

JUSTIFICATION OF GROWING TECHNOLOGY ELEMENTS OF OIL LINSEED IN TERMS OF FOREST- STEPPES OF STEPPES OF WESTERM

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Fats of individual species are characterized by high levels of quality. Thanks to valuable chemical composition, they can be successfully used for food and medicine needs.

Flax oil can be used in clinical nutrition of patients with disorders of lipid metabolism, atherosclerosis, coronary heart disease, hypertension, diabetes, liver cirrhosis, hepatitis, fatty liver and others. The presence of two essential acids in flax oil – linoleic and linolenic makes it biologically valuable food product.

One of the main principles of providing high yields is the correct application of the basic laws of scientific agriculture and plant growing indispensability equivalence factors and plant life, so it is impossible for each desired plant factor (heat, water, light, power, etc.) replaced by another, and growing new crops in certain soil and climatic conditions we should thoroughly examine compliance with these conditions to biological needs of the plant.

Our studies demonstrated feasibility of growing flax oil in the terms of western forest-steppes. Flax yield was dependent on the conditions of the year, and on causal factors including: row spacing, seeding rate and method of harvesting.

The maximum yield of flax oil 2,24 t / ha in average for years of research was obtained by seeding with 15 cm of row spacing and seeding rate of 70 pc. per meter linear for single-phase method of harvesting.

By the criterion of Duncan it was found a significant difference between the variants of research on row spacing factor. Thus, variants with a width between rows 30 and 45 cm were in one homogeneous group that between averages of yield 1,35 and 1,09 – the difference is insignificant, while variants with row spacing of 15 cm (average yield was 2,08 t/ha) differed significantly from wide-row and were in the second homogeneous group. As to the effects of seeding rate of flax oil seed,

mathematical analysis showed insignificant influence of this factor on yield, average values which were in a homogeneous group.

The method of harvesting is also an important factor in growing flax oil. We have established feasibility of single-phase harvesting of flax oil to use seed or oil for medical purposes. The difference between the variants of single-phase method of harvesting and two-phase method ranged 0,9-0,22 tons/ha.

The calculations of the economic efficiency of cultivation of flax oil have shown that the cost of growing cultures were within 1801-2164 UAH/ha, which returned expenses by yield that provided obtaining of conditional net income 6479-9399 UAH/ha. Seeding rate, row cultivation and harvesting methods affect the magnitude of the differences in expenses between the variants.

For single-phase harvesting of flax oil it was obtained higher returns compared to two-phase. This is justified by the higher yields and lower costs for growing crops. The maximum conditional net income (9399 USD/ha) was obtained by seeding a continuous row method (15 cm) and seeding rate similar 70 seeds per meter of row or 4,666 mln. pc./ ha. Minimum income from sowing with row spacing of 45 cm and seeding rate of 70 seeds per linear meter and two-phase method of harvesting was 2086 USD/ha.

In a nested hryvnia for implementing measures studied are available from 96 kopecks to 5 hryvnias 21 kopecks of profit, that all variants are profitable.

So that flax oil is highly profitable and it is suitable for growing in the western steppes. When sowing with row spacing of 15 cm, seeding rate of to the 70 similar seeds per linear meter for single-phase method of harvesting conditionally net income totaled 9399 UAH/ha, and the level of profitability – 521%.