

## SUMMARY

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**Vozhegova R.A., Kokovichin S.V., Pisarenko P.V., Belyaeva I.N., Pilyarskiy V.G., Chekamova O.L. Science-practice aspects optimization of the irrigation in the conditions South Ukraine**

The results of researches on organization and production process control on the irrigated lands of South Ukraine are resulted in the article. Measures on the increase of efficiency of the use of the irrigated lands by application of scientific approaches and special informative facilities are offered.

**Keywords:** irrigation, crop rotations, pumps stations, farmers, productivity of the irrigated lands.

**Malyarchuk N.P., Kotelnikov D.I., Andrienko I.O. Formation productivity of grain maize based on soil tillages y stemsand fertilizer in irrigated conditions of southern Ukraine.**

The article presents the basic principles of technology growing corn. Problems of soil tillage minimization and optimization of fertilization. The sefigures soil density changes depending on the method and depth of soil and influence on the productivity of irrigated corn in the south of Ukraine.

**Keywords:** maize, soil density, permeability of soil productivity.

**Vozhegova R.A., Naydonova V.A., Melnik M.A. Dynamics of water consumption and productivity of soy depending on the regime irrigation, of variety composition and inoculation seeds**

The results of researches with the variety soy, which reared at different terms moistening and inoculation seeds, are resulted in the article. It is set on results researches, that total water consumption of soy substantially hesitates depending on agrotechnical measures and current meteorological terms. Maximal productivity of corn of soy it is got at watering to the phase of pouring of bobs, sowing of the Deymos variety and treatment of seeds by the Optimayz preparation.

**Keywords:** soy, water consumption, variety, irrigation, watering, inoculation, productivity, yield

**Goloborodko S.P., Pohynayko O.A., Zheltova A.G. Effect of sowing method and application of nitrogen fertilizer on seed productivity of wheat middle grass – *Elytrigia intermedia* (Host) Nevski**

The article deals with the results of the research, devoted to the impact of the use of different doses of nitrogen fertilizer in the normal row and wide row method of sowing on seed yield average. The authors installed the significant dependence of the crop seed culture from the nitrogen nutrition ( $N_{30}P_{60}$ ,  $N_{60}P_{60}$  and  $N_{90}P_{60}$ ) as well as the absence of significant difference from their phosphorus ( $P_{60}$ ) fertilizers. Growth of wheat middle grass seeds harvest due to the application of nitrogen fertilizer was compared with the control (without fertilizer) and phosphate fertilizers. The authors have shown that the increase is provided by the formation of a larger number of gen-

erative shoots, panicle weight and panicle seed weight.

**Keywords:** fertilizer, nitrogen, wheat grass medium, seeds, stems, panicles.

**Vozhegova R.A., Lyuta Yu.A., Kosenko N.P. Productivity and quality of seeds of beet on the conditions of a drip irrigation of the South of Ukraine**

Results of researches of influence of planting scheme, norms of application of fertilizers and density of cultivation of seed plants of beet on productivity and quality of seeds are presented. It is established that highest value of productivity of seeds (1,66 t/hectare) it is received at the scheme of planting 90+50 cm, introduction of calculation norm of  $N_{120}P_{90}K_{90}$  fertilizers, density of 42,6 thousand/hectare, when using for planting mother beetroots (4-6 cm). Excess above control makes 0,36 t/hectare (27,7%). The scheme of planting, norm of application of fertilizers and density of cultivation of seed plants significantly don't influence on qualities of seeds.

**Keywords:** beet, seeds, planting scheme, mother beetroots shtekling, fertilizer, density of stand-ing.

**Kovalenko A.M. Rational using of the irrigated earths of south of Ukraine for different their agricultural use**

Results over of researches are brought on the use of watering water separate cultures and on a crop rotation on the whole. It is set that correlation in the crop rotation of cultures with the different modes of irrigation to a great extent determine the expense of watering water on a crop rotation area. Most evenly in the flow of vegetation period watering water is used in a crop rotation with such correlation of cultures: corn – 28,6%, grain-growing cereals – 42,8% and alfalfa – 28,6%.

**Keywords:** water consumption, duty of water, irrigation, watering norm, mode of irrigation.

**Izotov A.M. Dependence of the yield and quality of winter wheat grains on a seeding rate and doses of nitrogen fertilizer in the economical conditions of irrigation in the steppe Crimea**

The dependence of the yield and the main indicators of quality of winter wheat in the steppe zone of Crimea from the separate and joint influence of seeding rate and dose of nitrogen fertilizer.

**Keywords:** winter wheat, multivariate field experience, productivity, mass fraction of gluten of the grain, vitreous grain.

**Vozhegova R.A., Luta Y.A., Malyshev V.V. Influence of feeding complex water-soluble fertilizers on productivity of tomato and onion under drip irrigation**

The article contains results of studies the influence of feeding complex water-soluble fertilizer on vegetable crops productivity under drip irrigation. The

schemes of foliar feeding preparations Wuxal and Mochevin K to tomato plants and fertigation preparations Riverm and Mochevin K to onion are presented.

**Keywords:** tomato, onion, complex water-soluble fertilizers, drip irrigation, productivity.

**Malyarchuk N.P., Mishukova L.S., Suzdal O.S., Malyarchuk A.S. Impurity of sowing of agricultural cultures in crop rotations on irrigation at different ways and systems of basic treatment of soil**

In the article the results of the detailed inspection of impurity of sowing of agricultural cultures are represented with successful combination of the systems of alternation of cultures in crop rotations and treatment of soil.

**Keywords:** crop rotation, weeds, system of basic treatment of soil.

**Mrinskiy I.M., Garmashov V.V., Shepel A.V., Gontaruk V.T. Influence of elements technology of growing on productivity of seeds sunflower in the conditions South Ukraine**

The analysis of productivity of maternal lines and indexes of quality of hybrid seeds of sunflower (F1) on the area of hybridization depending on the terms of sowing, density of standing of plants and charts of sowing at growing on the irrigated earths of south of Ukraine is conducted in the article.

**Keywords:** sunflower, irrigation, term of sowing, density of standing of plants, chart of sowing, productivity, quality of seeds

**Vlaschuk A.N., Pryshepo N.N. Voytashenko D.P., Demchenko, N.V. Seed production of winter rape under irrigation southern Ukraine.**

The results of studies on the effects of soil tillage, sowing method and timing of planting on seed productivity of winter rape in the south of Ukraine.

**Keywords:** rape, plowing, disking, period of sowing, row spacing, productivity, seed.

**Sheludko O.D., Klubuk V.V., Repilevskyy E.V., Omelyanenko A. A. Effect of fungicides on crop productivity of irrigated soybeans in the southern steppes of Ukraine**

Fungicide application on irrigated soybeans have economical priyomom that the inclusion in the growing culture in tehnologiyu southern Ukrainian steppe . In modern pesticides assortment provides better efficiency fungitsid Acanthus Plus 28 cc norm races stroke 0.7 l / ha. Optimal term use of the drug in the prophylactic or making the first signs of fungal diseases is the phase of flowering soybeans.

**Keywords:** soy, irrigation, fungicides, efficiency, acanthus Plus.

**Cherenkov A.V., Kozechko V.I. Photosynthetic activity of plants different sorts of winter wheat depending on the technological methods of cultivation in the conditions of northern Steppes of Ukraine**

Results of studies on the impact of technological methods of cultivation on photosynthesis of plants of different varieties of winter wheat in the conditions of the northern Steppe of Ukraine. It is experimentally proved that the largest

area of leaf surface of a plant formed at crops from the middle of the third decade of September (25.09) till the first decade of October (05.10). Maximum leaf area of the studied varieties formed plant sort Selyanka. Positive correlation ( $r = 0,504-0,532$ ) between the area of the leaf surface of plants and yield of winter wheat

**Keywords:** winter wheat, sort, seeding date, seeding rate, leaf area, photosynthetic potential of crops, harvest.

**Dudchenko V.V., Dudchenko T.V., Rogulchik N.I. Fungicide Nativo 75 WG in order to control *Piricularia oryzae* in rice sowings.**

The results of the researches concerning the efficiency of a new fungicide against rice blast are introduced.

**Keywords:** rice, the activator, a variety, rice sample, rice blast, fungicide, efficiency.

**Tomnitsky A.V. Height and weight growth of aboveground plant chickpea depending on fertilizers**

In the article the results of field studies are imposed on the effect of different doses of fertilizers on high, average daily gain in height when grown chickpeas, and shows the dynamics of the formation of wet and dry aboveground mass in fixed interphase periods of chickpeas.

**Keywords:** dark chestnut soil, chickpeas, doses of fertilizers, height, average daily gain in height, aboveground mass.

**Zayets S.A., Netis V.I. Influence of width of spaces between rows and norm of sowing on the productivity of new varieties of soy in the conditions of irrigation**

In the articles resulted given about the reaction of new middle-ripening varieties of soy Danaia and Sviatohor on the width of spaces between rows and norm of sowing. It is set that in the conditions of irrigation for these sorts an optimal width of spaces between rows is a 45 cm, and norm of sowing is 500 thousand/ha. Thus on sorts Danaia and Sviatohor the productivity, accordingly, laid down 3,03 and 3,10 t/ha.

**Keywords:** irrigation, soy, sort, structure of harvest, productivity.

**Vasylenko R.N. Sorts agrotechnics of growing of corn sorghum in the conditions of south of Ukraine**

The results of researches are resulted on the study of the productivity of domestic sorts of sorghum of the grain-growing under various conditions moistening at growing on darkly chestnut soil in South Steppe of Ukraine.

**Keywords:** a sorghum is grain-growing, terms of moistening, productivity, output of forage units.

**Vlaschuk A.N., Voytashenko D.P., Jeltova A.G. Effect of irrigation and mineral nutrition on long-term productivity of sorghum**

The results of studies on the effect of fertilizers on long-term productivity of sorghum under irrigation

in the southern Ukrainian steppe. Dependence were analyzed dry matter yield of doses of nitrogen fertilizer, both in terms of natural moisture and under irrigation.

**Keywords:** perennial sorghum, irrigation, fertilizers, crop yield, dry matter, leaf area.

**Hlushko T.V. Yields of maize hybrids and cost-effectiveness of their growing dependence treatment plant complex preparations under irrigation**

This paper presents the results of research formation yield and quality of grain maize hybrids of different maturity groups based on treatment plant complex preparation and cost effectiveness of cultivation.

**Keywords:** hybrid corn maturity groups, complex preparations, irrigation, yield and grain quality, economic efficiency.

**Kozyrev V.V., Pisarenko P.V., Bidnina I.A. Water consumption of soybean at different elements of technology of its cultivation**

Determined that the total water consumption of soybean plants are more dependent on moisture conditions and decreased while maintaining the pre-irrigation moisture soil at 70-70-70% of field capacity in the calculated soil 0,5 m compared to 70-80-70%. Phosphogypsum application on the surface of the basic processing of autumn and melt the frozen soil moisture in the spring on a background of 70-70-70% provides formation soybean yield at recommended technology of its cultivation.

**Keywords:** soybean, water consumption, irrigation regime, methods Surfacing soil, phosphogypsum.

**Skydan M., Skydan V., Kostromitin V. Dynamics of dry matter accumulation in sunflower plants depending on agronomic cultivation methods under the conditions of eastern Ukrainian Forest-Steppe**

The information is given about the specifics of dry matter accumulation and the net photosynthetic yield in the sunflower hybrids depending on the nutrient status and sowing times. It is discovered that the highest dry weight in the physiological ripeness phase was when sown early and amounted to 9.07–13.1 tonnes/ha depending on the experiment option. The net photosynthetic capacity was higher with  $N_{30}P_{30}K_{30}$  per 1.52 g/m<sup>2</sup> per day on the average.

**Keywords:** sunflower, hybrid, dry matter weight, net photosynthesis productivity, time of sowing, fertilizer.

**Kokovikhin S.V., Nikolaychuk M.G., Pilyarskaya E.A., Drobitko A.V. Valuation expenses of watering water at the level of crop rotation and economy with the use of modern information technologies**

Practical recommendations on the use of the CROPWAT 8.0 program for organization and planning irrigation are resulted in the article, optimizations of the irrigation regime, abbreviation of unproductive expenses of watering water, receipt of high level of harvest, the greatest economic and power efficiency.

**Keywords:** irrigation, program, module, climatic indexes, graph of watering.

**Markovskaya E.E., Shelud'ko A.D., Omelyanenko A.A. Ways to reduce the severity of fungal diseases in irrigated agricultural crops southern Steppe of Ukraine**

Modern systems protect crops on irrigated lands of southern Ukraine should include use of fungicides. Among the investigated range of new and highly promising fungicides for agricultural producers is acanthus Plus 28 c.c., Which protects crops irrigated winter wheat, soybean, sunflower, from the complex of fungal diseases, saves crops from losses, increasing the gross yield of grain. Furthermore, acanthus Plus 28 c.c. has a pronounced physiological effect, which is more efficient use of nitrogen by plants and confrontation adverse environmental factors.

**Keywords:** irrigation, fungicides, efficiency, winter wheat, soybeans, sunflower.

**Voronyuk Z.S., Maruschak A.N., Zaitseva A.A. Changes reclamation soil characteristics under the influence of irrigation rice rotation crops**

The results of studies of the dynamics of the soil solution reaction and the concentration of salts in the soil layer 0-40 cm after growing rainfed in rice crop rotation and with using different methods of irrigation are presented. It was established, that the use of short-term flooding irrigation method accompanying rice rotation crops amid the lack of forced drainage leads to deterioration agromeliorative characteristics of paddy soils.

**Keywords:** rice, crop rotation, irrigation methods, the reaction of the soil solution, the salt content.

**Boyarkina I.V. Scientifically practical aspects of use of the program "The Electronic flowsheets of IIA NAAS" for planning of technologies growing agricultural crops in the conditions of irrigation**

In the article the order of calculation electronic flowsheets growing agricultural crops is presented in the conditions irrigation productive subdivisions Institute of Irrigation Agriculture NAAS, and also system of complex informative reference books, involved in calculations and intercommunications. A management is organized through a main menu, maintenance of main pages productive subdivisions, hyperlinks on the pages of reference books and electronic flowsheets, that simplifies a search, choice, adjustment of necessary information and design of the calculation modules.

**Keywords:** electronic flowsheets, thematic reference books, elements of agrotechnological process, organizationally-economic planning, irrigation.

**Celinko N.I., Vozhegov S.G., Dovbush O.S., Korshun O.O. is the Productivity and sowing qualities of seed of rice, depending on application of microfertilizers**

This paper examines the influence of micronutrients, "Jets rice", "Reakom rice + Reakom born", "Reakom Silicon", "Reakom rice + Reakom silicon" and how to use them to harvest and sowing seeds of rice properties.

**Keywords:** rice, weight of 1000 seeds, germination energy, germination of plants, fertilizers, sort of.

**Kolesnikova N.D., Verdish M.V., Shukailo S.P. Justification of the factors influencing the yield of winter wheat in the area of South Steppe of Ukraine**

The article presents data about the genetic yield potential of winter wheat breeding Institute of irrigated agriculture NAAS. Determined that this potential is not fully exploited. The factors that limit the productivity of winter wheat in the Southern steppe zone of Ukraine.

**Keywords:** winter wheat, variety, genetic potential, soil and climatic conditions, soil fertility, agro-technology, irrigation.

**Malyarchuk V.M. Influence of basic treatment of soil on fertility of soil and productivity of sunflower in the irrigated crop rotation.**

On the basis of the use in севообороте on irrigation of different methods of basic treatment of soil his influence is educed on biological activity of groups of microorganisms which take part in destruction of fresh organic matter of soil and fixing of atmospheric nitrogen, transforming him in accessible for plants mineral connections. The levels of accumulation of nitrates are set at the different ways of treatment and their influence is set on the level of the productivity of sunflower.

**Keywords:** sunflower, method of treatment of soil, depth of loosening, combined and gross energy.

**Tymoshenko G.Z. State of production and use of pea**

In the article the considered questions of the state of production and use of pea. Measures are offered in relation to the increase of production of phytalbumin of pea in the conditions of South Steppe of Ukraine.

**Keywords:** pea, albumen, value, use, production, technology.

**Bulayenko L.M. Particularities of the irrigation using in condition of the south of Ukraine**

The article considers the influence of sprinkler irrigation on soil. The results of studies under sprinkling irrigation systems south of Ukraine. Ways to improve the quality of crop irrigation sprinkler modern machines are given.

**Keywords:** irrigation, artificial rain structure, the quality of irrigation, improvement actions.

**Shkoda O.A., Bidnyna I.A. Harvest of winter rape at a different level nitric feed**

Results over of the field and laboratory researches are brought on winter rape at the different level of nitric feed. It is set that at wrapping of straw of winter wheat the optimal dose of nitric fertilizers makes 120 kg/of ha of operating substance.

**Keywords:** soil, nitrate nitrogen, winter rape, harvest.

**Voloshina K.N. Area of feed of plants of the instiled water-melon**

Results over of researches are brought on determination of optimal area of feed of plants of the instiled and scion-rooted water-melon. It is set that the instiled plants of water-melon, in middle on one plant, have most of escapes of 1th order, area of sheets, amount of sheets and plant. The most productivity was provided by growing of the instiled water-melon with the area of feed of 3 м<sup>2</sup> - 84,4 t/ha.

**Keywords:** water-melon, inoculation, area of feed, productivity, technology of growing, scion-rooted water-melon.

**Knysch V.I. Till of soil is under water-melon on unwatering earth of south of Ukraine**

Results over of researches are brought from development of the effective system of till of soil under a water-melon. It is set that on black earth south of littlehumus sandy-loam in the unirrigable terms of south Steppe of Ukraine for providing stably of high harvests of garden-stuffs of water-melon and conditioning for maintenance of fertility of soil accumulation and rational use of moisture of soil it is necessary to apply the system of till of soil what combines the ploughing on the depth of 25-27cm and autumn cultivating on the depth of 10-12cm. The spring complex of works on till of soil under a water-melon consists of harrowing of land plough in autumn for spring sowing in 2 tracks by heavy harrows and preseed cultivating on the depth of earning of seed with the simultaneous harrowing.

**Keywords:** water-melon, black earth south, till of soil, humidity of soil, productivity, economic efficiency.

**Bulba I.A. Influence of basic treatment of soil on agrophysics properties of soil in sowing and productivity of spring oilseed rape on irrigation south of Ukraine**

The results of three-year experimental researches are presented on the study of influence of methods and depth of the dump, nonmoldboard soil cultivation and differentiated systems of basic treatment of soil on the agrophysics state of arable layer and productivity of rape of spring.

**Keywords:** method of treatment, irrigation, closeness of addition, productivity.

**Mazur Z.O., Symonenko N.V. Peculiarities of the formation of the main elements of winter rye productivity**

The results of evaluation of the raw materials in the winter rye hybrid nursery for 2012-2013. Highlighted promising accessions for the number of ears per plant, number of grains per ear with that grain weight per plant, which will be used in selection work as a valuable raw material for the creation of linear combination of materials and on the basis of their high-yielding varieties - synthetics and hybrids of winter rye.

**Keywords:** winter rye, source material, the hybrid combination yields.

**Chekamova O.L. Value of millet, as a drought-resisting culture at the terms of change of climate in a steppe area**

Millet is an adaptive culture to different ground-climatic terms, the culture of groats, which belongs to corn breads, is important, culture which can the decision of problem in relation to cheap groats.

**Keywords:** millet, technology of growing, grain, groats, fertilizers.

**Novohizhniy N.V. Bioenergetics estimation using microfertilizer at growing of hard wheat furious in the conditions of South Steppe of Ukraine**

The article presented the results of bioenergetics estimation growing of hard wheat furious on dark chestnut soils without irrigation depending on application of calculation norm fertilizers, till of seed and plants, for to the phases of vegetation by a microfertilizer and receptions of chemical defense of plants.

**Keywords:** hard wheat, fertilizers, microfertilizers, chemical defence, coefficient of power efficiency.

**Filipov E.G. Dynamics of height of plants and productivity of the *Carthamus tinctorius* at growing in the conditions of irrigation in the South Ukraine**

In the article the results of researches of influencing of agrotechnical receptions are resulted on forming of height of plants and productivity of the *Carthamus tinctorius* at his growing in the conditions of irrigation in South Ukraine. It is proved, that the best results are provided by ploughing on a depth 20-22 cm, space between rows 30 cm, sowing in early terms (III ten-day period the March) and bringing of mineral fertilizers by the dose  $N_{60}P_{60}$ .

**Keywords:** *Carthamus tinctorius*, irrigation, terms of sowing, height of plants, productivity

**Hozh O.A. Performance of corn hybrids depending on microfertilizers and growth stimulators under irrigation in the South of Ukraine**

In the article provides an overview of the literature on efficiency of application microfertilizers, growth stimulants and genetic opportunities perspective of corn hybrids the various ripeness of groups and the formation of the grain crop productivity.

**Keywords:** corn, irrigation, hybrids, microfertilizers, growth stimulants.

**Zayichenko A.A., Shukaylo S.P., Rybin R.M. Agrochemical state of Kherson area soils**

Information overview about agrochemical state of Kherson area soils by the results of the last (IX) tour of agrochemical approbation of farmlands is represented in the article.

**Keywords:** soils, monitoring, humus, nutrients, balance indexes.

**Vogegova R.A., Oliynik O.I. Dynamics of height of plants of rice and firmness of them to drowning depending on of high quality composition, treatment of soil and background of mineral feed**

The results of the field researches with the sorts of rice at their growing in the conditions of the

Odessa region are resulted in the article. It is set, that the height of plants in a different degree hesitates depending on the phases of development, of high quality composition and background of feed. Most firmness to drowning within the limits of 4.7-4.8 marks was provided by the sort Viscount at application of ploughing and bringing on a background the basic mineral fertilizer of the additional fertilizing – carbamide ( $N_{30}$ ) is joint with a ROST-concentrate and Cristalon.

**Keywords:** rice, of high quality composition, basic treatment of soil, background of mineral feed, height of plants, firmness to drowning.

**Lavrinenko Yu.O., Ruban V.B. Dynamics of accumulation of raw mass and dry matter by the plants of *Zea mais* at the drops method of watering in the conditions of South Ukraine**

The results of researches with the hybrids of corn at growing in the systems of drops irrigation are resulted in the article. It is proved, that the nitric fertilizers are instrumental in substantial growth of productivity of raw mass and dry matter from unit of area. Most sizes of the explored indexes were at the hybrids of Sangriya and Mass 44.A at density of standing of plants 80-100 thousand per ha and application of mineral fertilizers by the dose  $N_{180}P_{90}$ .

**Keywords:** tiny irrigation, hybrids of corn, density of standing of plants, nitric fertilizers, density of standing of plants, raw mass, dry matter

**Lyuta Yu.O., Kobylina N.O. Variability of quantitative traits in tomato collection samples irrigated lands of southern Ukraine**

The results of studies on the variability of quantitative traits "number of fruits", "Fetal weight", "weight per plant". It was determined that one of the most effective methods of selection of tomato plants to increase the yield may be selection for these traits. The greatest variability was found on the grounds of "the number of fruits " and more stable signs are signs of "fetal mass" and "productivity per plant".

**Keywords:** tomato, variability, quantitative traits, the coefficient of variation, selection, variety, hybrid.

**Lavrynenko Yu.O., Marchenko T.Y., Nygnay M.V. Manifestation of symptoms synchronicity of flowering hybrids of maize under irrigation in southern Ukraine**

The results of investigations of the peculiarities of flowering male and female inflorescences in different maize hybrids FAO group under irrigation south of Ukraine. Genotypic variability in synchrony was highest among flowering hybrids of medium- and late-group FAO

**Key words:** corn hybrids, flowering synchrony, genotypic variability dihogamiya.

**Brutik O.A., Chinova L.Y. It is selection of heat- and drought-resisting standards of melon on the indexes of water deficit**

On the basis of undertaken laboratory studies and determination of cross-correlation intercommunications between indexes in the letters of plants, it is set that dependence of heat-tolerance and drought-

resistingness of plants of melon is on the indexes of moisture-capacity, water.

**Keywords:** melon, heat-tolerance, drought-resistingness, water deficit, moisture-capacity, selection.

**Sinyavina N.S., Holodnyak O.G., Voyevodin Ya.I. Way of selection heat-resistant grades of samples the paslenovykh of cultures in field conditions**

In the article the resulted results of researches are from the exposure of intercommunication between heat-tolerance of paslenovykh cultures and them by morphological signs. It is set that the plants of tomato, egg-plant and pepper sweet, have high correlation between the index of heat-tolerance of sortozrazkiv and amount of prodikhiv on the lower side of letter, that allows to conduct distributing and selection of sortozrazkiv after heat-tolerance in the field terms.

**Keywords:** tomato, egg-plant, perc' sweet, heat-tolerance, prodikhi.

**Maydanyuk V.A., Holodnyak O.G. Method of selection of parental pairs when creating new adaptive varieties zucchini for open ground of the Southern Ukraine**

The results of field experiments on the selection of breeding pairs to create new adaptive varieties zucchini. The results of the collection of the kennel, cattery first-generation hybrids, laboratory data on heat resistance, solids content, data on cluster analysis.

**Keywords:** zucchini, combination, cluster, method, selection, productivity.

**Shpak D., Petkevych Z., Shpak T., Palamarchuck D. The potential of productivity and grain qualities of National rice collection samples**

The article highlights the results of the study samples of the national collection of rice on the grounds of efficiency and quality of grain. Concluded that the largest number of breeding in relation to forms characterized by European eco-geographical group of samples that the results of the study should be used when creating a new source material by hybridization.

**Keywords:** rice, productivity, grain quality, ecological and geographical origin collection.

**Granovskaya L.N., Vashenko U.I. Water management and reclamation complex as a complex ecological - economic system: the theoretical aspect**

The article discusses study activities of water - reclamation complex in the region as a complex ecological and economic system, which is under the influence of anthropogenic pressure is characterized by a corresponding response from the environment. Grounded theoretical aspects of anthropogenically

altered systems as a basis for the development of management strategies as water management and reclamation complex, and ecological and economic system of the region.

**Keywords:** ecological - economic system, water - reclamation complex, region, human pressure, the theoretical aspect.

**Bidnyna I.A., Tomnytskiy A.V., Vlaschuk O.S., Kozyrev V.V. Economic efficiency of growing crops on the background of the various systems of fertilizers and seeds bacterization**

Shows the impact of fertilizers and crop seeds bacterization on their efficiency in irrigated southern Ukraine and determined their economic efficiency. Determined that the most cost-effective is to conduct pre-sowing treatment microbial agents in making N<sub>90</sub>P<sub>60</sub> on background plowing corn stalks once per crop rotation.

**Keywords:** fertilizer, microbial preparations, corn MWR, barley, winter wheat, yield, profit, cost , return on investment.

**Kholodniak A.O., Limar V.A. Financial incentives of employees in the research environment**

The article deals with the material incentives for employees in research institutions. The authors reveals the objectives, methods, forms and types of personnel management. Particular attention is drawn to the method of controlling the achievements of employees. By systematizing and structuring performance evaluation of researchers allowed the Administration to carry out quality material incentives aimed employees includes all fees, evaluate the effectiveness of systems used material incentives and increase the level of interest in the Administration of the employee based on the employee 's rating.

**Keywords:** personnel management, material incentives, performance evaluation, rating.

**Dymov O.M., Bilyayeva I.M. Intellectual property in the innovative development of Ukraine**

In the article the role of institute of intellectual property, in frames of which happen the reproduction of innovations with help of transformation of results of intellectual activity to objects of intellectual property, is opened.

It is showed that with help of this institute the results of intellectual labor are protect, necessary presuppositions for innovation development are creates, innovation space is built, conditions for a new wave of discoveries are forming, i.e. the institute of intellectual property appears as one of the most important moving powers of national innovation system development.

**Keywords:** institute of intellectual property, innovation development, invention, patent, author's right, article sign.