

THE YIELD CAPACITY AND ECONOMIC EFFICIENCY OF SPRING OILSEED CROPS CULTIVATION AND FERTILIZERS INFLUENCE ON SPRING FALSE FLAX PRODUCTIVITY

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The urgency of search of perspective niche oilseed crops is shown. Expanding of sown areas will reduce the saturation of crop rotation by sunflower and cereals. One of the main biological characteristics of false flax is a short growing season, which is 70-85 days. It can be successfully grown in all soil-climatic zones of Ukraine. The purpose of research - is to compare the yield potential of spring oilseed crops and improve cultivation technology of spring false flax. The scheme of experiment included the following crops and varieties: Spring false flax - Girskiy and Mirage, spring rape - Dobrobut, Ataman, mustard white - Carolina, Brown mustard Novynka, oil radish - Raidugg and Zhuravka, flax oil - Aisberg and Orpheu. The influence of fertilizers rates ($N_{40}R_{20}K_{40}$, $N_{60}R_{30}K_{60}$, $N_{80}R_{40}K_{80}$, $N_{100}R_{50}K_{100}$, $N_{120}R_{60}K_{120}$) on the yield and quality of seed false flax was also studied. Methods - are field experiments and laboratory analyzes.

The studies found in the western forest steppe on dark grey soils the highest seed yield of spring oilseed rape provided spring rape - 2,45 - 2,50 t / ha. Somewhat lower yields in flax and false flax - respectively 2.16 - 2.25 and 2.18 - 2.23 tons / ha. As to the other crops the seed yield was significantly lower.

The yield of false flax seed of the varieties Mirage under the fertilizers influence from increased from 1.28 t / ha on the variant without fertilizers up to 2.44 t / ha on the variant with the application of $N_{120}R_{60}K_{120}$, increased by 1.16 t / ha, or 90.1%.

The flax is oil content characterized by the highest oil content the oil - 51.5%. In other cultures Oil content was significantly lower. It should be noted that white mustard seeds had the lowest oil content 40,6% as to the oil radish and spring rape the oil content increased up to 43,2 and 43,8 % respectively, it was

higher comparing with mustard by 2,6% and 3,2%. Oil content in the seeds of false flax increased compared with white mustard by 3.7% and amounted to 44.3%. Among oil cabbage family the highest oil content had Brown mustard - 45.8%.

The lowest content of glucosinolates (20.4 and 21.5 mmol / g) was in spring rape and false flax, so these oil crops are used as food. In linseed oil the glucosinolates available. In oil oil radish white, mustard and sareptskoy, mustard their content exceeds the permitted limit.

Raising standards of fertilizers $N_0P_0K_0$ leads to $N_{120}R_{60}K_{120}$ to reduce oil content from 47.2% to 42.4%.

During intensive cultivation technology of false flax the Mirage, at the fertilizers rates of $N_{120}P_{60}K_{120}$, the net profit increases to 22288 UAN. The most indicators of economic efficiency obtained during false flax and flax, growing profit was respectively 21750 and 21450 UAH / ha and the profitability was - 181 and 179%.

Prospects for further research should focus on other elements optimizing of intensive cultivation technology of false flax.