MINISTERUL EDUCAȚIEI, CERCETĂRII ŞI TINERETULUI
UNIVERSITATEA DE ŞTIINȚE AGRONOMICE
ŞI MEDICINĂ VETERINARĂ BUCUREŞTI

LUCRĂRI ŞTIINȚIFICE

SERIA B - L - 2007

HORTICULTURĂ

Universitatea de Ştiinţe Agronomice şi Medicină Veterinară – Bucureşti

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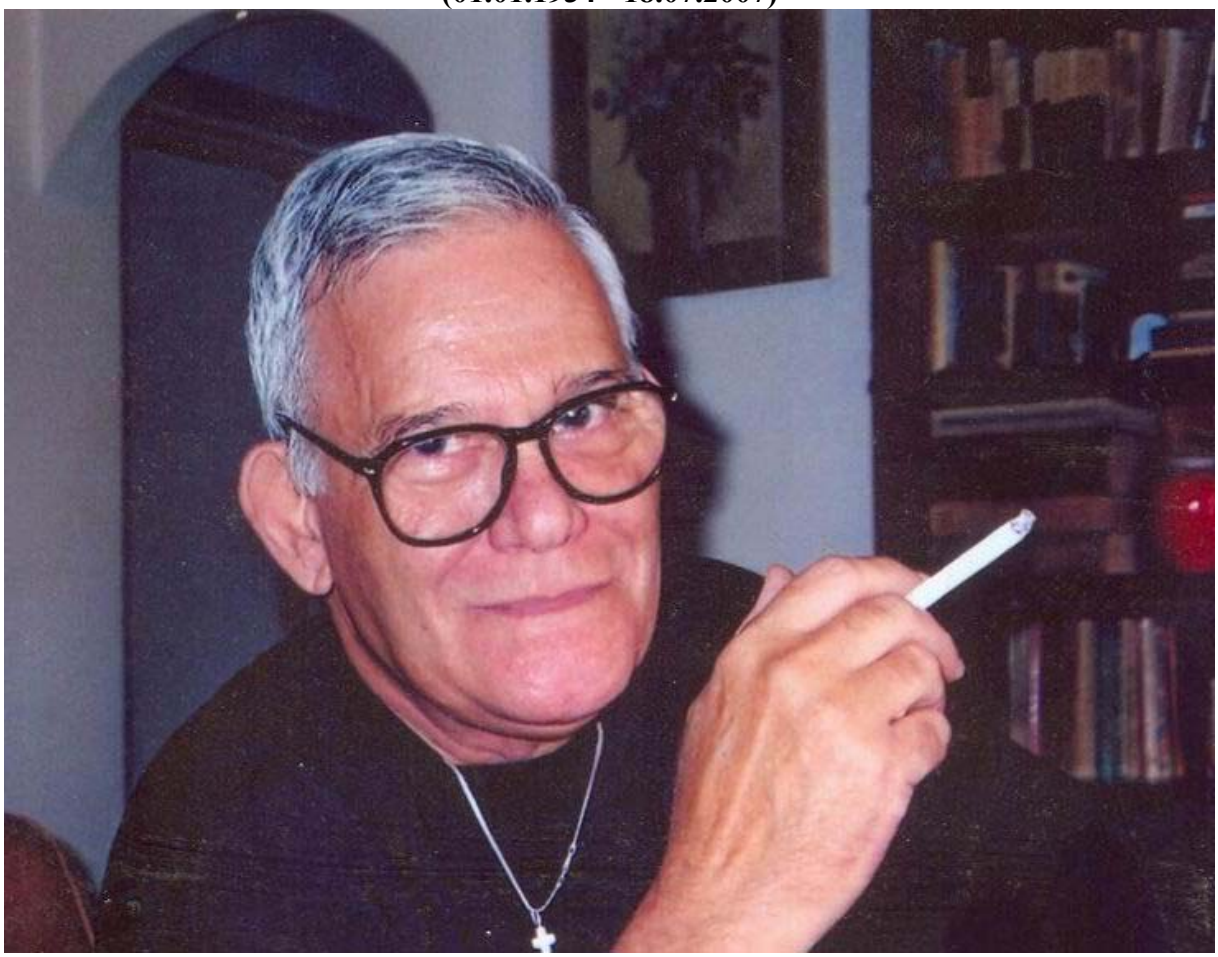
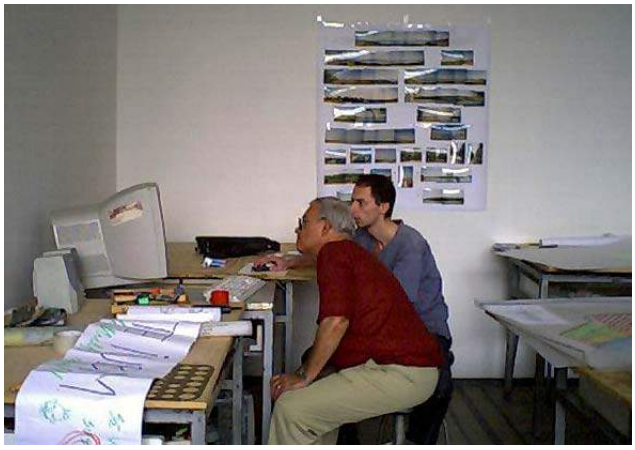
PLENARY SESSION

In memoriam FLORIN TEODOSIU
(01.01.1934 - 18.07.2007)



Numele Florin Teodosiu figurează în ”cartea de aur” a profesorilor secţiei de Peisagistică a Facultăţii de Horticultură din cadrul Universităţii de Ştiinţe Agricole şi Medicină Veterinară Bucureşti, unde a devenit pentru studenţii săi un adevărat prieten şi profesor.

Alături de d-na prof. dr. Ana-Felicia Iliescu şi de dl. arh. Valentin Donose, Florin Teodosiu a fost promotor al primei şcoli de peisagistică din România în cadrul USAMV Bucureşti, unde a devenit profesor asociat încă de la înființare, în 1998. Domeniul predilect de predare a fost planificarea peisajului (peisagistică teritorială), ramură introdusă de el prima dată la noi in țară, nu numai în învățământ şi cercetare, dar şi în practică.



În şcoala noastră, participând la formarea a 5 promoții de peisagişti, cu pasiune, entuziasm, talent oratoric şi pedagogic, deosebit simț practic şi lipici la studenți şi colegi, şi-a transmis ştiința şi interesul pentru peisagistică în general, şi pentru peisagistica teritorială şi restaurarea parcurilor şi grădinilor istorice în special – domenii în care mulți absolvenți lucrează deja, în practică sau cercetare. În şcoala de peisagistică a avut o muncă de pionierat, inițiind studenții atât în proiectarea grădinilor şi parcurilor, cât şi în restaurarea celor istorice şi în planificarea peisajului, într-o vreme când nicăieri în facultățile din România nu se pregăteau specialişti peisagişti şi nicăieri în țară nu existau specialişti în peisagistica teritorială.

Florin Teodosiu, absolvent al singurei promoții (1957) a secției „Spații verzi" din Facultatea de Silvicultură, Universitatea Transilvania din Braşov şi-a consacrat întreaga activitate domeniului peisagistic. Printre funcțiile îndeplinite,

se pot aminti cele de şef de şantier de spaţii verzi şi şef de birou de proiectare la Întreprinderea Horticola 1 Mai din Bucureşti, şef de proiect şi şef de colectiv de proiectare la Institutul Urban Proiect din Bucureşti şi la Institutul Carpaţi Proiect Bucureşti.

Înainte de a deveni unul dintre dascălii studenţilor noştri, inginerul Florin Teodosiu era un nume deja cunoscut în România. De-a lungul activităţii sale a muncit fără preget, a creat grădini şi a îmbogăţit sufletul oamenilor cu frumuseţea crâmpeielor de natură tratate artistic, a făcut lucruri importante pentru arhitectura peisajului şi patrimoniul peisagistic din România. Din vasta sa experienţă profesională amintim amenajările importante proiectate şi realizate ca şef de colectiv:

- Amenajări peisagistice în zonele reprezentative şi în zonele aferente dotărilor urbane în oraşele Brăila, Hunedoara, Piatra Neamţ, Piteşti etc
- Amenajări peisagistice în staţiunile Mamaia, Eforie, Neptun.
- Parcurile TIGLINA – Galaţi, CAPELA – Râmnicu Vâlcea, GRĂDIŞTE – Slatina, CENTRAL – Bistriţa, OSTROV – Călimăneşti, CIUPERCA – Tulcea, CETĂŢII – Alba Iulia s.a.
- Restaurarea parcurilor palatelor Cotroceni şi Peleş.
- Amenajarea peisagistică a ansamblului monumentelor BRÂNCUŞI – Târgu Jiu (în colaborare cu Olin Comp. Phyladelphia).
- În străinătate: parcurile CENTRAL – Damasc, AL SWANII – Libia, UNIVERSITATEA BATNA – Algeria.
- Amenajări peisagistice în numeroase grădini private din ţară şi din străinătate.

Şi în domeniul cercetării peisagistice a avut multe contribuţii, printre care studii şi cercetări de mare interes, în calitate de şef de program:

- Normative şi instrucţiuni tehnice pentru proiectarea şi executarea spaţiilor verzi.
- Studiul parcurilor şi grădinilor istorice din România (pentru I.C.O.M.O.S – U.N.E.S.C.O.).
- Cercetare privind influenţa spaţiilor verzi asupra mediului înconjurător (în colaborare cu Institutul de Igienă Bucureşti).
- Cercetare privind metodologia, metodele şi indicatorii de evaluare a calităţii mediului din localităţile urbane.
- Studiul teritorial al Judeţului Vâlcea, studii-pilot pentru implementarea unei metodologii ecologistico-peisagistice.
- Soluţii urbanistice şi teritoriale pentru protecţia mediului înconjurător (în colaborare cu Institutul Urbion – Bratislava).
- Capitolele „Peisagistica” şi „Glosar de Termeni” din cadrul Codului Urbanismului.
- Studiul de fundamentare Zone naturale protejate pentru Legea Amenajării Teritoriului Naţional.
- Capitolul "Zone Naturale Protejate" din cadrul Planului de Amenajare a Teritoriului Naţional.

Recunoaşterea muncii sale i-a adus premii şi distincţii:

- 1968 – Premiul Uniunii Arhitecţilor din România pentru staţiunea Neptun (în colectiv).
- 1971 – Premiul I la concursul pentru amenajarea lacului Cernica.

- 1992 – Premiu la concursul de urbanism "zona bisericii Sfântu Gheorghe, Bucureşti"
- 1995 – Premiul I la concursul "Restaurarea şi valorificarea parcului Carol I Bucureşti".

Florin Teodosiu a fost membru a numeroase asociații şi comisii dintre care amintim: Uniunea Arhitecților din România (din 1996), ECLAS (Consiliul European al Şcolilor de Arhitectura Peisajului), Comisia Națională a Monumentelor Istorice - Parcuri istorice (în cadrul Ministerului Culturii şi Cultelor, care l-a atestat expert în restaurarea monumentelor istorice). A fost întemeietorul Asociației Peisagiştilor în 2004 a activat cu entuziasm ca preşedinte până la sfârşitul vieții sale. Din această poziție a inițiat demersurile pentru adoptarea unei legislații naționale cu privire la peisaj şi peisagism.

De asemenea, Florin Teodosiu şi-a asumat cu generozitate responsabilitatea de susținător al tinerilor peisagişti, sprijinindu-şi constant foştii studenți în găsirea de locuri de muncă în domeniul în care s-au format.

Florin Teodosiu – omul, era caracterizat prin bunătate şi toleranță, iubire față de aproapele. Pentru farmecul său, vorba de duh, veşnica țigară, toate atributele prezenței sale, cuvintele de învățătură în ale vieții şi profesiei, colegi şi studenți deopotrivă l-am prețuit şi l-am iubit. Respectat pentru cultura, experiența, generozitatea şi idealismul, Florin şi-a atras admirația tuturor celor care l-au cunoscut.

În urma sa a lăsat un gol atât în sufletele noastre, cât şi în schema didactică a secției de peisagistică.

Dumnezeu să-l odihnească în cealaltă lume,
în cea mai frumoasă grădină, a Raiului!

Lucrări ştiinţifice U.Ş.A.M.V.B., Seria B, vol. L, 2007

RESEARCHES REGARDING THE EFFECTS OF THE WINTER CHANGES IN TEMPERATURE ON THE BUDS AT SOME FRUIT TREES SPECIES

HOZA D., ION LIGIA, ASANICA A.

Keywords: *peach tree, apricot tree, sweet cherry tree, plum tree*

ABSTRACT

The high increase in temperature registered in the Winter of 2006/2007 affected the stone fruit species. The loss registered at apricot tree was between 52,9 and 68,8% depending on the variety and peach tree 49,5-55,8% destroyed buds. A bigger loss was registered at cherry tree (32,5-34,1) and plum tree (24,1-31,4). At each species the most affected part was the inferior part of the crown.

Lucrări ştiinţifice U.Ş.A.M.V.B., Seria B, vol. L, 2007

THE EFFECTS OF ACCENTUATED CLIMATIC VARIABILITY OVER THE VINE CULTURE

DEJEU L., MEREANU Diana, BUCUR Mihaela Georgeta, GUTUE C.
University of Agronomic Sciences and Veterinary Medicine Bucharest

Keywords: climatic modifications, grapevine, growth, yield, quality

ABSTRACT

The climatic modifications of the last decade have significantly influenced both the growth and the fructification of the grapevine, and the grapes yield and its quality. During the last years there have been recorded very hot periods during the summer, a fact that determined a defective fruit set (2002), a more reduced growth of the berries, an acceleration of the phenological stages (flowering, berries growth, maturity), the harvesting of the grapes being preceded with up to two weeks. Also, there have been recorded increased accumulations of sugars in the grapes, outrunning with 30 g/l (2003) the values obtained during normal years. The hydric stress was frequently manifested both through deficit of precipitations (the case of long periods within the interval 2001-2003), as well as of the surplus (September-October 2003 and the entire year 2005). The outlined deficit of precipitations within the interval July 2001-June 2002, determined very weak vegetative growth that haven't been seen during the last decades, a fact that led to obtaining of reduced size grapes, with small berries, the normal subsequent water supply leading to increased sugar accumulations. Pursuant to these changes there have also been recorded differentiated distributions of the dry matter between the various organs of the vines. These modifications must be taken into account when zoning the varieties, when applying the various cultural techniques for improving the yield quality.

Mi presento

- Nicola Dalmonte
  - Vivaista
  - Italia
  - Romagna
  - Brisighella

Dalmonte Guido e Vittorio Vivai

- **E’ dal 1895 che i Vivai Dalmonte fanno crescere l’agricoltura professionale**
- **Una società giovane (età media dei soci 41 anni) che però ha alle spalle oltre un secolo di esperienza**

Oggi non è possibile fare frutticoltura senza un filiera organizzata

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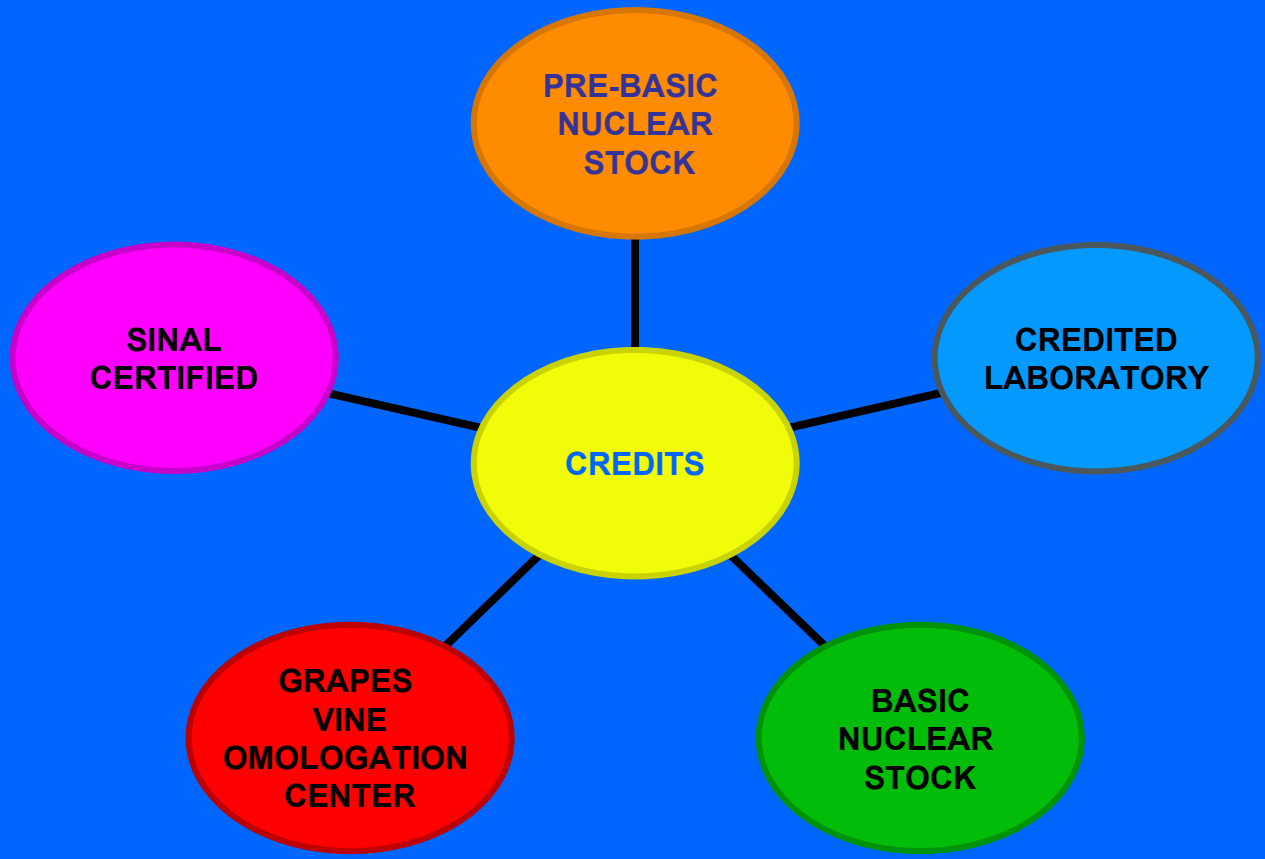
PRE-BASIC NUCLEAR STOCK
SINAL CERTIFIED
CREDITED LABORATORY
CREDITS
GRAPES VINE OMOLOGATION CENTER
BASIC NUCLEAR STOCK

MINISTERO DELLE POLITICHE AGRICOLE e FORESTALI

DECRETO 24 LUGLIO 2003

Organizzazione del Servizio Nazionale di Certificazione Volontaria del materiale di propagazione vegetale delle piante da frutto.

CREDITS

Ministry of Agriculture

C. A. V.

(ACCCREDITETED NUCLEAR STOCK CENTRE AND LABORATORY)

Multiplication centre

CAV'S associated

CAV' S nursery associted

CONTROLS IN PROCESS

Ministery of agriculture

C. A. V.

(ACCCREDITETED NUCLEAR STOCK CENTRE AND LABORATORY)

Self control and

Control by Phytosanitary pubblic service

Multiplication centre

CAV'S associated

Self control by CAV and

Control by Phytosanitary pubblic service

CAV' S plants certificated

THE PROCESS

New variety

C. A. V.

(ACCCREDITETED NUCLEAR STOCK CENTRE AND LABORATORY)

Autorisation by

Ministery of agricolture

Inscription in Ministery Register

Nuclear stock (into screen house)

Pre basic plants

Premultiplication

Premultiplication

basic plants

Nursery

certificated plants

Pomona Italiana – universal masterpiece by Giorgio Gallesio

Pomona Italiana de Giorgio Gallesio – capodoperă universală

Florin Stănică
Faculty of Horticulture
USAMV Bucureşti

Giorgio Gallesio
(1772-1839)

- Complex personality Count Giorgio Gallesio was farmer, lawyer, politician, diplomat, public officer, biologist.

-Count Giorgio Gallesio was born at Finalborgo in 1772 and spent his lifetime at the Gallesio-Piuma Castle in Prasco, near Genoa.

Gallesio-Piuma Castle

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. L, 2007

VEGETABLE GROWING

THE STUDY IN COMPARATIVE CULTURE OF A PEPPER VARIETY RANGE CULTIVATED IN THE EAST AREA OF ROMANIA

AMBĂRUŞ Silvica*, BREZEANU Creola**
*Station of Vegetable Research and Development Bacau
**USAMV BUCHAREST

Keywords: study, comparative culture, round pepper, *Capsicum annuum*

ABSTRACT

The researches were accomplished during 2004-2006 period of time, at Vegetable Research and Development Station BACĂU, aimed toward the study in comparative culture, in the pedo-climatic conditions from the east area of Romania, of an assortment of round pepper that included 26 varieties and local Romanian populations, in order to establish the best cultivars for this area.
In the present paper, we are presenting the results that were obtained for the first six best cultivars.

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. L, 2007

PRELIMINARY RESULTS CONCERNING THE GROWTH AND THE DEVELOPMENT OF THE CARDON CULTIVATED IN SOUTHERN ROMANIA

BALOMENOU Eleni
Department of Vegetable
The University of Agronomic Sciences and Veterinary Medicine Bucharest

Keywords: *Cynara cardunculus,* inflorescences, seeds

ABSTRACT

This work presents the results of our study concerning the different phenophases of cardon (*Cynara cardunculus*) cultivation in the conditions of southern Romania. The observations done were concerning the dynamic of growth and fructification and they had as aim the elaboration of recommendations for the technology of cultivation and also for extending the cardon's cultivation area. In the conditions of southern Romania the cardon plants have a vegetation period of more than 180 days, form shrubs of 100-170 cm height and a total number of inflorescences of 12-30. The seed yield can reach in average 264 g/plant from which 89.91 % is formed by the secondary inflorescences.

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. L, 2007

"CAPRICIU", A NEW VARIETY OF CHERRY TYPE TOMATO *LYCOPERSICON ESCULENTUM MILL. VAR. CERASIFORME* ALEF.

BURNICHI Floarea[1], GHEORGHE Florica[1], NEGOITA Mioara[2]
[1]S.C.D.L. Buzau
[2]Institute of Food Bioresources Bucharest

SHORT HISTORY OF CHERRY TYPE TOMATOES

Tomatoes are the most cultivated vegetables in the whole world. As pepper, potato and eggplants, tomatoes belong to the Solanaceae Family.

The common German name of tomato is "the wolf's peach". In the XVIIIth century Carl Linnaeus defined this variety after the legend naming the species *Lycopersicon esculentum*, that means „the wolf's edible peach".

The strongest proofs regarding tomato's cultivation are of a cultural type. Linguistic evidence certifies that the Aztecs from Central America called the fruit "xitomatl", and the tribes of savages from Central America called it:"tomati". Then, there is genetic evidence. *Humboldt* (1811), *Philips* (1891), *Jenkins* (1948) considered that the original variety for the cultivated tomatoes is *Lycopersicon esculentum*, var. *cerasiforme*, initially found in Peru or Ecuador, then reaching Mexico where it was first used as a medicinal plant.

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. L, 2007

STUDIES CONCERNING MICOBIOTA FROM DIFFERENT NUTRITIOUS PROPOSE SUBSTRATUM FOR THE CULTIVATION *LYCOPERSICUM ESCULETUM* SEEDLING

CRISTESCU Cristina, DUMITRIU I.C., FLEANCU Monica, DELIU Ionica,
NEBLEA Monica, POPESCU C. and ULEANU Florina
Faculty of Sciences, University of Pitesti

Keywords: soil, deuteromycota, filamentous fungi, culture *in vitro*

ABSTRACT

All taxonomic groups of fungi are represented in soil. Most are not pathogenic to plants. However, pathogenic fungi may be isolated from soil by a variety of methods such as using selective media, natural host tissues onto which they will grow, or soil dilution and plating, to name a few. *Pythium* species are rapidly growing fungi that require minimal nutrition for growth of hyphae. They are members of the *Oomycetes* or water molds. The *Fusarium* grow rapidly on PDA at 25°C and produce woolly to cottony, flat, spreading colonies.

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. L, 2007

IRRIGATION SCHEDULING IN TOMATOES' SOLARIUM CROPS

DOMUŢA C., CĂRBUNARU M., BANDICI Gh., ŞCHEAU V.,
SAMUEL A., BORZA I., BREJEA R., DOMUŢA Cr.
Faculty of Environmental Protection, University of Oradea
ŞANDOR M.
Station of Agricultural Research and Development Oradea

Keywords: Piche evaporimeter, Piche evaporation, crop coefficient, water balance, water consumption.

ABSTRACT

The paper is based on the researches carried out during 1999-2001 in the solariums from Husasău de Criş, Bihor County. The direct link, statistically assured, between tomatoes' daily Piche evaporation and daily water consumption emphasized the opportunity of the Piche evaporimeter use in tomatoes' irrigation scheduling in solarium conditions. The use is based on the soil's water balance on 0-50 cm depth in the monthly chart using daily data of the Piche evaporation and the specific crop coefficient "Kc". In average of the studied period, the values of the crop coefficient were of: 0.75 in March, 0.51 in April, 0.66 in May, 0.76 in June, 0.90 in July, 0.62 in August and 0.64 in September.

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PRELIMINARY STUDY REGARDING THE WAY TO PRODUCE LETTUCE TRANSPLANT ON YIELD

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University of Agronomic Sciences and Veterinary Medicine Bucharest

Keywords: lettuce, transplant, size, container

ABSTRACT

The study was realized in warm greenhouses at the Faculty of Horticulture from Bucharest during February and March months 2007. As a material, we used different types of pots: V1 (Mt) – nutritive cubes with 5 cm length; V2 –Jiffy pot, container with 4.5-cm maxims diameter; V3 – Jiffy pot, container with 4.0 cm maxims diameter; V4– alveolar pallets (cells) with 3.0 cm diameter and V5 alveolar pallets (cells) with 2.5 cm diameter. We made some observations during the nurseling growth regarding this growth. To notice the differences between variants, we made some determinations regarding the height, the number of leaves, the total mass, the radicular number at the nurseling obtained in different types of pots.
The purpose of the study was to appreciate the quality of the nurseling grown on the nutritive Plantaflor substrate and to recommend to the producers the most convenient variant of producing the nurseling.

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. L, 2007

STUDIES REGARDING THE PHYSIOLOGY OF TWO TOMATO CULTIVARS, IN DIFFERENT VOLUME OF SOIL

DUMITRIU Ion Cristian, FLEANCU Monica, DELIU Ionica, POPESCU Gheorghe Cristian,
CRISTESCU Cristina, MOTOUNU Domnica, ULEANU Florina
University of Pitesti

Keywords: *Lycopersicum esculentum, dry weight, photosynthesis, foliar pigment, different pots, microbiota*

ABSTRACT

The purpose of our paper is to study the main physiological processes at Lycopersicum esculentum. We used cultivars Pablo and Heinz. Our cultivars were planting in the big and small pot. We determined gas exchange process rates, respiration of soil, pH of soil, and length of root. Also, we determined the number of viable bacterial cells in the same pots. There was a significant difference regarding the physiological aspects. The capacity a pot influenced the main physiological indicator and the number of bacteria.

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. L, 2007

NEW VARIETIES OF VEGETABLES FOUNDED AT S.C. UNISEM S.A.

GLĂMAN Gh.
SC UNISEM SA

S.C. UNISEM S.A. is aware that the variety has a contribution of about 40 % to the achievement of vegetables production and the varieties and the hybrids entered into the Official Catalogue of Plants Crop Varieties of Romania, but at some species of vegetables are not cultivers to fully satisfy the requirements of the farmers, consumers and industry, so UNISEM SA has started, since 1994, improvement works in some of his branches, aiming to get his own varieties.

Taking into account the results, S.C. UNISEM S.A. sets up in 1996 the **first private Laboratory of vegetable gardening researches in Romania.**

The established targets in the research activity are: comparative crops, crops for competition, improvement and conservative selection.

Within 1996-2007, the research activity took place in 8 branches: Alba, Bihor, Dolj, Ialomiţa, Ilfov, Neamţ, Sibiu and Tulcea with 27 persons, from which 9 doctors in agricultural sciences.

For the targets getting, especially those of the improvement and conservative selection, S.C. UNISEM S.A. took part in 18 research contracts together with vegetables stations and Horticultural Faculty; other 4 projects are going on.

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. L, 2007

THE EFFECT OF THE SALINE WATER IRRIGATION ON THE YIELD COMPONENTS OF TOMATOES *LYCOPERSICUM ESCULENTUM*

MAACAROUN A
University of Agronomic Sciences and Veterinary Medicine Bucharest

Keyword: *lycopersicum esculentum*, Yield components, saline water

ABSTRACT

This study aims at investigating the effect of the saline water on the yield components of tomato *lycopersicum esculentum* Cindel F_1. This variety was planted in glace house and was irrigated with waters of different quality, corresponding to V_0 0.317ms/cm, V_1 1.5ms/cm, V_2 2.5ms/cm, V_3 4ms/cm.
The yield components studied were: number of fruit per plant, weight of the fruit and yield
We observed that the tomato plants resisted to a concentration of 1.5ds/m but in the case of higher concentration the plants were affected.
The yield of the tomato was affected by the salinity of the soil and we had a loss of about 24%.
The number of the fruit per plant was also affected we had a higher number of fruit in the case of the control but we had a weight and a volume less than the control.

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. L, 2007

THE EFFECT OF THE SALINE WATER IRRIGATION ON THE DEVELOPMENT OF RADISH *RAPHANUS SATIVUS*

MAACAROUN A.
University of Agronomic Sciences and Veterinary Medicine Bucharest

Keyword: *Raphanus sativus*, development, saline water

ABSTRACT

This study aims at investigating the effect of the saline water on the development of the radish *Raphanus sativus* Variety Sora. This variety was planted in glace house and was irrigated with waters of different quality, corresponding to V_1 0.317ms/cm, V_2 1.5ms/cm, V_3 2.5ms/cm, V_4 4ms/cm.
Some phenotypic observations were taken: roots weight, leaf number, root volume, fruit diameter.
The root weight was affected by the salinity and we assisted to a loss of 18.21% between the control and V_4.
The leaf number decreased with 23% between the control and V_4
The root volume was directly affected by the salinity and we assist to a decreasing of about 24.6 %.

VERTICALLY DEVELOPED GREENHOUSE

VLAD CONSTANTIN, FLORICA GHEORGHE, FLOAREA BURNICHI,
NICOLAE TRANDAFIR
Research and Development Station for Vegetable Growing Buzau
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Summary: *In this paper writing the authors intend to present part of their activity's results within the framework of the „CEEX" no. 43/03.10.2005 Project – "Integrated management of production, conditioning, and marketing of vegetables seeds, according to European norms and standards". This includes presenting conclusive results obtained up to this moment, referring to building a vertically developed greenhouse experimental model, destined for the production of vegetable and flower transplants, for drying up seeds and for the first results obtained as a consequence of its being put into operation.*

Key words: *vertically developed greenhouse, transplants production, seeds drying, seed production vegetables.*

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. L, 2007

RESEARCH REGARDING CULTURE SYSTEMS TO BROCCOLI UTILISING DENSITIES AND DIFFERENT HYBRIDS

ZĂVOIANU Roxana and POPESCU Victor
Faculty of Horticulture
University of Agronomic Sciences and Veterinary Medicine Bucharest

Keywords: *Brassica oleracea convar. botrytis var. italica Plench*, culture systems, density, production, Chevalier, Milady, Belstar.

ABSTRACT

In the following paper, we are going to test the behaviour of some broccoli hybrids, in several methods of culture and the influence of four variants of density, in order to elaborate a technology of culture capable to obtain better results. The biological material was represented by the following hybrids: Chevalier, Milady and Belstar. The methods of culture were the following: solarium covered with polyethylene and open field for the early culture, shaded field with green net for the summer culture, and open field for the fall culture. There were used 4 densities: 57142 plants/ha, 79365 plants/ha, 40816 plants/ha, and the control variant 31746 plants/ha. The planting of the broccoli hybrids was made at four different dates: 15th March (solarium), 3rd April (field), 13th June (summer) and 20th July (autumn).

Lucrări ştiinţifice U.Ş.M.A.V.B., Seria B, Vol. L, 2007

ORNAMENTAL PLANTS & LANDSCAPE ARCHITECTURE

PRELIMINARY RESULTS REGARDING THE INTENSITY OF SOME PHYSIOLOGICAL PROCESSES AT *MURRAYA EXOTICA* L. AND *JASMINUM* SP

ASANICA Cristina Alexandra, SELARU Elena, BADULESCU Liliana
USAMV Bucharest

Keywords: photosynthesis, transpiration, respiration, stomatal conductance

ABSTRACT

Physiological processes are in direct connection with the growing and blossoming of the flowers. The intensity of the photosynthesis, transpiration, respiration and the stomatal conductance is different for each plant and phenophase development. The experience was initiated to surprise the metabolic processes intensity of the *Murraya exotica* L. and *Jasminum* sp. correlated with the stage development and the culture substrate type. It was observed a link between the presence of the marc of grapes in the substrate and the intensity of the physiological processes.

Lucrări ştiinţifice U.Ş.M.A.V.B., Seria B, Vol. L, 2007

PRELIMINARY RESEARCH ON GENERATIVE PROPAGATION OF *EUODIA HUPEHENSIS* DODE (*RUTACEAE*)

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Keywords: pregermination, death rate, stratification, emergence, leaf pair

ABSTRACT

Euodia hupehensis Dode (*Tetradium hupehensis*) is woody specie cultivated in Romania only in dendrologycal collections and botanical gardens or as a source of late summer honey by beekeepers. In the perspective of introduceing it in the ornamental assortement, due to its decorative and biological qualities, it requires to establish the adequate propagation technology.

Lucrări ştiinţifice U.Ş.M.A.V.B., Seria B, Vol. L, 2007

RESEARCH ON GENERATIVE PROPAGATION OF THE WOODY SPECIES *PALIURUS SPINA-CHRISTI* MILLER AND *SORBUS INTERMEDIA* (EHRH.) PERS

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Keywords: pregermination, scarification, deviation, ornamental, stratification

ABSTRACT

Sorbus intermedia (Ehrh.) Pers. (Rosaceae) and *Paliurus spina-christi Miller (Rhamnaceae)* are two species cultivated in Romania only in dendrologycal collections and botanical gardens. In the perspective of introducing them in the ornamental assortment, due to their decorative and biological qualities, it requires to establish the adequate propagation technology.

Lucrări ştiinţifice U.Ş.M.A.V.B., Seria B, Vol. L, 2007

THE INFLUENCE OF GIBBERELLIC ACID TREATMENTS ON *PAEONIA PEREGRINA* SEEDS GERMINATION, UNDER COLD FRAME CONDITIONS

CUCU Elena Ioana

Keywords: peony, seeds, dormancy, germination stimulators

ABSTRACT

The purpose of this study was to reveal the response of Paeonia peregrina seeds to various concentrations of gibberelic acid treatments. The results showed that lower concentration (150 mg/l GA_3) promoted a higher percent of germinated seeds with radicle > 5cm length, while the higher concentration stimulated radicle length growth (maximum).

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STREET PLANTATION INVENTORY, AN IMPORTANT COMPONENT OF URBAN GREEN PATRIMONY MANAGEMENT. CASE STUDY – CALEA DOROBANȚILOR, BUCHAREST

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Keywords: green areas, trees species, diversity, vegetation assessment, pollution

ABSTRACT

Street plantation inventory, as a stage of management, allowed the uncovering of the deficiencies appeared during the years, the downgrading processes, aging and losses of the trees and the changes in the vegetal composition.
The preliminary study indicates the necessity of the analytical assessment of each sample in order to establish the necessary works for the invigoration.

Lucrări ştiinţifice U.Ş.M.A.V.B., Seria B, Vol. L, 2007

THE ABILITY OF SOME WOODY SPECIES TO REMOVE NITROGEN AND SULPHUR FROM POLLUTED AIR

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Keywords: broadleaves species, conifers, street plantations, nitrogen oxides, sulphur oxides

ABSTRACT

In urban areas, motor vehicles are usually the major source of air pollution with both nitrogen and sulphur oxides. In the present work the ability of some woody ornamental species to reduce the urban pollution with NOx and SOx was investigated. For this goal, leaves samples from plants located in two sites with different level of air pollution were compared for their content in nitrogen and sulphur. The results showed that species have different abilities to remove the nitrogen and sulphur from the polluted atmosphere.

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RESEARCH REGARDING THE GROWTH AND THE FLOWERING OF *ECHINACEA PURPUREA* MOENCH (*COMPOSITAE*) DEPENDING ON SOWING DATE AND PLACE

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ABSTRACT

The researches have been sustained in the field of U.S.A.M.V. Bucharest in the period 2004-2006, having the main purpose to find the most adequate propagation method and the best sowing time for the *Echinacea* plants. The used propagation methods of *Echinacea* were direct sowing in the field and seedlings production.

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RESEARCH REGARDING THE GROWTH AND THE FLOWERING OF SOME *ECHINACEA* SPECIES IN THE ECOLOGICAL CONDITIONS OF ROMANIAN PLAIN

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ABSTRACT

The researches have been sustained in the field of U.S.A.M.V. Bucharest during the period 2004-2006, having the main purpose the determination the behaviour of some *Echinacea* species in the ecological conditions of Bucharest. The adaptation of *Echinacea* species to the climatic condition of our country seems to be not a problem; these plants are frost and drought resistance.

Lucrări ştiinţifice U.Ş.M.A.V.B., Seria B, Vol. L, 2007

THE URBAN GREEN SPACE - FUNCTIONS AND AMBIENT DIVERSITY

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Keywords: multifunction, integrated functions, integrating functions, functional profile

ABSTRACT

The study is meant to put out the diversity of the functional aspects of the urban green spaces and the principle types of functions: integrated and integrating functions. They are analyzed under the aspect of their ambient effects on urban level, by referring to parks recently made in Europe. There are also brought out the functional profiles as well as the activities and endowments attributed to them.

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THE ESTHETICAL DIVERSITY OF THE URBAN GREEN SPACES AND ITS EFFECTS IN ECOLOGICAL MATTERS

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Keywords: composition, harmony, unity style, esthetical-compositional factors.

ABSTRACT

The study analyzes aspects of the esthetical diversity of the urban green spaces and their correlations with the ecological effects. In this sense, there are taken into account the compositional harmony, the presence of water and its ecological role in the arrangement of urban green spaces, the principle of unity and diversity, the special-volumetric harmony and the vegetal as a compositional-esthetical factor.

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THE INFLUENCE OF BIOTICS AND ABIOTICS FACTORS ON *IN VITRO* MULTIPLICATION OF *EUSTOMA GRANDIFLORUM*

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Keywords: photoperiodism, micropropagation, *in vitro*

ABSTRACT

Our researches were about the behavior in the multiplication *in vitro* phase of three cultivars of *Eustoma grandiflorum*, in different conditions of nutritive medium and photoperiodism. We are experimented with six nutritive medium variants, formed from MS (1962) basis medium and variable factor BAP, TAZ and kinetin, in 0,250 and 0,500 mg/l quantity for each substance. We used two levels of photoperiodism: 16 hours (standard variant) and 12 hours, and intensity of the light 3000 lux. The temperature in the growing room was 22-24^{o}C. The high influence on the multiplication rate was observed for nutritive medium. The fotoperiodism did not influence de multiplication process of the explants.

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STUDIES AND RESEARCHES CONCERNING THE IN VITRO AND IN VIVO CULTURE OF *POLYANTHES TUBEROSA* L. PLANTS

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Keywords: in vitro, in vivo, multiplication, bulbs, culture, flowering

ABSTRACT

Tuberose is one of the most appreciated flower plants in many countries mainly due to its white beautiful flowers accompanied by a very strong and pleasant smell. But to produce flower bulbs is often a difficult and uneasy task and the flowering percentage in field is quite less when classical methods are used.
The aim of our studies was to reduce the production period for flower bulbs and to increase the flowering percentage through biotechnology.
The explants used were buds taken from small bulbs. As tissues culture media (Murashige & Skoog '62) was used and variants were performed on different ratios between NAA, KIN and BAP. The best regeneration was achieved on 0,2 mg/l NAA + 1,5 mg/l KIN + 2,0 mg/l BAP. A percentage of 95 – 100 plants were regenerated and transferred into field to check if the in vitro culture production had any effect on shortening the production period and increasing the flowering percentage.
We recorded a great shortage of bulbs production period from 3 years through classical methods to 1 year by using tissue culture. Also, the flowering percentage of plants regenerated from in vitro produced bulbs was much higher (98 – 100 %) for the plants resulted from bulbs obtained by classical methods.

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RESEARCHES CONCERNING THE PRODUCTION BY CUTTING OF *OPUNTIA FICUS-INDICA L, ZYGOCACTUS TRUNCATES K. SCHUM AND MAMMILLARIA PROLIFERA HAW.* PLANTS

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Keywords: cutting, substrate, rooting, cactus

ABSTRACT

It is very well known that together the climatic conditions the rooting of the cuts is strongly influenced by the type of substrate.
The biological material used in our experience was represented by cuts of stem fragments from *Opuntia ficus indica, Zygocactus truncates, mammillaria prolifera.* We used as substrates sand, perlite and dark peat, in unitary and binary combinations.
The percent of rooting was varied between 70 and 100 %, depending on type of substrate and specie. The best substrate for each species was sand (100 % the percent of rooting) while on the dark peat and its combination the percent of rooting was which 30 % smaller.
Among the species the cuts of *Opuntia* were rooted better on all type of substrates while at *Mammilaria* the rooting of cuts was inferior.

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THE INFLUENCE OF THE SORTS OF CUTTINGS AND OF THE PHYTO-BIO-ENERGETIC STIMULATOR ON THE RHISOGENESIS AT CONIFER TREES

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Key words: sort of cuttings, rhisogenesis, conifer trees, Phyto-bio-energized water

ABSTRACT

The studies undertaken have outlined the fact that the ornamental conifer cuttings strike root for more than 65% provided they are rooted with the heel. Also, the rhisogenesis is favorably influenced if the cuttings are watered with phyto-bio-energized water. The effects of such watering in our present study are equal to a percent of 12-18%, which stands for the recommendation of using phyto-bio-energized water in the practices of planting/rooting the conifer cuttings.

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FRUIT GROWING & TECHNOLOGY

RESEARCHES CONCERNING LEAD AND CADMIUM CONTENTS IN FRUITS

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Keywords: pollution, plum, strawberry, heavy metal

ABSTRACT

Lead and cadmium are among the most abundant heavy metals that are particularly toxic and ingestion of contaminated vegetables and fruits may create health problems. The concentration of these heavy metals that are present in plums and strawberries were determined using electrothermal atomic absorption spectrometry (ETAAS). Essentially, the heavy metals have only become a focus of public interest since analytical techniques have made it possible to detect them even in very small traces. The results were expressed as mg/kg fresh weight. The lead content in analyzed fruits is between 0,02 - 0,047mg/kg for plums and 0,006 - 0,038 mg/kg for strawberries. According with limits set by Commission Regulation 466/2001, these fruits are safe to be consumpted. The cadmium content for plums ranges between 0,007 – 0,023 mg/kg and for strawberries ranges between 0,016-0,138 mg/kg. One variety of strawberry presents cadmium concentration 2,78 times higher than safe limit.

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RESEARCHES REGARDING THE POSSIBILITIES OF FRUIT WORMS (*CARPOCAPSA POMONELLA L.*) CONTROL USING PHEROMONE ATTRACTORS AND NEW INSECTICIDES

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Keywords: codling moth, pheromone, biological products, chemical insecticides.

ABSTRACT

Codling moth (*Cydia pomonella L.*) remains to be a very important pest in most apple orchards.
This paper presents the results performed between 2005-2007 with home new insecticides for pest control in field plots.
The results were interpreted comparatively for biological products, chemical insecticides and untreated check.
The main results obtained were the following:
-with two treatments/eacle generation, Carpovirusine conc 0,1% had the maximal efficacy in controlling the all stages of *Cydia pomonella L*.
-the insecticide Calypso 480 SC conc. 0,02% was very effective in controlling the pest.
-the are remarked the importance of the pheromone traps in establishing the spreading are of the pests, the appreciation of the opportunity of treatments applying according to population level and establishing the optimal time for treatment warning.

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PRELIMINARY RESULTS REGARDING THE TRANSFERENCE OF RED FRUIT SKIN AND FLESH TRAIT IN PEAR BREED PROGENY

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Keywords: *Pyrus communis*, breeding, selections, red fruit

ABSTRACT

In order to obtain new varieties with red flesh and skin colour, autochtonous "Cu miezul rosu" cv., having carmine-red coloured flesh, was used as male genitor in the controlled crosses with ‘Napoca’ cv. in the pear breeding program, started in 1986. As a result, was obtained a large progeny where red colour was transferred, from which three valuable 3 genotypes were selected. Data regarding ripening time, the major fruit characteristics and the flesh and skin anthocyanins content were presented.

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UTILIZATION OF THE LOCAL GENETIC RESOURCES IN BREEDING NEW VALUABLE CULTIVARS FOR *MALUS* AND *PYRUS* SPECIES

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Keywords: apple, pear, local genetic resources.

ABSTRACT

,,Ex situ" apple and pear collections from Romania are in Voinesti and Pitesti and preserve 262 autochtonous old apple cvs. and 162 local pear cvs. This paper describes their utilization as genitors in the genetic breeding work to induce attributes like disease resistance, rusticity, late ripening season and a good shelf life. Therefore, the old apple cvs. were employed: Verzisoare (late blooming), Cretesc, Calugaresc, Mar de Sugug (rusticity), Pionier, Voinea, Generos (Vf and poligenic resistance). For pear, the following cvs.: Busuioace (late blooming), Daciana, -Argessis, Carpica (earliness, flesh firmmess), Untoasa de Geoagiu (quality, spur fruiting), Cu miezul roşu (red flesh), Republica, Euras, Pere de mai (long shelf life under natural conditions) were used.

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EVALUATION OF FOREIGN PLUM VARIETIES (*PRUNUS DOMESTICA* L.) FROM ROMANIAN NATIONAL COLLECTION

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Keywords: Plum, germplasm fund, foreign varieties, evaluation, potential genitors.

ABSTRACT

In Romania, the plum holds the first place in the national fruit patrimony as acreage, number of trees. One of the most important conditions for reaching the objectives in the breeding program is availability of the rich germplasm fund. The National Plum Collection (NPC) located at the Research Institute for Fruit Growing Pitesti – Maracineni (RIFG), holds 566 accessions from which 318 genotypes are of foreign origin. This germplasm fund has been evaluated regarding tolerance to PPV, susceptibility to *Monilia* sp., precocity, blooming period, fruit size, content in soluble solids, yielding capacity, tree vigour, according to the numerical scale of IBPGR descriptors used in Genres Project 61 of „*Prunus* Data Base". Study shows that the numerous genotypes existing in the NPC offer enough initial material to achieve the objectives of Romanian plum breeding program (e.g. Belle de Louvain, Burton, Chabat, Giant Plum, Kirke, LU - for tolerance to PPV; Cacak Ranna, Cacanska Rodna, De Maris, Giant Plum, LU – for large fruit).

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STUDIES REGARDING THE IMPLEMENTATION OF HACCP (HAZARD ANALYSIS AND CRITICAL CONTROL POINTS) SYSTEM ON FRUIT CANNED PRODUCTS

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Key words: food safety, hazard

ABSTRACT

HACCP is the abbreviation for the English expression „Hazard Analysis and Critical Control Points".
To obtain high quality products-capable of meeting the consumer′s demands and complying with the European standards, it is recommended the certain risk-prevention and control methods should be applied.
In the horticultural product industry, the application of a HACCP system allows the identification of the key-elements of the technological process. The system analyses the hazard related to the fruit canned products and the process, indicating the critical control points to the hygienic quality of the product.

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THE FORMATION AND EXTENSION OF THE ECOLOGICAL FRUIT GROWING

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Keywords: ecological agriculture, sustainable development, environmental protection

ABSTRACT

The alternative agriculture, which includes the ecological one as well, represents a part of the sustainable development of this section of the national economy witch answers to the harmonisation of immediate needs of agricultural products, accepted below the appearance quality and their state of health, with the laws of nature, with the request of sustainable ecological concepts. These preoccupations have intensified and currently they are contained in a rich professional literature.

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THE FRUITS QUALITY TO SOME APPLE MUTATIONS OBTAINED FROM INDUCTION MUTAGENESIS

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ABSTRACT

The analysis of the apple fruits quality from 2006 harvest from the Fruit Research Station Voinesti were made at the following selections obtained in this farm using induction mutagenesis: H1/26, H4/50, H9/98, H9/11, H3/23, H5/79, H4/103, H5/56 and H6/42. The quality of the apple fruits was pointed out through weigh, with Turoni penetrometer for establish the firmness of the pulp and the classical methods for determine the content in: water, total dry matter, soluble solids, vitamin C and total acidity. After the obtaining results we come to the conclusion that the most valuable hybrid selections were H6/42 and H4/103, which had big fruits (more than 200 g), with agreeable appearance and high content in soluble solids.

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COMPARISON BETWEEN PEACH-TREE WATER CONSUMPTION AND A DIFFERENT METHOD OF REFERENCE EVAPOTRANSPIRATION (ETO) CALCULATION IN THE CONDITIONS OF NORTH WESTERN ROMANIA

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Keywords: water consumption, crop coefficient, irrigation scheduling, drip irrigation, micro sprinkler irrigation.

ABSTRACT

The paper presents the results obtained during 2000-2003 at the no irrigated and the irrigated by drip and micro sprinkler peach-tree. These methods are being compared with those for evapotranspiration reference determination: Thorntwaite, pan Class A, Piche evaporimeter, Penman-Monteith. There is a different peach-tree situation,, the water consumption and the values of the reference evapotranspiration are specific. The results obtained underline the need of the crop coefficients use for the reference evapotranspiration transformation into peach-tree optimum water consumption.

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SOME ASPECTS REGARDING SOIL MANAGEMENT SYSTEMS IN A PEACH TREE ORCHARD

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Keywords: peach tree, soil management systems, soil physical properties, fruit yield

ABSTRACT

The purpose of this paper is to determine how much soil physical properties and fruit tree parameters are affected by application of crop-soil technologies usually utilized in peach fruit growing under the natural conditions of Constanta, southeastern Romania. There are some interesting aspects even the following results are observed after two years of study in this experience. The soil showing the maximum occurrence in the region is a chernozem type and the climate conditions during the experiment were more or less typical for Constanta, in the southeastern part of Romania. The experimental design consisted of three factors: factor A-soil management system between tree rows with two graduations: a1- mowed sod strips, with grass, and a2- cultivated strips, by plowing and three-time disking. The factor B is soil management system on the rows with two graduations: b1- cultivated strips, by herbicidation, b2- groundcover crop left *in situ* as mulch. The factor C is nitrogen dose, which is applied in spring with three graduations: c1-N_{30}, c2- N_{60}, c3-N_{90}. Regarding physical properties of the soils although in only two years of researches there aren't clear differences, it was observed a positive influence in mowed sod strips variants. Fruit production was positive influenced in cultivation variant, comparing with mowed sod strips in both years of studies.

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THE USE OF RECOMBINANT CLONES PPV/GFP (Green Fluorescent Protein)

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Key words: plum pox virus, green fluorescent protein, strains, recombinant clones

ABSTRACT

To understand better the interaction mechanism between plant and pathogen, the key question is referring to the way of PPV (Plum pox virus) viral particle migration in host plant and where the plant immune system succeed to isolate these particles in the case of partial resistant and resistant genotypes. To offer a spatial view at tissues level of this interaction, it was used recombinant clones PPV/GFP (Plum pox virus/Green Fluorescent Protein). PPV viral particle was marked with GFP, and the observations were made through stereomicroscopy and confocal microscopy.

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IN VIVO VALIDATION OF IMMUNOGOLD DETECTION TECHNIQUE

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Key words: Plum pox virus, immunogold technique, sense, antisense

ABSTRACT

Gold staining of the viral capsid (Cp) permits us to give an answer regarding its localization at veins level there, where *in-situ* hybridization technique and GFP technique (Green Fluorescent Protein) can not give an answer. The viral capsid through gold staining is observed at xylem level. Because, through *in situ* hybridization it was underlined only the presence of the viral RNA and through GFP technique we had a spatial view at leaf level, **Immunogold** technique offers us the detection of PPV at veins levels in such a way to have an idea about capsid, RNA, virus concept.

Lucrări ştiinţifice U.Ş.M.A.V.B., Seria B, Vol. L, 2007

THE SELECTIONS OF COMPACT-COLUMNAR APPLE HYBRIDS

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APOSTOL Dragoş, ATUDOSIE Nicole, LIGIA Ion

ABSTRACT

The researches have been sustained in orchard of apple's compact-columnar hybrids establish in 1999 at S.C. Frasinu S.A. Buzau. There were used the hybrids: H21-5/2, H35-5/7, H38-5/9, H61-6/1, H61-6/5 and H73-6/4, obtained in the field of Fruit Growing Department from U.S.A.M.V. Bucharest. The hybrids were grafted on MM 106 rootstock and planted at the distance de 4/1.2 m (2083 trees/ha). The main purpose of the researches was based on growth and fructification observations during selection process. From analysing and performing obtaining result 2 groups of vigour: columnar compact smaller hybrids (H21-5/2 and H35-5/7) and columnar compact taller hybrids (H61-6/5 and H73-6/4). The fructification potential of these hybrids was between 5.93-43.93 tons/ha, realised on harvesting during the period 2001-2006.

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. L, 2007

RESULTS REGARDING *IN VITRO* PROPAGATION FOR TWO STRAWBERRY CULTIVARS WITH CONTINUOS FRUITING

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Keywords: in vitro culture, explant, micropropagtion, ratio of multiplication

ABSTRACT

The strawberry cultivars with continuous fruiting, Elsinore and Evi, had a good behaviour in the initiation phase and micropropagation of *in vitro* culture. Nutrient media used was Lee-Fossard (1977) supplemented with growing regulators in function of the in vitro phase.
Decreasing the photoperiod from 16 to 12 hours doesn't have significant influence for the growing of explants and ratio of multiplication but this aspect determinate the elongation and etiolating of them.

Lucrări ştiinţifice U.Ş.M.A.V.B., Seria B, Vol. L, 2007

THE QUALITY OF POMEGRANATE (*PUNICA GRANATUM*) HARDWOOD CUTTINGS ROOTED IN DIFFERENT SUBSTRATES

PETICILĂ A.G.

Keywords: Pomegranate, hardwood cuttings, substrates.

OBJECTIVES

- For this was *effectuated* study of the substratum temperature effect on callous and root formation and study of some *pomegranate* variety's behaviour on rooting process.
- Choosing the optimal substratum for pomegranate (Punica granatum) cutting propagation and establishment of the optimal moment for cutting.

Lucrări ştiinţifice U.Ş.M.A.V.B., Seria B, Vol. L, 2007

APPLE BREEDS OBTAINED BY INDUCED MUTAGENESIS, HOMOLOGATED IN THE PERIOD 2004-2007

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Keywords: apllesorts, genetically resistance at disease, inducted mutagenesis, gamma and x radiations.

ABSTRACT

The researches effectuated at the Research and Development Station for fruit (tree) growing Voineşti, with the use of some physical mutagen factors (game radiations, X rays) on the biological material formed for pollen and seeds apple in repose or after maturity hade been materialized with a lot of sorts and apple picks and flowers with genetically resistance at disease, with a lot of economic value.
Redix sort (synonym 3/73-83 V) obtained from sexuate hybridization Goldenspur and Prima (irradiated pollen with 1000 R), homologated in 2004.
Iris sort (synonym 8/94-82 V), obtained from Prima and natural pollination with the irradiation of dry seeds in dose of 8000 R, homologated in 2005.
Irisem sort (synonym 2/1-90 V) obtained from Prima and natural pollination with the irradiation of after maturity seeds in dose of 5000 R, homologated in 2006.
Real sort (synonym 9/78-82 V), obtained from Prima and natural pollination with the irradiation of dry seeds in dose of 8000 R, homologated in 2007.

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ENLARGING THE PRODUCTIVE CAPACITY OF ALMOND SPECIES BY MODIFICATION OF ASSORTMENT

SCHEAU V., LASLO V., DOMUTA C, MURG Silvia, BUIE F.

INTRODUCTION

In 1979 the fruit tree census showed that in Bihor County there were 10.000 almond trees and it was on the first place among the Romanian counties. This was the only census in which the almond as a specie did not appear included with "other species" (M. Popescu and colab., 1982).

Systematic studies on almond have started in Oradea in 1975 and were focused on two aspects:

- studies of behavior of almond trees and introducing in culture of new species from the assortment of great cultivating countries – such as France, Italy, Spain, USA, California - in Oradea, Sisterea, Sacueni, Cadea, Diosig (Scheau V. and Colab., 1987, Scheau V. and colab., 1989, Scheau V. and colab. 1994, Scheau V. and colab. 1997).
- Obtaining new species, better adapted to specific soil and climate conditions of the area (Gatea M. and colab. 2004, Scheau V. and colab.2006).

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NEW DATA CONCERNING THE GRAFTING OF *DIOSPYROS KAKI* L.

STANCIU Iuliana, PĂUN C., CEPOIU N., BURDA Ş.G.

Keywords: chip budding, bark grafting, grafting in the growing bud

ABSTRACT

The researches have been sustained in the field of Fruit Growing Department from U.S.A.M.V. Bucharest, for establish the best grafting method for persimmons cultivars: O'Gosho, Sharon, Hana Fuyu, Coroa de Rei, Rojo Brillante and the ANPL, CPL populations, on the rootstocks *Diospyros virginiana* L. and *Diospyros lotus* L. The methods used for grafting have been: grafting in the growing bud, bark grafting, chip budding, side grafting and omega. At the grafting in the growing bud, the best results were obtained for the cultivars: Hana Fuyu, Sharon and CPL population; At the bark grafting and chip budding, a bigger grafting percentage was obtained for Hana Fuyu, CPL population and Coroa de Rei. At the mechanical grafting (omega) the results were none. The best results were obtained using the *D. virginiana* L. rootstock.

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THE COMPLETION OF APRICOT ASSORTMENT WITH NEW CULTIVARS

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Keywords: breeding, selection, hybrid, ripening period

ABSTRACT

Fruit Research Station Constanta started a great breeding programme for apricot species since 1971 year having more objectives as following: increasing of temperature variations resistance and inducing the late blooming character; improving of fruit qualities as: appearance, fruit weight, colour of skin and flesh, sugar and dry matter content, firmness; increasing of productivity; resistance of cultivars to different pathogens and especially free of virus; extension the harvesting season in order to obtain cultivars with late ripening as well as cultivars with early and very early ripening. For realized these objectives many crossing were made from which hybrid descendence were elected some selections, which were grafted on rootstocks "wild apricot" and studied in comparative crop near old cultivars. Among these selections ten the best were homologated as a new cultivars and spread out to orchard owners, with the following name: Fortuna, Auras, Danubiu, Cristal, Amiral, Orizont, Augustin, Ceres, Euxin, Histria.

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QUALITY PRELIMINARY RESULTS REGARDING THE BEHAVIOUR OF SOME APPLE GENETIC DISEASE RESISTANT SELECTIONS, OBTAINED BY SEXUATE INTERSPECIFIC HYBRIDIZATION

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Keywords: promising selections; fenology; yield potenţial; fruit characteristics.

ABSTRACT

As a result of evaluation through hybrid series 1992 (by L. Şerboiu and Gabriela Uncheaşu), a number of 9 promising selections identificated and promoted in the 2nd test: 5 promising selections (V 95/12; V 95/15; V 95/49; V 95/52; V 95/55) from the combination (Prima x Starkrimson); 2 selections (V 95/230 and V 95/272) from the combination (Prima x Discovery); one selection (V 97/192) from the combination (Prima x Generos) and V 98/72 from (Pionier x Prima).
The study concerning this promising selections consist in the main tree characteristics (fruit-bearing fenology; yield potential; disease resistance; strength growth and of the fruit characteristics (weight, colour, storage capacity).
All selections studied have prove a field scab resistance and higher powdery mildew resistance (between 5,6-21,0% haves attacked comparable with the witness, Jonathan – 80% haves with attack).
The yield potential were between 0,5 t/ha (V 95/55) and 6,o t/ha (V 95/230), for the trees in the 3 nd or 4nd year after plantation.
The main fruit characteristics were weight average between 153 g (V 95/15) to 237g (V 95/12); red colour with same thade on almost 80% of the surface; storage capacity until February.
All the fruits proved high taste quality as good as commercial varieties.

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STUDIES REGARDING NITRATE AND NITRITE CONTENTS IN FRUITS

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Keywords: methemoglobinemy, strawberries, plums, fruits, nitrogen

ABSTRACT

Nitrates and nitrites are very toxic matters that stimulate methemoglobinemy and produce inside the human body carcinogenic products like nitrosoamines and nitrosoamides. As the quality of vegetable products depend firstly of pollutants content, the aim of the investigation was to determine the level of nitrates and nitrites, undesirable compounds in human diet. The nitrate and nitrite contents from different varieties of plums and strawberries provided by SCDP Valcea were estimated and expressed as mg/kg fresh weight. The obtained results indicate that analysed plum samples contain nitrates that ranges between 7,85 mg NO_3^-/kg and 133,49 mg NO_3^-/kg; the nitrate level in strawberries fluctuate between 120 and 216 mg NO_3^-/kg. If in plums the nitrite content vary from 0,86 mg NO_2^-/kg up to 1,47 mg NO_2^-/kg, at strawberries the inferior found limit is 2,4 mgNO_2^-/kg and the superior one is 4,08 mg NO_2^-/kg. Also, it has been found that strawberries accumulate more quantities of nitrates and nitrites than plums do. The studies that we have conducted and the obtained results are in agreement with those developed in other countries, as well.

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RESEARCHES CONCERNING THE FRUCTIFICATION EARLINESS OF SOME PEACH HYBRID PROGENIES OF DWARF AND SEMIDWARF OWN ROOTS

VENIG Aurora
S.C.D.P. BIHOR

ABSTRACT

Taking into consideration the modern fruit growing requirements, of creating productive low builded varieties, resistant at diseases, pests and which turn account the environment factors. Between 2001-2004, there were carried out experiences at S.C.D.P Bihor, using as biological material the peach varieties Springcrest and Cardinal and a dwarf Bonanza nectarin variety. The experiences show that high earliness fructification have the hybrids progenies obtained from the combination Bonanza x Springcrest. The highest productions on own roots were registered Oradea 14 and Oradea 8.The most valuable variants are recommended as a biological material which might be a base of producing new peach varieties.

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BEHAVIOR OF SOME APRICOT, PEACH AND PLUM SPECIES TOWARDS THE EARLY DISAPPEARING PHENOMENON, IN THE AREA OF ORADEA

VENIG Aurora, BUNEA A.
S.C.D.P. BIHOR

ABSTRACT

The behaviour of some apricot, peach and plum species towards the early disappearing phenomenon had been studied at S.C.D.P. Oradea, between 1993-2007. From the studies that were carried out, researchers came to the conclusion that from all three species, Mamaia (70%) and Litoral(50%) had a high percentage regarding early disappearing, comparing to Sirena and Umberto, that registered a low percentage. In case of peach, especially nectarin, the percentage is about 29-33%. Although the plum is considered resistant species ar climatic conditions, there were some foreign varieties that suffered from early disappearing (Stanley, Anna Spath, Valor).

Serological and Genetic Diversity of *Plum Pox* Virus Isolates in Bistrita Area

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Keywords: virus strains, PPV-D, PPV-M, PPV-Rec., plum.

Abstract

***Plum pox virus* (PPV) is considered the most dangerous viral pathogen of stone fruits. While PPV is widespread in Romanian plum orchards and causes serious yield losses, very limited information about the variability of isolates are known. To gain new data about PPV strains occurred in Romanian orchards, we investigated 43 PPV isolates collected from five main plum orchards from Bistrita area. PPV strains were serologically determined by TAS-ELISA using PPV-D and PPV-M specific monoclonal antibodies. Molecular strain typing was performed by IC-RT-PCR targeting three genomic regions corresponding to (Cter)CP, (Cter)NIb / (Nter)CP and CI. RFLP analysis was used to distinguish the two major strains, D and M based on a *Rsa* I polymorphism located in (Cter)CP. All PCR products spanning (Cter)CP and 8 PCR products spanning (Cter)NIb / (Nter)CP were sequenced. All PPV isolates typed as PPV-M by serological analysis and also by molecular differentiation in the genomic region corresponding to (C-ter) CP proved to be recombinants between PPV-D and PPV-M when the molecular analysis were performed in NIb/CP region. The sequencing results revealed a high homology with different sequences of PPV recombinant (PPV-Rec) previously reported. All these recombinant isolates share the same recombination breakpoint and conserve the DAG motif, which is considered essential for potyvirus aphid transmission. This genetic similarity confirms that PPV-Rec may represent an ancestral group with a common evolutionary origin. This report of naturally infected plum trees with PPV-Rec strain in Bistrita area predicted it widespread in the other Romanian areas where plum is growing.**

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VITICULTURE & OENOLOGY

RIPENESS EVALUATION OF THE GRAPES FOR RED WINES BY SENSORY ANALYSIS

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Keywords: ripeness, maturity, harvest, grape sensory analysis

ABSTRACT

A sensory analysis methodology for the evaluation of the black grapes harvesting time is proposed and exemplified. The methodology involves the assessment of 21 sensory parameters of skin, flash and seeds, on a specially designed score sheet. The analysis requires, in accordance with the type of the evaluated parameter, marking the sensory impression on continuous scales from 1 to 5 or on discontinuous scales of 3 or 4 boxes, respectively, followed by the conversion of these check marks into numbers. For the desired style of wine to be produced the winemaker is the one who decides the ideal parameters and plots their optimum values on a web-type diagram as a control curve. Then, the ripeness of the grapes is monitored at equal time intervals by sensory analysis and the results are plotted every time over the optimum diagram. When the degree of overlapping of the actual and control diagram is satisfactory, the harvest decision is taken. In order to ensure the success of this methododology and the best quality of the future wine, a rigorous selection of the control parameters values is essential.

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SENSORY EVALUATION OF RIPENESS OF DORNFELDER AND REGENT GRAPE VARIETIES UNDER THE CLIMATIC CONDITIONS OF SOUTH ROMANIA

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Keywords: Dornfelder, Regent**,** ripeness, maturity, grape sensory analysis

ABSTRACT

Two of the most important crossed German varieties for the red wines cultivated in the collection of the University of Agronomical Sciences and Veterinary Medicine of Bucharest are evaluated regarding their ripeness behaviour under the climatic conditions of South Romania.
The ripeness stage of the two varieties was evaluated at a certain date by sensory analysis of the grapes and compared with other internationally well-known varieties for red wines. The methodology for the sensory evaluation of all the grape parts involves the assessment of 21 sensory characteristics, by filling a specially designed score sheet.
The results for the German varieties were compared with those of the international varieties and also with a proposed standard considered ideal for black grapes which are to be harvested and processed into quality dry red wines.

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DIADEGMA SPECIES (HYM.: ICHNEUMONIDAE) WHICH PARASITIZED THE GRAPE LEAF-ROLLER *SPARGANOTHIS PILLERIANA* DEN. ET SCHIFF. (LEP.: TORTRICIDAE) IN SOUTHERN VINEYARDS OF ROMANIA

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Keywords: pest, vine, host larvae, endoparasitoid, parasitism ratio.

ABSTRACT

As a result of the rearing of grape leaf-roller *Sparganothis pilleriana* Den. et Schiff collected in 2000-2003 from two vineyards, Ştefăneşti (Ag) and Dăbuleni (Dj), 6 species of *Diadegma* have been obtained as larval endoparasitoid: *D. contracta* (Brischke)*, D. germanica* Horst.*, D. holopyga* (Thoms.)*, D. laricinella* Strobl.*, D. longicaudata* Horst. şi *D. tenuipes* (Thoms.). *D. germanica* Horst. and *D. tenuipes* (Thoms.). are common in both localities. 6 host-parasitoid relationships have been recorded, all of them new to science. *Diadegma* species preferred the 2nd and 3rd instars of host larvae. The role played by many of these parasitoids in the limitation of grape leaf-roller populations is generally minor, the parasitism ratio being below 0,2%. *Diadegma germanica* Horst. is the most important parasitoid in the both localities, the parasitism ratio being 2,39%.

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MATHEMATICAL MODEL FOR TECHNICALLY OPTIMAL RATES OF MACRONUTRIENTS, TOR, DEDUCED BASED ON THE MODIFIED MITSCHERLICH RESPONSE FUNCTION AND THE CONDITION THAT THE EXPECTED YIELD REPRESENTS A GIVEN FRACTION FROM THE MAXIMUM YIELD - MODEL LIMITS

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In memoriam dr. doc. Zenoviu BORLAN

Keywords: technically optimal rates, computing model

ABSTRACT

The paper presents the mathematical deduction of a new computing model for Technically Optimal Rates of macronutrients (N, P, K etc.), TOR, expressed as kg/ha conventional active substances (a.s.). For this purpose, we have started form a modified Mitscherlich response function, which also substantiate the Romanian agrochemical system to establish the Economically Optimal Rates of macronutrients, EOR, as well as from the condition that the expected yield represents a fraction (fr) from the maximum yield, fr being close to 1. Computing applications in grape-vine have been done with the elaborated model. These showed the very high influence fr (which enter into the TOR model) has on the TOR value, leading very easy to its overestimation or underestimation, fact which invalidated this new TOR model.

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THE EXCESS ELIMINATIONS THE IRON AND COPPER IONS OF WINE WITH REVERSE OSMOSES MEMBRANES

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Keywords: wine, filtrate, concentrate, biotechnology, ecological.

ABSTRACT

The work paper "The excess eliminations the iron and copper ions of wine with reverse osmoses membranes" has the purpose the eliminating the iron and cooper ions from red and white wines. Through that new method will eliminate the contaminating risk with CN^- ion through wrong treatment with ferrocyanide, potassium, will get out the impact of blue, Prussian - deposit on natural environment, it will eliminate the potassium cyanide usage in the vinification process for establishing and conditioning wines, will retrieve 1,8-2% wine from process. The studied wines are passed through the reverse osmoses module, in this process decrease the iron and cooper ions concentration of wine from osmoses process obtaining in the end, a wine which keep on the parameters and naturalness of initial wine. Through the new biotechnology will obtain an ecological product from conditioning and establishing of wine.

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THE SPECTRUM OF THE ACARIANS SPECIES FROM THE VINEYARD DEALURILE CRAIOVEI

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Key words: eryophids and tetranychidae mytes, density of the acarians population

INTRODUCTION

The eryophids and tetranychidae mytes of the vine are beside the vine moth the main pests for the Dealurile Craiovei vineyards, their presence year by year in the vineyard from the S.D. Banu Maracine also due to the damages produced by those pests justify the taken action in order to know the acarians spectrum, their biology, way of attack and for controling those pests.

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FUNDAMENTAL ASPECTS CONCERNING THE APPLICATION OF THE PULSATORY ELECTRIC FIELD (PEF) TECHNOLOGY IN WINE STABILIZATION

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Keywords: tartaric stability, proteic stability, microbiological stability, efficacy.

ABSTRACT

PEF technology used for stabilizing wines proves to be highly interesting due to the fact that this is a friendly innovative technology based on non-heating procedures, therefore not influencing on the savor, color and nutritional value of the treated products. The study aimed at evaluating the efficacy of different technical variants involved in the PEF treatment applied for reaching both the biochemical (tartaric and proteic stability) and microbiological stability of the wines. The technical variants were differentiated by the type of the pulse generator, as well as by the treatment length of time. There were taken into study 2 types of pulse generators (corona and in plasma discharge) and 3 treatment periods: 10, 15 and 20 minutes. The experiments were carried out at the laboratory scale, by using the PEF treatment equipment conceived and achieved by CCEE Bucharest, Romania. Observations were made concerning the biochemical (tartaric and proteic stability) and microbiological stability of the wines. The carried out study highlighted the efficacy of the PEF treatment applied for reaching the biochemical and microbiological stability of the white and red wines. PEF treatment may be considered quite a potential treatment to be successfully used for making wines stable, sure and secure.

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BOTANY & PHYSIOLOGY

CONSIDERATIONS REGARDING THE DEVELOPMENT OF SOME PHYSIOLOGICAL PROCESSES OF OPEN FIELD CULTIVATED TOMATOES PHOTOSYNTHESIS AND RESPIRATION

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Keywords: tomatoes, physiological processes, photosynthesis, respiration, open field culture

ABSTRACT

In the experiments made on field cultivated crop tomatoes („Dacia" cultivar) realized in 12 fertilization variants, in the interval 1998-2000, the main objective was evidencing the particularities of the physiological functions for the plants, in the climatic conditions and soil conditions specific for Buzau area. The presented results are theoretically and practically useful, contributing to the better knowledge upon physiological tomato plants reaction to ambiental/environmental factors during their growth and development period.
Photosynthesis and respiration, as fundamental physiological processes are very important for assuring the vegetative growth and the generative evolution of tomato plants. The dependence of photosynthesis on plants' age proved to be considerably low when compared to the dependence on environmental factors. The intensity of photosynthesis and respiration for open field cultivated tomatoes, presented different values, depending also on the degree of plants' fertilization with nitrogen and potassium. This way, at analyzing the average values noted for the 12 variants, it has been observed that plant's photosynthesis has mainly been stimulated through nitrogen fertilization, and also the intensity of respiration has grown.
Of course, an intense physiological activity of plants manifested mainly through the growth in intensity of photosynthesis, involves also increasing respiration intensity, between the two fundamental processes being established an interdependence connection.

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SOME PHYSIOLOGICAL AND ELEMENTAL COMPOSITION FEATURE OF RICE SEEDS UNDER BROWN SPOT INCIDENCE

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Keywords: rice seeds, germination physiology, mineral elements

ABSTRACT

Rice is grown worldwide and is the primary or secondary staple food for 50% of the world population. Seed germination represents a fundamental aspect in the plant life-cycle and in the crop yield and high seed quality is an obligate start for efficient crop production, being determined by factors such as purity, percentage and uniform germination, vigour, storability and pathological condition of a seed lot. On the other hand, nutritional qualities depend also on the mineral elements seeds composition.

The aim of our studies was to investigate some physiological and nutritional seeds quality features under the brown spot *Cochlibolus miyabeanus* (Ito and Kuribayanski) Dreschler ex Dastur [anamorph*: Bipolaris oryzae* (Breda de Haan) Shoemaker] incidence.

One cultivar (sound and affected seeds) was used to evaluate the fungus impact on cell membrane stability during seeds germination, by electrolyte leakage of seeds and seedlings and five cultivars were used to determine the fungus impact on minerals content. Samples were analyzed by inductively coupled spectroscopy (ICP). All rice cv. were obtained from the Rice Study Center Chirnogi.

The electrolyte leakage was highest at the early stages of seeds imbibitions, with a mean values higher by 1,57 in the case of affected seeds, as compared with the healthy ones and declined gradually thereafter. After the imbibitions period, electrolyte leakage for the affected seeds was by 1,46 higher as against the control. Also, it can be noticed small differences due to the year, in relation with the disease severity degree. Rice seeds with the lowest electrolyte leakage values had the highest percentage of germination and vigorously seedlings.

Generally speaking it can be noticed higher minerals content in the case of affected seeds and in the same time the content of elements varies between rice cultivars. There are also variations in concentration of related elements, first at all as a consequence of the different cultivar, second due to the growing season and the third factor was the fungus impact degree.

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STUDIES REGARDING TOTAL PHENOLS CONTENT IN DIFFERENT APPLE CULTIVARS AND HYBRIDS

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Keywords: apple varieties, hybrids, phenols

ABSTRACT

Apples belong to the main fruit species, the most important fruit in temperate zone and the main objectives of apple breeding are being pursued in a number of breeding stations. These main objectives include fruit quality, resistance to biotic stresses, environmental adaptability, enhanced bearing through changes in tree habit, fruit characteristics and yield efficiency, and constancy of production.
An important focus in apple breeding is resistance to apple scab and as concerning the preformed and induced biochemical barriers, phenols are very important. In this context, the content of total phenols was studied in 8 apple cultivars and 12 apples hybrids, growing at S.C.D.P.Voinesti (2006, 2007). The total phenols contents were determined by using the Folin-Ciocalteau assay and results were expressed as mg gallic acid equivalents (GAE) /100 g fresh weight. The amount of total phenols in leaves was markedly higher than in fruits peel or fruits mezocarp and there were registered significantly differences between variants. Also, there were registered significantly differences between registered values for this two years determinations.

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COMPARATIVELY STUDY OF THE ESSENTIAL OILS COMPOUNDS FROM SIX *THYMUS* SPECIES CULTIVATED IN ROMANIA

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Keywords: essential oils, leaves, *Thymus*

ABSTRACT

Summarised research data emphasised a different composition for the six studied *Thymus* species, as following: *Thymus calliari* contains 17.66 (%) trans ocimen; *Thymus comosus* contains 14.26 (%) β- cayophyllene: *Thyms glabrescens* presents 47.92 (%) carvacrol and 36.04 (%) g- terpinene. *Thymus panonicus* had a high amount of α terpenil acetate. Also, in *Thymus pulegoides* the essential oils are rich in carvacrol, while in *Thymus zigioides* there were identified in a high amount camfen and α- pinene.

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THE RESPIRATION DYNAMICS OF SUBAQUATIC PLANTS CAUSED BY HEAVY METAL'S POLLUTION

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Key words: heavy metals, pollution, respiration

ABSTRACT

In this report we study the influence of different cadmium concentrates on the respiration intensity, under dynamic condition, over a period of approximately two months, on the plants of *Ceratophyllum sp*. The biological material was harvested from the Arges River's nearby lakes, from submerged areas. The cadmium concentration was between 0.003 – 0.06 ppm Cd^{+2}. It remarks a positive correlation between the days of exposure to the cadmium concentration and the respiration values.

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OTHER FIELDS

RESEARCHES REGARDING THE ENDOWMENT WITH TECHNICAL SYSTEMS OF AN AGRICULTURAL BASE OF VEGETAL PRODUCTION

FARCAŞ N., SIMION C.O., DOBRE P., BORUGĂ I., GÂDEA M., SIMION Mariana

Key words: agriculture, mechanization, outfit of equipment, improvement

ABSTRACT

Acquisition and proper exploitation of technical systems in an agricultural base of vegetal production is a very important activity in order to obtain some steadfast and quality products. It is necessary that every agricultural base to have a suitable number of equipments which would allow the procedures in the best period from the agro technical point of view. The new acquired technique compared to the old one has a series of characteristics that makes it advanced, and these are:

- the real power of tractors, bigger;
- the improvement of the traction performance in the case of agricultural tractors by using advanced engines and transmissions;
- automation of the action systems and of the work processes from agriculture;
- Agricultural machines with large work width and superior efficiency;
- Agricultural machines adapted for different work conditions;
- Agricultural machines that would assure quality indexes for a good work;

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RESEARCHES REGARDING THE IMPROVEMENT OF CULTIVATION TECHNOLOGIES FOR THE MAIN AGRICULTURAL CONSUMPTION CULTURES AND SEED PRODUCTION

FARCAŞ N., SIMION C.O., POPESCU O., DOBRE P., IACOMI C., UDROIU Alina, SIMION Mariana

Key words: agriculture, cultivation technologies, the proper period, improvement

ABSTRACT

The present paper wants to approach a theme connected to application technologies to the main agricultural cultures, in an agricultural base specialized on large culture and to present a series of solutions for their perfecting. Thus, it is seen the way in which the technological links are respected, the making of a proper structure of cultures which would allow works of tilling of the ground in a mechanized way in the proper period from the agro technical point of view, crop rotation and cropping system. All these elements were established according to the base conditions, the cultivated area, endowment with technical systems and their efficiency, to the financial power of every base. All changes from the main technologies aim to obtaining the lowest price on a product and after capitalization the highest profit. It was taken into consideration in this study both the culture technologies for the consumption plants and those for the production of seeds and there were even taken into consideration comparative aspects.

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IMPLEMENTING AND DEVELOPMENT OF WAYS OF CREDIT – FINANCING IN ROMANIA'S AGRICULTURE

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Key words: agriculture, credit, financing, unredeemable funds, private co financing

ABSTRACT

Regarding the loan in agriculture, market economy means capital, capital market, securities market, commodities market, all developed and which have as purpose making great profit, but referring to the already mentioned elements of the market economy, one cannot exclude banks, loan, a speeding up of the capital turn and of the money in general.
Talking only about financing agriculture is not enough. Often commercial bankers show a very low preference of the financial institutions that they represent for agricultural involvement. There are three major aspects that deserve to be emphasized here: productivity, in general, low in our agriculture, which is itself an element of discourage; the disadvantage that the agricultural field has anywhere in the world compared to industry and services; important subventions from the competition countries. In counties with advanced economy, mechanisms that are supported by farmers function with public policy. It is true that it suffers changes, as it happens with Agricultural Common Policy in UE, which means subventions that decrease in future years.
The present paper is a synthetic presentation of loaning and financing in agriculture and also a case study regarding financing an eligible project from this field.

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THE MODERNIZATION OF AGRICULTURAL EXPLOITATIONS IN ROMANIA ACCORDING TO EC RULE 1698/2005

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Keywords: agriculture, agricultural exploitations, modernization, efficiency, productivity, finance

ABSTRACT

Romania's European integration brings for agriculture a series of advantages expressed in real life by the growth of agriculture's production, the encouragement of the development of middle (not more than 50 hectares) and high (more than 100 ha) agricultural exploitations, the improvement of the access of the agricultural products on UE market and the disappearance of all commercial barriers, as well as the slowing down of the migration of the manpower from agriculture. The private agriculture is characterized in present by a excessive splitting of the infield and also of the system of agricole production, with negative impact over the product's market. The support for the foundation of producers groups will contribute to the growth of the economical efficiency of agricultural exploitations, having an important role in the improvement of the quality of the products, of environment protection, of web provision and marketplace as well as in establishing a balance between consumption and offer.

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THE PROTECTION OF WHEAT CROPS AGAINST ANNUAL AND PERENNIAL MONO AND DICOYLEDONOUS WEEDS THE CRIŞURILOR PLAIN CONDITIONS

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Keywords: area, monocotyledonous, dicotyledonous, rotation, herbicides

ABSTRACT

In the preluvosoil area the winter - wheat it's infesting in different level in every year. The weight and number of weeds is in correlation with rotation applicated and background used. In the stationary experience with crop rotation, in the wheat monoculture and in rotation of two years the floristically structure predominant are annual monocotyledonous weeds (Apera) with weight between 66–79%, and in the rotation of three and four years predominant are dicotyledonous weeds (74-80%). The practicing of this rotations contribute to the decreasing of wheat infestation with 35-45%, in the rotation of two years, with 90- 91%, in the rotation of four years, and with infestation Apera spica venti from 47- 51%, to 98%. Using of specific herbicides in the control of weeds is necessary every year in the monoculture and in the rotation of two or three years and once to two and three years in the rotation of four years.

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THE BEHAVIOUR OF SOME SPECIES OF APRICOT TREES IN THE CLIMATIC CONDITIONS CHARACTERIZING ORADEA REGION IN 2005

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Keywords: apricot, fruit, species, climatic factors

ABSTRACT

The experiment takes 22 species of apricot trees having different periods of ripening of the fruit. The ripening of the fruit is placed at intervals beginning with the first decade of June and going on until the last decade of July. The richest fruit crops were registered at the species: Comandor, Mamaia, Favotit, Sirena.