OPPORTUNITY OF SMALL-SCALE FORESTRY IN MOLDOVA

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Abstract

Moldova is a country of narrow space, with a few forests that cover 325 thousand ha. All forests are owned by public, with 90 % owned by state forest authority and 6 % owned by mayoralties. The remaining 4 % of the forests are owned by agricultural unites, cities, industry, transport and aquatic branches. Forests belong to the first functional group, having the exclusive function to protect water, soil, and forest genetic funds; to annihilate harmful climatic and industrial factors; to provide recreation function and scientific interest. Protected areas occupy 66467 ha, of which forests occupy 59495 ha. The major tree species that make up the forests in Moldova are pedunculate oak, sessile oak, downy oak, black locust, European ash and hornbeam. In the national economy, forest products represent 0.3-0.4 % of the Gross Domestic Product. The main task of forest sector to extend forest area from 9.6 to 15 % concentrated during last twenty years huge financial and people resources and became a topic of many scientific disputes and social conflicts. We suppose that inadequate forest ownership is the main reason that stagnate the afforestation objective. In the same time we are conscious that expropriations, chronic changing of the states, governments, moneys, with no compensation for the society during the last century lost the confidence of rural people in the land property rights. We believe that fragmentation of agricultural lands by small patches of private forests should be the main bridge between the past and future, poverty and economical stability. This paper will focus on opportunity of small-scale forestry in Moldova. First it describes the dynamic of forest cover and the management of forest estate, secondly clarifies the opportunity of small-scale forestry and thirdly emphasizes potential specific features and diversification of small-scale forestry. Finally, the main objectives and actions in the base of studies are made in order to improve the opportunity of small-scale forestry.

Key words: small-scale, forestry, opportunity, conservation, resources, utilisation.

INTENSIVE CONDIMENT PAPRIKA PRODUCTION UNDER PLASTIC TUNNEL USING HYBRID GENOTYPES

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Abstract

In the last decade, it could be observed year by year that the condiment paprika production in the field based on varieties with foreign pollination is one of the crops most exposed to weather conditions. Moreover, the fresh condiment paprika harvested from the field can not achieve the yield which ensures the profit for farmers and processors. The intensive condiment paprika production with plastic cover in the field is able to produce gain. However, there are still some factors which influence the quantity and quality of the yield. Watering is very expensive in dry summers, while in wet years the price of chemical control is high except when varieties with bacteria resistance are grown. Occasionally, the long period of the maturity can decrease the quality of the condiment paprika powder, and an unexpected frost can destroy the significant part of the yield and profit..

Key words: paprika, condiment, plastic tunnel, production

PREVENTING AND DECREASING THE DAMAGES CAUSED BY PHYLLOXERA VASTRATRIX. PLANCH (ORD. HOMOPTERA, FAM.PHYLLOXERIDAE)

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Abstract

Phylloxera, an insect that became legendary because of the disaster caused to the European wineries (vineyards) in the period 1870-1880, revolutionized the vine culture by determining the change of the culture technology through grafting, respectively by introducing some resistant varieties and hybrids. Though, after almost a century and half the attack symptoms of Phylloxera galicola have concerning spread, there have not appeared virulent resistant breeds to Phylloxera vastatrix, which is for the moment an extern quarantine pest.

Key words: Phylloxera, insect (pest), prophylaxy, control

RESEARCHES CONCERNING THE WOOD DENSITY OF ACER TATARICUM

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Abstract

In forestry, great importance is given to wood apparent density commonly known as wood compactness. The researches were developed considering three stands that contain also Tatarian maple trees, for each population tree cores have been taken in order to determine wood density in anhydrous state as a ratio between mass and volume of wood samples in anhydrous state, conventional wood density as ratio between wood sample mass in anhydrous state and apparent volume of wood with humidity higher than the saturation humidity and dry wood density in open air representing the ratio between mass of dry wood samples in open air and apparent volume of dry wood in open air. Wood density was the main objective used to study the Tatarian maple populations and served to assess the similarities between these.
Key words: wood density, Tatarian maple

CHARACTERIZATION OF SYCAMORE MAPLE STUDIED POPULATION IN TERMS OF EVALUATION INDEX

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Abstract

Sycamore maple is one of the most valuable hardwood species. It is appears in the mountain and hills regions. The specie is important for their forestry role and their valuable wood too. The value of the wood is connected with breast height diameter, trunk height and ovality.

In order to establish the most valuable sycamore maple stands the index of evaluation has been calculated. There have been given indexes for each studied character. We are talking about quantitative characters (breast height diameter, tree height), quantitative crown characters (crown diameter, crown height), qualitative trunk and crown characters (cross section ovality, natural pruning, slenderness index, the shape of tree trunk base, trunk straightness, trunk shape) and a wood character (wood density). The evaluations indexes have been establish according to standard deviation of population mean comparing with general mean.
Key words: indici de bonitare, paltin de munte

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

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Abstract

Tatarian maple represents an underwood species, included in the composition of oak stands from plain region and shelter belts from steppe and forest steppe.

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

Key words: variability, leaf characters, Tatarian maple

STUDIES REGARDING THE VALUE OF MAIN CHARACTERISTICS OF WINE ASSORTMENTS PRODUCED IN TEREMIA VITUCULTURE CENTRE IN THE PERIOD 2002-2004

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Abstract

Teremia viticulture centre is profiled on producing superior and table white wines. The assortment of cultivated grape varieties mostly consisted of white wine varieties and on small proportion of red wine varieties.

The mean values of the main characteristics of wines produced in the period 2002-2004, include them in wine category with geographical indication.

Key words: full maturity, alcoholic strength, total acidity, non-reducing dry extract, sugar efficacy, Majarcă albă, Creață, Steinschiller, Fetească regală, Italian Riesling, Burgund mare.

STUDIES REGARDING THE VARIATION OF NACL CONCENTRATION DEPENDING ON STARTER CULTURES CONCENTRATION IN FINISHED GOODS OF ANIMAL ORIGIN

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Abstract

The variation of the NaCl concentration in the Carpați sausage obtained using a lactic starter bacteria in order to ensure a higher preservability and the comparative study among the standardized limit concentrations were done.

Clorure of sodium, dissolved in the water from meat, take aut the sarchoplamatic proteins left-over after this elimination and a certain quantity of miofibrilar proteins that comes in contact with meat particle and bacon in the partition process. NaCl influence the inflation of the meat particles that will coalesce better with other meat particles.

Key words : NaCl, Carpați sausage, lactic starter bacteria

RESEARCHES CONCERNING THE BIOECOLOGY OF *HOPLOCAMPA MINUTA* IN THE ORCHARDS ALONG BISTRA VALLEY – CARAŞ SEVERIN

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Abstract

Hoplocampa minuta Crist. is spread in all the areas where plum trees are being cultivated and it produces important damages, especially in the not-maintained orchards. That is why during the period 2004-2006 there were made researches in the orchards along Bistra Valley (Glimboca), Caras Severin, in order to observe the pest's bioecology so that there can be applied preventive and curative methods against it.

During the research period the adults appeared between 8^{th} and 26^{th} April, when there was an effective temperature sum of $47.2^{o}C$; the beginning of ponta took place between 10^{th} and 28^{th} April, when there was an effective temperature sum of $88.6^{o}C$ and the larvae appeared in the period 28^{th} April and 18^{th} May, when there was an effective temperature sum of $150.9^{o}C$.

Key words: pest, Hoplocampa minuta, bioecology, plum tree

ASSENSSING APPLE-TREE PLANTATIONS IN THE EXPERT SYSTEM ACCORDING TO THE NEW WORTHINESS MODEL IN THE CARANSEBES AREA

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Abstract

After assessing natural resources (climate, land, and soil) we accumulated 97 worthiness points, and after assessing human resources we accumulated 76 worthiness points, with a total of 173 points. In this way, the apple-tree plantation in the Caransebeş area can be classified as „natural and man-made restriction area" for the Florina and Jonathan apple-tree cultivars grafted on M 106 mother-plant aged 21.

Key words: natural resources, man-made resources, worthiness grade

RESEARCHES REGARDING IN VITRO CULTURES CONDITIONS INFLUENCING ON *MOMORDICA CHARANTIA* L. REGENERATION

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Abstract

Our researches have in view the obtaining of callus and shoots regeneration at Momordica charantia L., using different explants and some combinations of growth regulators. To establish the hormonal balances for callogenesis and organogenesis at Momordica charantia we used the results obtaining of Malik and al., 2007; Nabi and al. 2002.

Key words: Momordica charantia L., "in vitro" regeneration

INFLUENCE OF SYSTEM OF FORMATION AND ACCOMMODATION OF TREES ON GROWTH AND EFFICIENCY OF A PEACH

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Abstract

With the purpose of reduction in force of growth of trees and increases in efficiency of plantings of a peach during with 2002 for 2007 in a pilot farm of Agrarian University of Moldova, investigated following designs of plantings: a vase (control), Bush forms crone, palmette, inclined system, X, V and Y-system. Object of researches was variety Redhaven graft on peach Persica Vulgaris. Among investigated systems of formation on productivity and a complex of other positive attributes is allocated the Y systems.

Key word: peach-tree, structure of plantation, tree growth reduction, fruit yield

FORESTRY HABITATS FROM LEAOTA MASSIF

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Abstract

In this paper are presented the main types of forestry habitats that can be found in Leaota Massif. A number of 6 habitats belonging to one class of Palaearctic Habitats classifying system have been described: 41.D211Dacian Dentaria glandulosa beech forest, 41.4641 Dacian Phyllitis beech ravine forest, 42.542 Carpathian relict calcicolous Scots pine forest (42.5C8 East Carpathian Sesleria Scots pine forest), 42.21623 Carpathian high montane Hieracium spruce forest and 42.21625 Carpathian Leucanthemum high mountaine spruce forest.

Key words: habitats, forest, Leaota Massif, Romania

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

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Abstract

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

Key words: variability, leaf characters, hedge maple

MUSTOASĂ DE MĂDERAT – OLD VINE VARIETY FROM MINIŞ-MĂDERAT VINEYARD

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Abstract

Mustoasă de Măderat is a local variety obtained by natural selection. In time it confounds with the existence of Miniş-Măderat Vineyard. It is a productive variety for current consumes white wines and it is very appreciated by the oenologists. There are years when its quality can be compared to a Controlled Term of Origin wine.

Key words: variety, selection, clone, tradition

TEST RESULTS OF PREPARATION VANTEX 60 CS AGAINST THE COMPLEX OF DANGEROUS INSECTS RAPESEED (*Brassica napus oleifera*) IN CONDITIONS FROM REPUBLIC OF MOLDOVA

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Abstract

Work contains the information on test of chemical preparation Vantex 60 CS against the complex of rapeseed wreckers in conditions of Republic Moldova. It has been studied specific structure of dangerous insects rapeseed in 2007. The basic rapeseed wreckers in R.Moldova are: Tanymechus dilaticolis Gyll., Opatrum sabulosum L., Phyllotreta spp., Meligetes aeneus F. etc. Climatic conditions have been simultaneously compared to a cycle of development of insects. As a result of the received results, preparation of Vantex 60 CS with dosage of 0,08 l/hectares, have been included in the list of the resolved preparations against a complex of rapeseed wreckers in conditions from Republic of Moldova.

Key words: rapeseed, dangerous insects, Vantex 60 CS R. Moldova

ON THE IMPACT OF SOIL WORKS ON GRAIN MAIZE PRODUCTION

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Abstract

This paper aims at presenting the choice of soil work variant that constitutes a viable alternative in the conditions specific to the Banat's Plain and at establishing the impact of soil works on yield characteristics in grain maize crops. Research was carried out between 2006 and 2007, on the trial field of the Department of Cultural technologies on a cambic, moist phreatic, chernozem with very good fertility for maize. The trial was set on randomised blocks with 6 variants and 4 replications.

The technological variants were: V_1 – Tillage 20-22 cm + disc (2x); V_2 – Tillage 28-30 cm + disc (2x); V_3 – Chisel + rotating harrow; V_4 – Cutter; V_5 – Combined machine; V_6 – GD 6.4 (2x). The classical system of soil work with a tillage at 28-30 cm or 20-22 cm + discing (2x) proved superior from the point of view of the variant productivity where we used GD 6.4 (2x) and the cutter. Depending on soil works, grain maize production oscillated as follows: between 43.28 and 64.50 q/ha in the year 2006 and between 22.10 and 48.90 q/ha in the year 2007.

Key words: soil works, productivity, maize

RESEARCHS REGARDING EFFICACITY OF THE FERTILIZATION ON TOMATO PRODUCTION IN THE ROXANA AND UNIREA TOMATO CULTIVARS IN 2007 YEAR

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Abstract

This paper analyses the impact of the fertilization with $N_0P_0K_0$, $N_{125}P_{90}K_{60}$, $N_{150}P_{120}K_{75}$, and $N_{175}P_{150}K_{90}$ on tomato production in the Roxana and Unirea tomato cultivars.

In the Unirea cultivar, the fertilising treatments applied confirm the fact that during 2007 the most efficient fertilising doses were of approximately 129-105-62, which allows yields of approximately 36.5-37 t/ha;

In the Roxana cultivar, the fertilising treatments applied confirm the fact that during 2007 the most efficient fertilising doses were of approximately 120-95-92, which allows yields of approximately 39.5-40.5 t/ha;

Key words: tomato, fertilzation, production.

INVESTIGATION ON THE INFLUENCES OF THE PLANTING DISTANCES AND OF THE RIDGING TILLAGE OF SANDY SOIL FROM MARSANI-DOLJ, ON THE TOBACCO YIELD (VIRGINIA TYPE)

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Abstract

The cost necessary for the ridging tillage is not justified, because the production efficiency that was optioned on the ridged soil, before planting, is not important.

The highest production of tobacco dry leaves has been obtained at the planting distances of 90 cm between rows and of 40 cm between plants on the row .The length of leaves was of 40.4-46.6 and the leaves width of 22.2-26.9 cm, depending of the there factors that we have studied.

Key words: sandy soil, tobacco Virginia, and planting distances, ridging, irrigation

EXPERIMENTAL RESEARCH CONCERNING THE EFFICIENT USE OF POWER BASE IN AGGREGATES WITH 45 HP AND 65 HP TRACTORS

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Abstract

Optimal working regime in tractors in aggregate with agricultural machines is established with the help of a power balance and it corresponds to the speed steps for which traction power is maximal, fuel consumption is minimal, and working capacity is maximal.

Key words: aggregate, working width, working speed, working capacity

REGRESSION ANALYSIS OF DIFFERENT YIELD TRAITS IN WINTER BARLEY

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Abstract

This paper gives results of multiple regression analysis for different quantitative traits for a set of barley cultivars and investigates the relationship between each quantitative character and plant yield, in order to supply a reliable basis for selecting barley with high yield. The biological material consisted of 23 native and foreign winter six-row barley cultivars

On the ground of variance analysis regarding different regression models for plant yield in case of studied winter barley varieties, it has been observed that regardless of number of variantion sources (variables) comprised by regression, the largest influence for attaining this character was expressed by number of fertile tillers, spike length and grain weight per spike.

Spike yield in case of studied varieties is greatly influenced by spike length and grain number in the spike. As a consequence, in order to obtain genotypes with superior yields per spike, it is necessary to apply conseqent selection both for spike length as well as grain number in the spike.

Key words: winter barley, regression analysis, yield traits

FRUIT BEARING MICROSTRUCTURE AND ITS INFLUENCE ON FRUIT PRODUCTIVITY IN THE APPLE TREE PLANTATION

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Abstract

The orchard was established in spring, 2004 with crowned apple trees of "KNIP BAUM" type. The distance of plantation is 3,25 x 1,25 m, the rootstock is M 9 and the studied varieties are Idared, Golden Delicious Reinders, Jonagold Decosta and Čampion. It was studied the bearing fruit formations, quantity, crown weathering and fruit productivity during 2004-2007. It was also established that in the second year after plantation these varieties have formed a tree skeleton totalized length of 32,3-51,3 m/tree, including 9,0-11,3 m/tree on 2-4 year old branches. The quantity of bud-fruit formations for one tree is 125-228 pieces, for a linear meter of two-year old branches is 16,3-26,1 pieces, for the three-old branches is 9,5-25,5 pieces, and for four-old branches is 2,8-18,7 pieces. The accumulated fruit production during the researches of the studied varieties was 57,00-69,11 t/ha.

Key words: apple tree, orchard, crown structure, productivity, variety, bud-fruit formation, "knip-baum" type

THE EVOLUTION OF THE MAIN PROPERTIES OF THE SANDY SOILS FROM THE LEFT SIDE OF THE JIU RIVER IN A BI-ANNUAL CROP ROTATION (1971-2007)

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Abstract

The evolution of the some irrigated sandy soils properties (pH, humus, N, P, K, SB, Ah, V) was observed in a wheat-corn rotation on levelled and unlevelled field, on two soil depths (0-20 cm and 20-40 cm). The radical levelling of the soil, realised in 1970 when the irrigation system Sadove–Corabia was built, determined the decrease of the humus and macro-elements content, and the compaction of the under-arable layer.

Key words: sandy soil, rotation, humus, pH, leveling

THE EVOLUTION OF PHENOLIC COMPOUNDS DURING TECHNOLOGICAL PROCESS AT SUPERIORS RED WINES FROM BURGUND VARIETY

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Abstract

The determinations that were done in this study regarded the evolution of phenolic compounds during the technological process that took place in rotating metallic tanks of red grapes from Burgund variety. It was shown of that the must colour and tint intensity variation and partial fermented must fractions, with addition of different sulphur dioxide concentration.

In the purpose to obtain extractive wines and intensely coloured, pectolitic external enzymatic mixtures was experienced during the maceration and fermentative processes, and for some technological phases improvement for primary wine making process.

During the hole period of study the antocians and the total polyphenols content was determined, as for the wines obtained with external enzymatic mixtures used during the maceration – fermentation process, as for the one which weren't treated with enzymes.

The utilization of exogenous enzymatic mixtures during the maceration fermentation process in correlation with optimal doses of SO_2 and an adequate regime of rotating metallic tank spinning generated an improving in phenolic compounds extraction for the obtained superior red wines.

Key words: phenolic compounds, antocians, total polyphenols, pectolitic enzymatic mixtures

DAPOLLEN'S GERMINATION OF SOME WALNUT BIOTYPES FROM PĂDURENI, TIMIŞ COUNTY

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Abstract

The group of nuts species of whose main representative specie is the walnut tree Juglans regia, known all around the world and also in our country from ancient times.

The main way of nut tree's multiplication is by seeds and this offers a great genetic variability, which confers a large spreading area for a long time till nowadays.

Key words: walnut, biotypes, pollen, germination, pollen's quality

RESULTS REGARDING THE BERRIES IN RASPBERRY VARIETIES IN THE BANAT AREA (*Rubus idaeus* L.)

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Abstract

The raspberry has great nutritional and diet-therapeutic qualities due to its rich content, namely 5-8% complete sugars, 0.9-1.9% organic acids, 0.2-0.5% peptin substances, 13-41% vitamin C and numerous mineral substances (1). Raspberry fruits are consumed fresh as well as in a processed state, like syrup, jam, candied raspberry juice, ice-cream and others. The fruits are also used in cosmetics and pharmaceutics (6). The research that has been undergone by this moment, are limited and they do not refer to the area where we have done our research. It is desired that the cultivation of raspberry should be promoted, mainly because of the qualities mentioned above, but also because of the economic advantages. It is a known fact that a raspberry plantation produces profit starting with the second year, that there are a lot of market possibilities(6). We also have to take into account the fact that most of the raspberry on the market comes from spontaneous fauna and does not cover the demand, the good price, the export demand.

Key words: Rubus idaeus L., behaviour, varieties, berries

STUDIES REGARDING THE PROLINE SYNTHESIS FOR A COLLECTION OF SWEET PEPPER LOCAL LANDRACES (*Capsicum annuum l.var.grossum)*

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Abstract

Pepper represents one of the vegetable crops that is widely cultivated in warm areas but nevertheless shows weak drought tolerance. The present study was focused on testing proline synthesis considering a collection composed of 28 local landraces of sweet pepper collected from the West part of Romania and compared with control variant - Cristal variety. Proline tests were performed in laboratory conditions and using plantlets obtained in vegetation pots, proline content being assessed for plants grown in normal humidity conditions comparatively with plants submitted to water stress by ceasing irrigation every two weeks. The collection of sweet pepper local landraces showed a large variability regarding proline synthesis ability, forms with highly proline synthesis ability being observed in case of Cristal variety and also inferior forms. As a result of water stress induction, in most of the studied pepper landraces, it has been registered proline contents inferior with those registered for control variety. Temereşti I, Ohaba Lungă and Rieni II local landraces have shown the highest sensibility to stress conditions.

Keywords: sweet pepper, local landraces, proline

RESEARCH REGARDING THE OSMOTIC STRESS TOLERANCE OF SOME BEAN (PHASEOLUS VULGARIS L.) LOCAL LAND RACES FROM BANAT AREA

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Abstract

Many plants accumulate high levels of proline (Pro) in response to water stress, and this is noticeably evident in some important cultivated plants. Generally, these levels are higher than those required to be used in protein synthesis. We have studied six white bean landraces (Phaseolus vulgaris L.*) from Banat`s area in order to observe their germinative response and free proline content acumulation and dry matter content induced with the help of an aqueous NaCl solution (-1 atm, -3 atm, -5 atm). Also we have determinated the total protein content using Kejdhal method. The experimental results achieved made evident the existence of some bean genotypes with a good tolerance to salinity (Dudestii Noi, Comoraste, Bocsa Romana).*

Key words: tolerance, hydric stress, Phaseolus vulgaris, proline, dry matter

RESEARCHES REGARDING THE PEACH TREES BEHAVIOR, GRAFTED ON DWARF PARENT STOCKS IN NURSERY AND ORCHARD IN ORADEA

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S.C.D.P.Bihor

Abstract

The study entitled „researches regarding the peach trees behavior, grafted on dwarf parent stocks in nursery and orchard in oradea" is a analysis of the dwarf parent stock influence over the peach trees growth and development grafted on it but also of the trees production grafted in the nursery and the fruit production in the orchard.

Key words: peach,dwarf nursey, orchard

RESEARCH CONCERNING THE CLEANING SYSTEM OF CEREAL HARVESTING COMBINES

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Abstract

Cereal harvesting is the fulfilment and the end of the agricultural production process as it is the meeting point of all man's doings, of all spiritual and material efforts, that the society invested in the agricultural process.

This paper presents a comparative study regarding the different types of harvesting combines with a view to work techniques.

Key words: plane sieve, kinematics index, productivity, fuel consumption

STUDIES REGARDING THE MAIN TECHNOLOGICAL CHARACTERISTICS OF GRAPE VARIETIES CULTIVATED IN TEREMIA VITICULTURE CENTRE IN THE PERIOD 2002-2004

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Abstract

The traditional growing of grapevines in Teremia viticulture centre has witnessed numerous changes in time by modernizing crop technologies and changing assortment of grape varieties and moreover during transitional period many vineyards have been cleared or abandoned.

The study concerning technological characteristics of cultivated varieties showed that at full maturity, grapes reflected values corresponding with variety and natural conditions and when harvested sugar increase is noticed but it is not compensated by hundred grain weight and total acidity

Among studied varieties, Majarca albă has registered the best values, thus being best adapted to natural conditions and it is recommended to be further maintained for cultivation.

Key words: Majarcă albă, Creață, Steinschiller roz, Fetească regală, Italian Riesling and Burgund, technological characteristics, oenological potential, one hundred grape berries weight, full maturity, grape vintage, sugar content, total acidity

THE INFLUENCE OF THE LACTIC STARTER CULTURES CONCENTRATION IN DECREASING OF THE NITROGEN CONTENT IN FINISHED GOODS OF ANIMAL ORIGIN

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Abstract

The variation of the nitrogen concentration in the Ardelenesc sausage obtained using a lactic starter bacteria in order to ensure a higher preservability and the comparative study among the standardized limit concentrations were done.

Key words: Sausage, starters cultures, nitrogen

ON THE NUMBER OF WEEDS IN WINTER WHEAT AND MAIZE CROPS AND ON THE IMPACT OF TILLAGE ON SOIL PHYSICAL FEATURES

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Abstract

Research was carried out between 2004 and 2007 at the Didactic Station in Timisoara on a iambic chernozem with clayish-argylous texture and low acid reaction (pH 6.7) and medium humus content (3.4%). We monitored the effect of some unconventional tillage (paraploughing, chiselling, or disc harrowing) compared to the classical ploughing on the soil physical features (apparent density, total porosity, aeration porosity, structure) on weed control and on yield results in two important crops – wheat and maize.

Results show that unconventional tillage resulted in a sensitive increase of the apparent density values (6.2-13.1% in wheat and 3.9-13.2% in maize) and of aeration porosity. We could also note the improvement of the structural state of the tillage horizons.

A drawback of unconventional works is insufficient weed control compared to the control (143-174% weeding in wheat and 147-180% weeding in maize).

Though the yield obtained in the unconventional variants are sensibly smaller than the normally worked variant (92.7-96.3% in wheat and 94.4-96.4% in maize), long-term benefits such as maintaining soil fertility and its structure recommend unconventional works in both crops provided we adopt an efficient strategy of efficient weed control.

Key words: tillage, physical features, weeds, winter wheat, and maize

THE BEHAVIOUR OF SOME NECTARINE VARIETIES CONCERNING THE QUALITY OF FRUIT PRODUCTION IN CONDITIONS OF DIDACTIC STATION TIMISOARA

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Abstract

The peach tree is the most important species by its fruit qualities and biological features of trees, being considered the IIIrd fruit culture as economical importance and culture perspectives in our country. In Romania, the peach tree occupies the 6th place after the apple tree, plum tree, sweet cherry tree, apricot tree and pear tree. If during the period 1982-1989 this species was very cultivated, after 1990 the peach tree culture known a progressive decline. The nectarine culture amplified from 1970, thanks to the collaboration between dr. Vasile Cociu and prof. Leon Hough from the University Reurgers, New Jersey, U.S.A. researchers who made up the genetic bases of some nectarine varieties. The ample studies concerning the nectarine cultures were made by dr. Monica Murvai, dr. Antonia Ivascu, prof. Draganescu E. and others.

Key words: nectarine, varieties, physico-chemical features, sugar, acidity

STUDIES REGARDING THE EFFECTS OF DOWNY MILDEW CONTROL ON TREATMENT COSTS IN CASE OF ONION CROP

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Abstract

In the present paper, it has been emphasized that attacks of diseases and pests in climate conditions that favor their development may decrease significantly onion yields.

The economic efficiency of the treatments applied in the integrated fighting against the main diseases and pests represent the index for the protected yield value, in comparison with the cost of fighting processes or the damage value, the reference being made to the cost of the phyto-sanitary treatments.

Key words: treatment, control, effect, costs

THE BEHAVIOR OF SOME APPLE TREE VARIETIES CONCERNING THE FRUIT BENDING DEGREE AND PRODUCTIVITY IN CONDITIONS OF DIDACTIC STATION TIMISOARA

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Abstract

The apple tree culture is the most known and spread in the temperate climate area, the apple production being on the first place among the fruit tree species of temperate climate while on the global site is situated on the IIIrd place after the citric fruits and bananas.

The importance of the culture is dues to the food and taste, therapeutic and prophylactic values of fruits, specific technological features, trees' agro-biological features and a great economical value.

Many researchers studied the apple tree culture on different topics such as: the improvement of the culture technology (1,5), the zonating and ecology of the apple trees (2,3,4,6) and the control of pests and diseases (3,4) and other.

Key words: apple tree, varieties, fruit binding degree, productivity

NATIONAL PARK YELLOWSTONE

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Abstract

Yellowstone is the biggest national park in the world. It was founded in 1872, through a law of the American Congress, so the park was named Yellowstone, after the way the Indians from the Minnetaree tribe called the water that was trekking the land: "mi tsi a-da-zi"- which means "the river which spring is in the yellow stone".
Key words: national, park, Yellowstone

INFLUENCE OF FRUIT CHARGE ON GRAPE YIELD OF MUSCAT DE HAMBURG VARIETY AT SD TIMISOARA

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Abstract

The research objectives aimed the assessment of the best fructification charge and the most efficient cultural practices and operations during vegetation in case of table grape variety -Muscat de Hamburg, cultivated in the conditions of SD Timisoara in order to obtain superior yields. The performed researches were initiated from the premise that correct pruning in accordance with variety and cultivation conditions may bring a balance between growth and fructification in order to obtain large and fine quality grape yields.

The yield of table grape varieties are expressed in terms of grape yield per vine, yield per hectare and commercial yield.

The values of grape yield per vine and hectare attained by Muscat de Hamburg variety registered differences between experimental years, within the same experimental year and difference between the variants. Regarding grape quality, we have performed determinations for: weight of grape cluster, sugar content, total acidity and commercial grape yield.
Key words: Muscat de Hamburg, fruit charge, cultural practices and operations during vegetation, yield quality

THE EFFICIENCY OF SOME HERBICIDES AND FERTILIZER ON YIELD IN TWO WINTER WHEAT CULTIVARS

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Abstract

Researches were performed in the experimental field belonging to the discipline of Agrotechnology, located at the Didactic Station Timişoara, in 2007. The experiment was placed on a cambic chernozem, medium levigated, slightly gleyied, clay-loamy, with a humus content of 3.41%, medium provided with mobile phosphor (17.8 ppm), with a high content in assimilable potassium (187.6 ppm) and neuter reaction (pH 6.85) within the arable horizon. In terms of climat, the spring of the experimental year 2007, recorded a low rainfall level (in april were 4,4mm and multiannual monthly average was 50 mm).

In 2007, we obteined a low yield for the two cultivars Alex and Romulus. The highest yields of 42,72 q/ha and 41,14 q/ha were in the winter wheat cultivars Alex and Romulus in the variants fertilised with $N_{150}P_{60}K_{60}$ and treated with Icedin 1 l/ha.

Key words: autumn wheat, herbicides, weeding, weeds control degree, yield

AN ECOLOGICAL STUDY OF THE QUALITY INDICES IN BEETROOT, CUCUMBER, CELERY, RADISH, AND GREEN ONION CROPS

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Abstract

Research concerning the nitrate content in plants makes possible the grouping of species depending on this criterion. Their classification takes into account the nitrate content determined in the main organs of the plant, and used by man as food. In this paper we present the nitrate and nitrite content determined in five species of vegetables marketed by the vegetable department of the supermarket Selgros and in the Badea Cârțan Market in Timişoara. As a result of analyses of the five species of vegetables, we can see that nitrate content in the vegetables marketed by the supermarket Selgros varies between 99.14 and 842.62 ppm while nitrite content in the vegetables marketed by the same firm varies between 0.35 and 2.44 ppm. Nitrate and nitrite content values determined in the vegetables marketed in the Badea Cârțan Market are higher, they oscillating between 122 and 938 ppm, and 0.47 and 3.8 ppm respectively.

Key words: nitrates, nitrites, admissible contamination limits, analysis and identification methods

RESEARCHES CONCERNING THE VARIABILITY OF THE COMPONENTS WHICH DETERMINE THE QUALITY OF GROUNDNUTS SEED TO LT_1 LINE OBTAINED UNDER IRRADIATION

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Abstract

Present paper presents the obtained average data in 2005-2006 to LT_1 line obtained after three years of irradiation, comparative to Venus variety, the initial material subjected to irradiation. The applied dose was of 6000 r, X rays and presented positive reaction to almost all studied characters and issues, surpassing the ones of Venus variety.

In this paper are presented the influences of X rays over the quality of groundnut seeds as concerns the protein and fats content and of essential and non essential amino acids. LT_1 line overfulfilled these characteristics comparative to control, Venus variety.

Key words: variability, quality components, LT_1 line, irradiation

RESEARCHES CONCERNING YIELD POTENTIEL AND SOME OF ITS ISSUES TO LT_1 LINE OBTAINED AS A RESULT OF IRRADIATION

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Abstract

Present paper refers to the study of yielding potential to LT_1 line in order to assess the opportunity of seed propagation considering the ecological conditions from Tamburesti Research Station. Yield capacity for the studied line varied between 1159Kg/ha to Venus variety and 1418.7Kg/ha to LT_1 line. Thousand seed weight registered values between 723g to Venus variety and 781g to LT_1 line.

Analyzing the average values for yield elements to the experimented material it is establish that the groundnut line, LT_1 obtained as a result of three years of successive irradiation with X rays, presents higher values. The 6000r dose X rays presented positive reaction for the elements which determine de yield capacity.

Key words: yield potential, LT_1 line, irradiation, X rays

INFLUENCE OF DISTANCE OF PLANTATION ON "KNIP-BAUM" APPLE TREE'S EFFICIENCY AND QUALITY IN THE FRUIT NURSERY

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Abstract

There were made studies at the Moldovan-Dutch mixed industry „Fruit Nurseries" about the influence of the distance of plantation on the production of crowned apple trees of „knip-baum" type. The first field was planted with the bench grafts through perfected copulation. It was used the rootstock M 9, and as a scion – the variety Golden Reinders. It was established that the best indicators of growing the apple trees of "knip-baum" type in the fruit tree nursery during the investigation period were registered with distance of plantation 90x30-35 cm with values of 11-18 % superior than those distanced at 90x25 cm. The output of the standard apple trees is in these two variants 29,390-36,110 pieces per hectare.

Key words: apple trees, fruit nursery, bench grafted, "knip-baum" type, scion, distance of plantation

INFLUENCE OF THERMOTHERAPY ON POTATO PLANTS REGENERATION DEPENDING ON THE VIRAL STRAIN THAT INFECTS THE PLANTS

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Abstract

Thermotherapy is the use of heat to inhibit virus replication inside plants and consist of complying virus infected plants with a treatment with high temperatures (31-37^{o}C) for several weeks. In this report, results of thermotherapy applied to potato virus infected plants are presented. Potato plants were infected with six viruses and four combinations between these viruses, resulting in ten experimental variants. Result showed that after applying thermotherapy regenerated shoots acted as the healthy control, no significant differences were registered between the control and the infected variants.

Key words: thermotherapy, potato viruses, in vitro regeneration

RESEARCHES REGARDING THE SPREADING DEGREE OF THE MAIN APHID SPECIES IN EXPERIMENTAL FIELDS FROM VÂRFURILE

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Abstract

This paper presents data referring to spreading ability of main aphid species from potato cultivations, for a period of two years 2005-2006.

In these two experimental years the number of main aphid species was converted in unit of spreading by estimating the value of species virulence and virus infestation danger. The knowledge of the mobility capacity of the main aphid species from potato cultivations constitutes a basic element of the integrated potato pest control..

Key words: potato, aphids, virulence, virus

THE ESTABLISHMENT OF THE CORRELATION BETWEEN UNDERGROUND ORGANS IN SELECTED FAMILY BY *GENTIANA LUTEA* L. AND THEIR CHEMICAL COMPOUNDS

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Abstract

An on going enrichment of germoplasma, requires the collection and preservation of forms from the spontaneous flora, of the local population and of the forms coming from other geographical area.Our country's spontaneous flora represents an inexhaustible source of initial material, due to the complex dory left by our ancestors. Moreover this thing confers to the flora a bigger ecological plasticity, a good immunity to different diseases [6, 8], a good immunity to bad weather. In the same tine, the forms from the spontaneous flora have some negative characteristics: low productivity, inferior quality, echelon maturity and a weak resilience to shaking etc. It is highly important to look at the efficiency for the improvement of the characters with high heritabilitans, characters for which we can identify the chemical composition, precocity etc, within an improvement process [10]. In this paper were calculated simple correlations between some morphological characters of the bellow ground organs and their composition in active principles.These elements were established looking at the methodological guidelines found in the specialty literature [1]. The meaning of the correlation coefficient was settled based on the limit set for p= 50% and p=1% and the freedom degree of the analyzed situations.

Keywords: Gentiana lutea L., active principles, correlations, hand –picked families

THE USE OF SOME PESTICIDES FOR CONTROLLING THE CALIFORNIAN THRIPS AT THE TOMATOES FROM THE AGRICULTURAL SOCIETY AGRO-DOR. GREENHOUSES, DOROBANȚI, IN THE YEAR 2007

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Abstract

In the tomatoes crop from the protected spaces it must to know that beside the insurance of weather conditions and humidity, it is important also the behaviour of this planta t the diseases and pests. One of the most important pests, which produces also the greatest damages to the tomatoes crops from the greenhouses is the californian thrips (Frankliniella occidentalis).

Taking into consideration that in our country and especially in the West Plain conditions there are a few investigations concerning the controlling of these insects, the paper proposed itself to test some of the modern pesticides accepted by U.E. in controlling the thysanoptera from the protected spaces and especially Frankliniella occidentalis which is quickly spreaded and becomes the pest number one of the crops from the protected spaces in many european countries.

For realizing the chemical treatments during the year 2007 the experimental field was placed to the Agricultural Society Agro-Dor., from Dorobanți locality, Arad district. The experimental field was formed from 3 repetitions, each repetition having 6 variants. It was used the following pesticides: V_1-untreated specie, V_2- Mospilan 20 SP, V_3- Actara 25 VG, V_4- Confidor Energy, V_5- Calypso 480 SC, V_6- Fastac 10 EC RV.

All the tested pesticides presented the effectualness coefficient bigger than 70%. The most efficient pesticide in controlling the californian thrips was the product of Confidor Energy, with an effectualness coefficient of 93,57%, and the most reduced effectualness was at Calypso product 480 SC, with an effectualness coefficient of 73,15%.

Key words: the californian thrips, protected spaces, controlling pesticides

RESEARCHES CONCERNING ESTABLISHMENT OF AN OPTIMUM STERILIZING PROTOCOL FOR POTATO IN ORDER TO INITIATE A TISSUE CULTURE

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Abstract

Initiation of tissue culture presumes the transfer of biological material from in vivo conditions to in vitro aseptic ones and imposes its sterilization. The culture medium used for in vitro growth of explants in a medium reach in nutritive elements that favors both neoplantlets development and plant pathogens invasion, as fungi and bacteria. Biological material used was constituted by potato buds and meristems. The cultivars studied are not resistant to antibiotics and different sterilizing agents were tested in order to establish the best protocol for aseptic material obtaining. The results showed that mercuric chloride is the best sterilant for potato buds sterilization, lowest percentage of infection and good surviving rates were obtained when this sterilizing agent was used.

Key words: asepsis, sterilizing agents, surviving rate, infection percentage, potato buds and meristems

RESEARCHES CONCERNING THE WOOD DENSITY OF ACER CAMPESTRE

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Abstract

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

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

Key words: wood density, hedge maple

GAZEBOS IN GARDENS

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Abstract

Today, gazebos have grown so popular, that they are almost as common as garages.

Known since ancient times, discovered on murals in Egyptian tombs, well known in ancient Rome, and in countries of the Mediterranean region.

Although some are still used as quiet places to enjoy the beauty of a garden, others have been elevated to loftier positions, as summerhouses, or entertainment centers, with doors, windows, screens, decks, electricity, and plumbing. Made of different materials, many have special lighting, hot tubs, fire pits, and brick barbecues. Arbors, ornamental fountains, bird feeders, birdbaths, wishing wells, and bridges, are also popular landscaping accessories for gazebos.

Key words: gazebos, garden, landscaping, kiosk

RESEARCHES CONCERNING THE INFLUENCE OF WEED CONTROL MEASURES ON GRAPE YIELDS ON ITALIAN RIESLING VARIETY FROM GRAPE VINE PLANTATION OF TIMISOARA DIDACTIC STATION

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Abstract

Grapes represent an important and valuable food product due to their chemical composition. They contain a series of nutritive substances useful for human body with increased energetic, food and medicinal values.

The researches were performed in the period (2002 and 2004) and aimed the influence of weed control measures on grape yields in case of wine variety "Riesling italian" from Didactic Station Timisoara.

The main purpose of this study was to study the influence of weed control on grape yields as a result of applying post-emergent herbicides and manual weed controls for "Riesling italian " variety.

Keywords: Italian Riesling, grape vine, control measures, post-emergent herbicides, manual weed control, grape yields

COMPREHENSIVE EVALUATION OF DOUBLED HAPLOID PRODUCTION EFFICIENCY (HPE) BY BULBOSUM SYSTEM IN ROMANIAN BARLEY BREEDING PROGRAMME

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Abstract

Haploid induction in barley by genome elimination in interspecific crosses between Hordeum vulgare L .and Hordeum bulbosum L. (2x) became in the last years a very useful tool in shortening the breeding programs by rapid homozygosity and in basic genetics areas research, too.

The programs for releasing barley haploid and doubled haploid (DH) lines have been started at NARDI-Fundulea in 1991 by adapting, improving and simplifying for greenhouse and field conditions the original protocols.

Significant increased efficiencies of in vivo and in vitro stages of Bulbosum system were achieved through: healthy and vigorous parental plants and synchronization of the flowering time; in vitro treatment with combined plant growth regulators after pollination; selection of the best pollen sources (H.bulbosum); simple and economic nutritive solid medium for in vitro embryo culture.

The studies provided conclusive evidences of the influence of several genetic and environmental factors upon the success rates of the established 12 stages of Bulbosum protocol. Genetic factors were the most important and they determined significant genotypic reaction of both crossing partners. Barley Romanian germplasm, so far investigated, belongs to the crossing compatible category. Based on genotype significant differences among H.bulbosum pollen sources in haploid induction capacity has been possible to select the best pollinator. Temperature factor is essential for caryopsis and embryo development and also for complete elimination of bulbosum chromosomes.

In spite of many technical difficulties but owing to original improvements of bulbosum system protocol, the mean annual values of barley haploid production efficiency (HPE) and haploid efficiency per spike presented a constant progress. HPE values increased from 1.2 in 1992 to 14.3 in 2003 at covered barley and to 17.4 in 2006 at hulless barley. Number of haploids per spike varied from 0.54 (1991) to 2.90 (2003) at covered winter and to 3.3 (2006) at hulless barley.

Key words: Hordeum vulgare, Hordeum bulbosum, in vitro embryo culture, haploid, doubled haploid, homozygosity.

THE EFFECT OF POLYETHYLENE FOIL REMOVAL AS BRIQUETTE CONTAINER OF CROP CELULOSE NUTRITIVE SUBSTRATE ON FRUCTIFICATION ABILITY OF *PLEUROTUS OSTREATUS* HK – 35, P – 80 AND K-12 HYBRIDS

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Abstract

Crop containers used for growing Pleurotus sp. may have diverse forms and are made of different materials the most used being the polyethylene foil. The most used forms are cylindrical (bags) and parallelepipedic and bears the form of the container. In order to enlarge the initially available fructification surface at the level of existing apertures on the lateral sides of the container according to classical technology (normal growing) removal of polyethylene foil was performed.

In the present paper, it is exposed a novel conception regarding the prohibition of polyethylene foil removal due to the use of some newly bred Pleurotus ostreatus hybrids with a strong fructification ability by developing an extremely active mycelium. Excessive fructification induced by the development of a large number of fructification primordia in clusters exceeds the growth and development potential of mushrooms and thus leads to a dramatic decrease of yields.

Key words: cultivation container, polyethylene foil, briquette, crop technology

THE EXBURY GARDEN IN GREAT BRITAIN

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Abstract

Lionel Nathan of Rothschild was the one who founded Exbury Gadens dedicating his time and financial resources to creating a garden that would become one of the most beautiful wooded areas in the kingdom.

Key words: Exbury, garden, Great Britain

VARIABILITY STUDIES OF SOME QUANTITATIVE TRAITS OF DIFFERENT WINTER SIX-ROW BARLEY CULTIVARS IN BANAT PLAIN

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Abstract

The aim of this paper was to evaluate the variability and breeding potential of different winter barley cultivars for different yield traits in ecological conditions of Banat plain. The biological material consisted of 23 native (7) and foreign (16) winter six-row barley cultivars.

The existing variability within the studied assortment allows the use of considered varieties within plant breeding programs taking in consideration the increased yield in the spike that is attainable for certain varieties on the ground of contrasting characters.

A significantly larger number of grains in the spike comparing the control was observed for the following varieties: Plaisant, Majestik , and Secura , which may be successfully used in plant breeding programs to improve the considered trait.

Key words: winter barley, variability, quantitative traits, yield

THE TECHNOLOGICAL SCHEME FOR INTEGRATE CONTROL OF THE HARMFUL ORGANISME IN THE VITICULTURAL ECOSYSTEM S.D. BANU MARACINE-CRAIOVA

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Abstract

In the vineyard from Didactical Station Banu Mărăcine in the climatic conditions of the 2007 year we have applied a treatment scheme for integrate management of the weeds, pests and pathogen agents.

The analyze of the flowery composition before applying the control measures has emphasize that in the vineyard from the Didactical Station Banu Maracine the weeding degree was high (106 weeds/m^2). After applying the herbicide measure the weeding degree has presented values ranged between 66,6% and 100%.

For controling the "key" phytopathogen agents has been applied treatments according to the technological scheme: for controling the downy mildew has been applied 5 treatments, 6 treatments for controling the powdery mildew, and 3 treatments for controling the grey mold rot. The activity of the pests from the vineyard has been reduce due to the microclimate conditions during the vegetation period, the most encountered species in the viticultural ecosystem has been Eriophyes vitis, Tetranychus urticae and Lobesia botrana.

Key words: integrate management, weeds, phytopathogen agents, pests

IN VITRO RESPONSE OF *VITIS VINIFERA* L. CELL SUSPENSION CULTURES UNDER THE CONDITIONS OF THEIR CULTIVATION IN THE LABORATORY BIOREACTOR

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Abstract

Cell suspension constitute a good biological material for studying biosynthetic pathways. Growth is considerably modified when cells are cultivated in large tanks and the production of cell biomass remains a critical point for bioreactor productivity.

Bioreactor studies represent the final step that leads to a possible commercial production of secondary metabolites from plant cell culture.

Key words: bioreactor cell suspension, Vitis vinifera L., in vitro tissue culture, callus proliferation

REGENERATION OF PLANTS OBTAINED FROM CULTIVATED SUNFLOWER NON-FERTILIZED OVULES AND OVARIES (*Helianthus annuus*)

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Abstract

The success of applying haplomethods in creating sunflower hybrids depends on the existence of certain lines with a potential for plant regeneration from gametophyte cells.

As consequence, we have proposed to identify such lines in Procera germoplasm with the purpose of using these lines in creating homozygote material lines used in obtaining hybrids tolerant to sulfonylurea herbicides. Moreover, through this study we have proposed to assess the effects of pollination using irradiated pollen on the rate of parthenogenesis induction. In identifying the genotypes with the potential for plant regeneration from non-fertilized egg cells, 21 lines cultivated in Procera breeding field trials have been tested.

Key words: sunflower, haplomethods, in vitro regeneration, sulfonylurea herbicide

RESEARCH CONCERNING THE MACRO- AND MICRO-FAUNA OF THE STERILE DUMPS IN MOLDOVA NOUA AFTER 10 YEARS OF FORESTATION

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Abstract

Research shows that after 10 years of forestation new species from neighbouring biotopes cover practically the entire area left uncovered, either among the planted seedling rows or among the areas not planted previously, covering the soil with a complex system of roots and grassy stems 0.4-0.8 m high and variable density (50-80-90% of the area). There where the plantations developed well, shadowing the soil and making up the litter, the grass layer is les consistent, less thick, and covering no more than 20% of the area. From a few species in the initial stage it evolved into a true phyto-diversity, to an incredible number of grassy species, shrubs, and sub-shrubs – from steppe species to forestry species – covering most of the biotopes.

Key word: shrubs, sapling, specific composition, fauna, waste dump

STUDIES REGARDING SOME QUALITY TRAITS IN DIFFERENT WINTER BARLEY CULTIVARS

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Abstract

Biologic material consisted of 30 local and foreign landraces of winter barley, Dana beeing used as a control in the experiment. Goal of the experiment was to evaluate the qualitative potential of different landraces, in order to use them as breeding material.

The protein content from winter barley kernel had values from 10,96% (Lawerda) to 14,34 % (Djerbel), with the variation amplitude of 3,38 % and a reduced variability (6,69 %) among landraces. In comparison to the control landrace Dana, five landraces had superior protein content, but statistically assured differences were achieved by Majestik and Djerbel. The most of landraces (53,33%) had the kernel protein content inferior to the control. The starch content in kernels had values from 53,57 % (Djerbel) and 58,99 % (Tas), with amplitude of 5,42 % and an interpopulational variability (2,36 %) lower that in protein content;

According to the negative and very significant correlation between protein and starch content, we conclude that it is very difficult do obtain cultivars with high values of both traits.

Key words: protein, starch content, TKW, winter barley

DETECTION AND DIFFERENTIATION OF PLUM POX VIRUS IN SOME ORCHARDS FROM TRANSYLVANIA USING PCR/RFLP METHOD

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Abstract

This study was conducted to determine the presence of plum pox virus (PPV) (family Potyviridae, genus Potyvirus) in different regions of Transylvania. The disease mainly affects apricot, plum, and peach. The genus Potyvirus was first detected in Bulgaria in 1917; since then, it has spread to most of eastern and central Europe and the Mediterranean basin. We collected and investigated fifty seven PPV samples, who were molecular determined by RT-PCR (reverse-transcription polymerase chain reaction) targeting the genomic region (Cter)CP with specific markers and also with RFLP (restriction fragment length analysis). Analysis distinguished the two major strains, D and M, based on Rsa I polymorphism located in (Cter)CP. Results showed the existence of three groups of isolates belonging to D, M and PPV-rec (PPV recombinant) serotypes; PPV-D predominated from isolates studied (87,7%), while the remaining 5,3% isolates belonged to PPV-M and 7% belonged to PPV-rec.

Keywords: specific primers, RFLP, sharka, plum, restriction enzymes, PCR

EVALUATION OF SOME YIELD COMPONENTS FOR A GARDEN PEA (*Pisum sativum L*) VARIETY COLLECTION

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Abstract

The main research objectives aimed the characterization and evaluation of a garden pea collection comprising local landraces, native and foreign varieties in order to establish the parameters of some characters with important role for the plant breeding process. The biological material consisted of 20 garden pea varieties and landraces (pisum sativum l.) Cultivated in banat's climate conditions. In order to compare the experimental results we have considered as control variant – ialomita variety.

Key words: garden pea, yield components, varieties, plant breeding, germplasm

STUDY ON THE SOWING UNIT FOR HOEING PLANTS AFTER THE NO-TILLAGE TECHNOLOGY

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Abstract

Direct sowing is the most important method of saving energy and of preserving soil's yielding capacity. Because of the low ratio between production costs and delivery prices for agricultural produce, more and more farmers appeal to minimal soil work methods (minimum tillage) and to methods in which there is no soil work (no-till) as means of reducing labour force expenses, machines, and fuel and, at the same time, as a means to cultivate more.

Key words: direct sowing, dynamics of the unit, forces and moments

QUANTIFYNG CLIMATE RESOURCES IN THE CARANSEBEŞ FRUIT-TREE AREA IN ORDER TO PROPERLY ADAPT PLUM-TREE CULTIVARS

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Abstract

In order to define scientifically a fruit-tree area, climate resources come first. For the species plum-tree, annual mean temperature of the area does not affect the evolution of the plum-tree cultivation in the area, except for two of the analysed years. In June, in most years, the optimal thermal value is between 18 and 19ºC. Minimal winter temperatures occur slowly to the absolute minimal -22ºC without sudden falls that affect the trees. Thermal amplitude limits the cultivation of plum-tree in the area, particularly the cultivation of the thermophilous cultivars (the Italy purple). Precipitations in June favour the cultivation of the plum-tree, and the years with excess precipitations in this month do not constitute an impediment since water surplus in the soil is overtaken by the existing drainage system. Yields during the analysed period are fluctuating, and are directly correlated with the thermal amplitude factor.

Key words: Temperature, precipitations, thermal amplitude

STUDIES REGARDING THE VARIABILITY OF SOME MORPHOLOGICAL CHARACTERS FOR A COLLECTION OF DWARF COMMON BEAN LOCAL LANDRACES (*PHASEOLUS VULGARIS* L.)

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Abstract

The study was focused on evaluation of a collection consisting of 6 varieties and 56 dwarf common bean local landraces. The local landraces have been collected from different localities of West and South West Romania. The evaluated characters were: pod length and diameter, number of grains and grain weight in the pod. The collection showed a large inter-populational variability for all characters taken into study. Intra-populationally, large variability has been observed for number of grains and grain weight in the pod while for pod dimensions, it has been registered average variability. For each studied character, it has been observed populations with mean values superior to bred varieties, the collected material representing an important variability source for breeding process.

Key words: variability, local landraces, dwarf common bean

STUDIES REGARDING THE CULINARY VALUE OF SOME DWARF COMMON BEAN LOCAL LANDRACES (*PHASEOLUS VULGARIS* L.)

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Abstract

Concerning the culinary aspects, very important characteristics are given by boiling capacity and low percentage of skins. The biological material consisted of 62 genotypes of dwarf common bean of these, 6 varieties and 56 local landraces. Their comparison was done considering as control variant Maxidor variety. Percentage of skins and boiling coefficient presented large variability limits within the studied collection of dwarf common beans although very few are close to specific values of varieties grown for dry beans. The studied local landraces are grown for pods but dry beans are also consumed, this being one of the reasons for which culinary quality is superior to improved varieties that are cultivated only for pods. Percentage of skins varied between large limits, only Secusigiu 1 population registered values below 6%. Most of studied local landraces registered percentage of skins between 7 and 8%, superior to improved varieties. Boiling coefficient showed values between 6,95 and 10,25, values below the limit of 7% being observed only for 3 local landraces.

Keywords: culinary value, local landraces, dwarf common bean

STUDIES CONCERNING SOME LEAF DISEASES RESISTANCE IN WINTER WHEAT

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Abstract

The main purpose of our study was to evaluate the most frequent leaf diseases resistance for some winter wheat cultivars in Banat Plain: powdery mildew (Blumeria graminis), leaf rust (Puccinia recondita), leaf blotch (Septoria tritici). The leaf diseasses resistance was estimated by the attack intensity levels. The biological material consisted of 20 winter wheat varieties, native varieties created at Fundulea, Lovrin and Turda as well as foreign varieties and as control variant we have considered Flamura 85 variety.

According to the data presented, it has been observed that in case of Gloria variety, increased yield was associated with a good resistance to powdery mildew and brown rust and a reduced resistance to leaf blotch, respectively. Relating to Gruia variety, the increased yield level considering the experimental conditions is given by a medium resistance to leaf blotch and rust and increased sensitivity to powdery mildew.

Taking into account, the results previously presented, it may result that yield losses mainly due to attack of various diseases, varied among genotypes and pathogens, the largest yield losses being caused by brown rust. Identification of genotypes, highly resistant to brown rust and medium resistant to other diseases submitted to study, enable obtaining of effective grain yields in the given conditions of Banat Field.

Key words: wheat, leaf diseases, resistance, cultivars.

RESEARCHES REGARDING THE CONSTANCY OF POTATO APHID SPECIES FROM POTATO CULTURE AT S.T.N. TIMIŞOARA

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Abstract

Paper presents data referring to the constancy of aphid species from potato cultivations, for a period of two years 2005-2006, from Didactic Station Timisoara. The knowledge of potato aphid constancy constitute a basic element of the integrated potato pest control

Key words: potato, aphids, constancy

EVALUATION OF OSMOREGULATION CAPACITY IN WINTER WHEAT CULTIVARS AND DOUBLED-HAPLOIDS LINES USING INDIRECT METHODS

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Abstract

A method developed by Morgan (1991) for detecting a gene conditioning differences in osmoregulation, expressed in pollen grains was applied for screening common wheat genotypes for osmotic adjustment capacity.

By using several concentration of PEG it could be differentiate three classes of osmoregulation capacity. Most Romanian winter wheat cultivars showed an intermediate response and only two recently released cultivar had high level of osmoregulation. Tested West- European cultivars showed low osmoregulation capacity.

Doubled haploid lines (DHLs) from a cross of cultivars with high and intermediate osmoregulation are being phenotyped. Preliminary results fit the 1:1 ratio corresponding to a monogenic control. Further there was established the relation between the osmoregulative capacity of the DHLs and their comportment in drought conditions.

The DHLs were consequently used to identify SSR markers for the gene involved in osmoregulation.

Key words: common wheat, osmotic adjustment, "or" gene

CORRELATION OF CLIMATIC FACTORS WITH INITIATION AND EVOLUTION OF *Phytophthora infestans* PATHOGENE ATTACKS REGARDING THE POTATO CULTIVATION IN THE TARGU SECUIESC AREA

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Abstract

In the period between the years 1999-2003 the influence of climatic factors on the appearance and evolution of fungus attacks has been examined at SCDC Targu Secuiesc regarding the potato cultures of three varieties (Ostara, Desiree, Sante), starting from the idea that primary infections are generated by the quantities of inoculations and environment conditions. By the usage of the Agroexpert system, that estimates the possibility of favourable conditions for the pathogen in the environment; climatic data could be transmitted, collected and processed.

Key words: Phytophthora infestans, temperature, precipitation, dew, relative humidity, variety

ESTIMATION OF ECONOMICAL VALUE OF *ACER PLATANOIDES* WOOD IN TIMIS COUNTY FORESTS

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Abstract

Acer platanoides is common in plain and hill mixed hardwood forest, occasionally in mountain region, in European beech stand and European beech-silver fir-Norway spruce mixed stand. It is valuable specie in mixed stands and shelter-belts and it is also an important ornamental tree. The Norway maple wood structure is fine and homogen with a lot of industrial uses. It is not as valuable like sycamore maple but their economical wood value can be considered.

Researches were made in order to estimate the economical value of Norway maple wood from Forest Administration of Timis county. The estimation was made considering the adjudication price of timber and veneer logs from 2003 to 2007.

Key words: Norway maple, wood value

RESEARCHES CONCERNING THE LENGTH OF THE MAIN SPIKE VARIABILITY FOR THE SOMACLONES AND GAMETOCLONES OF THE CULTIVAR DROPIA

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Abstract

The biological material used for these studies was represented of 18 wheat somaclones and 7 gametoclones, material that was obtained in vitro by the culture of two explants types, anthers and immature embryos. The control was constituted by the cultivar Dropia. The somaclones and gametoclones of the cultivar Dropia were studied in two comparative cultures as for the randomized blocks by three repetitions.

Comparing the results obtained for the cultivar Dropia's somaclones and gametoclones on observed that the average of the principal spike length is superior for the somaclones comparing with the gametoclones. The control presented inferior values comparing with both gametoclones and somaclones, for this character.

Key words: somaclones, gametoclones, comparative cultures, control

STUDIES CONCERNING THE NUMBER OF GRAINS IN THE MAIN SPIKE FOR LOVRIN'S SOMACLONES AND GAMETOCLONES

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Abstract

Tissue culture is an important source of somaclonal variation thus for, starting from two types of explants represented by anthers and immature embryos gametoclones and somaclones were obtained for the wheat cultivar Lovrin 41. The biological material used for these studies was represented of 14 somaclones and 4 gametoclones. The control was represented by the cultivar itself.

The somaclones and gametoclones of the cultivar Lovrin 41 were studied in two comparative cultures as for the randomized blocks by three repetitions.

Comparing the results obtained for the cultivar Lovrin 41's somaclones and gametoclones on observed that the average of the number of grains in the main spike is superior for the somaclones comparing with the gametoclones. The control presented inferior values comparing with both gametoclones and somaclones, for this character.

Key words: somaclones, gametoclones, comparative cultures, control, number of grain in the main spike

STUDIES REGARDING THOUSAND GRAINS WEIGHT FOR LOVRIN 41'S SOMACLONES AND GAMETOCLONES

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Abstract

Plants regenerated in vitro from anthers (gametoclones) and immature embryos (somaclones) cultures were studied, near the control constituted the cultivar Lovrin 41 itself, regarding the character thousand grains weight. Both somaclones and gametoclones obtained from in vitro cultures were studied in two field comparative cultures placed after the complete randomized bloc design in three repetitions.

The experimental results obtained after biometrics measurements were statistically interpreted using variances analysis and **t** *test.*

The results obtained show that the average values of somaclones are superior to the average values of gametoclones. Both somaclones and gametoclones registered inferior average values comparing with the control in respect of the studied character.

Key words: words: somaclones, gametoclones, comparative cultures, control, thousand grains weight

RESEARCHES CONCERNING THE WEIGHT OF THE GRAINS IN THE MAIN SPIKE VARIABILITY FOR THE SOMACLONES AND GAMETOCLONES OF THE CULTIVAR DROPIA

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Abstract

In vitro culture of wheat anthers and immature embryos from the cultivar Dropia led to regeneration of 7 gametoclones and 18 somaclones respectively. The somaclones and gametoclones regenerated were studied in the field together with the control. Several characters beside which the weight of grains from the main spike were taken into attention. The study was done in two comparative cultures placed by randomized blocks method in three repetitions.

Studying comparatively both somaclones and gametoclones with the control represented by the cultivar Dropia regarding of the character grains weight in the main spike was observed that in both situations their values for this character were superior to the values registered for the control.

Key words: words: somaclones, gametoclones, comparative cultures, control, weight of the grains in the main spike

SOMACLONAL VARIATION INDUCED DURING IN VITRO PROPAGATION OF AFRICAN VIOLET (*SAINTPAULIA IONANTHA* WENDL.)

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Abstract

The experiment revealed the genetic potential of African violet (Saintpaulia ionantha Wendl.) to create and improve new traits by somaclonal variation technique. African violet is a beautiful household plant with attractive blooms and leaves in color and shapes. In this study, one genotype was cultured on MS basal medium supplemented with high levels of cytokinins and auxins to promote mass proliferation of callus.

Key words: somaclonal variation, Saintpaulia, in vitro tissue culture, cytokinins, callus proliferation

SOIL FERTILIZATION AND PLANT PROTECTION MANAGEMENT SYSTEMS INFLUENCE ON THE APPLE ORCHARD YIELD

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Abstract

The general objective of the work was to establish technological framework systems for the apple culture and assessment of their influence on apple orchards yield and quality. To achieve the expected objectives, a tri-factorial experiment was organized ('Idared' cv., grafted on M106, 1000 trees/ha), where the specific indicators of the apple orchard management system were determined. The experiment factors were as follows: A) Disease and pests control management of this species, with the graduations: a1 -standard chemical control methods; a2 -chemical control of "low risk"; a3 -biotechnical control methods; a4 -biological control; B) Mineral fertilization schemes, soil applications in all orchard with the graduations: b1 - mineral unfertilized; b2 -NPK fertilization at optimum rates from the experimental standpoint; b3 -NP fertilization, same rates as in b2; b4 -NK fertilization; b5 -PK fertilization; C) Soil management system along the tree row with the following graduation: c1 – tilled cultivation; c2 -herbicides application; c3 -leguminous species crop used as "green" manure; c4 -soil mulch application. The mineral fertilization of soil, chemical control of "low risk", and leguminous species crop along the tree row had positive effects on the apples yield and quality indicators versus the other treatments, although the number of flower buds was the same in all of the orchard management systems, the fruit set percentage was better, the physiological fruit drop was lower and the fruit showed a higher mean weight. Diseases management strategies using biotechnological and biological tools lead to even better response of the apple trees. In biotechnological and biological treatments, the attach frequency (F%) of Venturia inaequalis and Podosphaera leucotricha on leaves and shoots ranged between 0.55% and 1.88% face to 4.00–5.44% in untreated plots. Also in low risk and biotechnological treatments the frequency of Erwinia amylovora attack on shoots was lower (F% = 7.66% and 3.44%) compared to untreated plots (F% = 65.55%).

Key words: Malus×domestica, orchard management systems, equilibrium, sustainability.

TAXONOMICAL AND ECOLOGICAL DIVERSITY OF MACROMYCETES FROM AREA SCHITUL PAHOMIE AND CHEIA VALLEY (CĂPĂȚĂNII MOUNTAINS)

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Abstract

The paper presents a number of 65 species of macromicetes: 5 from Ascomycota and 60 from Basidiomycota, from Căpățânii Mountains. The direction we followed was Râmnicul-Vâlcea-Olăneşti-Cheia-Schitul Pahomie-Cheia Valley, to the base of Stogu Peaks and Stogoşoarele, between 1100-1200 m altitudes. An analysis is made of the species of macromycetes from the ecological point of view: substratum, slope, exposition and abundance herbaceous bed. The association mode of the species of macromycetes is also analyzed from the point of view of the nutritive substrate.

Key words: macromycetes, synusium, epixylous, terricolous

SUGAR BEET TISSUE REACTION AT THE ACTION OF DIFFERENT FACTORS

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Abstract

The experiments from this paper show that the extraction of sugar from the sugar beet noodles to room temperature doesn't produce dissolving of the sugar from broken and open cells, but a diffusion process with the gradual diminution of the quantity of sugar from the noodles that is almost exhausting. All data show that in the sugar beet, in parallel with the broken cells whose quantity doesn't exceed 5-10%, there is a large quantity of whole cells whose protoplasm has been completely ruined.

The diffusion of these cells has been already produced to cold, at a temperature from the healthy cells with unharmed protoplasm the sugar doesn't come out when they are put into water.

Key words: sugar beet noodles, cells, protoplasm

THE DEVELOPMENT OF SUNFLOWER CYTOGENETICS

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Abstract

The abundance and diversity of species within the genus Helianthus offer numerous and rewarding possibilities to sunflower breeders. But the extent of variability in the genus Helianthus has not been sufficiently studied. Cytogenetic studies are used for determinations of chromosome number and structure and analyses of meiosis (microsporogenesis) and pollen viability, making it possible to establish phylogenetic relations between wild sunflower species and the cultivated sunflower and enabling the use of the former in sunflower breeding.

This documentation study reviews the systematics and taxonomy of the Helianthus genus, its genomic structure and the useful of wild Helianthus species as a source of desirable genes. Cytogenetic studies on sunflower are reviewed through the analyses of chromosome number (karyotype), meiosis (micro and macrosporogenesis) and pollen viability.

Key words: Helianthus sp., cytogenetic studies, interspecific hybridization

COMMENTS ON CHIRITA TAMIANA SPECIES

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Abstract

Chirita Tamiana B.L. Burtt is a rather new species that was introduced in the plant collection of the Biological Garden of Craiova. In the survey hereby, there are presented comments on the germination, flowering and fructification processes. Also, a complex description of the plant will be done. Chirita Tamiana distinguishes itself by ornamental features, which are given by the leafage that forms a bottom rosette, while the white-delicate flowers are situated on a long peduncle.

Key words: Chirita tamiana, seedling production, flowering

RESEARCH CONCERNING THE COVERAGE OF STERILE DUMPS IN MOLDOVA NOUA WITH FORESTRY VEGETATION

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Abstract

There are three different situations depending on the biotope as far as the forestry vegetation on sterile dumps in Moldova Noua is concerned:

- *The plateaus still have the primary aspect of the sterile dump;*
- *The terraces are covered by mainly grassy vegetation made up of annual, biannual, and perennial species;*
- *The slopes represent the main aspect of the anthropic phytocoenosis of the sterile dumps by their cultivation with woody plants.*

MECHANISMS OF POTATO LATE BLIGHT RESISTANCE

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Abstract

Potato Solanum tuberosum, according to production, is the 4th crop in the world; it is the 2nd crop after wheat in Romania. Late blight, caused by the oomycete Phytophthora infestans, is the most devastating disease on potato. Better known since the famous Irish famine between the years 1845-1847.

The breeding for late blight resistance was based on the introgression of resistance gene from Solanum demissum. Unfortunately, this resistance was rapidly overcome by Phytophthora infestans virulent races.

The understanding of resistance (Potato) and virulence (Pathogen) mechanisms will help the breeders and the researchers in the domain, to create potato cultivars with more durable resistance.

In this paper, we will review on the mechanisms of potato late blight resistance, including genetic and biochemical aspects, according to the most recent data obtained experimentally, in known laboratories in the world.

Key words: potato, Phytophthora infestans, resistance

RESEARCH OF ALBIZZIA JULIBRISSIN BEHAVIOUR IN THE IN VIVO ROOTING AND ACCLIMATIZATION STAGES

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Abstract

Albizia julibrissin is known by a wide variety of common names, such as ***Persian Silk Tree*** *or* ***Pink Siris****. It is also called* ***Lenkoran Acacia*** *or* ***Bastard Tamarind.***

Albizia julibrissin is a small deciduous tree growing to 5 – 12 m tall, with a broad crown of level or arching branches. The bark is dark greenish grey in colour and striped vertically as it gets older. The leaves are tripinnate, 20 – 45 cm long and 12 – 25 cm broad, divided into 6 – 12 pairs of pinnae, each with 20 – 30 pairs of leaflets; the leaflets are oblong, 1 – 1.5 cm long and 2 – 4 mm broad.

Key words: in vivo, in vitro, acclimatization, greenhouse, rooting

GARDEN DESIGNING OF MURANI MANOR HOUSE

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Abstract

The general solution of garden designing involves creating of various areas with different character and functions. In this regard, there have been designed three recreation areas, two terraces, a playground and five areas with economical functionality. The three recreational areas are represented by: japanese garden, an area serving for recreation and resting and a recreational area in the lake proximity. The five areas with economical function are: building area, two areas covered with vineyards and two areas covered by fruit tree plantations.

Key words: manor house, landscape style, recreational function

THE INFLUENCE OF THE CLIMATIC FACTOR ON THE APPEARANCE INCIDENCE OF SOME YEASTS SPECIES FROM THE ECOTOPE BANU MARACINE

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Abstract

The research has been made at the vineyard Dealurile Craiovei, S.D. Banu Maracine during 2001-2003. The research has focused on the appearance incidence, under the influence of the climatic factors (temperature and humidity), of two sporogenous yeast species (Schyzosaccharomyces pombe, Saccharomycodes ludwigi) and one non-sporogenous yeast species (Metschnikowia pulcherrima). The response of the yeasts strain to the actions of the climatic factors has been different, emphasizing the different characters of the species.

Keywords: yeast, Schyzosaccharomyces pombe, Saccharomycodes ludwigi, Metschnikowia pulcherrima

DIRECT SOWING (NO-TILLAGE)

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Abstract

This paper presents the basic principles in direct sowing as well as two types of direct sowing machines used in the cultivation technologies of wheat and maize. Direct sowing contributes to the improvement of the physical and biological features of the soil and results in considerable diminutions of the fuel consumption and, implicitly, of production costs.

Key words: direct sowing, vegetal debris, trench, seed distribution

THE MONITORISATION OF BIOLOGICAL RESERVE VIABLE BY BED BUGS IN THE TIMIS DISTRICT, IN 2007-2008 PERIOD

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Abstract

In the paper realization having in view, the soundings effected in forests for the density determination of hibernated exemplares and of the biological reserve in the spring of year 2008. The investigations were accomplished in colaboration with the Phito-Sanitary Unit from Timis.

On base of those observations will be made the prognose and the warning for the year 2008.

Key words: wheat, biological reserve, bed bugs, soundings

OBTAINING AN ANNUAL VARIETAL CONVEYER OF ORNAMENTAL SHRUBS FOR THE PARKS OF THE RESEARCH INSTITUTE FOR FRUIT GROWING

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Abstract

To extend the ornamental value of the arboretum at Research Institute for Fruit Growing Pitesti-Maracineni, Arges, a wider range of species and varieties adapted to soil and climate conditions of the area was investigated. The studies were carried out at the RIFG from 1977 to 2006. Individual ornamental plants of the park-collection were assessed including 132 species and ornamental varieties. Studies were focused on enhancing the aesthetic value of the arboretum with valuable ornamental plants. The aesthetic value is given by the shape of shrub and leaves, as well as by the colour of branches, leaves, flowers and fruits and how these characters change over time and especially by the leaves persistence during winter time in the evergreen species.

Key words: parc-collection, ornamental species and varieties

STUDIES REGARDING THE INFLUENCE OF SPECIE AND FIELD PLANTAR DENSITY, ON EGGPLANT SEEDS PRODUCTION

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Abstract

*Those studies wants to prove that cultivation in the same temperature and light condition, both eggplant species (*Lucia *and* Contesa*) have the same growing result and reaction from the vegetal flourishing point of view. Plant elevation gain demonstrates a direct linked between the species, planting density and number of fruits per plant limitation.*

Lucia and Contesa species were studious, on the following densities:

70/20cm with 71.428 pl/ha restricted to 2 fruits on each plant
70/30cm with 47.619 pl/ha restricted to 3 fruits on each plant
70/40cm with 35.714 pl/ha restricted to 4 fruits on each plant
70/45cm with 31.746 pl/ha restricted to 5 fruits on each plant
70/35cm with 40.816 pl/ha unrestricted number of fruit on plants (control)

Seed production obtained using described procedure is significant bigger than the one presented in shoppy literature.

Key words: seed, plants density, vegetables, quality, field crop

MOLECULAR CHARACTERIZATION OF SOME ACCESSIONS FROM CORYLUS GENUS USING RAPD MARKERS

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Abstract

The genetic similarity between twenty four Corylus avellana accessions was investigated using thirteen RAPD primers. Ten of the thirteen decamer primers yielded scorable amplification patterns. These primers generated polymorphic bands among the genotypes studied. Some of the primers produced no amplification or unreadable gel smears.

A dendrogram was built using neighbor joining analysis of Nei and Li's coefficient of similarity. The accessions clustered into two main groups and the values of genetic distances between analyzed data shows that there are some genetic differences.

The hazelnut accessions held at S.C.D.P. Vâlcea come from different populations. In this context, the scientific interest for identification, evaluation and long time conservation in the national collections of valuable accessions for this species is growing.

RAPD is therefore a reliable technique for distinguishing among Corylus accessions cultivated at S.C.D.P. Vâlcea, for identifying the new cultivars as well as assessing the genetic similarity among different genotypes useful in fruit breeding selection programs, and also for understanding the genetic diversity of germplasm collections.

Key words: genetic relatedness, hazelnut, RAPD markers, germplasm collections, breeding programs

RESEARCH ON BEHAVIOR OF *MAGNOLIA SOULANGIANA* ON THE *IN VITRO* CULTURE PHASES

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Abstract

This article presents the achievements in the tehnology of producing biological material with rapid clonal multiplication. Magnolia has a different behaviour on „in vitro" culture, as the results were influenced by the composition of culture media.

Key words: Magnolia soulangiana, initiation, micropropagation, „in vitro" rooting, microcuts, culture media

RE-ARRANGING THE GREEN AREA OF KINDERGARTEN NO. 25

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Abstract

In this article is present a planning proposal of arrangement for the green area of kindergarten no. 25.

Kindergarten no. 25 is located in the Circumvalațiunii District in Timişoara. The setting is in the middle of a residential district whose blocks of flats have between 5 and 11 levels. The building of the kindergarten is in the middle of a yard of 7,180 m^2. Access to the yard is both from Suceava St. and Cetății Bv. because there are two entrances to the building. The link between the two accesses to the yard is through an alley that surrounds the kindergarten building.

The main entrance is from Suceava St. the main alley is covered with concrete and it allows access of the cars supplying food and writing materials to the kindergarten. 40 m from the entrance, perpendicular to the main alley, there is a secondary alley covered in concrete to the left leading to a plateau covered with concrete and another secondary alley covered in concrete to the right leading to the second entrance to the building. The entrance from the Cetății Bv. is secondary and this is why the alley leading to the entrance is narrower (only 2 m wide) and is made of concrete slabs.

Key words: principle of projection, style of projection, landscape, harmony, rhythm, centre of composition

ASSOCIATION POSSIBILITIES OF *CHRYSANTHEMUM* VARIETIES IN LANDSCAPING

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Abstract

Chrysanthemum "the queen of autumn flowers" is one of the most appreciated and respected flowers for the beauty and glamour of its flowers.

The rusticity of the plants and the long period of keeping the flowers, not present for other species, make them more valuable.

Key words: Chrysanthemum, landscaping, association

RESEARCHES CONCERNING THE PRODUCTION OF PLANTING MATERIAL USING GENERATIVE PROPAGATION ON *CASTANEA SATIVA* MILL.

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Abstract

Sweet chestnut represents a Mediterranean species, in our country being found in temperate climate regions and mostly in sub-Carphatian depression of Oltenia and in the North-West Romania.

In our country, the real natural origin of sweet chestnut is uncertain, being more likely a naturalized species. The species gained importance for the fine wood quality, edible fruits and last but not least due to its ornamental value

The researches aimed the sweet chestnut regeneration from seeds in sheltered spaces, greenhouses and hotbeds and indicating the most suitable nutritive substrates for obtaining seedlings.

Key words: sweet chestnut, seed, generative regeneration

PROPOSAL FOR CHILDREN'S PARK LANDSCAPE DESIGNING

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Abstract

The initial style of the park was represented by landscape type and was greatly influenced by the prolonged shape of the park.

In order to redesign the park, mixed style was adopted, the geometrically designed area representing also the compositional center that refers to the park's main entrance. In this location, it will be designed a vegetal labyrinth with circular shapes consisting of woody pruned species.

There have been established two secondary locations: rosary (designed in geometrical style) and the pond and basin (with sinuous shapes specific for free style landscaping).

All interest locations are placed on the park's longitudinal axis (parallel with Bega River and that splits the park in two halves).

Key words: park, mixed style, recreating function

PHONIC POLLUTION GENERATED BY THE DIESEL ENGINES

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Abstract

The noise and vibration generated by the vehicles, taking part in the road traffic are extremely injurious to the man's life and activity. The combat with these noxious effects represents a permanent preoccupation for researchers in different countries. With this in view, our collective intends the identification of sources of phonic pollution in the road traffic, its effect on the inhabitant's life and activity, the determination of the values of characteristic quantities and the identification of decrease methods.

Key words: noise level, road traffic, vibration

DNA FINGERPRINTING FOR NEW TULIP CULTIVAR PROTECTION

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Abstract

AFLP is a highly sensitive method for fingerprinting genomic DNA of any origin and complexity. It has many potential applications such as monitoring the inheritance of agronomic traits in plant breeding, diagnostic of genetically inherited diseases, pedigree analysis, forensic typing, parentage analysis. The AFLP technique has several advantages over other DNA fingerprinting systems. The most important are the capacity to examine an entire genome for polymorphism and its reproducibility. AFLP can be applied to any DNA sample including human, animal, plant and microbial DNA, giving it the potential to become a universal DNA fingerprinting system.

The AFLP technique has been developed by the company KeyGene (Wageningen, The Netherlands), which has filed property rights on this technology (Zabeau and Vos 1993).

Since the AFLP technique can be applied to a wide variety of organisms (and viral sources) with no prior sequence information this technique has the potential to become a universal DNA fingerprinting tool.

Keywords: Tulipa genus , DNA fingerprinting ,AFLP genetic marker, Li-cor PCR, preamplification, selective nucleotides

RESEARCHES CONCERNING THE INFLUENCE OF GENOTYPE AND ENVIRONMENT ON THE NUMBER OF KERNELS IN SPIKE FOR SOME ROMANIAN WINTER WHEAT VARIETIES

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Abstract

A major contribution in wheat kernel production has the number of kernels in spike, which is genetically conditioned, but also polygenically determined and influenced by the environment.

In order to identify valorous genitors and some transgenic forms in segregant hybrid generations, the genetic analysis for evaluating the contribution of the genotype and environment conditions and interaction genotype x environment is very useful.

Our researches aimed this evaluation among biologic material consisted of autochthon wheat varieties differentiated by examined character and hybrid generations F_1 and F_2 and respective backcrosses.

Genetic analysis made on biologic material, for analyzed character allows us to conclude that the breeding value of the 4 genitors is quite low, that influence of environment in phenotypic expression of examined character is high and the most efficient selection method in this case is recurrent selection.

Key words: quantitative trait, backcross, additivity, dominance, epistasis.