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GROWTH AND PRODUCTIVITY PARAMETERS OF CLONES R5 CABERNET SAUVIGNON VARIETY AND 348 MERLOT VARIETY IN AGROECOLOGICAL CONDITIONS OF ATU GAGAUZIA

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Abstract. The results of studies devoted to the characteristics of growth and productivity of clones R5 Cabernet Sauvignon variety and 348 Merlot variety in agroecological conditions of ATU Gagauzia. Studied the of optimal ecological parameters for the cultivation of European clones of grapes, which make it possible to make full use of their agrobiological potential in the ATU Gagauzia.

The territory of ATU Gagauzia is located in the Budjak steppe, which is part of the southern Moldavian hilly plain. The relief is characterized by steppes and small hills. The climate is temperate continental. In winter, the air temperature is unstable. Frequent thaws and frost-free days have a negative effect on grape plants, often renew vegetation.

Research was carried out on vine plantations grafted on BxR Kober 5 BB, planted in 2006 to the scheme 2.5m x 1.35m, on carbonate thick loamy chernozem in SC "Tomai-Vinex" SA farm. The form of the bushes double-sided two-bolt horizontal cordon according to I.V. Mikhailyuk. Growth is maintained on a vertical single-plane trellis.

During the period of full fruiting (2015-2021), the average load of bushes by shoots, depending on the strength of the growth of bushes, changed over the years of the study and is 28.1-31.6 pcs./bush on clone R5 Cabernet Sauvignon, on clone 348 Merlot 25.3-28.8 pcs./bush.

The productivity of grape plantations consists of the number of developed shoots (pcs./ha) and their productivity, which directly depends on the average weight of bunches. At the same time, the nature of the growth of bunches and their productivity depends on the complex of meteorological conditions (precipitation, temperature) that change over the years.

The productivity of the shoots of the clone R5 Cabernet Sauvignon varies within 68.8-154.5 g/shoot; clone 348 Merlot 98.9-230.8 g/shoot. A large variation in the productivity of shoots depends on the growing conditions. In meteorologically favorable years (2016-2018), shoot productivity is 154.2-160.6 g/shoot (Cabernet Sauvignon Cl R5) and 221.7-230.8 g/shoot (Merlot Cl 348). In these years, the yield of plantations is 142.5-149.8 c/ha (Cabernet Sauvignon Cl R5) and 180.8-191.2 c/ha (Merlot Cl 348).

In subsequent years, there is a sharp change in weather conditions associated with a decrease in precipitation and an increase in average monthly temperatures (soil-air drought). Under these unfavorable conditions, the productivity of shoots in the studied clones decreases by 2.2-2.3 times and the yield of plantations decreases to 48.6-59.4 c/ha (2020). A direct correlation between the productivity of shoots and the amount of precipitation and an inverse correlation between the productivity of shoots and average monthly temperature indicators have been established.

Keywords: Clone, Development, Fruiting, Grape, Productivity.