

## SUMMARIES

UDC 633.522:338.1

**Kabanets V.M.** Flax and hemp growing branches in Ukraine: modern situation and perspectives // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.3–7.

The comparative analyzes of the modern situation of flax and hemp growing branches in Ukraine and other countries is made. It is noticed reasons of decreasing of flax and hemp production. Ways of increasing of branches effectiveness are given.

UDC 633.522

**Laiko I.M., Vyrovets V.H., Scherban I.I., Kyrychenko A.I.** Breeding guarantors of stability of monoecious sign of populations of monoecious hemp varieties // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.8–11.

Guarantors of high level of stability of monoecious hemp varieties are clear observance of international requirements of distance isolation between crops areas, absence of dioecious hemp areas, control of processes of crosspollination with untypical sex types removing.

UDC 633.522:631.52/53

**Sytnyk V.P.** About the monoecious hemp variety typicalness // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.12–21.

The question of the monoecious hemp variety typicalness changeability in dependence of crop reproduction, variety genotype peculiarities, variety use duration and peculiarities of initial sowing material reproduction because of grounding of seed growing methods is considered.

UDC 633.522:610.50

**Horshkova L.M.** Cannabinoids compounds content in seeds and radicles of different hemp varieties // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.22–27.

It is proved, that all seeds parts and radicles had inconsiderable quantity of cannabinoids compounds – 0.005%. It was identified two different compounds by chemical content:  $\text{THC}_1$  and  $\text{THC}_2$  –  $\Delta^9$ -tetrahydrocannabinol and  $\Delta^8$  – tetrahydrocannabinol. The presence of compounds of CBD, THC and CBN in radicles of different hemp varieties means, that synthesis of those substances was genetically caused and displayed in earlier stages of growing and development. Given results have practical sense in breeding.

UDC 581.84:631.52:633.522

**Kryvosheeva L.M., Myjal M.D.** Comparative anatomical research of hemp varieties with different fiber content // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.28–41.

Results of comparative anatomical research of hemp varieties with different fiber content are given. High fiber content varieties have changes in anatomical building, which predetermine fiber content increasing.

UDC 632.938:633.521

**Chuchvaha V.I.** Infectious background use for estimation of fiber flax breeding material stability for anthracnose // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.41–44.

Using of the method of infectious background obtaining, which is founded on inoculation of vegetative plants by the agent suspension, let to differentiate breeding material by the stability for such pathogen and select the most perspective one for the breeding work as donors.

UDC 631.52:633.522

**Myhal M.D., Rukhlenko V.M., Laiko I.M.** Change of cannabinoids content sign of hemp plants in selection posterity with chemical mutagens use // Collection of scientific work of the Institute of Bast Crops UAAS.– Edition 5.– Sumy: SOD, 2009.– P.44–49.

The character of change of cannabinoids content sign on hemp plants as a result of three selections: without chemical mutagens use, with separate chemical mutagens NEM and NMM use and combined NEM and NMM use is shown.

UDC 631.52:633.522(089)

**Kyrychenko A.I.** Peculiarities of morphological building of hemp collection samples of different geographical types // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.50–56.

As a result of investigation of hemp varieties collection of different geographical types by the main morphological signs the best samples by indexes of the whole stem length, technical stem length for their future use in breeding practice as an initial material were formed.

UDC 635.522:531.52

**Horshkova L.M.** Accumulation of cannabinoids compounds in generative hemp organs // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.57–63.

Results of analyzing of generative monoecious and dioecious hemp plants organs are showed, that the most quality of cannabinoids compounds is in perianths in comparison with other vegetative and generative organs. Flowers of female plants had more content of CBDC and CBD then flowers of male plants and pollen.

UDC 581.4:633.522

**Myhal M.D., Shulga I.L.** Peculiarities of morphological building and secretory activity of plants hairs // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.63–75.

The literature investigation of plants hairs was made. The actuality of the future investigation of hemp plants hairs because of their cannabinoids content was noted.

UDC 633.522:531.52

**Onuprienko L.H.** Peculiarities of growing and development of modern high fiber content hemp varieties in the ontogenesis // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.76–83.

The article deals with comparison of results of peculiarities of growing and development of modern high fiber content and low fiber content hemp varieties in the ontogenesis.

UDC 623.9:633.522

**Lepska L.A., Myhal M.D.** To the question of hemp stability by fusariosis in the artificial infectious background // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.83–87.

Results of investigations, which were made in the IBC UAAN, on creation of artificial fusariosis infectious background for determination of hemp stability for such pathogen.

UDC 633.521

**Semenii O.H., Kaminska M.P., Mostovenko O.O., Hnoilek L.S.** The new fiber flax variety “Zhuravka” // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.87–90.

Results of investigation of fiber flax variety “Zhuravka” in breeding and ecological variety tests in 2002-2007 are given.

UDC 633.522:631.522

**Mischenko S.V.** Dynamics of different sex types flowering of modern monoecious hemp varieties // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.91–100.

Peculiarities of dynamics of flowering and seeds ripening of different sex types on the example of nine modern monoecious hemp varieties are considered.

UDC 633.521:631.559

**Litvinenko A.V., Lohinov M.I.** Adaptive capacity of fiber flax varieties to the system of mineral nutrition in the zone of north-east Polesia of Ukraine // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.101–106.

The article deals with results of investigation of fiber flax varieties by different geographical origin. It is proved, that varieties inadequately show the economic valuable properties because of doses of mineral nutrition. The highest middle straw yield in 2005-2007 was 6.39 and 6.24 t/ha in varieties Hlukhivskii yuvileinii and Eskalina at mineral nutrition  $N_{40}P_{80}K_{80}$ .

UDC 633.5 (477.42)

**Dmytrenko T.F.** Peculiarities of growing and development of fiber and oil flax in soil-climatic conditions of Polesia // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009.– P.106–113.

In article are depicted results of the studies of the growing and developments of the plants introduction – oil flax - on background traditional for zone of the Polesia flax-fibre depending on fertilizers in soil-climatic condition of the zone of the Central Polesia. Are noted positive morph type signs oil flax, which promoted the intensive growing and development of the plants of these types in indistinctive agrozone.

UDC 632.938:633.521

**Chuchvaha V.I.** Group stability of fiber flax breeding material to fusariosis and anthracnose in the zone of a north-east Polesia // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.113–116.

In conditions of the complex infectious nursery it was made a differentiation of fiber flax breeding material by the stability to fusariosis and anthracnose. It was gotten breeding sample with a complex stability to diseases, which are recommended for practical use in breeding as stable donors.

UDC 631.526.32:631.53.01:633.521

**Lokot O.Yu., Kobyzhcha I.O., Klochko A.A., Danylevska N.H.** Variety, as a factor of intensification of flax growing branch // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.117–121.

The variety is a potent biological production assets flax production, as largely provides a high level of productivity and quality of raw, and also economies of power resources. Therefore most actual tasks as of today are solutions of a problem of application of competitive varieties and problems of a qualitative inoculum. In the article the state of the art of this problem in one of greatest flax sow of locales of Ukraine - Chernigov area is lighted.

UDC 633.521:636

**Kozub L.M.** Character of change of morphological, economic valuable and anatomical fiber signs depending on nutrition of individual fiber flax plants // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.122–126.

Results of comparison investigation of change of morphological, economic valuable and anatomical fiber signs depending on nutrition of individual fiber flax plants are given. It is proved, that better to grow plants in the nutrition are 2.5x5.0 cm for fiber quality increasing.

UDC 633.521:521.001.4

**Lohinov M.I., Kryvosheeva L.M., Chuchvaha V.I., Mukovoz V.Yu.** Investigation of samples of national flax collection for future using in breeding // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.126–130.

Results of investigation of 104 samples of Ukrainian national flax collection by economic valuable properties during 2002-2004 are given. Best samples by productivity, earliness, stability to diseases and lodging, fiber content are separated.

UDC 633.521:631.113

**Korotia K.Ya., Kulyk V.M.** Perspectives of herbicides use on fiber flax in conditions of climate change // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.130–134.

The article deals with literature overview of herbicides use on fiber flax and have results of 15 years investigation. Last investigation shows that because of climate change it is better use herbicides, which did not react on climatic change.

UDC 631.816.1:631.51.022:633.521

**Kozlyk T.** The effects of the basic and presowing soil cultivation and fertilization rates on fiber flax growth and development under the conditions of Ukrainian Polissya // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.135–139.

The paper presents the results of the investigations into the effects of soil cultivation and fertilization rates on fiber flax growth and development. The prospects for introducing alternative technologies of soil cultivation in combination with fertilizer rates optimal application are determined.

UDC 631.8:632.8:633.521

**Lokot A. Yu., Sadchenko Yu.V., Kornuta Yu.P.** Comparative estimation of effectiveness of different complex mineral fertilizers on fiber flax Hlinum variety // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.139–143.

Among many problems, which have to be decided, one is the activation of creation and assimilation of the innovative model of technological ensuring of agricultural production and flax growing also. In modern conditions of flax growing branch it is necessary not only create new technologies but they must increase recouperment energy resources but use of genetic variety potential also.

UDC 631.51:633.521

**Knyhnytska L.P.** Ways of main soil processing under the fiber flax sowing in conditions of Prykarpattia // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.144–147.

The article deals with results of investigation of ways of main soil processing under the fiber flax sowing in conditions of Prykarpattia.

UDC 632.954:633.521

**Kulyk V.M.** Influence of herbicides on yield and quality of flax fiber // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.148–153.

Results of investigation of the influence of different ways of herbicides use on the yield and quality of flax fiber are given.

UDC 633.522:631.354

**Hrydiakin V.O.** Investigation and grounding of parameters of separator of hemp harvesting combine K KU-1,9 // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.154–158.

The analyzing of the influence of kinematical parameters of separate combing apparatus of hemp harvesting combine K KU-1,9 on the quality indexes of its work is given.

UDC 631.365:633.521

**Koropchenko S.P., Hiliazetdinov R.N., Riabchenko O.P., Prymakov O.A.** Analyzing of reasons of long flax fiber waste // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.158–162.

The article dills with analyzing of main reasons of long flax fiber waste during the primary processing.

UDC 677.01.021

**Karmanov S.V., Valko P.M., Chursina L.A.** Investigation of conditions of flax raw material cleaning with use of pneumatic effect // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.162–167.

The article dills with results of investigation of pneumatic method of flax raw material cleaning for achievement of necessary cleanness of flax fiber.

UDC 633.521:677.11

**Zhuplatova L.M., Holovii O.V.** Influence of some factors on flax stock separation // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.167–172.

It is established, that console stems diameter and length are not influence on flax stock separation.

UDC 677.11.021

**Tolmachov V.S.** Use of modern computer technologies for statistic analyzing of bast fiber materials indexes // Collection of scientific work of the Institute of Bast Crops UAAS. – Edition 5. – Sumy: SOD, 2009. – P.173–183.

The article dills with results of statistic analyzing of indexes of the field and technological experiments with primary processing of bast crops using modern computer technologies.