

SUMMARY

Stashuk V.A., Vozhegova R.A., Konashuk I.O., Pisarenko P.V., Kokovikhin S.V. Scientific ground innovative approaches of development of the irrigated land-reclamations on the South Ukraine in a present time and a prospect

In the article are resulted of researches for organizations and production process controls on the irrigated earths of the South Ukraine. Measures are offered on the increase of efficiency of the use of the irrigated earths by association of the separate landed interests of shallow farmer economies in associations of water-user, that will provide possibility to use the hardwares of irrigation with the burst performance, to decide the questions of guard of elements of the irrigated systems, to conduct their reconstruction and repair works.

Key words: irrigation, organization of production process, agro-producers, productivity of the irrigated lands

Bulygin D.A., Pisarenko P.V., Morozov V.V., Melnik M.A. Productivity of new varieties at different terms moistening and densities of standing of plants

Research of the modes of irrigation and setting of optimum density of standing of plants of new varieties of soy is conducted Danaya and Arata at growing on unwatering and irrigated earths of the South region.

Key words: soy, mode of irrigation, productivity, density of standing of plants.

Goloborod'ko S.P., Sahno G.V. Contemporary landscape-ecologies state of agricultural lands of South Steppe of Ukraine

It is pointed the results if study of landscape-ecologies state and liquidation of negative phenomena, which are arises in contemporary conditions of economy breeding under agricultural lands use in South Steppe.

Key words: agricultural lands, make use of land, structure of sowing areas, soil, degradation, irrigation.

Bidnina I.A., Kozyrev V.V., Vlaschuk O.S., Tomnytskyi A.V. Comparative description of the structural state of livery soil at the protracted irrigation and in unwatering terms

The results of influence of the protracted irrigation are resulted on grain-size, mikroagregatnyy composition and high-quality composition of structure of livery soil as compared to the unirrigated soil.

Key words: dark-chestnut soil, irrigation, grain-size and mikroagregatnyy composition, high-quality composition of structure.

Vozhegov S.G, AV Polenok. Soil density dynamics in rice crop rotation depending on soil tillage

The results of studies with the addition of soil density changes in rice crop rotation depending on tillage are showed.

Key words: tillage, density, rice crop rotation, the rice.

Kovalenko A.M. The Adaptation of agriculture of steppe area to the increase of droughtyness of climate

In the article the changes of agricultural meteorology indexes are analysed for the last 35 years on a weather-station Kherson. It is set that over the years happened increase of temperature of air in summer

months, especially in the second half of summer. The clear orientation of change of amount of fallouts is not observed, although, it is possible to mark some diminishing of watersources during sowing of winter wheat.

Key words: watersources, climate, fallouts, temperature, thermal resources.

Vozhegova R.A., Kokovikhin S.V., Konashuk I.O., Boyarkina L.V., Drobitko A.V. Science-practices aspects of intro-duction of resource-saving innovative projects in the irrigated agriculture of south of Ukraine

The problems of the use of information technologies with the purpose of resource-saving in the irrigated agricul-ture of the South of Ukraine are lighted up in the article. Resulted practical recommendations for the use of Pro-gram-information complex "Irrigation" and Programs of ET calculator

Key words: irrigation, watering, evapotranspiration, meteorological indexes, plants, modeling

Philip'yev I.D., Dymov O.M. Removing of nutrition elements by agricultural crops in conditions of irrigation on forming of harvest' unit depends from fertilizers

The results of study of removing of nutrition elements by agricultural crops on forming of harvest' unit depends from fertilizers in conditions of irrigation in Southern Steppe of Ukraine are illustrated.

Key words: winter wheat, corn, soybean, other crops, seeds, grain, removing, nutrition elements.

Hlushko T.V., Lavrinenko J.A, M.V Lashina, Turovets V.M. Yields of maize hybrids of different maturity groups depending on fertilizers and irrigation.

The results of study of formation grain yield of maize hybrids of different maturity groups, depending on irrigation and fertilizers.

Key words: maize hybrids, of maturity, fertilization, irrigation, grain yield.

Pisarenko P.V., Kokovikhin S.V., Pilayrska O.O. Forming of the regimes irrigation of corn by calculation methods depending on agrobiological, economic and ecological factors

The results of researches on forming of the modes of irrigation of corn on a corn by the use of calculation method on the indexes of average daily evaporation are resulted in the article. The developed water-saving regime irrigation can be used on areas with different levels of bedding of the ground waters. The use of the computer program AquaCrop 3.1 Plus enables to conduct the design of products process of the corn hybrids different groups of ripeness in the conditions of the South Steppe of Ukraine.

Key words: corn, mode of irrigation, watering, evapotranspiration, products process, design.

Vozhegova R.A., MalyarchuK N.P., MalyarchuK V.N. Efficiency of modern technologies of growing of sunflower at the different terms of moistening and methods and depth of basic treatment of soil on the south of Ukraine

The results of researches of influence of methods and depth of treatment are expounded, and also sowing in preliminary untilled soil at the natural and artificial mode of moistening on the productivity of different hybrids of sunflower.

Key words: sunflower, harvest, modes of irrigation, methods and depth of treatment of soil.

Goloborodco S.P. Modern state and prospects of development of cattle breeding of Ukraine

The results of study of the modern state and prospects of development of cattle breeding in Ukraine are resulted. Are offered the ways and basic directions of liquidation of the negative phenomena in development of the domestic cattle breeding.

Key words: cattle breeding, cormovirobnitstvo, protein, irrigation, food safety.

Zayets' S.A., Sergejev L.A. Complex influence of fertilizers and to securing of plants for a harvest and quality of grain of winter wheat at irrigation

It is shown that on the irrigated dark chestnut medium loamy soils of south of Ukraine the best terms which assist forming of the productivity of grain of winter wheat after soy at the level of 6,13 т/ha, created at top-dressing in the dose of N60 in combination with computer-integrated defence of plants.

Key words: irrigation, winter wheat, fertilizers, defence of plants, harvest, quality of grain, economic efficiency

Kostyrya I.V. Productivity of winter wheat grain and level of it's quality depending by predecessors and system of fertilizers on the conditions of Prisivashya

In article are given results of researches for studying influence by different predecessors, systems of mineral fertilizers on productivity of winter wheat grain and it's quality in arid conditions of Prisivashya.

Key words: winter wheat, spring mustard, spring barley, predecessor, fertilizer, productivity, quality of grain.

Vozhegova R.A., Malyarchuk M.P., BorischuK R.V. Efficiency of accumulation and use of moisture the plants of barley winter-annual at the different methods of basic treatment of soil and doses of nitric fertilizers

In the article the resulted results of influence of method and depth of basic treatment of soil and doses of nitric fertilizers on humidity of soil, total water consumption and his coefficient on sowing of barley winter-annual in the conditions of irrigation. Variants which provide the best terms of vlagonakopleniya and rational use are certain.

Key words: a barley is winter-annual, method of till of soil, depth of till of soil, dose of mineral fertilizers, humidity of soil, total water consumption, coefficient of water consumption.

Kovalenko A.M., Malyarchuk A.S. Efficiency of methods and depth of basic treatment of soil in a fight against weeds at growing of rape winter-annual in the conditions of South Steppe of Ukraine

The results of three-year experimental researches are presented on the study of influence of methods and depth of the turn, bezotval'nykh and differentiated systems of basic treatment of soil on the impurit of sowing and productivity of rape of winter-annual.

Key words: rape is winter-annual, method of treatment, weeds, impurit, productivity.

Grabowski P.V., Mishukova L.S. A power estimation of the worked out elements of technology of growing of wheat hard winter is at irrigation

In the article the brought results over of researches of power efficiency of growing of wheat hard winter-annual at irrigation, set zones of optimum of charges and increase of energy depending on differentiation of the productivity of the investigated sorts.

Key words: wheat hard winter, power efficiency, power coefficient, power-hungryness, zones of optimum.

Khomyak P.V., Andriychenko L.V., Zalevska M.P. Forming of productivity of barley in the conditions of Southern Steppe of Ukraine

Experimental data of influence of agrometeorological conditions, predecessors, application of fertilizers and means of protection of plants for productivity of winter barley are stated.

Key words: predecessor, growing technology, intensification, winter barley, productivity, agrometeorological conditions.

Vasilenko R.M., Stepanov I.M., Voytashenko D.P., Shatalova V.V. The influence of the drug Riverm productivity of winter rape in a southern steppes of Ukraine

The results of research on the study drug Riverm to the feed and seed productivity of winter rape in southern Ukraine.

Key words: rape, Riverm, performance, meal, oil.

Shelud'ko A.D., Markovskaya E.E., Mrynskiy I.N. Efficiency of preseed treatment of seed of corn is Studied stains

Efficiency of forecastleman mixture of insecticide and fungicide stains in protecting of the irrigated sowing of corn from most widespread fitofagov and mushroom illnesses. The results of researches are resulted on the study of influence of forecastleman mixtures of stains on energy of germination, laboratory and field germination of the treated seed of corn.

Key words: irrigation, fungicides, insecticides, fitofagi, illnesses.

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Key words: irrigation, fungicides, insecticides, fitofagi, illnesses.

Vogegova R.A., Oliynik O.I. Design of productivity of the rice sorts of different groups of ripeness for the terms of the South Ukraine

The results of scientific researches on the design of productivity of early- and middling-ripe sorts of the rice, which are adapted to the terms of the South Steppe of Ukraine, are presented in the article. It is led to, that the increase of productive potential of culture must be carried out at optimum duration of vegetation period: early-ripe sorts – 95-115 days, middling-ripe – 120-125 days.

Key words: rice, sorts, productivity, groups of ripeness, design, duration of vegetation period.

Tomashova O.L., Tomashov S.V. Zhuravel V.N. Seed oil and productivity of mustard depending growing technology elements

The results of long-term studies to determine the impact on key elements of the technology (sowing and fertilizer application) on the growth, development and productivity of mustard plants grade Tavrychanka. Found that to obtain stable and high quality crops and oil yield right of technology growing – planting the first term of fertilizer complete norm $N_{60}P_{60}$.

Key words: mustard, sowing date, term fertilization, density, number of lateral stems, productivity.

Voronyuk Z.S. Estimation of buckwheat and millet varieties for summer seeding with irrigation in the rice crop rotations

The article presents an analysis of grain millet and buckwheat volumes growing in Ukraine. Results of ecological field variety test of millet and buckwheat in rice rotations are displayed. Ways of increasing the volume of growing grits crops by the rational usage of irrigated land and agroclimatic potential of southern Steppe of Ukraine areas are planned.

Key words: millet, buckwheat, varieties, irrigation, rice rotations.

Kokovikhin S.V., Tishenko O.P., Ursal V.V. Forming of the regime irrigation of agricultural crops with the use of instrumental and calculation methods

The results of scientific researches on the study of water balance of rice in the terms ARE Crimea are presented in the article. Advantage of the use of instrumental and calculation method with the imitation design of evapotranspiration is proved. Represented methods of forming the regime irrigation agricultural crops substantially decrease expenses of watering water on unit of harvest and promote economic efficiency of the irrigated agriculture.

Key words: regime irrigation, rice, water balance, evapotranspiration, productivity.

Kovalenko O.A. Productivity and quality of hemp products, got at different density, level of fertilizers in the conditions of Steppe of Ukraine

The article shows the productivity of hemp straw dependent from the different norms of sowing (2,0 – 3,5 mln/ha) and fertilizer of hemp in the ordinary string sowing. Investigational influence these factors on the output of bast, fibre and indexes of their quality.

Key words: fibre, quality, hemp, bast, productivity.

Neply L.V., Babayants O.V. The effectiveness of disinfectants against aphid vectors BYDV on wheat in southern Ukraine

The paper versions hover seed treatment insecticides and fungicides, and combined insektofungitsidnomy preparations against aphid vectors BYDV. The results of the biological effectiveness of disinfectants, the number of aphids, points BYDV lesions and their effect on the yield of winter wheat.

Key words: BYDV, insekto-fungicide stains, plant lice: cereal *S. avenae* and bird cherry tree *R. radi*, biological efficiency, productivity.

Sheludko O.D., Klubuk V.V., Repilevskyy E.V., Stavratyy V.V. Efficiency insectoacaricides Vertimek on irrigated soybean

The results of the evaluation of the effectiveness of the new insectoacaricides Vertimek, c.e on irrigated

soybeans. The optimum application rate of the drug against a complex of sucking pests of soybean.

Key words: soybean, insectoacaricides, chemical protection, efficiency.

Kizub P.S. Productivity and resistance to cold of wheat winter from the different level of the nutrition back ground

The article shows the results of researches on influence of norms and terms of bringing of mineral fertilizers on resistance to cold and frost-resistance of plants of winter wheat, and also on the productivity of grain and its quality. It was set that the best frost-resistance of plant was had at apply fertilizers from in autumn – $N_{30}P_{30}K_{30}$.

Key words: fertilizers dose, resistance to cold, frost-resistance, wheat winter-annual, productivity.

Zhuykov A.G. Complex agrobiological assessment of modern high-quality composition of mustard white in the conditions of the Dry Steppe

Results of a competitive test of grades of mustard are given in article white in the conditions of farms of the South of Ukraine which specialize on production of commodity seeds of mustard. The all-round assessment of modern grades of culture by criteria of valuable signs and productivity quantitative quality indicators is carried out. The conclusion is drawn that requirements of the zone resource-energy saving production technology are answered by a grade of selection of Institute of olive cultures of NAAN the Talisman and conditionally a grade of selection of Institute of forages of NAAN Carolina.

Key words: mustard white, grades, valuable signs, productivity, quality.

Bazaliy V.V., Gontaruk V.T. Photosynthesis activity of plants of sunflower on the areas of hybridization in the conditions of irrigation of South of Ukraine

The analysis of indexes of area of leaf surface, photosynthetic potential of sowing and net productivity of photosynthesis of maternal lines of sunflower at its growing on the irrigated areas of hybridization of South Steppe of Ukraine is conducted in the article. On results researches the advantage of the use of the Cx-2011A line is led to second term of sowing and densities placed of plants 60 thousands per ha.

Key words: sunflower, term of sowing, density of placed plants, area of leaf surface, photosynthesis potential, net productivity of photosynthesis

Dziubetskyi B.V., Bodencko N.A. Breeding middle-maturing line of corn of plasma lodent

The estimation of initial components of a population under studies for combinational ability. The analysis to the identification of the initial material for breeding sister populations of plasma lodent.

Key words: corn, synthetic population, inbred line, hybrid, combining ability, productivity.

Lavrinenko J., Lashina M., Turovets V., Hlushko T. Development of morphological and biological models of maize hybrids of different maturity groups under irrigation

The article presents data on the development and refinement of models Morfobiologicheskyy maize hybrids of different maturity groups. The models developed corn hybrids will effectively lead work on a new raw material of corn with desired properties and the appropriate level of implementation of hybrid combinations that enhance the effectiveness of selection process of synthe-

sis of a new generation of hybrid and rapid implementation in agricultural production.

Key words: maize, hybrid model, yield, yield of grain, plant height irrigation.

Akselrud D.V., Toporash I.G., Shcherbina Z.V. Kindred kinds of cereal as genetic sources of "soft-grain" property for cultured lines of winter bread wheat

In the article presents the information about involvement in breeding the wild and kindred kinds of wheat for splaying of genetic variety on "soft-grain" property and derivation the breeding material with needful characteristics for sugar confectionery industry

Key words: winter bread wheat, "soft-grain" property, genetic sources

Lyuta Yu.O., Kobylina N.O. The correlation relationship of quantitative characters of tomato collection samples on irrigation

The results of the study of the relationship of the correlation of quantitative traits of collection of tomato under irrigation.

Key words: tomato, collection, correlation, selection, sort.

Borovik V.A., Stepanov YU.A., Klubuk V.V., Baranchuk V.A., Osinniy M.L. Ecological test bulgarian sort cotton plant in south region of the Ukraine

Results of studying of action of gamma irradiation of seeds of collection samples for maturing terms, efficiency and some quality indicators of a fibre of a cotton are stated.

Key words: sort, cotton plant, the source valuable sign, collection, fast maturation, productivity.

Usik L. Maria and Andromeda are new varieties of winter wheat

Such varieties of winter wheat as Maria and Andromeda possess high adaptive and productive potentials, there are possible to use on irrigated and unirrigated lands. New genotypes are able to guarantee yield on level accordingly 9,0-10,0 and 5,5-6,0 t/ha.

Key words: wheat, variety, genotype, yield, quality, adaptivity, stability, productivity.

Kosenko N.P. The influence of growth regulators of plants on productivity and quality of seeds of tomatoes under the conditions of trickle irrigation in the south Steppe of Ukraine

The results of researches by influence of growth regulators of plants and terms of sowing on productivity and quality of tomato seeds by grade Naddnepriansky1 are presented in the article.

Under conditions of trickle irrigation the treatment of seeds preparation Emestim C before sowing 20-30 of April increased of seeds productivity on 21,5% in compared to control variant (sowing of dry seeds). The influence of sowing terms and growth regulators of plants on seeds quality was slight.

Key words: tomato, seed, scheme of sowing, thickness of standing, trickle irrigation, productivity, quality of seeds.

Tselinko N.I. Structure of cross-correlation dependences of signs of the productivity of rice

There is direct cross-correlation dependence between the height of plants of rice and signs of the productivity of rice: by length of panicle, mass of grain from a panicle, by mass 1000 grains and by a corn index; length of panicle correlates with the number of grains and mass of

grain in it; high correlation ($r > 0,77$) between the number of grains in a panicle, by its productivity and closeness.

Key words: rice, changeability, correlation, productivity, amount, height, length, closeness.

Shpak T., Shpak D., Petkevich Z., Palamarchuk D. Modern rice varieties for the south of Ukraine

The article shows the new modern varieties that are recommended to sow rice-growing farms in Ukraine. Varieties are characterized with different growth duration, high-yielding and high-quality grains.

Key words: rice, varieties, growth duration, yield, glassiness, cracking, milling.

Palamarchuk D.P. Prospects of using the double haloids in rice breeding and methods of their receipt

The article contains analysis of the literature on prospects, trends and problems using the double haploids in rice breeding, and methods of their receipt.

Key words: selection, haploids, double haloids, anthers culture in vitro.

Shpak D. The rice variety model for conditions of Southern Ukraine

The above parameters of the model rice varieties with different maturity groups. In the breeding is necessary to consider the parameters of elements of productivity, morphological traits that influence the to the flag leaf orientation and the stem length, the high content of chlorophyll in the leaf, thickening and shortening of the 2nd internode and increased resistance to diseases, optimized values of parameters, which are responsible for the quality of the grain rice (glassiness, cracking, hulling, etc.).

Key words: variety, rice variety model, productivity, grain quality.

Gorash A.F. Initial material of bread wheat that originated from *Triticum erebuni*, *Triticum dicoccoides* and *Triticum tauschii* for selection to the group resistance against phytopathogenes and others agronomical valuable traits.

It is investigated possibilities of using lines 98/06, 99/06, 350/06, 352/06, 144/07 that have been developed from interspecific crossing for selection to group resistance and other agronomical valuable traits. According to investigation results the above-named lines are the valuable initial material which combined group resistance to causal agents of main diseases widespread in the Step zone of Ukraine with others agronomical valuable traits.

Key words: lines of wheat, donors of resistance, selection of wheat, diseases of wheat.

Shapar' L.V., Kolesnikova N. D. The influence of the irrigation on quality seeds sort of the wheat winter

In the article are brought information about determination and analysis of the selection fraction seeds wheats soft winter the best on all biological factor, amount such seeds in parties; the study of the change quality seed material depending on high-quality particularities and conditions of the moistening. On base got result is shown that levelty seeds is an efficient facility of increasing to productivities of the winter wheat and improvements quality seeds in condition irrigated and unirrigated of the husbandry.

Key words: wheat, quality of seeds, fraction, sort, irrigation.

Chernohatov L.V. Potato Varieties of Ukrainian Origin Suitable for Seed Potato Breeding under Irrigation

gation in Ukrainian Steppe

The potato varieties with high adaptive ability ensuring dynamic reaction for different limiting factors of Ukraine Steppe zone should be given advantage for providing high productive seed material for seed potato growing in southern districts of Ukraine. They are such potato varieties as Tiras, Svitanok Kievskiy, Vodogray, Levada, Serpanok, Karlik 04, Skarbnitza.

Key words: potato, harvest, sorts, irrigation.

Kataieva T.Ye., Borysenko L.D. Creation of a new variety of bush pattypan the drop irrigation on the east zone of Ukraine.

The fluid drilling and drop irrigation and local fertilization and Owing to use of the singled out initial forms there is created a new early variete bush pattypan Malahit and Sachenka, and middle-ripening variete Zhenechca, which tip the standards by early ripening and biochemical indices.

Key words: breeding, bush pattypan, variety, test, harvest, irrigation

Sereda V.I. The benefits and importance of implementing ways of breeding development of sweet sorghum in feed production.

The article discusses the benefits of sweet sorghum as a forage crop in a stable food supply. The technology of cultivation of sweet sorghum for silage, on which there are the problems in breeding. Determined the direction of breeding developments to meet the needs of society with minimal raw energy consumption. Describes the effects of biological indicators for future technological hybrid.

Key words: sweet sorghum, selection, silage, fodder production, hybrid, heterosis.

Komarova I.B. Efficiency of chemical mutagenesis in breeding of spring false flax on large seeds

The opportunity of using chemical mutagenesis to create a new source of material for breeding for spring false flax. Among the mutants derived from ethyl methanesulphonate seed treatment perspective samples with large seeds and other economically valuable identified. By direct selection of mutants created a new variety of spring false flax Prestige with increased mass thousands of seeds.

Key words: spring false flax, chemical mutagenesis, the size of seed, variety.

Lashina M., Turovets V., HlushkoT., Lavrinenko J. Development of morphological and biological models of maize hybrids of different maturity groups under irrigation

The article presents data on the development and refinement of models Morfobiologicheskyy maize hybrids of different maturity groups. The models developed corn hybrids will effectively lead work on a new raw material of corn with desired properties and the appropriate level of implementation of hybrid combinations that enhance the effectiveness of selection process of synthesis of a new generation of hybrid and rapid implementation in agricultural production.

Key words: maize, hybrid model, yield, yield of grain, plant height irrigation.

Vozhegova R.A., Granovskaya L.M., Mironova L.M., Pisarenko P.V., Verdish M.V. The Influence of the cost of water on the cost-performance production to agrarian product in zone of the irrigation

In article are brought results of the study to dependencies to efficiency of the area plant growing in zone of the irrigation from cost irrigating water.

Key words: irrigation water, irrigation, cost of water, cost-performance, prime cost, profitability

Kovalenko A.M., Timoshenko G.Z. Economic efficiency of growing of pea of bezlistochkovogo morfotipa dependency upon the elements of technology in the conditions of South Steppe of Ukraine

Resulted results of economic efficiency from application of calculation dose of mineral fertilizers, bacterial preparation of "Rizobofit", microfertilizers of "Ekolist Universal" and chemical defence of plants at growing of pea of bezlistochkovogo morfotipa in the conditions of the natural moistening of South Steppe of Ukraine.

Key words: pea, bezlistochkovyy morfotip, calculation dose of fertilizers, bacterial preparation, microfertilizer, chemical defence.

Vlashuk A.N., Kokovikhin S.V., Donets A.A. Design of expenses of agrosources in the technological process production of the seeds of winter rape in the conditions of the South Ukraine

The results of the field, laboratory and cameral researches on the study of features of forming of productivity of rape of winter depending on the charts of bringing of nitric fertilizers are resulted. The statistical experimental data analysis by equalizations of regression is conducted, found coefficients of correlation, which represent intercommunication of the mineral feed with intensity of passing products processes.

Key words: winter rape, nitric fertilizers, elements of feed, forage productivity, statistical treatment, correlation dependence

Petrochenco V.I. Method for determining the economically optimal irrigation rules

Formulated and solved in general form the problem of optimizing the norm of irrigation of crops on the basis of integrating biological, agronomic and economic factors. Developed and proposed for the practical application of the algorithm for determining the quantities of economically optimal irrigation norms and their distribution throughout the irrigation period.

Key words: irrigated agriculture, irrigation rate, irrigation regimes, productivity, operating income, expenses, profit.

Maydebura O.P. Opening of ionizing radiation as pre-condition of becoming of radio-biology

In the article it is rotined pre-condition of origin of radio-biology in Ukraine, role of the prominent Ukrainian scientist – physicist Ivan Pulyuya in opening ionizing radiation.

Key words: history of radio-biology, radiology, X-rays, ionizing radiation.