

**M. CHOMIAK**

Institute of Agriculture of Carpathian Region of NAAS

## **STUDY OF ORCHARD GRASS VARIETY-SAMPLES FOR HAY AND PASTURE USE**

The basis of a strong and valuable fodder base for livestock in Western Ukraine are perennial grasses. Among perennial grasses the most potential opportunities celebrated orchard grass (*Dactylis glomerata* L.). Latin genus name is derived from the Greek word that meaning finger (inflorescence finger-similar). It characterized with good aftergrowth after cutting and grazing. Complete development it reaches on 2–3 year of life, in grass stand held on 5–6 years or more. One of the most effective methods to increase crop yields, resistance to biotic and abiotic environmental factors are genetic improvement of plants and new varieties.

The study was conducted in the laboratory breeding of herbs IACR of NAAS (zone of Precarpathians) on drained with pottery drainage sod medium podzolic surface gley average-acid loamy formed on diluvial deposits soils. The main attributes on which selection and assessment is made of plant breeding material are good leafing, high productivity and feeding value, hardiness, longevity, rapid regrowth of vegetation after mowing and grazing and plant resistance to disease. Agrotechnics on research areas – is common for areas of Precarpathians. Meteorological conditions during the research were characterized by considerable diversity.

Research on dates mowing of orchard grass was conducted on the background N<sub>45</sub>R<sub>45</sub>K<sub>45</sub>. In terms of experience the spring regrowth of orchard grass was observed within 12.03–16.04. By the end of May (1st term of mowing) it reached 56,3 cm, while daily gain was 1,61 cm. High growth rates it keeps for a long time. The highest growth rate was observed in phase of full earing and until flowering. Within 15 days of the period in standard growth was 21,4 cm, and in late maturing variety-samples – 16,5 cm.

Regrowth of orchard grass plants after cutting distinguished from the spring and depended on the timing of the first cutting of the mowing. The earlier cutting of herbage in the first mowing, the more intense held the regrowth. After the second cutting it was less intense than spring and after the first mowing. Green mass of the third and subsequent mowing consisted of some leaves.

On average, accounting for two years in competitive strain testing 4 breeding numbers of orchard grass with hay and pasture use significantly exceeded the standard for yield of fodder and seeds. They provided a green mass yield 45,20–53,83 and 32,55–35,09 t/ha, dry matter of 10,72–12,08 and 7,64–9,12 t/ha, seeds of 0,335–0,490 t/ha, respectively 10,1–31,2 and 27,1–37,0 %, 12,6–26,9 and 51,9–81,3 %, 4,7–53,1 % more than the standard v. Drohobychanka.

When cutting the first mowing in phase outlet in tube orchard grass generates three full mowing, thus achieved an even distribution of green mass during the growing season.

Summing up the two-year studies on different numbers of breeding number of orchard grass with hay and pasture use can state that they have formed the dissimilar level of yields and their growth relative to the standard and represent different types of use with varying length of the growing season.