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PLENARY SESSION

IN MEMORIAM ELEFTERIE ELEFTERIU (1916-2006)

Pe rând, vechii dascăli ai Facultății de Horticultură din Bucureşti ne părăsesc lăsând în urmă amintirea personalității lor şi a ceea ce au reprezentat pentru zeci de generații de ingineri horticultori, dintre care astăzi încă mulți sunt în activitate.

Numele Elefterie Elefteriu figurează în "cartea de aur" a profesorilor; deşi s-a pensionat ca şef de lucrări, titularul disciplinei de Arboricultură ornamentală şi Arhitectură peisageră a fost pentru studenții săi un adevărat profesor.

Cu pasiune, talent pedagogic şi deosebit simț practic, şi-a transmis ştiința şi interesul pentru horticultura ornamentală – domeniu în care mulți absolvenți au lucrat sau încă lucrează, fie în administrația spațiilor verzi, fie în pepinieristică, în învățământul de profil, sau în cercetare. În şcoala superioară horticolă a avut o muncă de pionierat, inițiind studenții în proiectarea grădinilor şi parcurilor, într-o vreme când nicăieri în facultățile de horticultură din țară nu se pregăteau specialişti pentru amenajarea spațiilor verzi.

Dar cine a fost şi cum a trăit acel bărbat înalt, deosebit de modest, plin de bunătate şi înţelegere şi care a iubit atât de mult florile, arborii, arbuştii, lucrul la planşeta de desen, munca în teren?

Modestia, seriozitatea şi disciplina muncii care îl caracterizau şi-au avut originea în educaţia din familie şi din şcoală.

Elefterie, al treilea fiu dintre cei patru ai comandantului de vas comercial Gheorghe Elefteriu şi al soţiei sale, Ana, s-a născut la 21 mai 1916 în Galaţi. A urmat şcoala şi liceul în perioada 1923-1935 la Galaţi, remarcându-se prin conştiinciozitate şi rezultate foarte bune.

După o perioadă în care, din motive familiale, a fost nevoit să muncească, în 1939 a fost încorporat şi a urmat pregătirea militară şi şcoala de ofiţeri de cavalerie la Sibiu. Datorită calităţilor sale a fost numit comandant de pluton la Regimentul 8 Călăraşi.

Activitatea de militar l-a adus pe scena celui de-al doilea război mondial din iulie 1943 până în august 1944 când, din nefericire, a fost luat prizonier. Această grea încercare a vieţii – prizonieratul în URSS, în zona oraşului Gorki până în iulie 1948– i-a adus multe suferinţe dar nu i-a înfrânt speranţa.

Repatriat, îşi mobilizează energiile şi devine student la Facultatea de Horticultură din cadrul Institutului Agronomic „Nicolae Bălcescu” din Bucureşti (promoția 1948–1952) având o înclinație deosebită pentru acest domeniu ca urmare a preocupărilor anterioare. Devenit inginer horticultor, domnul Elefterie Elefteriu, îşi începe activitatea profesională imediat după absolvire până la pensionare în 1977.

În primii ani a lucrat în peisagistică şi floricultură; se poate menționa participarea domniei sale la realizarea parcului de cultură şi sport „23 August” din Bucureşti - actualul Parc Național - amenajat pentru găzduirea manifestărilor din cadrul Festivalului Internațional al Studenților şi Tineretului din 1953.

A devenit şef de lucrări în cadrul Facultății de Horticultură, activând la disciplina de Floricultură, Arboricultură ornamentală şi Arhitectură peisageră. A lucrat inițial, până în 1960, pe lângă distinsul conferențiar Grigore Constantinescu şi având pentru o perioadă coleg pe asistentul Nicolae Şuster (1952-1962).

Devenit apoi titularul disciplinei de Arboricultură ornamentală şi Arhitectură peisageră, a avut o contribuție însemnată la dezvoltarea acestui domeniu horticol, nu numai prin predarea cursului şi a lucrărilor practice şi a conducerii lucrărilor de diplomă, dar şi prin activitatea aplicativă. A înființat pepiniere de arbori şi arbuşti ornamentali, mai întâi în incinta Institutului Agronomic, apoi în cadrul Fermei didactice Băneasa, pregătind astfel studenții pentru exercitarea meseriei în producție.

Ca dascăl, s-a apropiat de studenţi cu multă simpatie şi înţelegere, i-a îndrumat cu o răbdare deosebită, mai ales la întocmirea proiectelor de spaţii verzi, pentru care rămânea ore în şir în facultate. Iar în teren, în pepinieră, lucrând alături de ei i-a învăţat multe din „secretele” meseriei.

Ca fostă studentă şi colaboratoare a domnului Elefteriu, pot spune că avea cunoştinţe foarte vaste pe care le împărtăşea cu multă plăcere; sub o aparenţă puţin inabordabilă, era de fapt un om destul de timid, având în acelaşi timp o rezervă de umor fin, care încânta pe interlocutorii apropiaţi.

Cunoştinţele în domeniu şi le-a transmis prin publicaţii ştiinţifice privind tehnologii de înmulţire şi cultură la unele plante ornamentale (flori şi arbuşti foioşi) şi prin manuale pentru elevi şi studenţi, îndrumătoare pentru proiectele de an.

În viaţa privată s-a căsătorit în 1965; mariajul plin de armonie a durat până în 2006, când doamna Alexandrina Elefteriu s-a stins din viaţă cu câteva luni înaintea soţului.

Domnul Elefterie Elefteriu a dispărut dintre noi la 3 octombrie 2006. Foştii studenţi şi colaboratori îl vor păstra în amintire, aşa cum a fost, un om deosebit.

Un simbolic buchet de trandafiri pentru cel care a iubit atât de mult florile şi grădinile şi care a format cu dăruire multe generaţii de specialişti pentru spaţiile verzi ale României.

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Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. XLIX, 2006

PROBLEMS OF LANDSCAPE ARCHITECTURE HIGHER EDUCATION IN EUROPEAN VISION

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Keywords: ECLAS, Le-Notre, curricula, implementation, teaching and research

What are landscapes, why are they as important as to determine a complex profession and special academic studies?

According to the European Landscape Convention (Florence, 2000) a landscape means a part of a territory, as it is perceived by man, and which is the result of the action and interaction of natural elements and human activities.

Considered from ecologic, social, cultural and economic point of view, natural, semi-natural, and man-made landscapes contribute to the human life quality and offer condition for the integration of economic activities. Vegetation has a considerable role in the equilibrium of the environment, the main landscape component.

That is why landscape protection, conservation, improvement and management as new landscapes creation are very important for a sustainable development, based on harmonization of social needs, economy and environment.

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RESEARCHES REFERRING BIODIVERSITY OF APPLE ORCHARD FROM RESEARCH AND DEVELOPMENT ORCHARD STATION – BĂNEASA

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Keywords: Biodiversity, apple orchard, fauna, yellow sticky traps

ABSTRACT

Biological diversity represents a specific particularity of the earth life, which assure optimal functionality of ecosystems, existence and functionality of biosphere, in generally. But, in the last time, the problem of preserving biodiversity at the level of ecosystems, species, populations and genes, become more and more evident due to increasing of human activity on biosphere. In this respect, maintaining of biodiversity is necessary not only for actual life assurance, but even for the next generations, because it preserve the global and regional equilibrium, guarantee regeneration of biological resources and maintaining of a proper quality of environmental which is the guaranty of society evolution.
Purposes of the researches which are at the base of this presentation, is to: establishing of fauna structure on arthropod communities, at the epigeic level from tree level; grouping arthropod species in useful and damaging; characterising of invertebrate communities from point of view of abundance.

SISTEME DE PLANTARE ŞI FORME DE COROANĂ ÎN POMICULTURA MODERNĂ

PLANTING SYSTEMS AND TREES CANOPY IN MODERN FRUIT GROWING

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Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. XLIX, 2006

VEGETABLE GROWING

RESULTS CONCERNING THE INFLUENCE OF PROTECTION WITH AGRIL ON EARLY POTATO CROP

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Keywords*:* Impala, Aladin, Cosmos, protection with agril, potato crop

INTRODUCTION

Potato crop for early consumption is one of the most lucrative ones for the Romanian farmers; they use it both as an aliment for their own consumption and as goods for sale on the internal market (Berindei M., 1984, Draica C-tin., 1998).

The potato crop has a high productivity potential and a great adaptability to various ecological demands; in Romania the total growing field area is of 280 thousand hectares and the total production rises to about 4 thousand tones per year. The locality of Brezoaele, lying in the Dambovița County at 30 km from Bucharest, is one of the most important early potato-growing areas in our country.

Paralleling the major changes in economic conditions, equipment, scientific advance the technology to be applied should be continuously updated in order to reduce production costs and to attain a sensible resource use (Ianoşi, 2002).

Among the measures taken to enhance the economic efficiency of the potato crop, the AGRIL polyethylene sheet protection is the easiest and less costly; it allows reaping the crop at least 15 days in advance and it favours a production rise of 10-25% (Ciofu R. şi colab., 2004).

The present research paper lays the overview of the results of an experiment focused on establishing the influence which the AGRIL sheet protection has on certain potato variety in early crop in the southern Romania.

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BEHAVIOUR OF MARATHON BROCCOLI HYBRID IN EARLY AND AUTUMN CULTURE

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Keywords: *Brassica oleracea subvar. Cymosa, Marathon F1, early and autumn culture*

INTRODUCTION

Broccoli (Brassica oleracea L. var. botrytis, subvar. cymosa) is a vegetable belonging to the Brassicacea family, resembling the cauliflower but less known in our country. It is mainly grown for the inflorescences which are used in human food production (1,3).

Broccoli has a special nutritive value (glucoses 1.6%, nitrogen 7%, mineral salts as Ca, P, Fe, vitamin A and C), widely-known anti-cancerous therapeutic qualities, a simple growing technology, it resembles all the species of the cabbage-like vegetable group. These qualities plead that this vegetable should be introduced in the vegetable-growing range in our country, as soon as possible and on the most extensive areas as can be.

The international type of this vegetable comprises a great number of varieties and hybrids which can be differentiated by the vegetation period and the productive potential, morphological characteristics, the way how the edible parts grow.

Taking into account that the broccoli hybrids behave differently as to the growing process, the productive potential and the inflorescence quality (2), the present research exercise is focused on the Marathon hybrid of American provenance, in early and autumn crop in the southern area of our country.

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THE INFLUENCE OF THE KIND AND OF THE FERTILIZATION TECHNOLOGY REGARDING THE PRODUCTION OF THE GREEN PEPPER CULTIVATED ON THE FIELD

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Keywords –green peppers, cultivar, fertilization.

ABSTRACT

During the last years, new cultures of pepper appeared on the Romanian market, either created at ICDLF Vidra, or imported. Also, the production materials offer for the vegetable market includes granulated complex fertilizers that slowly eliminate nutritive elements and soluble complex fertilizers used for fertilization and irrigation.
This work is a description of certain new cultivations on two agro funds, performed by traditional means – manure applied to the hole and pellicle granulated complex fertilizers.

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STUDIES REFERRING TO DIFFERENT EGG-PLANT CROP TECHNOLOGY IMPACT ON THE SEEDS QUALITY/QUANTITY PRODUCTION

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Keywords: crop density, Lucia, Contesa, limitation

ABSTRACT

The aim o the present research was to find the optimal plantation distance and optimal fruit number on the plant for obtaining a better quantity of eggplant seeds on the predefined quality. There were made studies of different plantation distance, looking for plants height, number of leafs, number of flowers, number of fruits and in final, the number of seeds obtained per plant.

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RESEARCH CONCERNING THE USE OF THE PHOTOSELECTIVE FOILS FOR THE LETTUCE SEEDLINGS PROTECTION

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Keywords: *Lactuca Sativa, Ilona variety, high tunnels, seedlings quality.*

INTRODUCTION

In the process of producing vegetable seedlings, the protection with polyethylene film having photoselective properties has an effect on changing one of certain vegetation factors specially the quantity and the quality which the plant benefice, together with the modification of the thermic conditions at that of the relative humidity of the air.

The action of the vegetation factors under the conditions necessary for the protection of the seedlings, determines both morphological and physiological modification, which contribute to a different growing and developing rate that of seedlings obtained under normal conditions.

The quantity of radiations being absorbed depends on the nature of the pigments in the leaves and the intensity of their colour (the dark-green laves absorb the most radiations; the next leaves in line are the light green and the yellowish ones which absorb 12-50% less), the vegetable species react differently when being covered with colour photoselective plastic materials (Ciofu Ruxandra, Dobrescu Aurelia şi colab., 1996, 1999).

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STUDY REGARDING THE INFLUENCE OF FERTILIZATION OVER THE OBTAINED PRODUCTION AT SOME AROMATIC AND SPICY PLANTS CULTIVATED IN ORGANIC SYSTEM

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Keywords: fertilization, spicy, aromatic, biologic

ABSTRACT

In biologic agriculture polygon from V.R.D.S. Bacau seven fertilisation variants were tested for the biologic cultivation of four spicy and aromatic species: savory *(Satureja hortensis* L.), sweet basil (*Ocimum basilicum* L.), salvia (*Salvia officinalis* L.) and brotherwort (*Thimus vulgare* L.). For all the studied crops, the best results were obtained on the variants in which the fertilisation was made with: - decoct from coriander fruits–2% + sesame oil (0,2%) (V6) and Cropmax (0,2%), (V8). The obtained production overcame the witness variant (untreated) with: 4,3t/ha at savory crop, 2,1 t/ha at sweet basil, 2,8 t/ha at salvia and 3t/ha brotherwort.

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STUDIES CONCERNING THE PROGNOSIS OF WATER APPLICATION IN BACAU AREA, AT SOME AROMATIC AND SPICY SPECIES (*OCIMUM BASILICUM* L. AND *SATUREJA HORTENSIS* L.)

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Keywords: aromatic, plant, *Ocimum basilicum* L. ,*Satureja hortensis* L.

ABSTRACT

The establishment of water application moment for the spicy and aromatic species is made based on a monthly balance, in which starting from a known soil water supply, and at exits, the daily consumptions resulted from the correction of evaporation with the determined transformation coefficient. When the water supply is drawing near the minimum limit of the specie the prognosis of water application can be established.

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STUDIES ABOUT THE INFLUENCE OF THE HYBRID AND THE DENSITY ON THE EARLY CULTIVATION OF BROCCOLI

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Keywords: *Brassica oleracea convar. botrytis var. italica* Plench, field, nutrition space, production, Chevalier, Milady, CLX3501-Ms.

ABSTRACT

Broccoli or the green cauliflower is not enough known and cultivated in Romania, but in the future it can become an important crop because of the high nutritive value and the good taste. The present paper presents the comparative study of three broccoli hybrids and the influence of four variants of density on the main biometric and production indicators in the early culture in the field. The biologic material used was represented by the following hybrids: Chevalier, Milady and Clx3501-Ms. There were used four culture densities: 70/25, 60/25, 70/35, 60/45 (the control variant).

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RESEACHES REGARDING THE ESTABLISHMENT OF SOME CORRELATIONS BETWEEN PLANTLESTS BIOMETRIC SIZE AND PRODUCTION AT EARLY CABBAGE

HOZA Gheorghiţa, DRĂGHICI Elena

Key words: nursery transplant, substrata, biological parameters

ABSTRACT

The experience has been founded to test some nutritive mixture recipes in order to produce early cabbage nurseries. The best results have been obtained on mixture of manure and perlit, in equal quantities, followed by the variant with 1/3 perlit plus 1/3 manure plus 1/3 top soil. Lower results have been obtained at variants with more perlit (2/3), because it is very poor in nutritive elements. The differences between variants have been registered at the nursery level and also at the cabbage production. The percentage of tied cabbage heads has been of 98-100% and the average weight of 0,593 kg and 0,868 kg.

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STUDY REGARDING THE INFLUENCE OF TEMPERATURE ON SIZE AND UNIFORMITY TOMATOES FRUITS CULTIVATED IN COLD GREENHOUSE

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Keywords*:* tomato, uniformity, fruits

INTRODUCTION

The tomato growth in greenhouse has an important place both in the first cycle and in the second. The objective of many producers is to get good tomato crops, with uniform fruit and low expenses. Many tomato hybrids which are typical for greenhouse growth technically warmed up can also be used for the growth in unwarmed greenhouse.

Some studies realized by experts showed that not all the hybrids behaved accordingly when they had been grown in technically unwarmed greenhouse and when temperature variations had increased.

In the present study, we followed, especially the reaction of four tomato hybrids at temperature variations and their influence on the production and fruit uniformity.

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. XLIX, 2006

THE PRETABILITY OF A NEW ASSORTMENTS OF SUMMER-FALL TOMATOES FOR FRESH CONSUMPTION IN BUCHAREST AREA

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Keywords: summer-autumn tomatoes, tomatoes for fresh consumption

INTRODUCTION

The summer-autumn tomatoes for fresh consumption should assure the producing of very good vegetables from the commercial and quality point of view. The tomatoes fruits are obtained from the different special crops and for this there is a limited variety with undetermined grow.

This presentation represents the results obtained by utilizing of summer-autumn high crops with multi destination and for the crops in tunnels.

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. XLIX, 2006

THE INFLUENCE OF THE TYPE AND THE TIME OF CROPPING AND CONSUMING UPON THE QUALITY OF SUMMER-FALL TOMATOES

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U.S.A.M.V. Bucuresti

Keywords: summer-fall tomatoes, time of harvesting and consuming

INTRODUCTION

The summer type of tomatoes raised in Romania contains both traditional species and more modern ones created and commercialized by companies from Western Europe such as Holland, France and Denmark.

Because of the way in which tomatoes are organized and of their destination of being consumed fresh, farmers choose to grow species that maintain their commercial qualities and their flavour for a longer period of time. Maintaining very high quality parameters for tomatoes depends in an equal measure of their attributes and the time of harvesting and consuming.

This presentation points out the preliminary results regarding the attributes of tomatoes harvested from various sources during the season when they are ready to be consumed: the months July and August.

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. XLIX, 2006

RESEARCH AND RESULTS REGARDING SOME POSSIBILITIES OF PRODUCING VERY BIG PUMPKIN FRUITS IN ROMANIA

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U.S.A.M.V. Bucharest

Key words: pumpkin range, very big pumpkin fruits.

INTRODUCTION

The fruits obtained from the pumpkin crops from the present range are used for human consumption, fodder or for decorative purposes.

In the past years, the pumpkin range has been diversified with new crops that have higher nourishing value, remarkable decorative features or extremely big fruits. The world weight record for a giant pumpkin fruit is over 600 kg.

The giant pumpkins are being used as exhibits, which are very attractive to the public, in specialized fairs and in agricultural exhibitions.

This paper aims to present, for the first time at the national level, the results regarding the effect of some technological measures on the size of the fruits obtained from crops especially created for this purpose and the nourishing value of an edible range of pumpkins that is cultivated in Western Europe and North America.

In Romania, the range of edible pumpkins includes only some crops from the species Cucurbita maxima L and Cucurbita moschata Duch. Given these facts, the research regarding the diversification of the edible pumpkin range is highly motivated.

The present range of ornamental cucurbitaceous is diversified, including mainly ranges or species with very small fruits. Due to this fact, the general public especially appreciates the medium sized pumpkins that are used during some holidays (Halloween) but also the big sized pumpkins, which are used as exhibits at different fairs and exhibitions.

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THE INFLUENCE OF SOME TECHNOLOGICAL MEASURES TOWARDS THE EARLY TOMATOES PRODUCTION IN SOLARIUM

ATANASIU N., NEGUŢ Mihaela, LUCHIAN Viorica

Key words: tomatoes in solarium, assortment, irrigation through dripping

INTRODUCTION

Early tomatoes crops in solarium in the Vidra vegetable garden have been characterized in the last years by a technological delay with negative effects on production and its quality.

Because the construction of modern solariums in the area is an expensive activity, the producers' interest was focused on perfecting some technological branches such as: modernizing the assortment, using the irrigation through dripping installations for fertilization and irrigation, introducing new effective measures of ensuring the pollination.

The present paper presents the results of a research based on the introduction in the Vidra crop solariums technology of some new elements, with positive effects on the level and quality of tomatoes' production.

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RESULTS CONCERNING INTEGRATED WEED CONTROL ON EARLY POTATO CULTURE WITHIN BUCHAREST AREA

NICOLA Iulia, ATANASIU N., POPESCU V., GEORGESCU Mihaela, LUCHIAN Viorica

Keywords: early potato, weed control

INTRODUCTION

Early potato culture presents a particular importance for the boarding zone of Romanian capital, urban centre that marks out through consume of large quantities from this valuable horticol product.

One of the major technological problems for this kind of culture is weed control, the fields in southern area of Romania being strong infested with weeds.

The technological solutions concerning weed control in potato cultures intended for autumn and winter consume, established on spontaneous flora in ecological areas much different from the capital area, cannot be taken over and applied with satisfactory results in early potato cultures in southern area of our country. In view of considerations mentioned above this experiment regarding weed control in early potato culture in Bucharest area has been initiated and performed and the results are presented as follows.

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. XLIX, 2006

THE EFFECT OF SOME NEW TYPES OF ROMANIAN PHOTOSELECTIV FOILS ON THE MICROCLIMAT IN SOLARIUM

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Keywords*: photodselective foils, Latuca sativa, Ilona, microclimate*

INTRODUCTION

In order to establish the reaction of the plastic colorants concerning the selectivity of the transparency in infrared, there have been certain researches done in Romania too by Cobâlaş (quoted by Manescu, 1977). The spectrophotocopies with transmissions between 2500 and 25000 nm show that the polyethylene colored in blue, yellow-orange and white is less transparent than the corrugated vinyl polychloride (PVC). Only the flat green colouring for a 0.15 mm polyethylene foil maintains a better transparency.

In general the allure of the curves depending on the wave length is kept regardless of the colorant.

For the various colouring thicknesses and intensities of the same material, the transparency is stronger at the lighter colourings and at the thinner foils. The most transparent colours remain the light yellow, the blue and the light green, regardless of the wavelength. The least transparent colour is the yellow-orange one.

Among the climatic conditions, besides the relative humidity and soil humidity, another determining factor within the growing and the fructifications processes, is temperature (Melton and Dufault, 1991; McMichael and Burke, 1998).

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. XLIX, 2006

THE EFFECT OF THE IRRIGATION WITH THE SALINE WATER ON THE DEVELOPMENT AND THE QUALITY OF TOMATO FRUIT

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Keyword: *lycopersicum esculentum*, development, saline water, quality

ABSTRACT

This study aims at investigating the effect of the saline water on the development and the quality of one variety of tomato *lycopersicum esculentum* Cidel F_1. This variety was planted in vases of vegetation and was irrigated with waters of different quality, corresponding to V_1 0.317 ms/cm, V_2 1.5 ms/cm, V_3 2.5 ms/cm, V_4 4ms/cm.
Some phenotypic observation (plant height, number of internod, height of the internod) and quality regarding the fruit (acidity, sugar content, Nitrogen content, Phosphor content Potassium content).
We observed that the tomato plants resisted to a concentration of 1.5 ds/m but in the case of higher concentration the plants were affected.
The inflorescence was affected because in the case of V_3 and V_4 the flowers were aborted
In the case of the treatment irrigate with saline water we have an increasing of the acidity and decreasing of the sugar content
The acidity and the sugar content have an inverse proportional variation meaning that in the control we have low acidity and a higher sugar content and vis-versa in the case of V_4
The treatment irrigated with saline water had an content of nitrogen phosphor and potassium much higher than the control

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THE INFLUENCE OF IRRIGATION WATER ON CABBAGE IN EARLY AND AUTUMN CULTURE

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Key words: culture systems, nitrates content, accumulation, metabolisation

ABSTRACT

This paper presents the results of the research about the synchronization of nitrates content of surface waters used for culture irrigation in the arranged space within The Buzau Research-Development Base for Vegetable Growing and of the level and quality of the white cabbage in early and autumn culture.
There is an important synchronization between the nitrates content of irrigation water and that of cabbage plants, in various growing phases. In cabbage heads the NO_3 concentration was 3.8 -5.3 times smaller for the early culture and 6.3 times smaller for autumn culture compared to young plants. Reversed linear correlations between the productions level and the nitrates content of the cabbage heads ($r^2 = 0.621$) were determined. For the autumn culture the accumulation rate of nitrates is smaller, and their metabolisation capacity is 1, 6 times higher compared to early culture, and there is a reaction specific to different types of cultivars

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THE EFFECT OF THE NITRATES IN IRRIGATION WATER ON THE YIELD AND QUALITY OF TOMATO FRUITS

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Keywords: land utilization systems, nitrates concentration, accumulation, metabolisation

ABSTRACT

The paper presents the results of a research conducted at SCDL Buzau, regarding tomato cultures grown in the field, in solariums covered with polyethylene and greenhouses, irrigated with water from the Buzau River.

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THE ADAPTABILITY OF SOME CATEGORIES OF TOMATOES FOR ECOLOGICAL CULTURES

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Keywords: ecology, type, hybrid, port, quality

ABSTRACT

The study has as main subject ascertaining the most adequate tomato breeds and hybrids adaptable at the ecological culture in exact conditions of climate and soil of particular areas from Romania (jud. Telorman)

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. XLIX, 2006

RESEARCH AS REGARD AS THE BIOLOGY, TECHNOLOGY AND ORNAMENTALY ASPECT OF CHERRY TOMATO

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Keywords: biology, cherry, tomato

INTRODUCTION

The Solanaceae family includes many representatives in the tropical area, also in temperate regions, over 75 genus and 2000 species, including ornamentally, alimentary and therapeutically fruits.

Tomatoes with cherry type fruits from *Lycopersicon esculentum* specie belong to the followings botanical varieties:

a) Var. Cerasiforme, Alef (L. cerasiforme Duval)

Thin leaves and usually smaller and less acuminated.

Flowers grouped in different inflorescences dimensions. Globularly or elongated fruits (Plum tomatoes), with plane surface, 2 cm diameter, red or yellow.

b) Var. Pyriforme, Alef (L. cerasiforme Duval) = Pear tomatoes

Fruit form is like a pear, with a length of 3,5- 4 cm.

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THE INFLUENCE OF DIFFERENT TYPES OF COMPOSTS TO THE BELL PEPPER FRUIT QUALITY

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Keywords: bell pepper, fruit, greenhouse, compost

ABSTRACT

The research was made in an unheated greenhouse of Vegetable Department of Horticulture Faculty of University of Agricultural Sciences and Veterinary Medicine, in 2005.
The influence of compost types and organic mixtures to the bell pepper fruit quality was investigated. Bianca and Nikita cultivars were used under the following variants: V_0control – hybrid Bianca, non-fertilized, V_2 - hybrid Bianca, fertilized with leaves compost, V_3 - hybrid Bianca, fertilized with chopped branch wine compost, V_4 - hybrid Bianca, fertilized with mushrooms compost, V_5 - hybrid Bianca, fertilized with vegetable waste compost, V_6 - hybrid Nikita, fertilized with vegetable waste compost, V_7 - hybrid Nikita, fertilized with mushrooms compost, V_8 - hybrid Nikita, fertilized with chopped branch wine compost, V_9 - hybrid Nikita, fertilized with leaves compost, V_1control – hybrid Nikita, non-fertilized. The experimental design was organized in ten subdivided plots with three repetitions. Variants fertilized with mushroom compost and leaves compost outstand by quantity (58.6 and 56.6t/ha) and by quality (81% first quality). V4 fertilized with mushroom compost has the lowest level of water, having in the same time the highest percent in dry matter(6,74%).

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. XLIX, 2006

PRELIMINARY RESULTS REGARDING FERTILIZATION WITH CHICKEN MANURE IN POTATOES CULTURE ON SALTY PASTURE-LAND

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Keywords: *doses, yields, quality, Santé*

INTRODUCTION

In potatoes culture, the fertilization in phases represents an extremely important element of technology due to the fact that plants need during the entire period of growth a constant and sufficient supply with nourishing elements in order to ensure them the best growth for a long period of time along with an increased stocking capacity for the benefits of the production achieved. Berindei, Matei, 1984, Ianos I Ioan Sigismund and colab., 2002, Ciofu Ruxandra and colab., 2004.

The half-fermented chicken manure is a complete fertilizer as it contains azote, phosphorus three or four times more than the stable manure, it doesn't pollute because it leaves no residues in the soil. On salty soils, chicken manure fertilization represents a lever which can contribute, in a concrete and certain way, alongside the action of the main agrotechnic works (such as breaking up, ridging, weeds destroying) to obtaining an economic and profitable production. (Davidescu, D., Velicica Davidescu, 1992, Benavides M. P., 2001, Rusu Mihai and colab., 2005).

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. XLIX, 2006

RESEARCHES CONCERNING THE METHODS/PHYSICAL AND CHEMICAL WAYS FOR THE TREATMENT SEEDS OF TOMATOES, CUCUMBER-S AND BEAN TO CONTROL THE PATHOGENS AND THE PESTS OF SOIL, TECHNOLOGICAL INDICATIONS

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Keywords: pathogen, tomato, cucumber, bean, pesticides, seed, treatment, *Pythium ultimum, Phytophthora parasitica, Rhizoctonia solani, Fusarium spp., Agriotes spp.*

ABSTRACT

In the paper are presented the results of the research workers concerning the usefulness of the pesticides: Tiramet 60 PTS, Apron XL 350 ES, Tachigar en 30 L, Previcur energy, Previcur 607 SL, Dithane M 45+Topsin 70 PU and Cruiser 350 FS applied at the seeds of tomatoes, cucumbers and bean, for the protection towards the pathogens of soils: *Pythium ultimum*, *Phytophthora parasitica*, *Rhizoctonia solaui* and *Fusariuma spp*. and towards the wireworms *Agriotes spp*.

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THE USE OF SOME INSECTICIDES IN THE PREVENTION OF GREEN PEA APHID-*ACYRTHOSIPHON PISUM* HARR. (*APHIDIDAE-HOMOPTERA*)

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Keywords: efficiency, treatment, pest, limited, economical ridge of damage

ABSTRACT

Our research regarding green pea aphid control (*Acyrthosiphon pisum* Harr.) have developed during 3 years: 2000, 2001, 2002 on the experimental field from Moara Domneasca.
The first research regarding the fight against this pest were the natural plants extracts. But after 1945 the chemical control of this pest had a wide range of usage.
Lately, it is seen that due to the damage caused through direct and indirect attack, control measures must be immediately be taken, even in cases which indicate that there is no great danger, but a minor one.
We stress this detail because lately the apparition of certain types of aphids which are very resistant to insecticides has been acknowledged. Therefore, it so best that the chemical treatments to be made using various types of active substances, and various methods of doing this, such as “shock doses” but also ensuring the protection of the predators and parasites. This protection can be achieved by using these “shock doses” and insecticides before the apparition of harmful insects.

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REZULTATE OBŢINUTE ÎN COMBATEREA PUTREGAIULUI CENUŞIU DIN CULTURA DE CEAPA PRIN ARPAGIC, PRODUSĂ DE CIUPERCA *BOTRYTIS ALLII MUNN*. DIN ZONA DE VEST A ROMÂNIEI

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REZUMAT

Cultura de ceapă este atacată de numeroşi agenţi patogeni şi dăunători care diminuează producţia în condiţii climatice favorabile.
Botrytis allii este unul dintre agenţii patogeni cu incidenţă ridicată în cultura cepei care determină apariţia putregaiului cenuşiu, pierderile ajungând până la 70-80% când sunt întrunite condiţiile favorabile dezvoltării acestuia.
În scopul de a lămuri unele aspecte de combatere, în perioada 2003-2005 am urmărit evoluţia bolii şi combaterea acestei prin folosirea fungicidelor: Antracol 70 WP, Bravo 500 SC 0,15 %, Previcur 607 SL, Folpan 80 WDG, Ridomil Gold MZ 68, Ridomil Gold Plus 42,5 WP, Dithane M45.

Cuvinte cheie: agent patogen, grad de atac, combatere, fungicide.

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. XLIX, 2006

RESEARCHES UPON THE MANIFESTATION OF THE PRODUCTIVE POTENTIAL OF TOMATOES CULTIVATED ON MINERAL AND ORGANIC SUBSTRATUM IN VARIOUS RECIPIENTS, UNDER A FORCED SYSTEM WITH UNCONVENTIONAL ENERGETIC INTAKE

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Keywords: hibrid, potențial productiv, sistem radicular, suprafață foliară, substrat de cultură, recipient, îngrăşământ organic, energie neconvențională.

INTRODUCTION

As high-level achievement within the high technologies, the horticultural cultures without soil, especially vegetables and flowers, were placed on the top of the vegetable production, from a productive and qualitative point of view, related to the worldwide agriculture. The productions for tomatoes – 500-550 t/ha and for cucumbers – 700-800 t/ha obtained in hothouses set the non-conventional cultures in the top of productivity (Horgoş, A., 1998, Atanasiu, N., 2002). These cultures, already present on big surfaces in countries as Holland, France, Belgium, Germany, England, Japan, Denmark, are continuously being expanded due to the high agricultural technologies, being supported by a high-tech industry specialized in such direction. This parallel, specialized industry provides high-tech materials and equipment, smartly designed and created, which confer the same high-tech level to these cultures.

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RESEARCHES ON THE INFLUENCE THE METHOD OF OBTAINING SEEDLINGS HAS ON THE PRODUCTION OF THE LETTUCE CULTIVATED IN PROTECTED

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Keywords: *Lactuca sativa*, seedlings, alveolus pallets, Jiffy pots, Jiffy 7

ABSTRACT

The production of lettuce seedlings for the forced and protected requires their being obligatorily replanted in different types of pots. For a better economical efficiency we can eliminate the replanting by means of direct sowing in alveolus pallets, Jiffy pots and Jiffy 7.

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. XLIX, 2006

A COMPARATIVE STUDY REGARDING NITRATES ANALYZE APPLIED ON BIOLOGICAL PRODUCTS

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Keywords: biological products, vegetables, field experiments, quality

ABSTRACT

The priority for all the national organizations which take part to EU integration processes is represented by the establishment of control activities regarding the quality factors, respectively food quality, plant products quality, the presence of some potential toxically substances with high risk for consumers and environment. Among the agricultural products which must be severe controlled are the nitrates, heavy metals and pesticides.

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ORNAMENTAL PLANTS & LANDSCAPE ARCHITECTURE

PRELIMINARY RESULTS REGARDING THE GROWING AND BLOSSOMING OF THE *JASMINUM* SP IN DIFFERENT SUBSTRATES

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Keywords: substrates, cuttings, blossom, grow

ABSTRACT

The study aim to surprise the influence of different types of substrates upon the growing and blossom of *Jasminum* sp. The main compounds of the substrates were white peat, red peat, lawn soil and perlit. Also it was tested in different percentages the marc of grapes added to the control substrate. The marc of grapes presence in the substrate induced a decrease of the plants high and a lower number of ramifications. Regarding the blossoming of the plants, it was establishes the phenophase periods and the blossoming wave.

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PRELIMINARY RESULTS REGARDING THE GROWING AND BLOSSOMING OF THE *MURRAYA EXOTICA* L. IN DIFFERENT SUBSTRATES

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Keywords: substrates, flower phenophase, blossom, grow

ABSTRACT

In the present study we propose to register the influence of different types of substrates upon the growing and blossom of *Murraya exotica* L. The main compounds of the substrates were white peat, red peat, lawn soil and perlit. Also it was tested in different percentages the marc of grapes added to the control substrate. The marc of grapes presence in the substrate induced a decrease of the plants high and a lower number of ramifications. Regarding the blossoming of the plants, it was establishes the phenophase periods and the blossoming wave.

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MINERAL NUTRITION OF URBAN TREES

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Keywords: broadleaf trees, traffic, pollution, air quality, plantations

ABSTRACT

Stationary factors as result of urbanization, can affect the trees and shrubs in urban areas. The stress coming from these combined with air pollution has a significant impact on the growth and development of woody plants, shortening their life-time. With the aim of study the influence of air pollution on the mineral nutrition of street trees, plant and soil samples were collected during the vegetation period from trees located in two sites with different level of pollution in Bucharest. The results showed that air quality was influenced the nutrition of three species of broadleaf trees – *Acer negundo*, *Prunus cerasifera* and *Tilia tomentosa*.

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A STUDY REGARDING THE POSSIBILITY OF USING DENDROLOGICAL SPECIES AS INDICATORS OF SULPHUR AIR POLLUTION

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Keywords: intense traffic, ornamental trees, ornamental shrubs, sensibility, sulphur oxides

ABSTRACT

The implications of air pollution with sulphur oxides on some dendrological species used for street plantation were investigated. The results showed that some of the native species are sensitive to these pollutants, and the pollution of street plantation with sulphur oxides involves sulphur accumulation in soil and leaves.

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INFLUENCE OF PRESERVATION SOLUTION RECEIPTS ON THE *SPATHIPHYLLUM* CUT FLOWERS

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Keywords: *Spathiphyllum* sp., preserving duration, preservation receipts, cut flowers.

ABSTRACT

Present researches aim the *Spathiphyllum* cut flower behavior, preservated in different solutions recipes for a longer period conservation.
During the experiment, there were made biometric measurements of initial vegetable material (height of flower stem, spatha and spadix length), agrochemical analysis (pH, soluble salts content and mineral residue) and the temperature of preservation solutions studied.

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THE BEHAVIOUR OF *CHAMAECYPARIS* SP. CULTIVATED IN CONTAINER ON DIFFERENT SUBSTRATES

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Keywords: *Chamaecyparis* sp., substrate pH, sulphur acidifying substance, plants development.

ABSTRACT

Ornamental plants producing technology in container system with superior advantages compared with classical nursery need to solve the technology specifics problems as: the proper choose of substrate for culture, the physical and chemical substrate characteristics control, plant fertilizer system, to diminish the dendrological material producing period, with best results in obtaining the vegetal material for planting in optimum time. One of the most important factors in culture technology is represented by the substrate pH. The ornamental plants requirements of the pH are different depending on each species development results for the environmental conditions.

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THE INFLUENCE OF THE CORMS SIZE AND OF SOME SPECIFIC TREATMENT IN PRODUCING THE PLANTING MATERIAL FOR GLADIOLUS

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Keywords: gladiolus, corm, size

ABSTRACT

In Romania, gladiolus is one of the first flower assortment planted on a field in order to obtain cut flowers. Since the quality of the planting material is one of the main factors which influence the flowers quality, it has experimented many technological ways to get the maximum corms quality.
The results prove that the smallest tuber bulbs have a low percentage in springing; the corms size used for replanting material influences the quantity and the quality of the future corms production; the moistening of tuber bulbs before planting influences (in a positive way), the uniformity and duration of springing.
The result of the present experiment is a part of a bigger experimental program, made for re-evaluation and development of gladiolus crops in Romania.

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THE INFLUENCE OF CUTTINGS ON ROOTING OF SOME ORNAMENTAL SPECIES WITH DECORATIVE VALUE

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Keywords: micropropagation, ornamental varieties, tip cutting

ABSTRACT

The ornamental varieties of Cotinus and Acer have proved to be of high interest as ornamentals and have grown as individuals, groups, groups arrangements or hedgerow (1. 2). The studies carried out at the Research Institute for Fruit Growing have had in view the response of two Cotinus and two acer ornamental varieties to propagation by softwood cuttings, employing Radistim 2, Banoriz, using two cutting types (top and bottom cuttings) under artificial mist.

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BEHAVIOUR OF SOME ORNAMENTAL DECIDUOUS SPECIES IN THE VEGETATIVE PROPAGATION PROCESS

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Keywords: micropropagation, ornamental varieties, rooting, substrate

ABSTRACT

The ornamental species and varieties of Magnolia, Lagestroemia and Clematis genera are of great decorative interest being utilized in landscape arrangements as simple samples or together with others (1, 2). The propagation of these ornamental varieties is usually difficult due to their specific biological features. The studies carried out at the Research Institute for Fruit Growing have had in view the response of two Magnolia, one Lagestroemia and one Clematis ornamental varieties to propagation by softwood cuttings, employing Radistim 2, using two rooting substrates, under artificial mist.

Lucrări ştiinţifice U.S.A.M.V., Seria B, Vol. XLIX, 2006

INFLUENCE OF VARIOUS CULTURE MEDIA ON *IN VITRO* DIFFERENTIATION FOR SOME ORNAMENTAL SPECIES/VARIETIES

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Keywords: micropropagation, macroelements, microelements, growth hormones, meristems.

ABSTRACT

This paper deals with partial results on the influence of culture media used for the investigated species/varieties: Acer negundo „Variegatum", Acer platanoides "Globosum", Cotinus coggygria "Royal Purple", Cotinus coggygria "Simfonia Verii" and Clematis „Contesse de Bouchand". From all media tested, the best differentiation results have been obtained in the case of the Lepoivre medium for Acer platanoides "Globosum" with 91.6% and for Acer negundo „Variegatum with 75%, in case of the Murashige & Skoog medium for Acer platanoides "Globosum" with 75% and for Cotinus coggygria "Royal Purple" with 66.6%. As opposed to the above species/varieties, Acer platanoides "Globosum" have also given good results on the Lee Fossard medium, showing 83.3% differentiation.

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INFLUENCE OF BIOTIC AND ABIOTIC FACTORS ON EXPLANT GROWTH DURING THE INITIATION OF IN VITRO CULTURE OF *EUSTOMA GRANDIFLORUM*

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Key words: *Eustoma*, micropropagation, explant, photoperiod, acclimatization

ABSTRACT

The purpose was to identify the abiotic and biotic influence of factors in the initiation phase of *in vitro* culture at sp. *Eustoma grandiflorum*. It has been determinate the composition of the nutritive substrates, the rate of explants growing, times of disinfection.

Lucrări ştiinţifice U.S.A.M.V., Seria B, Vol. XLIX, 2006

GARDEN IN MOTION THEORY AND ITS APPLICATION IN THE HERĂSTRĂU PARK

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Keywords: garden in motion, ecology, Herăstrău Park

ABSTRACT

In this paper, I will briefly present the ecological theory developed by the French landscaper engineer Gilles Clément, called garden in motion (*jardin en movement*) and argue for the desirability of applying the above-mentioned theory to an almost derelict area of the Herăstrău Park, in Bucharest. The concept of garden in motion is inspired by waste grounds, places where plants growing spontaneously are allowed to develop freely. The garden and the landscape are always changing, they are not permanent. The plants, the seeds are always moving and thus are transforming the spaces where they end up being implanted. The landscape architect or the gardener has to choose between leaving the nature develop freely and interfering. His task is to interpret the plants' interactions and then to decide where and how much to interfere in order to maintain and to improve biodiversity (.e.g. he has to decide how to balance light and shadow, to decide on the arbitration between different species etc). The concept of garden in motion is well known and very well received all over the world. It is its ecological importance that makes me propose its application in Romania too, in Bucharest, in the northern area of the Herăstrău Park.

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FRUIT GROWING & TECHNOLOGY

ANTIFUNGAL PROPERTIES OF ESSENTIAL OILS ON *MALUS* POSTHARVEST PATHOGENS

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Keywords: plant essential oils, fungitoxic properties, *Malus* fruits, postharvest pathogens

ABSTRACT

The fungal decay of fruits in postharvest storage greatly limits their economic value. Although fungicide treatments have been the main method for controlling postharvest diseases, public concern about fungicide residues in food and the development of fungicide resistance by pathogens has increased the search for alternative means of controlling diseases.
Certain plant essential oils have a broad spectrum of activity against pests and pathogens. As such, they have considerable potential as crop protectants, being safe to user and the environment. The antifungal and fungicidal effects of seven plant essential oils were studied in a series of *in vitro* experiments. Mycelial growth of *Monilinia fructigena*, *Penicillium expansum* and *Rhizopus stolonifer* was totally inhibited by basil, dill, lavender and peppermint essential oils. These finding suggest that these essential oils have strong fungicidal activity and need exploitation as an alternative source of natural antifungal agents.

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RESEARCHES REGARDING THE MICROPROPAGATION RESULTS OF THE POMEGRANATE (*PUNICA GRANATUM)*

PETICILĂ A.G., ŞOIMU Valentina

Key words: Pomegranate, nutrient medium, plant disinfecting.

OBJECTIVES

- Finding out the young virus free plants to initialize the culture.
- Finding out the protocol for the pomegranate plants micro propagation.
- Finding out the best nutrient medium type to decrease the necessary time to obtain ready plants for planting in the field.
- Studying the effect of different solution concentrations in the disinfection treatment.

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STUDY REFERRING THE LEVEL OF CHERRY WORMS POPULATION IN SWEET CHERRY PLANTATION FROM UNIVERSITY OF AGRONOMIC SCIENCES AND VETERINARY MEDICINE – BUCHAREST

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Keywords: *Rhagoletis cerasi*, dynamic, quality fruits, yellow sticky traps type Pherocone AM

ABSTRACT

In conditions of our country, cherry fly (*Rhagolethis cerasi* L.) is the most important pest of sweet cherry orchards. Due to hidden attack of larvae, evolution of attack is possible to be sub evaluated, registering in this way, and failure in phytosanitary protection against the pest.
In favourable years for the pest, attacks are considerable, especially at varieties with late or very late ripening (*Draganele de Piteşti, Bigarreau, Germersdorf*), being registered values of 60-70% vermiculite fruits.
In the present paper there are presented the moment of flies appearing in crowns of the trees, on basis of number of trapped adults in Pherocon AM traps.

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. XLIX, 2006

STUDIES UPON THE WAY OF MIGRATION OF VIRAL PARTICLE OF PPV (PLUM POX VIRUS) IN RESISTANT CULTIVARS OF APRICOTS

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Key words: plum pox virus, systemic, genotype, apricot, resistance

Regarding the way of migration of the viral particle in the host plant the results of the researches are not yet so known. What is known until now is the viral particle is migrating once through the system called “cell to cell” and through systemic way using phloem and xylem. This paper has the role to underline the fact that every cultivar however how resistant it is lets the viral particle to get to the sensitive zones and offers also a spatial view at tissues level using the technique of in-situ hybridization.

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. XLIX, 2006

RESEARCHES REFERRING MICROLEPIDOPTEROUS DYNAMICS FROM APPLE AGROECOSYSTEM FROM UNIVERSITY OF AGRICULTURAL SCIENCES AND VETERINARY MEDICINE BUCHAREST

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Keywords: microlepidopterous, apple orchard, pheromone adhesive traps,

INTRODUCTION

Sexual pheromones, included in the last time in systems of biological control of insect pests, are useful for warning of chemical treatments, establishing of real pest spreading area and at determining the level of microlepidopterous pest from orchards.

Even that at the Research Institute of Chemical Researches Raluca Ripan – Cluj Napoca were registered 35 types of synthetic sexual pheromones for warning, determining the level and control of pest population from orchards, grape vine plantations, field crops, forestry and storage place, the implementation of using these products in practice is very slow. Importance of using pheromones was demonstrated in numerous scientific papers elaborated by authors from research institutes from Romania: Iacob M. (1976, 1977, 1981), Susea S. (1985), Ghizdavu I. (1983), Drosu S. (1993, 2001), Rosca I. and colab. (2001), Istrate R. (2005), but we consider that we have to maintain in actuality the interest of using pheromones in integrated control programs, especially in orchards.

In this paper we present the results of researches which were been done during year 2006 in orchard of experimental field of orchard department from USAMV-Bucharest, and in which we try to prove the importance of sexual synthesis pheromones in supervising of microlepidopterous pest from apple orchard, and recommendation for applying treatments at the proper time regarding to pest population level.

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STUDY ON RELATIONAL RESPONSE PLANT/POTYVIRUS USING *IN-SITU* HYBRIDIZATION TECHNIQUE

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Keywords: plum pox virus, *in-situ* hybridization, sense, antisense

ABSTRACT

The *in-situ* hybridization technique shows a spatial view of the viral PPV particles made at 5 days after the inoculation with PPV strains D and M, and after at 20 days after inoculation in a way that we can observe the way of viral particle migration at tissues level. The inoculations were made by cipp budding technique. Before having been made the *in-situ* hybridizations the vegetative material was serological and molecular tested through Elisa and RT-PCR.

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PRESENT ASSORTMENT OF PEACH VARIETIES FROM SOUTH-EASTERN OF ROMANIA

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Keywords: *Prunus persica*, breeding, genitors, cultivar, fruit quality

ABSTRACT

The Peach National Collection is located at Valu lui Traian, Constanta, near the Black Sea Coast. It contents 855 genotypes, from all over the world. Year by year Collection was enriched and preserved. The researchers selected the best genitors and many hybrids have been obtained. Some of them became new cultivars and now, enriched the Romanian peach assortment: Raluca, Florin, Filip, etc. (standard tree); Cecilia, Craita, Liviu, etc. (dwarf tree).

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RESEARCHES REGARDING THE STORAGE CAPACITY AND THE QUALITY OF SOME APPLE VARIETIES FROM VOINESTI REGION IN NORMAL ATMOSPHERE STORAGE CONDITIONS

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Keywords: Weight looses, firmness, biochemical composition, organoleptic features

ABSTRACT

This study regards the storage capacity of some apple varieties from Voinesti region, in ordinary conditions. Also, the fruits are organoleptical and biochemical studied. The differences between the apple varieties, emphasize some own characteristics which recommend them for different types of storage and the possibilities of maintaining the quality during the storage period.

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ASPECTS AS REGARD AS THE BIOLOGICAL PRODUCTS CERTIFICATION METHODOLOGY

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Keywords: certification, biological agriculture, documents, conformity, certification body

ABSTRACT

The biological agriculture, according to the accepted definition by the European Union represents those systems, which tend to exploit and to preserve the productive ecological systems, without to use the synthesis chemical substance. The biological production system respects standards, reference books and nationally specification conditions and is certify by a supervision and Certification Body that is set up with this purpose. The biological certification scheme of the agricultural units is composed by two phases, as followings: 1) access application in the control system and obtaining the Certificate of accepted agricultural (farm) unit; 2) the application for registration in licensed list of the Certification Body and obtaining the Conformity Certificate with the biological production method (License Certificate).

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THE EFFECT OF SHOOT TIPPING AND FRUIT THINING ON THE PEACH GROWING AND FRUCTIFICATION

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Keywords: shoot cutting, peach, production

ABSTRACT

Cutting off the peach shoots in August determined the formation of secondary shoots in different percentages, depending on the varieties, registering values between 0-94%. The rared fruits determined a low production in comparison with not rared fruits, but their quality was higher. At the Alexia and Antonia varieties is not necessary to rare the fruits because this varieties form an optimal number of fruits.

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STUDIES ON THE AGROPRODUCTIVE POTENTIAL OF SOME APPLE SELECTIONS AND COLUMNARY CULTIVARS WITH DISEASE GENETIC RESISTANCE

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Keywords: columnar, resistance, agroproductive

ABSTRACT

Taking into account the technical and biological advantages of the columnary trees, one can ascertain that the columnary varieties are of great interest in establishing the new orchards. The paper describes the yield potential of Nicol and Colmar cvs., the first autochthonous, columnary cvs. and of other 6 selections under trial at the Research Institute for Fruit growing Pitesti, all showing scab genetic resistance.

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MONITORING OF ADULT WIRE WORMS POPULATIONS FROM *AGRIOTES* ESCH. WITH SYNTHETIC SEXUAL PHEROMONES IN BUCHAREST AREA 2005-2006

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Keywords: *Agriotes* Esch., wire worms, monitoring**,** pheromone, traps

ABSTRACT

Monitoring of adult wire worm population in Bucharest area, during 2005-2006, it was done with traps with sexual synthetic pheromone lure for *Agriotes* Esch., in two different biotopes, orchard and alfalfa, in order to identify of pests present in those biotopes and study their biology especially appearance and flight. It were used sexual synthetic pheromones lure for 8 species belonging to genus *Agriotes* Esch.; *A. lineatus* L., *A. obscurus* L, *A. sputator* L., *A. ustulatus* Schäll., *A. sordidus* Illiger, *A. brevis* Candeze, *A. litigiosus* Rossi and *A. rufipalpis* Brullé. Trap type used was VARb3 for species *A. ustulatus* Schäll. and *A. rufipalpis* and YATLORfunnel for species *A. lineatus* L., *A. litigiosus* Rossi, *A. obscurus* L., *A. sputator* L., *A. sordidus* Illiger and *A. brevis* Candeze. On the basis of biological material collected in traps, 1613 specimens, it was established adults dynamic, flight curves, level of population and existing of species and it was also possible to determine the selectivity of used pheromone lure. The high level of population was determined by species *A. sputator* (374 in 2005, 390 in 2006 specimens) and *A. ustulatus* Schall (201 in 2005, 214 in 2006 specimens), both species being dominant in these two biotopes. There also less present species *A. litigiosus* Rossi and *A. lineatus* L. with a small number of captured adults.

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RESEARCHES REFERRING BIODIVERSITY FROM APPLE ORCHARD FROM RESEARCH AND DEVELOPMENT ORCHARD STATION – BANEASA

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Keywords: Biodiversity, apple orchard, fauna, yellow sticky traps

ABSTRACT

Biological diversity represents a specific particularity of the earth life, which assure optimal functionality of ecosystems, existence and functionality of biosphere, in generally. But, in the last time, the problem of preserving biodiversity at the level of ecosystems, species, populations and genes, become more and more evident due to increasing of human activity on biosphere. In this respect, maintaining of biodiversity is necessary not only for actual life assurance, but even for the next generations, because it preserve the global and regional equilibrium, guarantee regeneration of biological resources and maintaining of a proper quality of environmental which is the guaranty of society evolution.
Purposes of the researches which are at the base of this presentation, is to: establishing of fauna structure on arthropod communities, at the epigeic level from tree level; grouping arthropod species in useful and damaging; characterising of invertebrate communities from point of view of abundance.

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. XLIX, 2006

THE TECHNOLOGY OF THE PRODUCTION OF FRUIT TREES OF „KNIP-BAUM" TYPE IN THE MOLDOVA REPUBLIC
TEHNOLOGIA PRODUCERII POMILOR DE TIPUL "KNIP-BAUM" ÎN REPUBLICA MOLDOVA

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ABSTRACT

At the Moldovan-Dutch mixed industry „FRUIT NURSERIES" it was studied the technology of the production of crowned apple trees of „KNIP-BAUM" type. The first field was planted with bench grafts through perfected copulation. It was used bio-type M 9 as a rootstock, and as a scion – the varieties Golden delicious Reinders, Idared, Ionagored, Ionagold Boerekamp Early Queen, Granny Smith, Szampion, Braeburn and Gloster.
It was established that the grade of striking of the bench grafts at the varieties from the first field of fruit tree nursery was 96.0-99.0 %, the scion's diameter was 9.2-10.2 mm and the height – 94-126 cm. In the second field the capacity of forming sylleptic shoots depended on the variety and it was 4.5-11.0 piece/tree registering an amount length of 28.8-62.7 cm.

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VITICULTURE & OENOLOGY

RESULTS OF THE SENSORY ANALYSIS OF SOME FETEASCA NEAGRĂ WINES PERFORMED BY TASTERS FROM ABROAD

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Keywords: Fetească neagră variety, senzory analysis, wine tasting

ABSTRACT

Five wines of Fetească neagră variety obtained in various areas of Romania were subjected to sensory analysis by a jury made of the students of the winemaking master course VINTAGE (Wine, Vine and Terroir Management) coordinated by Ecole Superieure d'Agriculture d'Angers, France. Using a specially adapted score sheet the wine tasters were required to evaluate the main wine characteristics: acidity, sugars, astringency, extract, colour intensity, aroma intensity. They also described freely the hues observed in colour and the perceived aroma. The paper presents the results of this evaluation, which can be of great interest for Romanian producers, as they convey the opinion of external observers on the wines made of a grape variety which is widely regarded as representative for the national assortment of red wines.

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. XLIX, 2006

THE BEHAVIOUR OF THE FN 7-20 OD. CLONE IN THE VINEYARD OF ODOBEŞTI UNDER THE CONDITIONS OF THE YEAR 2005. GROWTH PROCESSES AND METABOLISM

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Keywords: Fetească neagră variety, clone, vinegrowing

ABSTRACT

A clone of Fetească neagră obtained at the Research and Development Station for Viticulture and Enology Odobeşti was followed throughout 2005 in a general study aiming at the optimization of the technological parameters in order to fully utilize the clone potential. Part of the study comprised observations on the physiological processes of the clone and the influence of various pruning methods. The presented results include the main multiannual and 2005 ecoclimatic parameters for the viticultural centre of Odobeşti, the number and length of shoots for the various variants at various phenological stages, the growth rate of the shoots and the relationship between the leaf surface area and sugar accumulation and grape yield. The usual inverse correlation between shoot number and shoot length was confirmed. The grape yield was correlated with the amount of sugars accumulated per vine. The accumulation of organic matters in leaves was maximum in July, the rate of photosynthesis reaching 6.22 mg dry substance/dm^2/h, compared to only 3.3 mg during veraison (August) and ripening stages.

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STUDY OF THE FERTILITY OF FETEASCĂ NEAGRĂ 7-20 OD. CLONE IN THE VINEYARD OF ODOBEŞTI UNDER THE CONDITIONS OF THE YEAR 2005

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Keywords: Fetească neagră variety, clone, vinegrowing

ABSTRACT

A clone of Fetească neagră selected at the Research and Development Station for Viticulture and Enology Odobeşti was studied in order to characterize its behaviour from the viewpoint of the relationship between the pruning method and the fertility. Five methods of pruning were applied, each of them to 15 randomly selected vines in the plantation. The measured parameters were: the number of fertile shoots, the number of total shoots and the number of inflorescences on each grapevine. The gathered data was treated statistically in order to evidentiate significant differences among variants. The results showed that the most fertile buds were concentrated between nodes 4 and 8, and the most suitable pruning method appeared to be a Guyot pruning (6 units of one spur of 2 nodes + one cane of 8 nodes), which offers a high percentage of fertile shoots while having a low number of buds per vine (60), associated with more manageable canopy, better protection against the diseases and more sunlight reaching down to the growing grapes.

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EVALUATION OF THE FERTILITY COEFFICIENTS OF FETEASCĂ NEAGRĂ 7-20 OD. CLONE IN THE VITICULTURAL CENTRE OF ODOBEŞTI UNDER THE CONDITIONS OF THE YEAR 2005

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Keywords: Fetească neagră variety, clone, vinegrowing

ABSTRACT

The fertility coefficients of a clone of Fetească neagră variety were investigated under the conditions of year 2005 in the viticultural centre of Odobeşti. Five types of pruning methods were applied to the studied clone in order to assess the relationship between the pruning method and the fertility of the grapevine. Results are presented regarding the absolute fertility coefficient (CFA = number of inflorescences/number of the fertile shoots) and the relative fertility coefficient (CFR = number of inflorescences/ total number of the shoots). As far as CFA is concerned the study indicated that the spur pruning showed the lowest fertility, while long cane pruning led to increased fertility. As far as the relative fertility coefficient (CFR) is concerned the results were contradictory, showing values much lower than those previously reported in the literature. Further studies are probably required in order to draw a definitive conclusion on this latter aspect.

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AGROBIOLOGICAL, TECHNOLOGICAL AND ENOLOGICAL CHARACTERISTICS OF THE GRAPEVINE CULTIVAR PINOT NOIR AND THEIR CLONES – 777, 115, 375 IN THE CONDITIONS OF THE VINEYARD STEFANESTI-ARGES

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Keywords: quality, quantity, clones, adaptability, fertility, conditions climatic.

ABSTRACT

The study was achieved which the purpose of determining the onclination of each selection clone in the ecopedoclimatic conditions of the vineyard Ştefăneşti-Argeş, as well as outlining the natural disposition and the posibilites to utilize them. The presentation and the estimation of the agrobiological and productive features of the selection 777, 115, 375 implicate and makes it necessary to outline a meteorological factors complex, that can assure the maximum expression of this features, so that it can be realised a good production and the harmonies chemical compounds during the growing and maturation process of the grapes.

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. XLIX, 2006

RESEARCH ON THE INFLUENCE OF THE TYPES OF PRUNING AND OF THE BUD LOADS ON THE GROWTH AND ON THE FRUCTIFICATION OF GRAPEVINE

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Keywords: grapevine, pruning, vigour, yield, sugar

ABSTRACT

This paper reports the results concerning the influence of the types of pruning and of the bud loads on the vigour of the vine, on the grape yield and on the quality of the cultivar Fetească regală during 2003-2005.
The experimental data prove a differentiate influence of the type of pruning and the bud loads, especially on the vigour of the vine and on the grape yield. The highest influence on the accumulation of sugar in the grape was that of the experimental years while the type of pruning and the bud loads had an insignificant influence.

Lucrări ştiinţifice U.S.A.M.V.B., Seria B, Vol. XLIX, 2006

INFLUENCE OF THE PRUNING ON THE VEGETATIVE AND REPRODUCTIVE BALANCE OF GRAPEVINE

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Keywords: grapevine, pruning, equilibrium, growth, yield

ABSTRACT

In view of determining the equilibrium between growth and fructification, 3 indicators resulted from an experiment with 5 types of pruning and 3 bud loads on the cultivar "Fetească regală" have been used: the ratio grape yield / pruning weight, the growth-yield balance index, as well as the leaf area necessary to obtain a gram of fruit.
The highest sugars accumulations have been recorded for values of 1,5 – 4,0 for the grape yield / pruning weight ratio, for values of 25 – 50 for the growth-yield balance index, as well as for the leaf areas of 8 – 18 sq. cm per gram of fruit.

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BEHAVIOUR OF MAMAIA APRICOT VARIETY GRAFTED ON THREE SOILS TYPES IN THE NEDEIA – BISTRETU AREA

BÂNDEA Flavius-Nistor, VOICULESCU Nicolae

INTRODUCTION

At the beginning of the 60` of the past century in our country a full program has been developed at the national level for drainage of some lakes and swamps located near the major rivers. The programme had as goal the extension of agriculture on some impracticable lands, fact called „the development of the socialist agriculture" The most important part of this program was applied on the Danube riverside. Accordingly, in a few years hundreds of thousand hectares of underwater lands were transformed in agricultural field. This huge investment was intended to dam and drain some of the bottoms of the lakes.

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THE BEHAVIOUR OF SOME VARIETIES AND HYBRIDS FROM THE EXPERIMENTAL VINEYARD MURFATLAR AT THE DOWNY MILDEW, OIDIUM AND BOTRYTIS IN THE NATURAL INFECTION CONDITIONS

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Keywords: vine varieties, phitosanitary status, main diseases attacks

ABSTRACT

In the period of 2004-2005, in SCDVV Murfatlar centre was made studies on some varieties from the experimental plots and from ampelographic collection, concerning their behaviour of the downy mildew, oidium and botrytis attacks – in natural conditions of the infection. After the attack degree on the each variety and using own method for to appreciate the level of resistance and/ or sensibility, the behaviour of varieties had 6 estimation levels, as following: OR – variety or hybrid with some resistance, MR – variety or hybrid medium resistant, PR – variety or hybrid few resistant, MS – variety or hybrid medium sensible, FS – variety or hybrid very sensible. Following these classes of appreciation was obtained results concerning the behaviour of these variety or hybrid at the downy mildew, oidium and botrytis attacks. In the table group (new variety or perspective hybrids) was remarked the varieties Victoria, Azur, Silvana, Greaca, Cuzovski, Splendid, Sevka, Tamina şi Dobrogea. Concerning the resistant varieties like Brumăriu, Chamboursin, Garonnet, Dathier de Santvalier, Varousset, Roucaneuf, Perla de Zala, Seyve Vilard 18402, in the conditions of 2004-2005 years was sensible at downy mildew not only on the leafs but also on the clusters, having however a good resistance at oidium and botrytis on the clusters. Between the basic varieties of the vineyard, only varieties Riesling Italian, Sauvignon, Pinot noir and Muscat Ottonel proved some resistance at the diseases attack and the varieties Fetească neagră, Cabernet Sauvignon, Merlot, Pinot gris and Chardonnay was very and medium sensible, especially at the downy mildew attack on the leafs and clusters.

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BOTANY & PHYSIOLOGY

MORPHO-ANATOMICAL AND ETHNOBOTANICAL ASPECTS OF LEAVES IN SOME ORNAMENTAL PLANTS

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Key words: leaf, morpho-anatomy, ethnobotany, taxonomy, Christian's names, ornamental plants.

ABSTRACT

The paper presents morph-anatomical and ethnobotanical aspects concerning some ornamental species cultivated in "I. Todor" Botanical Garden of U.S.A.M.V. Bucharest. The species represented by herbs, bushes and trees were selected using Christian and botanical terminology of Romanian people and ethnobotanical criterion. Morphological and anatomical aspects of leaves are presented regarding the epidermis and types of mature stomata apparatus and trichomes. Original morphological and anatomical photos are shown and a unique polytomic identification key was elaborated below.

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CONTRIBUTION TO KNOW THE ESSENTIAL OILS COMPOSITION FROM SOME CONIFERS SPECIES

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Keywords: essential oils, conifers

ABSTRACT

The essential oils from five conifers species have been extracted by water distillation, compounds have been separated by gas chromatography and their identification was performed with the aid of a mass spectrometric detector. Analytical data emphasized that the principal essential oils compounds, with a concentration higher than 10% are similarly in the case of *Abies alba and Picea pungens* species and are represented by limonene, kamfen, β-pinen and bornyl -acetate. The essential oils from *Pinus ponderosa* contain in principal bornyl - acetate and kamfen, those from *Juniperus communis* contains mirtenil - acetate and α-felandren, while that from *Tuja orientalis* contains α- pinene and cedrol.

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THE ESSENTIAL OILS COMPOSITION FROM SOME COMESTIBLE APIACEAE SPECIES LEAVES

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Keywords: essential oils, apiaceae plants

ABSTRACT

The characteristic aroma of apiaceae leaves has been determined by a number of 18 up to 46 compounds, in function with the plant species. From these compounds, the highest amount has been registered for miristicine (86,31%) in the case *of Pastinaca sativa*, α-felandren (60,07%) for *Anethum graveolens*, pseudopinene (43,78%) for *Daucus carota*, α-terpinil acetate (46,54%) for *Levisticum officinale*, p-mentatrien (41,04%) for *Petroselinum sativum*, α-limonene (41,54%) and mircene (28,78%) for *Apium graveolens*, also 2-decenal (33,61%) and decanal (25,76%) for *Coriandrum sativum*.

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OTHER FIELDS

POSSIBILITIES OF REDUCING THE ENERGY COSTS BY USING VIRGIN VEGETAL OILS TO TERMIC ENGINES

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Keywords: vegetable oils, viscosity, fuels, engine.

ABSTRACT

By using gross virgin vegetal oils as fuel to Diesel engines from agriculture and transport the energetic costs will reduce almost three times and the pollution will diminish significantly.

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THE NATURAL FRAMEWORK OF SOILS FORMATION AND EVOLUTION IN BIHOR COUNTY

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ABSTRACT

The studied territory presents a multitude of units of relief, as field, hill and meadow with the aspect of large alluvial areas of subsidence, on which numerous deserted river beds parasites, representing the oldest river courses and their affluents. The influence and the action in time of pedogenetic factors (relief, rock, climate, hydrology) as well as human being intervention through important hydro-amelioration works initiated about 200 years ago, determined the existence of a layer of soils with a pronounced complexity and diversity.

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RESEARCH RESULTS REGARDING SOME ESSENTIAL TECHNOLOGICAL LINKS FOR PROMOTING ECOLOGICAL AGRICULTURE

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ABSTRACT

By the research undertaken, one can highlight a few technological links among which planting a larger number of trees per hectares, fertilizing with organic fertilizers, trenching the land before planting and irrigation-all these can constitute the complex of measures to stay at the basis of biological agriculture promotion. Regarding the maintenance of trees health an important measure is the production of resistant species and soils and where these are missing the maintenance of the production under the damaging level will be done by using the substances allowed for destroy, completed by the physical and biological combat of the damaging factors (pheromones catchers, the use of plunderers).

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THE ESTIMATION OF DROUGHT PROCESS IN ROMANIA'S SOUTH-EAST IN CONNECTION WITH PEDOCLIMATIC RELATION - REFERENCE TO BARAGAN AGRARIAN REGION OF IALOMITA

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ABSTRACT

Located in Romania's south east, the Baragan plain of Ialomita is a characteristic unit for the country, that due to the increased process of drought.
The hydric deficit of the region has increased in latest years because of the global climate changes. As a result of this situation, the drought phenomenon is getting aridity or climatic catastrophes shades (Facaeni locality, for instance, where in august 2002, the first tornado on Romania territory took place).
The present work-paper objective was the interpretation of climatic data, as well as the soil analytic data. As a result of this interpretation, a better and more correct estimation of the drought periods was obtained.
We have to mention that the drought process is also a consequence of the irrigation systems absence.
Anyway, the lack of the hydric component in soils case has leaded to the increasing of the organic matter mineralization, a high risk for decreasing soils fertility and agrarian yields, in the end.

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THE CHERNOZEMS "ISLAND" LOCATED IN SOCOL-BAZIAS, CARAS-SEVERIN COUNTY

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ABSTRACT

The researches location was the Danube Gorge tight valley, nearby Socol locality.
Here, it was identified an area very much like an island with limestone chernozems subtype; these soils genesis represents the ″substance″ of this work-paper.
Socol plain, the way it is nominated on Resita soil sheet, the 1/500 000 model, appears to be an unique plain because of its geographic position and the presence of chernozems type soils.
Surrounded by Locvei Mountains, by Danube and Nera River, this plain is absolute unique compared to all neighbourhood relief units; it has a crystallite geological base, but the fluvial accumulation brought numerous materials, especially loess, which has represented the parental material for Socol chernozems.
The presence of carbonates at the surface ″underlines″ the freshness of the material, meaning that material had not enough time to be washed on the soil profile.

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THE INFLUENCE OF THE SOVIETIC INHABITATION MODEL ON THE EASTERN EUROPEAN COUNTRIES

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Keywords: *Kommunalka*, communal apartment, social houses, redistribution, Communist Party

ABSTRACT

All the countries in the Eastern block and under the influence of the Soviet Union were forced to apply the same inhabitation policies (especially in the first years) then they managed to go a more original way.
As a consequence of the damages caused during World War II, of the lack of funds, of the natural calamities (drought, fires etc.) after the war and of the new communist regime, in these states flats, houses, lands and goods (including industrial) were seized.
Russia was a special country in the history of social housing from this point of view and from the point of view of the mentalities and of the communist regime, which was very strict in all fields of activity and especially in housing matters.
The seized flats were redistributed to more families, so that each family received one room and all families had to share kitchens, bathrooms, hallways and even the telephone line.
In the other Eastern countries, flats and houses were first redistributed, but after the natural economic recovery new housing projects have been constructed, at first on the Stalinist model and then in ever higher blocks that allowed that a large part of the population be concentrated in 'standard' flats and controlled from all points of view (political, sanitary etc.).
This work is designed as a study of this phenomenon, of the forced used to bring it about in the other countries from the Eastern block and especially of its consequences.

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PARADIGMS OF SOCIAL YOUTH HOUSING

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Keywords: *evolutional*, hostels, diversification, *inhabitation policies*, structuring, equipment

ABSTRACT

Social youth housing is a special category because it addresses youth only for a set period (between 15 and 35 years); it must be studied and constructed according to the inhabitants' ages, interests, inclinations, social and economic status and especially *evolution*. Most young people leave from their home villages and towns to cities for valued schools (high-schools and universities), (better paid) jobs or even to change their marital status (marry or divorce) etc. Social youth housing is a very difficult problem for Romania and even for the Western countries, which have a tradition of social youth housing. This work has the purpose to indicate the types and trends of social youth housing (in Romania and in the main developed countries).