UDC 633.13:631.52

A. DATSKO
Institute of Agriculture of Carpathian Region of NAAS

ADAPTIVE PECULIARITIES OF OAT SAMPLES DIFFERENT ECOLOGY-GEOGRAPHICAL ORIGIN

An aim our investigation was to established the adaptive features of collection material for yield and basic productive traits (grain mass in panicle, grain quantity in panicle and productive bushiness).

It was conducted study of 33 oat samples different ecology-geographical origin. All investigated samples belonged to hexaploid species Avena sativa L. These samples descended from countries of world, namely, Ukraine, Poland, Belarus, Latvia, Russia, Portugal, Great Britain, Canada, Kazakhstan, Sweden.

The investigation was conducted on fields of laboratory breeding of grain and fodder cultures of Institute of Agriculture of Carpathian Region of NAAS in 2012–2014. The obtained data were processed by dispersive analysis for B. A Dospechov. Dispersive and regressive analyses which grounded on Eberhart – Russel methods were used for estimation of ecologic plasticity and stability.

The samples Rajtar, Zirkovy, Parlamentsky and Arman were manifested high-yielding and high-plastic. For stability variance 16 samples were high-stable, with them Rajtar, Zakat and Zirkovy were high-yielding and stable. Rajtar, and Zirkovy were manifested high-yielding, high-plastic and high-stable.

The samples Cwal, Orion, Arab, Rajtar, Slavutych were characterized by very large mass of grain in panicle (more 3g). Among given samples only one sample showed as high-plastic (Cwal), as high-stable – Cwal, Arab, Rajtar. The sample of Poland origin was as high-plastic so as high-stable.

The very large quantity of grain in panicle was observed (more 90) in samples IZO-14, Bohun, Hetman, Cwal, IZO-23, Arab. The high-plastic sample IZO-13 and high-stable Hetman were showed among samples with very large quantity of grain in panicle. These samples can be recommended as initial material for breeding on adaptivity.

In our investigation 10 variety-samples have increasing productive bushiness (more 2 stems/plant) : IZO-22, IZO-14, IZO-8, Arhamak, IZO-20, Rajtar, Zakat, Desniansky, Parlamentsky, Zirkovy, IZO-14, IZO-8, Zakat, Desniansky, Parlamentsky were manifested as high-plastic for these

trait (bi>1,25). IZO-8, Arhamak, IZO-20, Rajtar, Zakat, Desniansky, Parlamentsky, Zirkovy were as high-stable (Si^2= 0-1). The samples IZO-8 and Zakat were better for productive bushiness and plastic, stable manifestation this trait.