

CZU: 631.531.02

AGROBIOLOGICAL EVALUATION OF INTRODUCED VARIETIES OF SEED CROPS IN THE CONDITIONS OF THE VOLGOGRAD REGION

Rîbintev Alexandru¹, Popa Sergiu², Rîbintev Ion²

¹*Volgograd State Agrarian University, Federal State Budgetary Educational Institution of Higher Education, Volgograd, Russia*

²*Technical University of Moldova, Chisinau, Republic of Moldova*

E-mail: rybintsev.00@mail.ru

Planting industrial gardens with introduced seedlings makes it possible to create highly productive fruit plantations

The objectives of this research are to select varieties of fruit crops, determine their productivity and closely relate them to environmental conditions to determine the ecological potential of the studied crops in a particular place.

The research methodology is based on the integrated use of field and laboratory methods of working with fruit crops. The experiment was started in the spring of 2017 with apple tree varieties on M rootstocks; MM-106. Florina, Gala, Idared and pear varieties on rootstock BA-29 Lyubimitsa Klappa, Conference, Curé. Planting pattern 5x3 m, chestnut soil, drip irrigation, 3-fold repetition.

Phenological observations of apple and pear varieties make it possible to determine the length of the growing season of each studied variety and establish the degree of correspondence of the period to its growing season. An apple tree variety sufficiently resistant to powdery mildew - Florina - has been identified. The most damaged variety is Idared. The Idared variety is also resistant to brown spot. But it has almost no resistance to scab and powdery mildew. Florina is resistant to monilial burn and immune to scab. The overall assessment of the apple tree's protection from diseases is high. Rust affects only when there is a deficiency of potassium and phosphorus. It is possible to identify the potential yield of a variety only against the background of high agricultural technology. The best variety is the one that combines high yield and good quality fruit. For the Gala variety, the average fruit yield per tree was only 20.2 kg, while in favorable years this variety produced 35-40 kg per tree. For other varieties, the yield was slightly higher: from 24.3 kg for the Florina variety, to 28.0 kg for the Idared variety. But this is also below their possible potential.

The pear variety Clapp's favorite had a maximum weight yield of 48.5, while the Conference variety had the lowest yield, which was 25.7. But this is also below the possible potential.

Keywords: diseases, harvest, feedings, light, moisture, phenology, soil, varieties of fruit crops.