Dahlia semicactus – from tuber to flower

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Abstract Dahlia is a flower that can be cultivated in any kind of garden, single or in mass, or combine with other annual or perennial plants. The way *Dahlia* is used to decorate the private garden depends on the space available and of the personal ideas and wishes of each dahlia lover, but in order to make something interesting and special is advisable that the private grower should ask the advice of a specialist or better to visit different public gardens and use some good ideas from there. During this research have done studies over 12 *Dahlia* cultivars, that belong to the class named semicactus: **'**Color Spectacle**'**, **'**Acapulco**'**, **'**Penelope**'**, **'**Witteman's Best**'**, **'**Chat Noir**'**, **'**Gold Krown, **'**Sorbet, **'**American Dream**'**, **'**Kenora Jubilee**'**, **'**Mik's Peppermint**'**, **'**Black Berry Ripple**'** and **'**Hy pimento**'** and the most representative of them will be strongly recommend to be used for gardens display, and also for multiplication. Tthe researches were made in floral collection of USAMV Cluj-Napoca, Floriculture Department. Taking into account that dahlia is a favorite flower and have been growing it many garden for years, the dahlia collection includes more than 50 varieties, which holds a large wide of colors and forms. The collection is quite large, but every year was bought new varieties, and those that develop themselves the best, are disease free and flower a longer period, are kept collection, and also multiply during the following year. Observations have been made regarding the following characteristics: planting time, first blooming, maximum of blooming, height, diameter of flower, number of flowers, number of ligules, number of stems, plant diameter. Data have been statistically registered using the analysis of variance DL to illustrate the differences among these varieties.

Key words

varieties, assortment, characteristics, perennial plant

Medinilla: an exotic and attractive indoor plant with great value

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Abstract Diversifying the assortment of indoor plants by introducing exotic species is an actual concern of growers worldwide. In Romania we are lately witnessing to the importation of ornamental plants less known, but which are a great interest in terms of ornamentation. This requires knowledge of environmental conditions and culture technology so that the plants could be grown with good results. In this paper was presented the Medinilla genus, including species and varieties approximately 418, but only *Medinilla magnifica* species is being taken in culture. It is a species of great beauty with spectacular inflorescences, and its leaves complement the decorative value. Promoting the culture of new assortment to ornamentals will improve interior design with positive effects on the human benefits, but may also be a major source of income by taking it in culture and selling it. Growing and caring for indoor plants gives many a sense of pleasure, tranquility and peace.

Key words

houseplant, pot plant, characteristics, techniques, assortment, diversification

The influence of some technological factors on the production of onions

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Abstract In the experiments conducted in 2011 in the city of Reghin, Mureș County, the influence of three factors on the production of onions, as well as on commercial quality of the bulbs was investigated: cultivation method, the cultivars used (De Buzău and Nickerson F1) and plant density. The method of cultivation and plant density have a major influence on production. Thus, experimental version founded by the seedlig culture, both with a density of 700 thousand plants/ha and 1400 thousand plants/ha, as that established by direct sowing at a densityof 1400 thousand plants/ha, registered an increase in production, statistically very significant, compared to the variant that was established by direct seeding with a density of 700 thousand plants/ha. Nickerson hybrid in culture through seedling, at both densities, recorded an increase in production of 13.1% and 26.4% compared to the control (De Buzău, direct sowing, 700 thousand plant/ha). De Buzău variety at a density of 1400 thousand plants/ha and established both by direct sowing and through seedlings presented differences of production very significantly positive in comparison with the control.

Key words

onion, cultivar, mothod of cultivation, plant density

Brief Approach of Plant-Insect Herbivores Physiological Interactions

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Abstract In natural ecosystems there is a complex and continuous interaction between plants and insects. Usualy all these organisms have evolved a balance co- existense or biological equilibrum at the natural habitats. Generally, living organisms that grown from all aboveground and belowground plant parts, either plants or animals permanently are exposed to physiologically interactions, both in the case of the normal conditions of live and particularly, in the case of biotic and abiotic stress factors impact. Here, there is reviewed recent literature as regard as plants hormonal signaling and transcriptional responses to insect herbivores attack. Also, the purpose of this overview is to provide recent findings regarding inducible resistance and transgenic resistance approaches from both agronomic and ecological perspective.

Key words

plant-insect herbivores, defence signalling, resistance

The effect of ash from Timisoara South Thermal Power Station (CET Timisoara South) on the heavy metal content of *Lolium perenne* L.

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Abstract The microelement content of ash makes possible its utilization as amendment of acid soils or with microelement deficit. The present paper debates the possibility of using ash from thermal power station as amendment and microelement source for gramineous species used as forage or as energy culture. Experiment was carried out with the randomized blocks method in three repetitions. Before seeding, the ash was mixed with the soil substrate. *Lolium perenne* L. was used as test plant, with the following experimental variants: V_0 – 0 t ash/ha (control with non-treated soil), V_1 – 1 t ash/ha, V_2 – 3 t ash/ha and V_3 – 5 t ash/ha. Plant samples were collected from above-ground organs, one year after culture was established. Heavy metal content was determined with atomic absorption spectrophotometer. Cobalt, nickel and manganese concentrations increased as follows: at V_1 variant, cobalt increased with 0.86%, nickel with 2.84% and manganese with 9.58%; at V_2 vatiant, cobalt increased with 2.59%, nickel with 8.16% and manganese with 20.63%; at V_3 variant, cobalt increased with 4.74%, nickel with 12.06% and manganese with 27.45% compared to untreated control. The higher ash supplies did not determine an increase in zinc and copper concentrations. Manganese was the only element with presented significant increases compared to the untreated control. In case of elements where concentration increased, the permitted content thresholds were not exceeded.

Key words

Lolium perenne, thermal power station ash, heavy metals

Studies on Vegetation Analysis of The Afforested Bank of Manasbal Lake, Kashmir-India

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Abstract The study was carried out on the North-Western afforested bank of Manasbal Lake, Kashmir during the year 2009. Fourteen species of trees, five species of shrubs and twenty nine herbaceous species were recorded. *Robinia pseudoacacia* was found to be the dominant species in terms of density, frequency, abundance and IVI followed by *Ailanthus altissima.* Among shrubs *Rosa foetida,* was the abundant species while, *Cytisus scoparius* excelled in terms of density and frequency. *Tulipa stellata* was dense and frequent among all the herbaceous species but *Cynodon dactylon* was most abundant.

Key words

Afforestation, Manasbal Lake, Vegetation analysis

Comparative study on the *in vitro* multiplication potential of *Magnolia stellata* and *Magnolia x soulangiana* species

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Abstract Magnolia genus includes a group of about 80 species with persistent or falling leaves and with bloom before or after coming into leaf. The goal of this work was to develop a protocol for inducing a high regeneration rate by testing the response of different explants of two magnolia species to different culture media. The aspects of *in vitro* morphogenesis through all the stages from inoculation, multiplication to rooting have been studied. Results showed that explants of apical buds represent optimal source of inoculums. The period most indicated for sampling and inoculating explants is November - December when vegetative buds are in the dormant stage. Research in the evaluation of morphogenetic capacity of explants on different nutrient regeneration formulas have shown that the best results in terms of percentage of explants started the trend was obtained on the version supplemented with 0.7 mg/l BAP, 1 mg/l NAA, 0.1 mg/l GA_3, 5 mg/l ascorbic acid and vitamins LS. The greatest number of shoot (10.7 microshoots/explant in the case of *Magnolia stellata* species and 10 microshoots/explant at *Magnolia x soulangiana*) was produced with Murashige-Skoog mineral salts, Miller vitamins and 0,5 mg/l BAP. It took only 17 days for root initiation of magnolia shoots. The best concentration of supplemented IBA for root initiation was 4 mg/l.

Key words

Magnolia stellata, *Magnolia x soulangiana*, micropropagation, explants, microshoots, growth regulators

Research concerning the behaviour of some eggplant genotypes in field conditions at the Didactic and Research Station in Timisoara (Romania)

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Abstract Eggplant is cultivated for its fruit consumed upon maturity; it is used in the preparation of different dishes such as salads, moussaka, potlatch, and stuffed eggplants. Productivity is, among others, the result of the effect of all the factors conditioning the expression of elementary morphological and physiological features of the studied biological material. The biological material used in the trials was represented by 10 cultivars (varieties and lines) of foreign origin, i.e.: Black Beauty, Black Enorma, Matrona, HSYE 40-00, HSYE 63-136, HSYE 73-45, HSYE 83-04, HSYE 83-111, HSYE 83-121, and HSYE 83-132. To note the eggplant lines HSYE 83-04, HSYE 83-121, HSYE 63-136, and HSYE 40-00 due to their superior yielding potential oscillating between 30 and 36.5 t/ha, compared to the other trial genotypes in comparative culture.

Key words

Solanum melongena L., eggplant, quantity yield, field crops

Research concerning the application of some technological white wine conditioning measures meant to stabilise it

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Abstract Research was carried out in 2011, in the Recas Viticultural Centre, and aimed at applying some thermal treatments on semi-dry wines of the Fetească albă cultivar, to determine protein stabilisation and protein troubling resistance. Stabilisation treatments of wines should confer them long-lasting qualities even under such conditions as heat, lighting, and aeration.

Among stabilisation treatments, the most efficient are refrigeration, pasteurisation, potassium ferrocyanide treatment, and protecting colloid treatment.

Pasteurisation and filtration resulted, in the studied wines, in a decrease of the nitrogen content, decrease caused by the deposits of thermo-coagulating substances and by the retention, by the filters, of a certain amount of proteins.

Research carried out on semi-dry wines treated with ultra-refrigeration and refrigeration to stabilise them pointed out an obvious decrease of nitrogen because of coagulation and of protein substances precipitation.

Key words

conditioning, stabilisation, refrigeration, pasteurisation

Research concerning the evolution of grape maturation and polyphenols content in two red wine grape cultivars in the conditions of Timisoara (Romania)

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Abstract Research was carried out in 2011, in the experimental viticultural plantation of the Didactic Station of the Banat University of Agricultural Sciences and Veterinary Medicine in Timisoara, Romania, and it monitored the evolution of grape maturation and of total polyphenols on two red wine grape cultivars: Cabernet Sauvignon and Merlot.

The Cabernet Sauvignon grape cultivar always satisfies from the point of view of the wine quality it produces: it constantly guarantees high-quality wines with optimal alcohol potential, rich in phenol extract and compounds, with a good balance of physic-chemical features.

The Merlot grape cultivar has features similar to those of the Cabernet grape cultivar, competing with the latter in achieving sustained productions.

Since harvesting wine grape cultivars is done upon technological maturity, we need to measure 100-berry weight, must sugar content in g/l, must acidity content in g/l of H_2SO_4, as well as colouring substance content if we wish to establish optimal harvesting time.

As a result of our research on the two red wine grape cultivars, we could see that high temperature and long duration of sunshine during grape maturation

Key words

polyphenols, technological maturity, cluster, technological indices

in the fall of 2011 allowed the accumulation of enough amounts of colouring substances. We could also see that total polyphenols reached higher values in the berry skin, their amount increasing until technological maturity.

Validation of DAS-ELISA results for the detection of grapevine fleck virus

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Abstract Fleck (GFkV) is an ubiquitous virus that causes grapevine fleck disease reported from all viticultural countries in the world. The most common serological technique for routine diagnosis of grapevine viruses is double antibody sandwich - enzyme-linked immunosorbent assay (DAS-ELISA). The reliably of the analysis was verified by intra-laboratory validation of the results, by checking the suitability for the circumstances of use of the reagent kit for the detection of GFkV in the grapevine tissue (leaf, petiole, cane). The performance criteria as: precision (repeatability, reproducibility, accuracy) and robustness (variation of grinding time, influence of the type of plant tissue, influence of the filter of the spectrophotometer) were explored. For this purposes, two types of positive and negative controls (reference material of the kit and virus-infected/virus-free grapevine tissue) have been performed. The data of laboratory-performed validation and the results of proficiency tests (inter-laboratory comparisons), provided together the information of the robustness of the test.

Key words

Vitis, *Maculavirus*, DAS-ELISA, precision, robustness

Research regarding the plant management system with different crown shapes for pomegranate trees in Thesalia region, Greece

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Abstract Pomegranate has recently become more and more wanted due to its nutritional and therapeutic properties, which is why attempts for modernization of the technology of culture and improvement of the assortment are being made. The plant management system for the pomegranate is mainly done in the form of bush, while other alternatives are being searched for in order to ensure a better lighting. The comparative study of four crown management systems: vertical spindle, transversal V, vessel bush with three strains and vessel bush with four strains, recorded differences regarding the trunk growth, crown volume and production capacity. Generally, the plant management system with multiple strains positively influences the growth, precocity and fructification capacity of the plants.

Key words

pomegranate, plant management system, growth, production

Experimental results concerning the effect of culture medium pH on growth rate of cell biomass using callus culture

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Abstract Making in vitro cultures depends on a number of factors of which we mention the kind of explants, the growing medium, genotype and hormone balance.The quantity of cell biomass in cell cultures callus depends by choosing the most appropiate factors. One element that allows assessment of the potential performance of obtaining cell biomass is the culture medium pH. These determination were made separately for three types of grapevine varieties, namely Coarnă neagră, Fetească neagră and Cadarcă.

Key words

Vitis vinifera L., cell culture, cell biomass, pH influence

Experimental results concerning the effect of culture medium pH on the synthesized anthocyanin amount in the callus culture of Vitis vinifera L.

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Abstract The researches approached have taken into consideration three varieties of grapevines and were aiming the chemical extraction from the cell biomass and quantitative determination of anthocyanin fractions using spectrophotometry.

Comparing the mean values obtained for the studied grapevine varieties, it has been observed that the largest values for synthesized anthocyanins in callus culture has been registered for Fetească neagră variety followed by Coarnă neagră and Cadarcă The same hierarchy is maintained for behaviour of grapevine varieties in terms of each type of ph values into culture media. The differences found between varieties depending on anthocyanin amount from callus cultures were very significant in most cases.

Key words

callus culture, anthocyanin, Vitis vinifera L.

Study of some Agricultural Technologies Impact upon some Apple Varieties' Productions in Conditions of Timisoara

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Abstract The apple culture in Romania occupied the IInd place concerning its cultivation and it represented 30% of the total orchards surface. In the European Union, Romania produces 3.6% of the total apple production. This is due to the richness of apples in vitamins A, B1, B2 and C, but also in other nutrients, such as magnesium, phosphorus, iron and potassium, having many good properties for human health. In this paper we present the impact of soil maintenance systems upon five apple varieties cultivated in the Didactic Station Timisoara: Jonathan, Generos, Pionier, Florina and Romus 2 concerning their production. We studied and experimented less pollutant soil maintenance systems, mainly by using plants as green fertilizers having eight experimental variants: V1 – black field (2 manual hoeing + 2 mechanical hoeing) – control, V2 – seeding and incorporation in the soil with green manure (white clover), V3 – seeding and incorporation in the soil with green manure (bird's-foot trefoil), V4 – seeding with grass mixture 1 (2 manual hoeing), V5 - seeding with grass mixture 2 (2 manual hoeing), V6 - seeding with grass mixture + mulching, V7 - seeding with grass mixture + Roundup 360 SL (3 l/ha), V8 – mixed field, Roundup 360 SL (3 l/ha) + mechanical hoeing. Concerning the results obtained, the experimental variants where we used green manure (*Trifolium repens* or *Lotus corniculatus*) gave the highest productions, higher weight of fruits and higher content of sugars and minerals.

Key words

apple varieties, soil maintaining systems, production

Mioriţa, quest for landscape

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Abstract Though the popular ballad of *Mioriţa* is one of the main national identity axes and a strong Romanian cultural brand, its impact on national culture apparently skipped the field of landscape architecture. The study aims to identify connections between the national ballad and specific landscapes, based on the presumption that landscapes affect cultural identity, as well as civilization determines landscape character. The landscape-ballad 'symbiosis' is analyzed on different levels, by scientific and hermeneutic means: psychological (landscape psychology); functional-semantic (landscape and rural heritage); formal (poem and landscape aesthetics); hermetic (folklore mysticism and landscape symbolism). The reference landscape of the study is located in Vrancea Mountains – particularly in Soveja region, where the ballad was first documented in 1846 by Alecu Russo. The folklore-landscape connection is investigated by transforming both analysis indicators into memes and by comparing their match. As a result, valuable memes are selected and they are proposed to form the basis of a cultural landscape preservation program.

Key words

Cultural landscape, *mioritic* space, landscape preservation, memetic resonance, semio-sphere

Correlations between some small hydrographic basins of the Rivers' tributaries, from the forestry fund

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Abstract The aim of this work is the analysis of some parameters of the Crişul Repede and Crişul Negru's hydrographic sub basins, and of the Iadului Valley, Brătcuţa, Finiş, Tărcăiţa, Văratec and Crişul Pietros respectively, in order to value the water flow and its power in the forestry sector.

The characteristics of the studied hydrographic basins were determined through the exploitation of the space model of the area, starting from their topographical maps at a scale of 1: 50000, using the Map Sys and through measuring these characteristics using the facilities offered by the Surfer programme.

The surfaces of the studied hydrographic basins is between 31,07 km^2 for the Galbena Valley and of 215,10 km^2 for the Iadului Valley basin.

The linear correlations established between the average multi annual flow from the control section on one hand and the characteristics of the hydrographic basins on the other hand, meaning their surface, their perimeter and the total length of the hydrographic net, are distinctly significant from a statistic point of view.

The values of the correlation factors realized by the linear regressions show that the main contribution in the formation of the multi annual flows of the small hydrographic basins from the Crisuri (Rivers) belongs to the surface of the hydrographic basin (82,26%) followed by the total length of the hydrographic net (76,27%) and the perimeter of the hydrographic basin contributes with a reduced influence (73,6%).

Key words

hydrographic basin, surface of the hydrographic basin, perimeter of the hydrographic basin, the length of the hydrographic net

Research regarding the exploitation of the ornamental potential of some lettuce varieties, by forming edible ornamental carpets

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Abstract The use of vegetable species for purposes other than food represents a concern for the people who work with these plants, because they present multiple ornamental characteristics through which they become very attractive. In the present paper, lettuce was used, this being a much appreciated species from the food point of view, with small plants and obvious ornamental characteristics; it is very often used for decorating vessel with food items for different events. The varieties used had curled, wavy and whole leaves, colored in dark green, yellowish green and purple red, with the purpose of obtaining an edible ornamental carpet. The ornamental carpet was completed during two periods, using transplanted seedling or seedling obtained from direct sowing in alveolar blades with 3 cm in diameter, having 4-5 leaves. During autumn, the plants had a slower growth due to less favorable environmental factors; however the ornamental carpet was rather

Key words

lettuce, décor, edible carpet, color

pleasant and the average weight of a harvested plant had values between 140 g and 167 g. During spring, the lettuce carpet, framed within a plot of lawn, had a greater ornamental effect due to more favorable environmental conditions, and the average weight of the plans had values between 233 g and 516 g.

Research concerning drought tolerance in some tomato seedling genotypes

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Abstract In field cultivated tomatoes, the root system develops deep in the soil (sidelong or vertically), favouring plant water supply from deep strata and better resistance to drought. Research was organised after the model of bifactorial trials with four replicates, i.e.. Factor A (genotype) with 12 graduations: a_1 - Ace 55 VF; a_2 - Buzău 22; a_3 - Buzău 47; a_4 - Buzău 1600; a_5 - Heinz 2274; a_6 - Kecskemeti 262; a_7 - Kecskemeti jubileum; a_8 - Marmande; a_9 - Pontica; a_{10} - Ştefania; a_{11} - Unibac; a_{12} - Unirea. Factor B (plant hydration level) with 3 graduations: b_1 - abundant hydration (90% of C.t.a.); b_2 - normal hydration (75% of C.t.a.); b_3 - under hydration (hydric stress) (60% of C.t.a.). Most trial tomato varieties have high chlorophyll content, i.e. over 40 SPAD units. There were also very significant differences in photosynthesis intensity when we compared the tomato varieties Buzău 22 – Heinz 2274, Buzău 22 – Kecskemeti 262, Kecskemeti jubileum – Marmande, Marmande – Unibac, etc. with normal hydration of tomato seedlings.
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Key words

Lycopersicon esculentum Mill., tomato, seedling, water stress

On the response of some determined-growth tomato genotypes cultivated in the Banat plain conditions

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Abstract Tomatoes have represented in Romania too one of the most appreciated vegetable crops, which has determined a continuous improvement of cultivation technologies and also an intense concern for the development of cultivars that are highly appreciated in Romania and abroad. The biological material was made up of 8 tomatoes lines (L-432-2, L-596, L-563, L-163, L-714, L-786, L-762 and L-601-B) which we compared to two control variants (Roxana and Minerva). Tomato genotypes L 596 and L 432-2 yielded more in early yield than both controls with differences ensured statistically.

Key words

Lycopersicon esculentum Mill., tomato, genotypes, plain conditions

Chromium levels in soils and vegetables from Timis County Romania

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Abstract This work is aimed to evaluate chromium content in two common garden vegetables (green garlic and green onion) cultivated in Timis County, Romania. Determination of chromium content in soil and raw vegetables were performed using FAAS. All experiments and analyses were carried out in triplicate. The studied areas presented normal levels of chromium, exception Timisoara where the average value of the chromium concentration is exceeding the normal value (30 $mgKg^{-1}$), but it's under the warning threshold (100 $mgKg^{-1}$). The highest content of chromium was found in *Allium sativa* samples, while *Allium cepa* is accumulating less chromium. According to the principal component analysis mathematical model, it's possible to conclude that soil pH is influencing the accumulation of chromium in plants.

Key words

soil, chromium, *Allium sativa, Allium cepa L.,* principal component analysis

Development of marguerite daisy's (*Argyranthemum sp.*) cuttings in different rooting substrates

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Abstract *Argyranthemum* (marguerite daisy) is a genus of flowering plants belonging to the family Asteraceae. The genus is endemic to Macaronesia, occurring only on the Canary Islands and Madeira. Marguerites have been grown for more than 200 years, with more than 80 types today, majority are hybrids. This species is not winter hardy, in the autumn, the plants will be introduce into a frost-free greenhouse, will be cutted back and reduce watering and kept growing at 10°C. The new spring shoots can be used as cuttings to create young plants. Young plants need to be nursed through spring and planted out towards the end of May or beginning of June. They'll then produce beautiful flowers until the winter frosts kill them off.
Regarding the propagation, *Argyranthemum frutescens* can be multiplied by cuttings. Because this plant is commonly utilized to decorate terraces and balconies, and it is preferred also in beds, determine us to study the multiplication technology of this species.
In the experiences regarding the development of cuttings in different rooting substrates were utilized two varieties of *Argyranthemum* "Kudel Start" and "Cornish Gold" which were rooted in three different substrates (garden soil, peat, peat+perlite). Regarding the rooting efficacy of substrate the best was the peat, which determine a good development of rooting process (96%). In the development of cuttings, the both substrates (peat and peat+perlite) determines significant differences.

Key words

cultivars, balcony plants, vegetative propagation, perlite, peat

The influence of different types of substrates on rooting of *Fuchsia* cuttings

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Abstract Fuchsia's are most popular outdoor plants, they are used for terrace and balcony decoration, are belonging to the genus *Fuchsia*, Onagraceae family. The flowers present different color and type (single, double and semi-double, variegated foliage). The most cultivated species is *Fuchsia hybrida* with a large number of cultivars. The aims of these researches were to improve the assortment of balcony plants with new cultivars of *Fuchsia hybrida* L. The experiences regarding the influence of different types of substrate on rooting of *Fuchsia hybrida* were placed in the greenhouse of Floriculture Department, from University of Agricultural Sciences and Veterinary Medicine - Cluj Napoca. The results concerning the influence of rooting substrate show that the best substrates were peat+sand and peat + perlite. Rooting delay was observed at all studied species, in the perlite substrate (control of experience).

Key words

cultivars, balcony plants, vegetative propagation

Research on the influence of perenial leguminouson on the production of temporary grassland

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Abstract At Preajba-Gorj, has been experienced four mixtures consisting of 60% grasses and 40% perennial legumes (*Trifolium pratense, Lotus corniculatus* and *Trifolium repens*), compared with 100% grass (*Dactylis glomerata*, *Festuca pratensis* and *Phleum pratense*). They used four doses of nitrogen. The best results (7,38 t / ha dry substance) were obtained at 60% combination grass + *Trifolium pratense* (40%), fertilized with N150 (100 kg / ha in spring + 50 kg after the first scythe).

Key words

temporary grassland, perenail leguminous, grasses, fertilization

A brief survey regarding fate of Bt proteins synthesized by transgenic maize in soil

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Abstract Bt proteins are normally incorporated into soil together with plant residues, with sloughing of root cells, and potentially through the release of exudates from roots. Thus, Bt-toxins represent a possible risk for the soil ecosystem, and their potential impact on soil organisms may depend on their persistence. Under these circumstances, to understand the impact and risk of Bt-toxins on soil organisms, it is important to know how the different Bt-toxins vary in their degradation patterns. The differences in dissipation/persistence of Bt proteins in soil can be a function of soil type, environmental conditions, protein source (purified versus plant-produced), and the particular Cry protein examined. In this paper, we summarize insecicidal proteins synthesized by Bt plants commercially grown and the results of research regarding the persistance of Bt proteins in soil carried out in Romania and in other countries. These results provide evidence that Bt proteins do not accumulate in soil and reveal that the dissipation in soil of Bt proteins produced by genetically modified stacked maize was related to the type of endotoxin produced and not to the number of transgenes expressed.

Key words

Environmental fate; Bt proteins; transgenic maize; Cry protein

The structure of a natural mixed beech – sessile oak forest in Runcu Grosi Natural Reserve

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Abstract Sustainable forest management can be developed and implemented only based on scientific information regarding the natural structure and functioning of the forest ecosystems. The Runcu Grosi Natural Reserve, a mixed sessile oak – beech forest, was chosen to study the structural characteristics of the natural forest. 134 sample plots were established within a systematic sample grid, from which 34 plots were measured. The stand structure was expressed by the following features: the number of trees by species, the diameters' distribution, the heights' distribution, the diamter-height relationship, the trees' volumes distribution, the state of vegetation of the trees, the characteristics of natural regeneration, the state of vegetation of the trees, the structural diversity expressed by specific indexes.

Key words

Runcu – Groşi, natural forest, structure, diversity

Natura 2000 and the forests in Romania – management principles, problems and threats

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Abstract Forests can be considered one of the most important components of the European natural environment. The changes that have undergone in forests in the last centuries brought many species very close to extinction, at least in a few European countries and perhaps all over the continent. The Ecological Network Natura 2000, in addition to conservation of species and habitats, has to take into account the economic, social, cultural realities of the zone, this conservation being realized by an active (but sustainable) management. In the areas intensly influenced by antropogenic activities could be difficult to achieve. Therefore, knowledge about the potential threats is very important in taking decisions on preventing or stoping the negative actions of dammaging factors. Altough Romania recognizes through the National legal system the importance of the Natura 2000 sites, the adequate implementation of this network is obstructed by various problems faced by custodians / administrators / owners.

Key words

Natura 2000, forest, management, threats

Partial results concerning the virotic degeneration of potato in the microzones for seed potato production

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Abstract The production and the multiplication of seed potato in Romania, in recent decades is passing through a difficult period for cultivated areas and for quality of potato produced in traditional closed areas. In the case of the potato the quality of planting material is key factor, determining the quality and quantity of crops produced, and it is widely accepted that the potato production is determined more that 50% by the quality of planting material. Today it is widely accepted worldwide that the low quality of seed potato is due to the degeneration of the potato. The depreciation of biological production potential is the result of virus infected planting material.

Key words

seed potato, planting material, virus

Effects of treatment with fungicides on the physiological processes in *Vitis vinifera* L. attacked by *Plasmopara viticola* (berk. & curt.) Berl. & de Toni

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Abstract Research regarding the effects of treatments with fungicide on the physiological processes were performed on grapevine (*Vitis vinifera* L.) - *Italian Riesling* variety cultivated in the climatic conditions in Oltenia region (Banu Mărăcine, Dolj).

The physiological analyses were performed in a first phase (July 10th 2010) on the attacked plants by *Plasmopara viticola* (Berk. & Curt.) Berl. & De Toni and in a second phase, after a month (August 12th 2010) - which was a period with two sessions of treatment with fungicide *Dithane* M 45 - 0,2 %. In leaves of *Vitis vinifera* L. analysis, a been noticed that the diurnal dynamics of photosynthesis and transpiration to vary according to climatic conditions, presenting lower values in the morning, higher values in the afternoon and lower values at night, but the recorded values are higher for the already analysed leaves after performing fungicide treatments, in comparison with the attacked leaves by pathogens.

In the leaves analysed after performing treatments with fungicide has registered a higher water content and clorophyllian pigments, between the clorophyllian pigments content and the photosynthesis intensity is a positive correlation.

Key words

attacked leaves, fungicide, physiological processes, pathogen, *Vitis vinifera* L.

Research regarding the physiological intensity of processes in *Iris variegata* L. attacked by *Heterosporium iridis* (fautrey & roum.) J.E. Jacques

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Abstract Research regarding the physiological intensity of processes under the influence of the pathogen attack produced by Heterosporium iridis (Fautrey & Roum.) J.E. Jacques have been made on Iris variegata L. cultivated in Botanical Garden "Al. Buia" from Craiova, Dolj.

It has been noticed that in the attacked leaves the diurnal dynamics of the photosynthesis and of transpiration varies depending on the climate conditions, in the morning with lower values, a higher values after lunch and lower values toward the evening, but the intensity of these processes has lower values in the attacked leaves. The linear regressions performed between the physilological processes (photosynthesis and transpiration) and the photosynthetic active radiation, the temperature leaf and the stomatal conductance show a good positive correlation between these, with specific variations in the attacked leaves, in comparison with healthy leaves. At the attacked leaves one can also observe a decrease of chlorophyll content as

Key words

attacked leaves, healthy leaves, pathogen, physiological processes, *Iris variegata* L.

result of the reduction biosynthesis and deterioration of the chlorophyllian pigments. One can also observe a decrease of total water content as a result of destruction of the leaves and malfunctioning of stomatic apparatus, which determines hidric unbalances, with implications on the growth of plants.

Nutritional quality of *Daucus carota* in different stages of morphogenesis

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Abstract The aim of this paper was to study the effect of growth regulators in connection with diversified fertilization (form, doses and kind of fertilizer) on the nutrients content (Vitamin C and protein) in *Daucus Carota* (carrots*)* culture, in different morphogenesis stages. Field trials were conducted during the early seasons of 2011, on a black Chernozem soil. The experiment was a randomized complete block design with four replications. The experimental site was prepared in 28 beds of 1 x 1 m^2 each in size and the variants used were: N0P0K0, N60P60K60, N90P90K90, N120P90K90, N60P60K60 +Aqzyme 1 l/ha, N60P60K60 + 2 x Pervaide 1 l/ha, Manure 20 t/ha

The protein content (%) analyses were performed in the *Laboratory of Soil Science and Plant Nutrition,* Faculty of Agriculture and *vitamin C* concentration was determined in *Laboratory of food preservative*, Faculty of Food Proccessing Technology, USAMVB Timisoara.

The protein content % was determined with the help of Kjeldahl unit (Velp Scientific 127) and Vitamin C (mg/100 g) content was done according to STAS 6182/15-87. The *Daucus carota* samples, in all experimental variants, the vitamin C percent and protein content, increases once with culture development. In all morphogenesis stages, the highest protein content was determined at the application of highest NPK fertilise dose, $N_{120}P_{90}K_{90.}$ Highest value of vitamin C percent was registered in variant v2 – $N_{60}P_{60}K_{60}$, variant with medium NPK fertilizer dose, in all morphogenesis stages.

Key words

carrot culture, nutrients, fertilisers

Efects of the treatments with x rays to *Arachis hypogaea* L. in m2 generation in the conditions from Tamburesti Research Station

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Abstract The experience consists in the repeated irradiation treatment of two different groundnut variety seeds with X rays, in doses of 5000-10000R. There were made observations and determinations on various morphological

Key words

X rays treatment, doses of

and quantitative characters for M2 generation. From the sow until rising, flowering and maturity the periods were not much affected. For the morphological characters both genotypes showed differential response to the doses of treatment with mutagens.

Significantly reduced height was observed both in irradiated variants and control. Lower doses of treatment with X rays (6000R) proved effective in increasing the number of ramifications to Tamburesti variety. Significant increase in number of ramifications was observed in all variants of treatments to Venus variety. Significant reduction in number of pods/plant was observed in 9000 R dose to Tamburesti variety and 8000R dose to Venus variety. Number of matured pods/plant was found decreased in 5000, 6000 and 9000R dose to Tamburesti variety and 8000-10000R to Venus variety. Seed yield was found decreased in all variants of treatments to both varieties, but one seed mass was found increased in all doses of irradiation.

In the present investigation the treatment with rays in doses of 5000-6000R and even 8000-9000R were found more effective for inducing wide range of mutation in Tamburesti groundnut variety compared to Venus variety.

irradiation, groundnut varieties, morphological and quantitative characters, mutation

Is Tamburesti an groundnut radiosensible variety?

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Abstract In previous experiments it has found out that radio-sensibility of groundnuts is more emphasized in Tamburesti variety comparative with other varieties and lines. Because it passed two years of repeated irradiation, I think the obtained results until now are due to the so called "storage effect".

I established that the X rays doses between 5000R and 10000R determined in some variants inhibition of growth process in roots and also a high frequency of the chromosomal aberrations in the anaphase and telophase of root meristems. The data revealed that not only the "storage effect" of the irradiated seeds contributed to the high frequency of the chromosomal aberrations in this investigation, but also the repeated irradiation and the fact that Tamburesti variety has a raised specific radio-sensibility, probably determined by its physiological and biochemical peculiarities and by the fact that it was created through chemical mutagenesis (in 1983).

Key words

radio-sensibility, groundnut, Tamburesti variety

Researches concerning buds' viability of some wine varieties

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Abstract Grapes are the fruit sought by consumers of all ages, They have both high energy values, food and medicines values.

The research was conducted in 2008, and had as a subject the impact of organic and chemical fertilizers upon buds' viability of wine grapes varieties

Key words

buds' viability, organic fertilizers, variety, vines

"Fetească albă, Fetească regală, Cabernet Sauvignon, Merlot" cultivated in Recaş wine growing area.

Its purpose was to track the influence of organic and chemical fertilizers on the viability of buds, resulting from their application to wine grape varieties "Fetească albă, Fetească regală, Cabernet Sauvignon, Merlot".

Organic and chemical fertilizers are used in viticulture to supplement the food needs and to improve the physicochemical and biological properties of soil.

These fertilizers, besides enriching the soil nutrients and humus, increases the activity of soil microorganisms involved in relevant biochemical transformations and stimulate more efficient use of mineral fertilizers.

The category of organic fertilizers is made of: manure, semi liquid manure, green manure, compost.

Fertilizers applied in vineyards bearing an influence on the overall vines, with favourable implications in restoring vegetative growth vigour and productive capacity, to obtain high yields of quality grapes [7,8].

The Influence of Nutrient Solution Fertilization on Some Cultivars of *Actinidia deliciosa* (Kiwi) in the Container Culture

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Abstract The kiwifruit, also known as the 'Chinese gooseberry' or simply 'kiwi' in many parts of the world, is the edible berry of the woody vine *Actinidia deliciosa* which can also grow in the peach-producing area of Romania. After the propagation of the kiwi plant by softwood or hardwood cuttings, the resulting young plants must grow fast and easy for subsequent field planting. In 2009, a bi-factor (A factor - cultivar, B factor- nutrient solution used) experimental study was conducted at U.S.A.M.V's Greenhouse in Bucharest. The main objectives were to find out the best type of nutrient solution that would shorten the time needed to get container-grown plants ready for transfer to the fields and to study the impact of nutrient solution treatment on the rooted cuttings of *Actinidia deliciosa*. Four varieties have been used as biological testing material: the Hayward, Katiuscia, Tomuri and AD 20 varieties, which are the 'direct descendants' of cultivars and hybrids from the kiwi plant collection of the Faculty of Horticulture. The substrate on which kiwi plant container cultivars developed consisted of 50% manure, 20% peat, 20% fallow soil and 10% sand. Every 20 days, two fertilizers with different macro- and micronutrient content were applied onto the substrate. Their building-up into the kiwi plants was monitored through determinations of total N, P and K forms and dry matter content. During the vegetation period, agrochemical determinations of the pH, total soluble salts content, $N\text{-}NH_4^+$, $N\text{-}NO_3^-$, PO_4^{3-} and K^+ were made and the output was correlated with the NPK plant uptake. The application of nutrient fertilizers on the kiwi cultivars generated major differences. The nutrient solutions and their fertilizing impact on the nutrient elements (total N, P, K forms) accumulating in the kiwi plant leaves varied according to the cultivar or hybrid grown. Hayward cultivar control (unfertilized variant) shows a 2.83% N content. The total nitrogen content of variants fertilized (by nutrient solutions type 1 and 2) was lower during control than

Key words

kiwi plant, NPK uptake, nutrient solutions, softwood cutting

that of the unfertilized variant, namely of 2.54% and 2.68% N respectively. The AD 20 Hybrid witnessed a variable total P content in leaves between 0.65 and 0.73%. In all three variants (unfertilized, solution 1 and solution 2 applied), the Katiuscia cultivar showed very similar values, namely of 1.92%, 2.04% and 2.09% N in leaves, with no significant differences as to the fertilizer applied. The total K content of kiwi leaves, regardless of the cultivar or hybrid and nutrient solution applied, ranged between 2.15% and maximum 2.90%, which values are close to the 2.65%-2.75% K limits defined in the reference literature.

Comparative study on the influence of tillage on energy consumption of maize culture in conditions D.S.Timisoara

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Abstract This new agricultural technology, called "*conservative*", excludes intensive soil aeration through tillage with furrow tilting and elimination of vegetal residues, but it imposes to keep soil covered with vegetal residues over 30% after seeding. First experimental studies with adequately results, on plain lands, with medium-easy textured soils, well aerated and drained, in maize monocrop, were carried out 50 years ago in the United States, being afterwards extended and improved almost all over the world, including our country.

The transition from conventional systems to the conservative ones was not simple and it has generated a lot of questions, which asked for pertinent, well documented answers along time, a part of them being already satisfied. So, some difficult problems have been related to the assessment of land and soil level of adaptation, to new aeration methods, to the emphasizing of possible changes occurred in soil and plant productivity and to their long-term prognosis.

The implementation of conservative soil systems on large areas has not been solved at all, even in technologically advanced countries with solid specialty knowledge.

Key words

systems of works, direct drill, no tillage, energetical consumption

The Impact of Manual Thinning upon Fruits' Chemical Features of some Peach and Nectarine Varieties Cultivated in Periam, Timis County

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Abstract Peaches' and nectarines' are much appreciated fruits due to their main chemical substances, which are sugars, organic acids, pectic substances, tannins, vitamins and minerals. Because these species have a high flower binding degree, manual thinning is almost compulsory and gives high results by assuring a sufficient space between fruits, increasing at the

Key words

peach, neactarine, manual thinning, soluble dry substance, sugars, acidity

same time their quality.

This article presents the impact of manual thinning upon the content of soluble dry substance, rephractometrical determined, sugars, determined by soluble dry substance method, total acidity, determined by juice extraction and titration with NaOH, and gluco-acidimetric index.

The data were collected in 2007 from 2 varieties of peach – Spring Lady and Maja, and 2 nectarine varieties – Caldesi 2000 and Nectaross. The trees were planted at a distance of 4.0 x 2.5 m, having a density of 1000 trees/ha and the crown system is Palm Spindelbusch. The soil was maintained clean by mechanical hoes and Roundup 360 SL herbicide. Manual thinning was done to fruits with size of a walnut till the stoning of stones, being done a severe thinning at 15 cm, a moderate one at 10 cm and a softer one at 5 cm.

The results obtained showed that sugars increase in those variants where thinning was more severe, than in those with slightly thinning.

Preliminary Results Concerning the Chemical Features of some Thinned Varieties of Peaches and Nectarines Cultivated in the Western Region of Romania

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Abstract The peach tree is one of the most appreciated fruit tree species because of the special qualities of fruits, but also because of the biological features of the tree.

Considering their flavour, peaches are situated after the grapes, oranges and apples, having a complex chemical content. Almost 60-70% of fruits are being consumed fresh, while the rest is being processed and consumed as juice, marmalade, jam, compote, brandy and many other ways. Their high content of minerals, sugars, vitamins, organic acids and tannins make peaches and nectarines very indicated in alimentation.

This article presents the impact of manual thinning upon the content of soluble dry substance, rephractometrical determined, sugars, determined by soluble dry substance method, total acidity, determined by juice extraction and titration with NaOH, and gluco-acidimetric index.

The data were collected in 2008 from 2 varieties of peach – Spring Lady and Maja, and 2 nectarine varieties – Caldesi 2000 and Nectaross cultivated in Periam. The trees were planted at a distance of 4.0 x 2.5 m, having a density of 1000 trees/ha and the crown system is Palm Spindelbusch, while the soil was maintained clean by mechanical hoes and Roundup 360 SL herbicide.

Manual thinning was done to fruits with size of a walnut till the stoning of stones, being done a severe thinning at 15 cm, a moderate one at 10 cm and a softer one at 5 cm. The results obtained showed that sugars increase in those variants where thinning was more severe, than in those with slightly thinning.

Key words

peach, neactarine, manual thinning, soluble dry substance, sugars, acidity

Influence of growth regulators on morphogenetic processes under *in vitro* condition

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Abstract This study was conducted to evaluate the effect of plant growth regulators on *in vitro* shoot multiplication, vitrification and rooting of chinese carnation cultivar. Isolated axillary buds were cultured on MS medium supplemented with different levels of growth regulators and shoot multiplication and vitrification rate were tested. The phytohormones show significant influence on the process of plantlets neoformation, occurring differences statistically assured. Thus, the highest values were recorded when applying the culture medium of auxines: ANA, 2,4-D and AIA, while the lowest values were obtained for the use of GA_3 and KIN. Regarding phytohormones influence on proliferative capacity, citokinines (BA, KIN) showed the highest values of number of sprouts/seedlings, showing strong differences statisticly provided from the results obtained using auxines (2,4-D, AIA, ANA, AIB). Given the unilateral effects of hormones is observed that statistically assured there are differences between them regarding plantlets vitrification. Thus, the highest values were recorded when applying the culture medium of citokinines: KIN and BAP while auxinele led to a reduction in the vitrification process.

Key words

Dianthus chinensis L., growth regulators, shoot multiplication, vitrification, *in vitro* rooting

In vitro culture initiation and phytohormonal influence on ornamental plants

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Abstract The objective of this study was to evaluate the effect of different types of growth regulators and their concentrations on micropropagation of carnation axillary bud explants under in vitro condition. The phytohormones show significant influence on the process of plantlets neoformation and rooting rate. Isolated axillary buds were cultured on MS medium supplemented with different levels of growth regulators and shoot multiplication rate were tested.

Key words

growth regulators, shoot multiplication, *in vitro* culture, ornamental plants

Researches concerning the introduction of some new leek genotypes for ecological crop

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Abstract In the promoting action of ecological crop methods it is dictated the introduction of some new genotypes characterized by superior issues both under productive potential and genetically resistance to pest organisms' action.
Knowing the ecological agriculture basis contribute to biodiversity preservation and environment quality, health and security edible protection and increasing the productivity for secure and constant profits obtaining. In this regard, the aim of this research had as a view the behavior of some leek (*Allium porrum* L.) cultivars assortment in ecological crop conditions. The study references to the aspects concerning the biochemical content, yield capacity of the genotypes and also the implementation of some biological products in the integrated management of the leek.

The biological material was represented by five leek genotypes which are characterized through high ecological plasticity displaying resistance to pest's organisms attack (pathogens and pests): Camus (control), Carentan, Swiss Giants, Autumn Giant and Bulgarian Giant. The highest productive efficiency registered Autumn Giant genotyp which outruns semnificativelly the control experience, with 12.2 t/ha. In the harvesting phases the accumulation of nitrates and nitrites in the bulb and false stem was with more than maximum admitted concentrations (MAC = 600 ppm); but under biochemical aspect the leek cultivars presented an TDS content of 10.9-12.5 %, in SDS, of 9.2-11.8 %, in sugar of 8.1-10.7 % % and in vitamin C, of 63-26 mg/100 f.s.

Key words

leek, organic crop, biochemical composition

Research concerning the comparative analysis of the impact of different morphological features on yield in an assortment of broccoli

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Abstract Broccoli is a species originating from the Mediterranean Basin. It started to be cultivated in the 19th century, first in Italy, and then in Germany, England, France, and Holland. The biological material we used in our trials was represented by the following 12 foreign broccoli genotypes: Belstar F_1, Celcius F_1, Chevalier F_1, Chios F_1, Fiesta F_1, Flash F_1, Heritage F_1, Ironman F_1, Marathon F_1, Martor F_1, Milady F_1 and Parthenon F_1. False head mean weight oscillates between 434.7 g (Celcius F_1) and 874.7 g (Fiesta F_1). mean yield per area unit oscillated between 17.38 t/ha (Celcius F_1) and 34.98 t/ha (Fiesta F_1).

Key words

Brassica oleracea L., convar. *botrytis* Alef., var. *italica* Pleuch, broccoli, genotype, morphological characters, production potential

Research on the effectiveness of Acetogan, Guardian and the Dual Gold herbicides at maize grainz from S.C.D.A. Simnic–Dolj

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Abstract The maize is a sensitive plant on weeds in early stages of vegetation. The dominant weeds are: *Echinochloa crus-galli* and *Setaria glauca* followed by annual dicots *Amaranthus retroflexus* and *Chenopodium album* (6).
For weeds control pre emergent herbicides were used: Acetogan (2 l/ha), Guardian (2 l/ha) and Dual Gold (1.5 l / ha). Compared to a control without herbicides , and a second standard with two soil works. The best results (4108 kg / ha) were obtained from the Guardian herbicide.

Key words

preluvosoll, weeds, herbicides, corn, selectivity

Comparative assessment of trace metal accumulation in celery and nettle leaves

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Abstract Celery and stinging nettle are leafy vegetables that are commonly used in human nutrition. In addition, both plants are recognized as bioindicators of metal accumulation in soil. The present study comparatively investigates trace metal accumulation in celery and stinging nettle leaves under similar environmental conditions. Soil, celery and stinging nettle leaves were collected from the village of Temeresti (Timis County). Metal concentrations were assessed by flame atomic absorption spectrophotometry. Our results showed that both leafy vegetables are proper for human consumption and pose no threat to human health; in addition, they share a similar capacity of accumulating metals from the soil. Further studies are required to find out if such convergent patterns of trace metal accumulation among different plant species are common in terrestrial ecosystems.

Key words

celery, stinging nettle, trace metal, bioaccumulation, bioindicator plant

The substratum influence on cutting's rooting of *Ficus benjamina*

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Abstract **Ficus benjamina** is an ornamental plant of apartment with oblonged – oval, coriaceous leaves (4-8 cm/ 2.5 – 4 cm), with entire edge of deep and bright green color.

It presents, also, a variety with leaves plumed with yellow.

It is multiplied by cuttings, best in the cold period of the year when the plant contains less latex. For avoiding the obturation of timber vessels with latex, after harvesting the cuttings are entered with their base in the water at 30^0 C for 25-35 minutes.

After rooting the cuttings are planted in pots with size of 12x12 cm in a fresh blend consists of two parts peat, two parts soil with leaves, one part old manure, one part sod and one part sand.

Key words

Ficus benjamina, rooting substrates variants, cuttings

The CO_2 influence on the growth of *Aucuba japonica* plants

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Abstract This paper presents an experimental regarding the influence of CO_2 on the growth of Aucuba japonica plants. Incresing the CO_2 content in solariums, from 0.07% to 0.1% has a result in increasing the growth rate.

Key words

CO_2 administration, growth rate, circumference of the stem, economical efficiency

Some aspects on the difficulties to registration land agricultural in land book in zone Banat

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Abstract Lands of any kind, regardless of destination, the title upon which are owned or by public or private properties to which they belong, is the land of Romania.

The law defines "holders" of land as owners of property, of the real

Key words

conversion, Land Registry, property titles, real estate

rights over them or those who, under civil law, have the status of owners or holders. The occurrence of Law no. 18/1991 of the land resulted in the release of title deeds to vast areas of land as a result of massive restitution. How in Banat, Transylvania and Bucovina was in force Decree-Law no. 115-1938 to merge provisions on the entry in the land, real estate advertising achieved by these records, with the early 1990s came the need for a natural inclusion of those acts of ownership in the land.

Some aspects of cadastral documentation necessary registration agricultural land in land book

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Abstract According to the legislation, cadastral activity in Romania has three functions: technical, economic and juridical. The technical function is to identify, describe and cadastral registration of real estate documents by their nature, measurement and representation on maps and cadastral plans as well as computer data storage backing, the legal function is provided by the identification and registration of all owners and other holders legal of buildings in order to enter in the land register with finality and economic function consists in providing the necessary data system for the correct tax and the tax liability of taxpayers requested by the state authorities.

Of the three functions, we refer to the technical function of cadastre, this activity is provided in our country by a particular professional category, that of the Geodesists.

Key words

geodesist, property register, cadastral, land book

Researches Regarding the Landscaping of a Former Industrial Area, Using the Vertical Gardens' Technique

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Abstract The first part presents the origin and the types of vertical gardens that exists until now. Also will see, the materials forming part of the support.

In Part 2, are presented the results of the proposed development, and the costs necessary to achieve its. And at the end are presented the conclusions.

Key words

roof gardens, vertical gardens

Research on Planning Landscape of the restaurant Miraj

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Abstract In the work presented was done at the request of the owner, a planningproposal, of the restaurant Miraj. We followed the arrangement in a mixed style using the vegetation toprovide adaptability for the studied area, but also to obtain an impressive esthetic effect.

Key words

Green space, landscape planning

Issues of forest management in Reşiţa County

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Abstract Caraş Severin Forestry Department, through its 17 subordinate forest districts, currently manages an area of 325,956 ha forest public property, of which forests occupy 97.9% or 319,242 hectares, situated in the south-western Romania in the south of the historical province of Banat, in Caraş Severin also called Banat. In this region have developed since the eighteenth century remarkable forest structure related to management of large frontier forests and some forests for mining and metallurgical plants and Domains belonging to the Reşiţa, who made the first forest management plans in the country.

Key words

forest, districts, management, ecosystems

Dynamics care cuts and state achievements in Caraş-Severin Forestry Department

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Abstract In the actions taken for the sustainable management of forests, management and care of trees is a priority for the Forestry Department Caraş-Severin. In this respect, care work is aimed at creating favorable conditions for development of valuable native forest species to attract harmonious economic and ecological functions. In this paper we present achievements to the provisions of forest management, which was exceeded by 4%, the highest values occurred at Forestry Nera, Bozovici and Moldova Nouă

Key words

forest, care cuts, management, achievements

Research on soil work, planting material, methods plant and planting at the potato culture

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Abstract The work soil aims loosening soil, accumulation and preservation of soil water, nutrient and weeds control. They are meant to provide a substrate as loose with air-fluid corresponding regimen potato biology, the accumulation of water and nutrients in the soil and destroying weeds. Soil tillage should be done differently, depending on the climate, soil type and texture, plant seed, the degree of weeding and soil erosion. Soil tillage pursues the following objectives: adjusting the physical, chemical and biological; maintain and enhance soil fertilization; weeds and some pests and diseases that development cycles in connection with the ground; remediation of soil microorganisms increased activity, favouring the oxidation processes.

Key words

potato, soil, fertilization, weeds

Research on maintaining potato crops, disease control, pest control and potato irrigation

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Abstract From planting to emergence, the range is over 30 days (the potato 18-25 days). During this period must be destroyed weeds and crust can form especially on heavy land and wet weather. The best results are obtained when the works are done as soon as weeds appear. The first work is performed at 10-14 days after planting. When planting was done on rising land, harrow ground working-net, the aggregate of three fields, the working width of 8.4 m and a forward speed of 5.7 km / h, harrows destroy the weeds and crust rising land ridge, and the interval between rising land.

After 1-4 days working again, this time with thinning type cultivator equipped with tracks. To destroy weeds and crust in the area of rising land and by restoring them, cover and choke the weeds that tend to rise. Successive work-net harrow and cultivator parts such rarity, recovery Billon, repeats again (when they planted tuber sprouting) or 2 times to other cultures, after intervals of 8-12 days.

Key words

potato, pest control, irrigation, disease control

Spatial differentiations of the physicogeographical layer in Boţeşti village in the Cândeşti Piedmont

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Abstract The way of the ground utilisation has recently shown significant modifications. For the moment being, the greatest part of the surface of the village is represented by forest (41%) followed by the arable land (31%) with the highest development in in its lower part, where the side slopes are relatively moderate. The dimension of the anthropic impact is rather big, especially if we consider the fact that, a few hundred years ago, the village was wooded on more than half of its surface. The initial situation continues now only on the interfluvial heights or towards the spring of the Cârcinov Basin where, on the areas more difficult to access, patches of the initial forests of broadleaf forests remained (naturally regenerated after cutting). However, the extent of these is reduced to only about 5%. Man's impact on the grounds usage can also be emphasized by another parameter, respectively the preservation of only 19% of the village's surface in the form of natural meadows. With similar percentages there appear the orchards, the hydrophilic vegetation ant the forests.

Key words

arable grounds, orchards, soils, pastures, forest, deforestation

Some aspects of support network in the city Gelu, Timis County

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Abstract Implementation and use of modern technologies in determining support networks, is a highly complex process. When choosing static application in the study undertaken were considered: high accuracy for determining the X and Y coordinates; the method is practical and easy to use thanks to GPS; determined support points can be used in surveying required for the sewer system in Gelu village. Surveying will include all existing and newly determined geodetic points in a uniform reference system.

Key words

support network, sewerage network, projection system

Aspects regarding the modern methods performances in surveying for road rehabilitation

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Abstract The paper was prepared to carry out topographic survey for roads to be paved among the villages belonging to the Lujerdiu village, Cluj County. To determine the absolute rectangular coordinates of the 19 new items studied, the "static method" with 5 dual frequency GPS equipment was used.
Static method application in the study undertaken, points out that this method is practical and easy to use thanks to GPS, but it requires proper planning and compliance efficiency of GPS campaign. It also provides the highest accuracy for determining the coordinates x and y, respectively on H share, by combining GPS measurements with geometric precision leveling measurements.

Key words

topographic, rectangular coordinates

Underground water contamination with nitrites, nitrates and ammonium – short review

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Abstract This short review is about contamination of water with nitrates, nitrites and ammonium. For many centuries, water was considered to be an element. Pollution consequences are more and more to be felt; they are already found in public health, eco-systems bio-diversity, and not only, by jeopardizing them. The most varied composition among all the natural waters is owed by the underground waters. Underground water may reappear on the surface, either as water springs or water extracted from fountains or exploitations.

Key words

water, pollution, nitrites, nitrates

Determination of fat and protein content in Italian sausage commercialized in Timisoara

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Abstract Quality control and quality assurance is of prime importance in the food industry. Some quality characteristics as total fat, saturated fat and protein content of five different types of Italian manufactured sausages commercialized in Timisoara were investigated. Using Scanlab 98, spectroscopic measurements (825 and 11075 nm) on Italian sausage samples were used to predict the amounts of total fat and total protein minus collagen, collagen, myoglobin (biochemical components). The results for protein content are shown for the combined relaxation analysis at 40^{o}C and at 8 ^{o}C for fat content and not suitable values were recorded for both parameters in all five Italian sausages analyzed. Protein content was situated closely to the lower limit of the standard and the fat percentage was nearly the maximum limits of the standards for all samples analyzed.

Key words

Italian sausage, fat, content, protein content, infrared spectroscopy

Forest's role in the sustainable development of rural communities, with reference to particular situations in the area administrated by Podu Iloaiei Forest District, Iasi County, Romania

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Abstract The paper considers the role that the forest sector can play in the sustainable development of rural communities. The topic is complex as it involves social, political and environmental aspects calling for an intersectoral coordination. A general framework is presented dealing with different approaches and possible solutions found at national and international levels. Further references on the matter are made to the particular case of the forests administrated by the Podu Iloaiei Forest District, and the surrounding rural space, to underline that this problem can be effectively approached, at regional or sub-regional level, due to a distinctiveness of each rural area. Although wood is still the main focus, the unanimous acknowledgement of the multi-functionality of the forests favours the creation of markets for forest products other than wood, that can generate the money for financing forestry-linked rural development. Policy makers, private forest ownership and the individual's capacity to recognize the opportunities are key factors in the generation of growth possibilities for rural communities.

Key words

sustainable rural development, non-wood forest products, small-scale forestry