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FACTORS AFFECTING ON RAPESEED PRODUCTION QUALITY IN UKRAINE.

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Factors affecting on rapessed (Brassica napus) production quality in Ukraine, including soil, climate, species, hybrid and agrotechnology, were analyzed. On quality of rapeseed oil the greatest impact have sowing date, fertilization, variety (hybrid), and weather conditions.

Brassica napus oleifera, rapeseed oil, soil-climatic conditions, factors of variety and agrotechnics.

Prospects for oilseeds in Ukraine due to further growth in gross fees seeds and its products. Among oilseed rape is one of the most valuable than oil content and potential for yield. Rape - an important source of cheap vegetable oil, high-quality meal. Its seeds contain 35-45% slabovysyhayuchoyi oil (Iodine number 101), 20-26% protein, 17-18% carbohydrates to. Oil of spring rape has excellent food quality, and is widely used in various fields of national economy. Oilcake (nyzkoerukovyh varieties) is a good animal feed and meal of the new "00" of sorts - and even high-protein ingredient for food [1, 3, 4].

Growing modern hybrid canola aims to increase qualitative and quantitative traits productivity seeds, their homogeneity and stability, high resistance against such adverse factors as pests and diseases, drought and excess moisture, and ultimately reduce the cost of cultivation, thus contributing to increasing economic efficiency [1, 5, 7].

The purpose of research - analysis of factors affecting the quality of production of rapeseed in Ukraine, namely soil-climatic, agronomic and genetic factors on the quality of the oil as final product.

Material and methods research. Investigation performed at the Department of Plant and R (NUBiP Ukraine) "Agronomic Research Station" (ADS) is located in the village. Wheaten Kyiv region in Right-bank Forest-steppe of Ukraine. Phenological observations, biometric measurements, counts, biochemical analysis and statistical data processing was performed using Excel program and by conventional methods [2].

Results. The number of solar radiation to obtain a guaranteed harvest of rape seeds required the sum of active temperatures of at least 2400 ° C, which is almost the entire territory of Ukraine [4]. With the amount of rain to produce products of winter rape important that the value of this index at the level of 500-700 mm, and in Ukraine it apart from much of Dry steppe zones with hydrothermal index of less than 0.7, and the Carpathian region and Carpathians, where precipitation exceeds 800mm and hydrothermal coefficient reaches 1.6 index 2.0.

Rape picky about soil fertility. The formation of one quintal of seeds it needs much more nutrients than crops. It grows well on the black earth, dark gray and gray forest soils, sod-podzolic and others. neutral or slightly acid from the reaction of soil solution (pH 6,6-7,2). Can grow canola and pH above 7.2 or below 6.6. Soils with a pH of less than 6 require liming. Unsuitable heavy clay, swampy subsoil layer of water-proof, because they insufficiently developed root system. Growing rapeseed na sandy soils Polesie largely depends on the availability of nutrients and moisture. Rape grows well in the desert, except saline soils. Most favorable for cultivation of this crop soils of forest-steppe [3, 5, 6].

Phosphorus, potassium and magnesium increases plant resistance to diseases and water stress. These elements increase the content of protein and fat.

Phosphorus also affects vypovnenist and provides seed evenly ripening. Nitrogen increased protein and fat changes the chemical composition of the fat. Strong influence on seed quality has sulfur, which increases the fat content, change the percentage of unsaturated fatty acids and results in increase of some exogenous amino acids. However, excessive dose may increase the sulfur content of glucosinolates.

In acidic soils is effective liming (4-6 t / ha), the yield from this ahrozahodu may rise by 20-25%. Rape responds well to make both macro and trace elements: manganese, boron, molybdenum, zinc and others.

Seeding, sowing method as their sowing have a significant influence in shaping the productivity of oilseeds cabbage family. Too high seeding rate facilitate stretching of the central shoot. Increased stand density during the growing season often lead to lodging of plants. As a result, there is a delay in flowering and seed nedostyhannya that cause seed quality deterioration and leads to loss of harvest. In addition, the increased density of standing crops of cruciferous creates ideal conditions for fungal diseases. On the other hand, sparse crops increase the risk zabur'yanennya.

Our research [3, 6] found that the oil content in the seeds of spring rape factor has a significant impact grade (50.4%), a variant of fertilization - 35.2%, and the rate of seeding plants (11.3%), which eventually forming area of supply, and thus indirectly linked with other factors.

Analysis of influence factors on the particle content of erucic acid rapeseed our studies showed that have the greatest impact in accordance fertilization and seeding rate of 70.2 and 15.5%. You can not also clearly emphasize the impact of seeding on the percentage of erucic acid rapeseed, but it should be noted that it is the smallest number was found in the samples, which were seeded the lowest rate of 0.8 million. Similar seeds / ha.

Conclusions.

In Ukraine, the domestic and foreign varieties and hybrids of rape enabling stable high quality crop seeds in different agro-climatic and soil conditions of growing resistance to adverse environmental factors and disease, receive products suitable for the production of rapeseed oil for the needs of different industries. Late sowing help to reduce the concentration of glucosinolates, and fertilization, harvesting time and storage features affect the quality indexes of rapeseed oil, in particular, the content of erucic acid value and acid number. The results should be used when planning the cultivation of rapeseed increased quality and competitiveness.

List of references

1. Вишневський П. І. Якість ріпакової олії та шляхи її покращення в процесі селекції / П. І. Вишневський // Збірник наукових праць (до 110–ої річниці заснування Вінницької обласної державної сільськогосподарської дослідної станції 1886-1996 рр.). – Вінниця: ВДАУ. – 1997. – С. 105 – 108.

2. Доспехов Б. А. Методика полевого опыта / Б. А. Доспехов. – М.: Колос, 1985. – 416 с.

3. Каленська С. М. Реалізація біологічного потенціалу агрофітоценозів ріпаку ярого в умовах Правобережного Лісостепу України / С. М. Каленська, Л. А. Гарбар, В. Г. Носенко // Науковий вісник НУБіП України. - 2011. – Вип. 162. Режим доступу: http://elibrary.nubip.edu.ua/11572/

4. Лихочвор В. В. Ріпак ярий та озимий / В. В. Лихочвор. – Львів: НВФ Українські технології, 2002. – 48 с.

5. Наукові основи агропромислового виробництва в зоні Лісостепу України / Під ред. М. В. Зубця. – К.: Логос, 2004. – 776 с.

6. Носенко В. Г. Особливості формування продуктивності ріпаку ярого в умовах Правобережного Лісостепу України: автореф. дис. на

здобуття наук. ступеня канд. с.-г. наук: 06.01.09 / В. Г. Носенко. - К., 2011. — 19 с. Режим доступу: http://elibrary.nubip.edu.ua/7849/1/_21.06.pdf

7. Рапс / Под общ. ред. Д. Шпаара / Мн.: ФУАинформ, 1999. – 208с.

8. Якість насіння гібридів і сортів ріпаку озимого залежно від строків сівби [Я. Гойсалюк, В. Лихочвор, О. Шавалюк, А. Демчишин] // Вісник Львівського національного аграрного університету. – Сер. Агрономія. – 2013. – № 17(2). – С. 19-26. – Режим доступу: http://nbuv.gov.ua/j-pdf/Vlnau_act_2013_17(2)__6.pdf