

**O. VAVRINOVICH, O. KACHMAR, L. MAGOTSKA**

Institute of Agriculture of Carpathian Region of NAAS

**Z. KOTYK**

National University "Lviv Potitechnics"

## **IMPACT OF SOIL TILLAGE ON WEED INFESTATION OF WINTER WHEAT CROPS**

On weed infestation of winter wheat have influence both ways of soil processing and levels of fertilizer. If you increase the latest and the transition from moldboard to without-moldboard and reduce of the depth phytosanitary condition of crops deteriorates.

In crops of winter wheat, seeded after vetch-oats, in the phase of tillering, and the period of culture harvesting a smaller number of weeds was on the variants of plowing on 20–22 cm. Thus, in 2015, the number of weeds in these backgrounds in the phase of tillering was 148–208 pieces/m<sup>2</sup>, during the harvest 84–108 pieces/m<sup>2</sup>. Reducing the depth of plowing resulted in higher levels of contamination, and for phases of plant growth, its proofs were was 99–145 and 200–280 pieces/m<sup>2</sup>. The comparison of different-depth ploughing is showed a greater amount of the formation of the air-dry weight of weeds at lower depths of slice turning. So, in 2015 when plowing at 14–16 cm, this figure was within 89,8–112,4 g/m<sup>2</sup>, and for processing at 20–22 cm – respectively at the level of 62,2–95,4 g/m<sup>2</sup>.

The number of segetal vegetation was significantly lower after clover than after vetch-oat. When carrying out ploughing at 20–22 cm, the level of contamination was within 136–205 pieces/m<sup>2</sup> in the period of tillering and 49–70 and pieces/m<sup>2</sup> at harvest. Reducing the depth of plowing to 14–16 cm led to an increase in this indicator respectively by phases of vegetation to the level 215–252 and 76–92 pieces/m<sup>2</sup>, and the replacement of moldboard operations on without-moldboard (disking at 14–16 cm) – to 224–268 and 84–114 pieces/m<sup>2</sup>.

The reserves of weed seeds in the soil in winter wheat was high after vetch-oat for the ploughing of 20–22 cm – 24,7–27,7 thousand pieces/m<sup>2</sup>, after clover – 23,8–25,1 thousand pieces/m<sup>2</sup>. When disking at 14–16 cm seed bank of weeds grew up and amounted to 21,3–23,9 and 18,6–19,9 thousand pieces/m<sup>2</sup>.