ensure the exploitation of the resources, the creation of new jobs and higher revenues for the inhabitants.

The survey has led to identifying the priorities of the local development and the stating of the territorial durable development indicators for the area under evaluation.

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AGRO-TOURISM MARKETING. CASE STUDY, FĂGET AREA IN TIMIS COUNTY
MARKETING AGROTURISTIC. STUDIU DE CAZ, ZONA FĂGET DIN JUDEȚUL TIMIŞ

Ec. Aurel ANCA, PhD
„TIBISCUS" UNIVERSITY OF TIMIŞOARA

Abstract: Agro-tourism represents a productive and most efficient way to capitalize Romania's rural potential, with profitable effects for the incomes of the farmers and for the economic development of the hill and mountain areas, the tourist areas and of the less favoured areas.

The Făget tourist, ethnic, musical and cultural area, very representative for the West of Romania and not only, located in a hilly region, well-known for its marvellous folk traditions and craftsmanship and for its many sights of high tourist, cultural and religious interest, famous for hunting and other leisure activities, offers numerous leisure possibilities occasioned by trips to the various sights or by the exciting services the local farms provide for tourists.

The framework-organization system for the creation of agro-tourism associations in the area, within the PHARE Programme, has pointed out the importance of associative structures and of the local businessmen to achieve their objectives, respectively the mayor's offices, the church, the commercial companies with agro tourism-oriented activities, the hunting and fishing associations as well as the quality-licensed farms.

The social and economic implications of the development of tourism activities in the Făget region take into consideration the creation of new jobs in the villages, the increase of the farmers revenues, the stability of the inhabitants in the neighbouring areas, especially the young people, the preservation of

existing socio-cultural patterns and folk traditions, together with the many possibilities to offer the tourists attractive holidays, very effective in terms of costs, information and knowledge, as well as the modernization of the area and the development of partnerships.

Agro-tourism represents a productive and most efficient way to capitalize Romania's rural potential, with profitable effects for the incomes of the farmers and for the economic development of the hill and mountain areas, the tourist areas and of the less favoured areas.

In order to ensure the multi-functioning of the rural area – as it is provided in the CAP (Community Agricultural Policy) – and to put into account the productive potential of the villagers' households and of the villages, with their offer for traditions and customs, for touristy, cultural and religious opportunities, the development of the agro-tourism in Romania represents a profitable alternative, meant for ranging the country among European competitors in the domain.

The Făget tourist, ethnic, musical and cultural area, very representative for the West of Romania and not only, located in a hilly region, well-known for its marvellous folk traditions and craftsmanship and for its many sights of high tourist, cultural and religious interest, famous for hunting and other leisure activities – offers numerous possibilities from vacations and trips to the Poiana Ruscăi Mountains, the Surduc Lake, the Neolithic caves in Românești and the natural parks to the leisure activities in the Poieni Sat and Poieni Strâmbu youth camps. For Christmas, there are organized unique events, among which the festivals **"Christmas carols and traditions"** and **„La curțile dorului"** are the most famous.

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STUDII PRIVIND PRIMUL AN DE ALOCARE A COTEI DE LAPTE ÎN ROMÂNIA
STUDIES CONCERNING FIRST YEAR ALLOCATION OF MILK QUOTA IN ROMANIA

Vasile BĂCILĂ, Marius VLADU, Lucian ELISE, Radu Lucian PÂNZARU

Abstract: Starting to the adherence at EU date in Romania was implemented milk quota system. First year for applying milk quota in Romania is between april.01.2007 and march.31.2008.

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POSIBILITATILE DE UTILIZARE ENERGETICA A BIOMASEI DIN CAMPIA ROMANA
POSSIBILITIES OF USING BIO-MASS ENERGY IN THE GREAT ROMANIAN PLAIN

Prof.univ.dr. Mihai Berca, USAMV Bucharest
Conf.univ.dr. Maricica Stoica, ASE Bucharest

Abstract: As a reaction to the position of Russia against the Ukraine, in February 2006 the European Commission passed the document „A Strategy for Bio-fuel" (which is based on the action plan on biomass adopted in December 2005); its main objective is to significantly increase the share of non-polluting energy resources by increasing the production of bio-fuel made of agricultural products. In doing so, it is expected that hothouse emissions and the dependence of the Member States on Russian oil and natural gas would decline, while new jobs would be created in the EU. The EU proposes that in the coming 20 years half of the necessary energy resources should be provided by this type of low emission fuel. On political, legislative and technological levels, the EU is prepared to valorise renewable energy resources. As an EU Member State Romania should comply with the requirements for renewable energy resources, in particular bio-mass that could largely be used all over the country's territory.

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ROLUL FILIEREI VITI-VINICOLE ÎN ECONOMIA ROMÂNIEI
THE ROLE OF THE WINE CHAIN IN ROMANIAN ECONOMY

Boboc Dan, Professor, PhD
Manole Victor, Professor, PhD
Istudor Nicolae, Professor, PhD
Ion Raluca Andreea, Lecturer, PhD
Academy of Economic Studies Bucharest
Faculty of Agro-food and Environmental Economics

Abstract: Market mechanisms implementation, Common Market Organisation respectively, implies restructuring each agro-food sector's participants to the final output, in order to face internal and international competition. Among these sectors, wine chain is one of the best organised, because of production characteristics which means that vine is a long-term plantation and from its exploitation results wine that could be market for at least two decades.

The objective of this paper is the assessment of the wine chain's efficiency in Romania. In pursuing this, it is analysed the wine chain from viticulture to trade, concluding the results in a SWOT analyse. The findings of the research show that wine chain in Romania has strengths: grapes producers integrate numerous activities, the production is specialised, Romania has large areas cultivated with grapes, there are many professional and inter professional organisms, governmental and nongovernmental organisms on the whole chain; weaknesses: traditional technologies, vineyards areas are divided into small fragments, wine making technology is very old, self-consumption of wine in small farms, lack of orientation to quality and hygiene, lack of marketing orientation; opportunities for developing wine sector in Romania: tradition and experience in wine making, favourable environment conditions, good results of negotiations with European Union, increasing of demand for good quality wines; threats: restrictive environmental factors, perishability of grape, low level of power of purchasing, lack of information regarding industry structure, its yields, prices etc., lack of opportunities regarding labour market in rural area, demand's increasing for beer in some periods of the year, large penetration of imported wines on internal market.

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COMUNA MITOC- COORDONATE SOCIO-ECONOMICE
MITOC VILLAGE - A SOCIAL-ECONOMICAL ANALISYS

Boiangiu Florentina
Iorga Adina
USAMV Bucharest

Abstract: Changes in family' structure and functions are due to changes which occured at society level. In order to understand the

organizational variety of rural families a close analisys of society itself is required.

This study is a close social-economical analysis of the countryside households of Mitoc village. Mitoc community is located in a plain area, near the north-west border of Romania, Botosani County.

Considering that human resources is the main factor in developing and moderinization of rural space, this study is aimed to investigate as well, the posibility of diversify inhabitants' occupations according to pshicologycal, social and economical resources.

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ABORDĂRI STRATEGICE PRIVIND DEZVOLTAREA AGRICULTURII DURABILE ÎN ROMÂNIA
STRATEGIC APPROACHES IN THE DEVELOPMENT OF DURABLE AGRICULTURE IN ROMANIA

Lecturer Ph.D., Mioara BORZA
Associate Prof. Ph.D., Costică MIHAI

Abstract: During its period of transition, the economy of Romania underwent some radical changes with diverse consequences on nowadays socio-economic state. Among the fields affected by these changes we can mention agriculture as a particular case.

Since agriculture remains a basic field in our country's economy, several interests – some of them controversial – became manifest regarding its future development. Consequently, we believe that the strategic approach of the manner and directions of the evolution of Romanian agriculture is a field of great interest for specialists in different areas of study.

In order to re-establish the vitality of Romanian agriculture, different strategies have been suggested at a national level and they all targeted the economic development and the promotion of a competitive and durable agriculture in our country. Among the main strategic actions conceived and applied to support a durable agriculture in Romania, we can mention: the change of the production structure, the training and specialization of the labour force, the implementation of competitive, non - polluting

technologies, the protection of and the respect for the environment, the promotion of an ecologic agriculture.

This paper aims at approaching the main strategies of development of post-december Romanian agriculture, in order to identify the most favorable aspects that can contribute to the promotion of durable agriculture, taking into consideration that this is one of the strengthening solutions for the Romanian agriculture, so that that this field becomes more competitive and acquires a strong position on the international market.

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POTENȚIALUL AGROTURISTIC AL „ ȚĂRII ALMĂJULUI" DIN JUDEȚUL CARAŞ-SEVERIN
AGROTOURISTICAL POTENTIAL OF "ALMAJ LAND" FROM CARAS-SEVERIN COUNTY

Călina A., Călina Jenica, Buzatu C.

Abstract: The study was realized to assist tourists willing to know one of the most representative areas of touristic interest from Romania "The Almaj Land". Also, it is wished to be a useful guide for all tourist categories which visit these regions, where the hospitality, the beauty of nature and historical monuments are at home.

The study refers strictly to the geographical area situated on the main and neighboring flow of Nera. The explored land is deep situated in the heart of the Carpathians, being the keeper of history, legends, traditions and serving as a cradle and a place of mystery for the regnant and a shelter in the dark times of history, which today is showing its treasures. Also, this is useful for the ones, who wish to understand hidden mysteries of the mountain, because a special presentation of the area is achieved, which in proportion of 2/3 is represented by the mountain and hills area.

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GORJUL- IMPORTANTĂ ZONĂ AGROTURISTICĂ ŞI ETNOGRAFICĂ A ȚĂRII
GORJ- SIGNIFICANT AGROTOURISTICAL AND ETHNOGRAPHICAL AREA OF ROMANIA

Călina Jenica, Călina A., Miluț M.

Abstract: The study is concentrated to distinguish agrotouristic resources from Gorj County and to real development possibilities of this specific form of rural tourism. Also, the conditions offered by: position and accessibility, background, climate, social, economical, ethnographical and historical frame were analyzed. There were delimitated four big touristic areas: Tg. Jiu –Tismana; Parâng- Novaci; Cerna; Subcarpatial Hills.

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PROPUNERI DE DEZVOLTARE ŞI PROMOVARE A UNOR LOCALITAȚI DIN JUDEȚUL DOLJ CA CENTRE TUIRSTICE RURALE
PROPOSAL OF DEVELOPMENT AND PROMOTION FOR SOME DOLJ COUNTY'S LOCALITIES AS RURAL TOURISM CENTERS

Călina Jenica, Călina A., Croitoru A.

Abstract: The proposals pursues integral exploitation of economical, social, cultural and natural resources from Dolj County, with accent on suitability created by further construction of bridge Calafat-Vidin across Danube. Also, measures aim to some localities with special potential as: Bechet, Bucovat, Bistret, Cetate, Desa, Urzicuta, Gighera, Malu Mare inclusion into touring circuit.

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ECOLOGICAL AGRICULTURE – COMPONENT OF DURABLE DEVELOPMENT IN TIMIŞ COUNTY
AGRICULTURA ECOLOGĂ - COMPONENTĂ A DEZVOLTĂRII DURABILE ÎN JUDEȚUL TIMIŞ

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Abstract: The most known definition of durable development, that mentioned in the Brundtland Report in 1968 which says that "durable development is the one that follows the needs of the present, without compromising the possibility of future

generations to satisfy their needs", has now expanded on the quality of life in its complexity.

An objective of durable development has now become the eradication of poverty that entails intense promotion campaigns, in all fields, including the promotion of an efficient agriculture, which could ensure raising the quality of life and, implicitely, could help meeting the needs of future generations.

Such an agriculture is an echologic one that contributes both to the improvement of agricultural production quality and to long term development of local community, and to the protection of the environment.

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EXPLOITATION OF VEGETAL WASTES FOR ENVIRONMENT PRESERVATION
VALORIFICAREA DEŞEURIOR VEGETALE ÎN VEDEREA CONSERVĂRII MEDIULUI AMBIANT.

dipl. eng. Camelia Lidia CIOBAN, PhD[1)] ; Aurel ANCA, PhD[2)]
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Abstract: In the European Union, prerogatives related to food safety are compulsory and regulated by the law. Romania, as member country of the European Union, must adjust its regulations for consumer's protection and food safety to the European laws in force.

That leads to considerably increasing the importance of the ecological agriculture, which besides the advantages related to the quality of the products also contributes to the protection of the environment. The contamination of the soil and waters with toxic substances usually used in the conventional agriculture is thus avoided.

The new agriculture, so much appreciated nowadays in the European Union, focuses on obtaining ecological products through non-polluting means, such as fertilizing the soil without chemicals and the protection of crops without pesticides. Such an experiment has been done in the county of Timiş.

The present work presents the results obtained from the experiments done by "Comloşana" agricultural cooperative, related to the cultivation of WHEAT on soils fertilized by means of vegetal wastes.

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ALGORITHM FOR OPTIMIZING THE SIZE OF THE CULTIVATED AREAS FOR AN AGRICULTURAL EXPLOITATION
ALGORITM PENTRU OPTIMIZAREA MARIMII SUPRAFETELOR CULTIVATE LA NIVELUL UNEI EXPLOATATII AGRICOLE

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Universitatea de Ştiințe Agricole şi Medicină Veterinară a Banatului Timişoara

Abstract: The paper proposes an algorithm constructed for computing the economic optimal value for various combinations of the production factors' values. It consists of creating a network, in the nodes of which are computed the values of the function, after first excluding the points which do not verify the conditions of the problem. The present study constitutes an enhancement of classical methods which consist of elaborating algorithms which determined only the minimal and maximal values of some production functions, under some imposed conditions referring to the expenses on the production factors. This is essential in the study of a more complex agricultural process, but proves to be incomplete. Thus, for the case where the number of the cultures exceeds the value of one, we should consider the optimal sizes of the areas destined to be cultivated. It is clear that this circumstance influences the production expenses, therefore the variable expenses related to fertilizers will be multiplied with the area destined for each culture, therefore the profit function will have a different form than in the case of a monoculture system.

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EVALUAREA DELTEI DUNĂRII CA POTENȚIAL PATRIMONIU DE DEZVOLTARE A AGROTURISMULUI
DANUBE DELTA EVALUATION, REGARDING ITS POTENTIAL PATRIMONY OF DEVELOPMENT IN AGROTOURISM

Drd. Ing. Daniela Paula Hoanță
Universitatea de Ştiințe Agronomice şi Medicină Veterinară Bucureşti

Abstract: In order to structure material presented in this study, I have used the following section headings:

- For the fist time, I have proposed to identify natural and man-made agrotouristic resources from the most young European landscape – Danube Delta;
- For the second time, I wish to find an efficient way for valorization of agrotouristic resources from Danube Delta;
- For the last part, I have included an analysis of business suitability, assertive and negative aspects from Danube Delta.

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NOI ABORDARI PRIVIND MASURARILE MARIMILOR ASOCIATE CARACTERISTICILOR PRODUSELOR AGROALIMENTARE
NEW APPROACHES ON CHEMICAL MEASUREMENTS ASSOCIATED OF FOOD CHARACTERISTICS

Fanel Iacobescu, Maria-Magdalena Poenaru

***Abstract**:* For the past three years there has been -and continues to be- a growing demand for accurate and traceable results as well as for internationally recognized calibration services in the field of chemical measurements. Within this framework, the National Institute of Metrology (INM) in Romania made a great effort to develop new standards for physico-chemical quantities. The paper describes aspects of the present status of the metrology in chemistry and some of the latest developed measurement standards for mass fraction. Results of the scientific work aimed at demonstrating the equivalence of primary standards in the field of mass fraction measurements are also reported.

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AVANTAJE COMPARATIVE ÎN EXPORTUL CU VIN PE PIAȚA MONDIALĂ
REVEALED COMPARATIVE ADVANTAGES FOR WINE EXPORTS ON WORLD MARKETS

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Academy of Economic Studies Bucharest
Faculty of Agro-food and Environmental Economics

Abstract: The objective of this paper is the assessment of revealed comparative advantage for Romanian wine export on foreign markets. Economical theory uses Balassa index in order to assess the economic efficiency of foreign trade. This index measures the relative performance of exports, per countries and branches, and it is calculated as ratio between the share of a branch in the total export of the country and the share of the branch in the world exports. The index for an i country and a j product is RCAij = (Xij /Xwj)/(Xit /Xwt)*100, where Xij represents the exports of i country (w - world) for product j (t – total products). A country i has a revealed comparative advantage for j product if RCAij>1.

In this paper it is assessed the performance of foreign trade with wine using Balassa index. The conclusions of the study set up a hierarchy of countries exporting wine on world market related to their comparative advantages.

The results of the research show that Romania has not comparative advantage for exporting wine on foreign markets, because the share of wine export in world wine exports is lower than the share of the Romanian exports in worlds' exports.

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FINANTAREA AGRICULTURII DUPA ADERAREA ROMANIEI LA UNIUNEA EUROPEANA
FINANCIAL SUPPORT FOR AGRICULTURE AFTER ROMANIA'S ACCESSION TO THE EUROPEAN UNION

Ion Raluca Andreea, Lecturer, PhD
Istudor Nicolae, Professor, PhD
Boboc Dan, Professor, PhD
Manole Victor, Professor, PhD
Academy of Economic Studies Bucharest

Faculty of Agro-food and Environmental Economics
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Abstract: The process of Common Agricultural Policy implementation, as well as the convergence between the national and community policies, enable Romanian agriculture and rural areas to receive the funding from the EU after the accession. This paper refers to the implementation of the mechanisms of Common Agricultural Policy in Romania in the context of the new reform.

The agricultural structures and the performance level of the Romanian agriculture in 2007 are affected by the excessive parceling of lands, by the large number of subsistence and semi-subsistence farms and the absence of the sector of viable medium-sized farms able to produce for the market. This situation raises limits in the process of Common Market Organizations' implementation. This research will assess the funding both from the EU and the national budget for restructuring and modernization of agriculture and rural areas' domain, in order to implement Common Market Organizations in Romania.

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AGROTURISM – PROGRES – DEZVOLTARE DURABILA
AGRO-TOURISM – PROGRESS – DURABLE DEVELOPMENT

PH D Daniela Lazăr
PH D Corina Ruşeț

Abstract*:*The strategy of rehabilitation and development of the rural area, of passing from the subsistent economy to an efficient one, is based upon the fundamental principles of capitalist economy and upon the rural community connection to the macro-economic mechanisms and has, as its final objective, improving the life quality and consolidating the rural identity. Agro-tourism is the functional variant of this integrated strategy.

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ECO-EFICIENȚA TURISMULUI RURAL IN ZONA LIMITROFA DUNĂRII
ECO-EFFICIENCY OF THE RURAL TOURISM IN THE NEIGHBOURING REGION OF THE DANUBE

PH D Daniela Lazăr
PH D Corina Ruşeț

Abstract: The tourism in the rural area has developed in România, as well as in the other countries, on the one hand, as an alternative for the classical ways of tourism, in the context in which the increasing of tourist traffic determined to overcrowded of the well-known destinations, on the other hand, as an response to the needs of the modern man to spend his holidays in a region that is less crowded, less poluted and where he can rediscover his identity and origins.

By eco-efficiency we understand "selling goods and services to competitive prices that satisfy the human needs and give quality to life, while reducing the products impact on the environment and resources consumption", assuming that the organization is both economically effective, and more responsible ecologically.

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ROMANIAN AGRICULTURAL FARMS COMPATIBILITY WITH THE FARMS FROM THE E.U. COUNTRIES
COMPATIBILIZAREA FERMELOR AGRICOLE ROMÂNEŞTI CU CELE DIN ȚĂRILE U.E.

T. MATEOC- SÎRB , Georgeta POP, Nicoleta MATEOC-SÎRB, Camelia OBOROCEA,
Agricultural and Veterinary University of the Banat, Timisoara, Romania

Abstract: Family farms are considered in developed countries the basic units in agriculture, in which family is the main source of labour force. In some countries, there are restrictions in the development of major corporations in agriculture to maintain and develop family farms. The problem of the size of agricultural exploitations that fit the demands of technical and scientific progress has been a concern of developed countries. The demand and the

trend in European countries have been and still is that of increasing the size of agricultural exploitations.

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ECOLOGICAL AGRICULTURE IN ROMANIA AND IN THE EU STATES
AGRICULTURA ECOLOGICĂ ÎN ROMÂNIA ŞI ÎN ȚĂRILE U.E.

Teodor MATEOC-SÎRB, Nicoleta MATEOC-SÎRB, Georgeta POP, Camelia OBOROCEA

Agricultural and Veterinary University of the Banat, Timisoara, Romania

Abstract. Agriculture is an important sector of the economy of all countries, as it is supposed to ensure food security of the people, i.e. enough food at accessible prices for every social class. Agriculture is also directly linked to the demands of the market, i.e. of the society, that emphasises quality. In Europe, they practice different agricultural systems. Conventional agriculture based on the use of industrial production methods capable of ensuring productivity is present in all European countries. Meanwhile, it has resulted in a series of negative effects on small farms and on the quality of the environment on the whole (water, soil, flora, and fauna). This is the reason why during the last decade of the 20th century, all European Union member states, as well as worldwide, they started to focus sustainable agriculture, which allowed new trends in environmental friendly ecological, economic, and social development of the rural area. This is the context in which develops ecological agriculture (biological or organic) based on an agricultural system that valorises natural resources to restore soil, to remove from air and water chemicals harmful to human and animal health. These last years Romania has also promoted ecological agriculture based on the use of small amounts of input from outside the farms, on the banning of synthetic chemicals used as fertilisers and soil amenders, pesticides, ingredients used in forage, and additives used in preparing food. Ecological agriculture is a sector for which Romania has great development opportunities, as it is an important tool in the conservation of nature and in the revitalising of the Romanian rural area. This is the kind of problems this paper is about.

ELEMENTE ALE PRODUCȚIEI ZOOTEHNICE ÎN COMUNA URDARI, JUDEȚUL GORJ
ZOOTEHNICAL PRODUCTION ELEMENTS IN URDARI VILLAGE, GORJ COUNTY

Medelete D.M., Pânzaru R.L., Vladu M., Mihai N.

Abstract: The paper referring to main animal products obtained at the level of Urdari Village during 2003-2005 periods. In this context it present both total production obtained and total effective, considering the fact that Urdari could be an important supplier of fresh products by its territorial position, and by the holding land.

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MĂRIMEA EXPLOATAȚIILOR AGRICOLE DIN JUDEȚUL DOLJ
SIZE OF AGRICULTURAL EXPLOITATIONS IN DOLJ COUNTY

Medelete D.M., Pânzaru R.L.

Abstract: This study approaches a delicate problem of agricultural production, aspect which decisively affects the developed activities - the size of agricultural exploitations. It follows the distinguish of size classes which results for reviewing the land.

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STUDY REGARDING MILK AND MILK PRODUCTS PRODUCTION IN ROMANIA BEFORE AND AFTER ADHERE TO EUROPEAN UNION.
STUDIU PRIVIND PRODUCȚIA DE LAPTE ŞI PRODUSE LACTATE ÎN ROMÂNIA INAINTE ŞI DUPĂ ADERAREA LA UNIUNEA EUROPEANĂ

Merce Iuliana Ioana, Peț Elena, Sâmbotin Dana, Constantinescu Simona

Abstract: On the last decade of milk and milk products section, Romania registered an important structure change. In 1990, 50 % from milk production total was coming from private family farms. This percent raised very fast to 90% in 1994. Since then it raised step by step to 97% in 2000.

From the beginning of the year and till may 2007 were registered quantity raise of producing cow milk, according to a situation given by National Statistic Institute. In the period January – May 2007, comparing with the same period of last year, milk quantity collected by processing units raised with 33,565 tones.

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AGROTURISMUL – O SOLUȚIE SIGURA PENTRU DEZVOLTAREA DURABILĂ A ECONOMIEI RURALE
THE AGRITOURISM – A SAFE SOLUTION FOR A SUSTAINABLE DEVELOPMENT OF RURAL ECONOMY

Associate professor Costică Mihai, PhD
Lecturer Mioara Borza, PhD

Abstract: The efficiency of agriculture and Roumanian rural activities represent an important preoccupation for many specialists. Rural potential don't offer any time the best conditions for realization of a sustainable agriculture: infertile soils, inadequate atmospherically conditions, devised farm superficies ecc. There are, in these conditions, an activity who can bring many advantages for society and for the territory in which this take place. Because the agritourism promote realization of an ecological agriculture, keep the population in rural areas and make a good structure of this, preserve the environment an the cultural and historical aspects of villages, this activity has became an priority for many rural communities. The opportunities are multiples; the risks are reduced for agritourism. In this situation, this activity can answer with success to exigencies of sustainable development of rural economy.

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ANALYSIS UPON THE CREDIT GUARANTEE FUNDS IN ROMANIA
ANALIZA FONDURILOR DE GARANTARE A CREDITELOR DIN ROMÂNIA

Nagy Andrea, Goşa Vasile
Banat's University of Agricultural Sciences and Veterinary Medicine Timişoara

Abstract: A component of one country's financial system is represented by the guarantee funds. The role of these funds is to facilitate the access of the entities less agreed by the credit institutions to financing. So, agriculture is the classic example. The facilitation of financing of some important sectors of the national economy, towards which the credit institutions are not very eager to expose to, represent an important functionality of guarantee funds, which must be encouraged. Moreover, this functionality must be promoted if European funds are involved, too, being able to support the economic development through fructification.

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ECONOMIC ENVIRONMENT INFLUENCE UPON THE ENTREPRENEURIAL BEHAVIOR
INFLUENȚA MEDIULUI ECONOMIC ASUPRA COMPORTAMENTULUI ANTREPRENORIAL

Nagy Andrea, Scholtz Béla
Banat's University of Agricultural Sciences and Veterinary Medicine Timişoara,
"Vasile Goldiş" University, Satu-Mare

Abstract: Economic environment characteristics play a very important role in the development of the entrepreneurial sector in a region. It may be stimulating (specific to market economy) or medium restrictive (typical for the centralized economy). If the enterprise was to be annihilated in Romania before 1989, beginning with the 90s, under the conditions of transition to market economy, the development of the enterprise sector has become an important component of the economic restructuring policy, which influences positively the rhythm of the durable economic increase. So, against the background of a step-by-step formation of an enterprise sector in Romania, as a result of the development of a favorable economic, political and social environment, and also of its stronger and stronger importance within the regional economic development, the SMEs stimulation and development has become a priority for the national economic development.

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TANGIBILE IMMOBILIZATION ASSETS OF AGRICULTURAL EXPLOITATIONS AND THEIR ACCOUNTANCY REFLECTION

Ocnean Monica
Banat's University of Agricultural Sciences and Veterinary Medicine Timişoara

Abstract: Tangibile immobilizations are assets belonging to a corporate body to use them in the production of goods or services or to rent them to third parties, they are used during a period longer than one year and have a bigger value than the limit stipulated by the available legal regulations. In this work, we present the specific modalities of reflection of the tangibile immobilizations upon the agricultural exploitation accountancy.

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STUDII PRIVIND ALOCAREA FONDURILOR STRUCTURALE ÎN AGRICULTURĂ ŞI DEZVOLTARE RURALĂ

STUDIES REGARDING THE STRUCTURAL FUNDS ALLOCATION IN AGRICULTURE AND RURAL DEVELOPEMENT

F. O'Sullivan, M. Vladu, Cristina Vladu

Abstract: The regional policy contribute to realising the objective of Convention regarding European Union which is to strength of economic and social cohesion in all European Union through decrease of regions developed disparities. In the same time, this policy has a consistent effect above competitivity of regions and of life conditions of their people, especially through co-financing of pluriannual development programme.

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ASPECTE ALE PRODUCȚIEI ZOOTEHNICE îN COMUNA CERĂT, JUDEȚUL DOLJ
ZOOTEHNICAL PRODUCTION ASPECTS IN CERĂT VILLAGE, DOLJ COUNTY

Pânzaru R.L., Vladu M., Medelete D.M., Mihai N.

Abstract: The paper referring to main animal products obtained at the level of Cerat Village during 2004-2006 periods. In this context it present both total production obtained and total effectivel, considering the fact that Cerăt could be an important supplier of fresh products by its territorial position, who provide an easy access to urban markets.

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OFERTA PRIMARĂ DE CARTOF ÎN JUDEȚUL OLT (2002-2004)
PRIMARY POTATOES OFFER IN OLT COUNTY (2002-2004)

Pânzaru R.L., Medelete D.M.

Abstract: The paper referring to constitutive elements of primary potatoes offer: surface, total production, medium yield – at the level of Olt County from 2002 to 2004 year. We try to distinguish the weight hold by the county from the total area offer for this product.

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ASPECTE PRIVIND EVOLUȚIA FORȚEI DE MUNCĂ DIN AGRICULTURA ROMÂNIEI
ASPECTS CONCERNING LABOR FORCE EVOLUTION IN ROMANIAN AGRICULTURE

Peț Elena, Ruşeț Constanța Corina, Adamov Tabita, Sâmbotin Dana
USAMVB Timişoara, Facultatea de Management Agricol

Abstract: Work occupies an important place in agricultural processes, representing the production source with an active and determinant character for the capitalization of natural and capital resources. We must mention that the assurance of the national food safety, the refreshment of the Romanian village and the agricultural orientation towards a durable economic sector cannot be designed anymore without an accurate analysis upon human resources in agriculture, on their biological and professional qualities, on their structure according to groups of age, on their economic and professional status.

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CERCETĂRI DE MARKETING PRIVIND ATITUDINILE, OPINIILE SI INTENȚIILE POPULAȚIEI DIN TIMIŞOARA CU PRIVIRE LA OPORTUNITATEA DE CONSUM A APEI MINERALE DORNA
MARKETING RESEARCHES CONCERNING THE ATTITUDES, OPINIONS AND INTENTIONS BELONGING TO THE POPULATION FROM TIMIŞOARA WITH REGARDS TO THE OPPORTUNITY OF DRINKING THE MINERAL WATER DORNA

Peț Elena, Ruşet Constanța Corina, Adamov Tabita, Merce Iuliana
Universitatea de Ştiințe Agricole şi Medicină Veterinară a Banatului Timişoara

Abstract: Marketing research represents a systematic and objective process generating the information necessary in the adoption of marketing decisions. The marketing research has the role to identify and assess the marketing opportunities, to analyze and choose objectively the markets, to found the planning and accomplishment of the marketing mix.

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PARTICULARITĂȚILE MEDIULUI RURAL ŞI ALE AGRICULTURII DIN ȚARA NOASTRĂ
CHARACTERISTICS OF THE RURAL ENVIRONMENT AND AGRICULTURE IN OUR COUNTRY

Paula Petrică, Valentina Tudor

Abstract: The term “rural” has a generic character that expresses very different realities, being in essence a multi-faceted, multi-disciplinary and integrating concept. In the context of the complex conditions of the rural environment, it is more and more obvious that the role of agriculture cannot be limited only to simply meeting the requirements regarding food safety, providing the raw materials for industry, a certain important availability for export and a decent standard of living for farmers, but to a smaller or larger extent agriculture must participate as efficiently as possible to solving the whole set of social, economic and ecological problems of the rural environment. Thus, the development of agriculture must be considered in and integrated, systemic, holistic approach, paying

special attention to protecting and preserving the landscapes and natural habitats, unblemished and valuable for the local wildlife.

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ASIGURAREA TRASABILITATII REZULTATELOR MASURARILOR DIN DOMENIUL GEOGEZIE SI CADASTRU
ASSURING TRACEABILITY OF MEASUREMENTS RESULTS FROM GEODESIC AND SURVEY FIELD

Maria-Magdalena Poenaru, Liana Poenaru

Abstract: Nowadays, on the international plan, there was not adopted any international standard for the plane angle unit. For the reproduction/ transmission of the plane angle unit, every interested country has a primary standard whose traceability to the international standards is made by the international and/or bilateral comparisons using the optical polygons as transfer standards.

This paper represents a study concerning the determination of the metrological characteristics of the measurement devices and the analysis of their behavior over the time, important components for the correct transmission of the measurement units at exactitude levels demanded at the national and international level in the domain of the geodesy and survey field, in general and in the plane angle domain, in particular.

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CONSIDERATII PRIVIND INCERTITUDINEA DE MASURARE LA ETALONAREA UNUI TEODOLIT
CONSIDERATION REGARDING MEASUREMENT UNCERTAINTY OF THEODOLITE CALIBRATION

Maria-Magdalena Poenaru, Liana Poenaru

Abstract: The azimuthal and zenithal angular measurements of high precision have un important place in the modern geodesy in which obtaining exact results of 0,5 mgon often represents the main demand.

In order to assure the uniformity and the precision of the geodesic measurement results, these have to be reported through a continuous chain of comparisons which have uncertainties

determined at a claimed reference. Therefore, we will present a study concerning the evaluation of measurements uncertainty to calibration of a theodolite in comparison to a divisor mass.

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STUDIU DE CAZ PRIVIND UTILIZAREA METODEI RATELOR IN ANALIZA FINANCIARA
A CASE STUDY CONCERNING THE USE OF RATIO METHOD IN FINANCIAL ANALYSIS

Prof. Dr. Agatha Popescu
University of Agricultural Sciences and Veterinary Medicine , Bucharest

Abstract: This paper aimed to present a case study concerning the use of Ration Method in financial analysis , based on the data collected from Balance Sheet and Profit and Loss Account ended during the period 2003-2005 , belonging to a commercial company dealing with dairy farming . Taking into account the assets and liabilities statement, the following ratios were calculated : internal liquidity ratios as well as the ratio reflecting operating performance and which allow to analyze economic efficiency and profitability . The obtained results show that the company registered a weak financial statement in the first two years of activity , but in the year 2005 it recorded a better situation concerning the effective use of assets and equity . Gross and Net Profit Margin , as well as Return on assets and owner's equity have increased . As a final conclusion, solvency , efficiency and profitability are improved in 2005 due to the efforts done for improving the financial management .

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STUDIU DE CAZ PRIVIND UTILIZAREA ANALIZEI RISCULUI DE FALIMENT
A CASE STUDY CONCERNING THE USE OF BANKRUPTCY RISK ANALYSIS

Prof. Dr. Agatha Popescu
University of Agricultural Sciences and Veterinary Medicine , Bucharest

Abstract: This study aimed to present the use of bankruptcy risk analysis method within a commercial company dealing with dairy farming. In this purpose, the data from Balance sheet and Profit and loss account ended during the period 2003-2005 were used, as well as Conan – Holder Model, according to the modern methodology applied into the E.U. Based on the assets and liabilities statement, the following risk ratios were calculated: partial liquidity, financial stability, financial expenses, personnel expenses and gross profit share in value added, which were used for setting up Score Z Function .The value of Z function was compared to the standards concerning risk degree evaluation . The results show that the company has a weak financial statement, facing obviously with bankruptcy risk. This imposes the improvement of financial management in close relationship to with production and marketing activity. It has to pay a special attention to production diversification, milk quality, cost optimization, a better orientation to serious clients capable to offer a higher milk price, in order to assure a continuous and substantial cash flow for covering payments and achieving enough profit, enabling the company to develop its business in the future.

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ORGANIZAREA ŞI DEZVOLTAREA AGROTURISMULUI ÎN ZONA POIANA MĂRULUI (JUDEȚUL CARAŞ-SEVERIN)
AGROTOURISM ORGANIZATION AND DEVELOPMENT IN THE REGION POIANA MARULUI (CARAŞ-SEVERIN COUNTY)

Corina Ruşeț, Elena Peț, Daniela Lazar, Anda Milin

Abstract: Agrotourism organization has a special importance because it acts especially upon the economic development of the studied area, by increasing incomes for population, determining changes in expenses' structure, an important investment increase, the development and fitting out of the means of transport, respectively the development of the economic activity by generating new complementary agrotourism branches.

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MOTIVAȚIA ŞI SATISFACȚIA ÎN ACTIVITATE

MOTIVATION AND SATISFACTION IN ACTIVITY

Corina Ruşeț, Elena Peț

Abstract: Work importance is special for the development of each individual. Through work, every person may satisfy his aspirations, accomplish his ideals and complete his personality. Motivation is present all along the professional activity up to the accomplishment of the concrete activity objective, and work satisfaction represents a component of human resources, being one of the factors that work efficiency depends on in Romanian companies.

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ELEMENTE STRUCTURALE ŞI DE FUNCȚIONALITATE A SISTEMELOR AGRICOLE DIN VESTUL ROMÂNIEI ŞI EVOLUȚIA LOR ÎN PERIOADA 1990 - 2005
STRUCTURAL AND FUNCTIONAL ELEMENTS OF AGRICULTURAL SYSTEMS IN WESTERN ROMANIA BETWEEN 1990 AND 2005

F. SALA, A. OKROS
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Corresponding author: F. SALA, e-mail: florin_sala@yahoo.com

Abstract. Use categories of agricultural lands in the Timiş County have known between 1990 and 2005 vast changes of different size from one use category to another together with frequent cases of fallow grounds temporarily abandoned. Even deeper were the changes in the crop structure on the background of multiple causes of social and economic nature. The tractor and agricultural machinery park has known during this period an improvement from both a quantitative and qualitative points of view with new and performing machines and equipment, but they have not yet reached an optimum level of supply. From the point of view of average production per ha and of total production, there has been increase of productivity and of performance of agricultural systems with ascending though slow trend to ensure the necessary prosperity for agriculturists and the rural area.

CONSIDERAȚII ASUPRA TERMINOLOGIEI UTILIZATĂ ÎN PERIOADA 1945-1989
CONSIDERATIONS ON THE TERMINOLOGY USED BETWEEN 1945 AND 1989

Sâmbotin Dana, Sâmbotin L., Stepanescu M.

Abstract: In this paper we criticize some terms used wrongfully whether deliberately or not during communism. A typical example would be the naming of the former economic structures that resulted from collectivization. Their initial name was collective agricultural farm which we consider proper. The following name collective agricultural production farm was totally improper, incorrect, because these economic structures did not respect the basic principles of cooperative farming.

In this paper we also do not agree with the syntagm: "cooperative property". This syntagm implies the idea of a single owner-the cooperative farm which eliminates the term of cooperation. If each cooperative farmer keeps his property title then the cooperative property has no real basis.

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PROLEGOMENE ALE COLECTIVIZĂRII ÎN ROMÂNIA
PROLEGOMENA ON COLLECTIVIZATION IN ROMANIA

Sâmbotin Dana, Sâmbotin L., Stepanescu M

Abstract: In this paper one made references on the psycho-social context in which was promoted the concept of collectivization of the Romanian agriculture following the Russian example. The 1945 agrarian reform through its consequences, contributed to the Romanian peasant's enhancement of the sense of property. This ancient feeling of the Romanian peasantry became an obstacle for the creation of great collectivist economic structures. Thus it had to be repressed. One of the means used for this purpose was the compulsory share system. This system was so burdening that eventually the Romanian peasant preferred to give up one way or another most of his estate. After having done this, there were no more obstacles to the collectivization.

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DIAGNOZA STRUCTURILOR AGRARE DIN VESTUL ȚĂRII

DIAGNOSIS OF AGRICULTURAL STRUCTURES IN WESTERN ROMANIA

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Abstract: In this paper we analyse the size of individual agricultural exploitations in 2004, at national level, in the Region 5-West, and in the Timis County. We compare the average size index at the three levels. We also analyse in detail the disposition of the useful agricultural area per working plots calculating the average size of a plot for each size class. We consider that the average calculated for the whole interval of variation of the size index deforms the real situation, and we calculated the average within each class interval.

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MANAGEMENTUL CALITĂȚII ÎN ÎNVĂȚĂMÂNTUL SUPERIOR ECONOMIC ŞI AGRONOMIC

QUALITY MANAGEMENT IN THE AGRICULTURAL AND ECONOMIC UNIVERSITIES

Conf. univ. dr. Stoian Mirela Prof. univ. dr. Manole Victor – Ec. Drd. Rădulescu Anca Elena

Abstract: The university represents an entity created by and for the society, whose main mission is to offer to the young people (but not only, and in nowadays context) the necessary knowledge and skills for a quick and adequate adaptation at a work market in an on going evolution. At the same time, the university represents a Center of Excellence, which offers training and molding at a high level, reserved to the elites.

In the last years, some changes occurred in the higher education field, many of these being a direct result of the economic globalization processes, of the exchanges intensification of the information and also of the „revolutions" in the communication field

and so forth. In these terms, the quality acquires the valence of multivalent variables, transforms itself in a complex indicator through which can be analyzed the evolution of the higher education.

The evaluation process of the quality can be described/concretized/realized starting from situating the quality between a desired state (in other words a referential) and an existing state (in other words an observed reality). This process presumes the use of some indicators, methods, techniques and so forth, accordingly to the general and specific objectives of the university, its own results being a sustainable improvement of the didactic and research processes.

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AVEM O PIAȚĂ INTERNĂ A PRODUSELOR AGRICOLE ECOLOGICE?

DO WE REALLY HAVE A DOMESTIC MARKET FOR ECOLOGIC AGRICULTURAL PRODUCTS?

Conf. univ. dr. Stoian Mirela

Abstract: The paper work starts with the conclusions of "The research of view ecological vegetable market in Romania" (elaborated in frame of AGRAL Program): generally the consumers doesn't have enough information of attributes "natural", "ecologic" at agrofood vegetables and products; the quantity of fresh vegetables consumes in housekeeping are yet reduced, in comparison with developed country, registered important differences between season period, respectively extraseason; the prices which the consumers are dispose to offer for acquisition the vegetables are reduced (obviously in view of reduction purchasing power of consequence number of these); there are a consequence number of receptive consumers at Romanian ecological vegetables (60-70% as the studies of market realized), but unfortunately the supply in not enough, and as well as in developed countries, the intention doesn't become automatically decision/ buying act; between criteria which are the purpose of vegetables buying act, very important is the taste (the Romanian vegetables are very appreciated in comparison with those who are coming from import); the growth population incomes will attract the growth of consumption.

CĂI ŞI MECANISME DE ACŢIUNE ÎN VEDEREA DEZVOLTĂRII ZONEI COLINARE A JUDEŢULUI TIMIŞ
WAYS AND ACTION MECHANISMS IN THE DEVELOPMENT OF THE TIMIS COUNTY HILL

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Abstract: In this study we will present, in few words, the characterization of the rural environment from the studied area in order to highlight the action ways and mechanisms which should be taken to develop the hill area of Timis county.

The studied area presents a high potential of agricultural development but this has to be associated with the performance improvement both for vegetable production and for animal production, with the diminution of the rudimentary characteristic of the technologies, with the increase of knowledge and professional level of the farmers. It is also necessary a higher evaluation of the agricultural products. As a cause of isolation, the obtained products are destined for self-consumption. Even if the natural resources are less favorable in this area, it is necessary to stimulate the agricultural production which could bring significant incomes.

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EVALUAREA RISCULUI DE PIAȚĂ PRIN METODA VaR PENTRU UN PORTOFOLIU DE ACȚIUNI
MARKET RISK EVALUATION BY VaR METHOD FOR A STOCK PORTFOLIO

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Abstract: The aim of this paper is to emphasis the application modality of VaR method for the study of a stock portfolio risk management. The activity of risk management is requiring measuring, monitorisation and risk control, VaR is the most general

method for market risk measurment. The company leadership is receiving from the risk management a prediction of the future, becouse ignoring the present and future risks may guide to irrecuperable losses. The portfolio risk presumes **a specific risk for each title** of the portfolio structure, specified by variability of stocks due to over and under- evaluation of the titles on the market and **a systematic risk, or market risk**, characterized by macroeconomics principal indicators variability.

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STUDII PRIVIND IMPACTUL COTEI DE LAPTE ASUPRA FERMELOR DE VACI DE LAPTE DIN ROMANIA
STUDIES CONCERNING THE IMPACT OF MILK QUOTA ON DIARY FARMS IN ROMANIA

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Abstract: Milk quota system was introduced in UE owing to milk supraproductions and penalty the allowed milk quota exceed. From january 2007, after finalize the negotiation on Chapter 7 “Agriculture”, Romania was implemented the milk quota at national level.

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