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**THE PRODUCTIVITY OF WINTER RAPE
DEPENDING ON DATES, METHODS OF SOWING
AND SEEDING RATES**

The interest of production workers in winter rape is ensured by high profitability and crop rotation factor (improves the phytosanitary condition and structure of the soil, expands the composition of winter crops forecrops, enriches the soil with organic matter etc.), which contributes to the stability of cultivation areas in Ukraine. This culture also solves the important problem of agriculture in providing the population with vegetable oil and protein. The increase in the specific gravity of rape in structure of oil raw material production is due to the growth in demand for rapeseed oil, not only from the point of view of satisfying food needs, but primarily the high growth rates of its use for biofuel production. The activation of global market demand for rape seed is associated with development of alternative bioenergetics.

It has been established that in the zone of concentrated winter rape cultivation of the western Forest-Steppe the provision of crops with warmth and moisture during autumn is an important factor affecting the growth and development of plants, the passage of organogenesis phases and promotes of plants hardening. The most important of the agrotechnical measures are dates, methods of sowing and seed sowing rates. These agronomic activities affect the density of standing plants on unit area, their growth and development in autumn period, infection by disease, wintering, and ultimately productivity, since all generative organs are laid in the early stages.

The data of scientific research (2016–2018) on the impact of dates, methods of sowing and seed seeding rates on the productivity of winter rape in conditions of the western Forest-Steppe are given. It has been established that, in comparison with the optimum sowing date (10–20.08) with an admissible one (20–30.08) decrease in yield of winter rape seeds was within the range of 0,08–0,17 t/ha, and in the late stage (01–10.09) – 0,23–0,34 t/ha. According to the optimal time of sowing with ordinary row method for width between rows of 30 cm and the wide-row (45 cm) variety Smaraht formed an equal seed yield of 4,60 t/ha, high productivity of Pehas, Solo, Stilutsa cultivars in the wide-row sowing method (45 cm) – 4,58;

4,50; 4,48 t/ha. Such a pattern was observed for permissible and late sowing date. For Smaraht cultivar the seeding rate is optimal 0,8 million germinated seeds/ha for ordinary row sowing method (30 cm), and for Pehas, Solo, and Stilutsa varieties – 1,0 million germinated seeds/ha for broad-row one (45 cm).