

A. VOLOSHCHUK, A. RASPUTENKO

Institute of Agriculture of Carpathian Region of NAAS

**FEATURES OF AUTUMN DEVELOPMENT
PLANTS OF WINTER RAPE DEPENDING
ON DATES, METHODS OF SOWING AND SEEDING RATES**

The data of scientific research (2015–2017) with features of the structure formation of plants at the time of the termination of autumn vegetation with winter rape varieties are presented. It was confirmed that the dates, methods of sowing and seeding rates have a direct influence on the height of the plant, the length of the root system, the diameter of the root neck and its height above the soil level.

It has been established that in the zone of concentrated winter rape cultivation of the western Forest-Steppe providing with heat and moisture of sowings is an important factor affecting the growth and development of plants, the passage of organogenesis phases in autumn and contributes to their hardening.

The most important from the agrotechnical measures are the dates, methods of sowing and seeding rates. These agronomic activities affect on the density of plants standing per unit area, their growth and development of plants infection by disease, wintering, and ultimately on productivity, since all generative organs are laid in the early stages.

It has been proved that with optimal and acceptable seeding dates, the duration of plant development is longer and than the temperature regime is higher, therefore the best conditions for the rosette formation (8–10 leaves), of the root diameter (1,0–1,5 cm) and its height above the soil level (up to 3 cm) in comparison with late terms.

The ordinary row method of sowing with width of rows 30 cm compared to 15 cm at the seeding rate of 8,0 mil. germinated seeds on ha provides the best development of plants at the time of the termination of the autumn vegetation.

Due to the larger plant feeding area, the wide-row seeding method (45 cm) at the seeding rate of 8,0 mil. germinated seeds on ha promoted the best development of plants.

Response of the variety on the dates, methods of sowing and seeding rates was different, in particular, the height of the plants – 3 %, the length of

the root system – 7, the absolutely dry mass of the plant – 10, the diameter of the root neck 13, its height above the soil level 2 %.