

Application of Gibberellin on Table Grapes Varieties Under The Conditions of The South of The Republic of Moldova

Antonina DERENDOVSKAI*, Dmitri MIHOV, Silvia SECRIERU

State Agrarian University of Moldova, Chisinau, Republic of Moldova

* antoninad@rambler.ru

Abstract

Were carried out production tests of the action of gibberellin (GA₃) on the morphological and biological indicators and productivity of some table seed grape varieties in the soil and climatic conditions of the southern zone of the Republic of Moldova. Research conducted in the SRL «Terra-Vitis» of the Cahul region, on zones varieties Cardinal, Codreanca, Muscat Hamburg, Presentabil (Avgustin), grafted on rootstock Berlandieri × Riparia SO₄ (BxR SO₄). We used the preparation Gobbi Gib 2LG, of the company LGobbi SRL Italia, the active substance of which is gibberellin A₃ (GA₃ - 2%). The treatment of inflorescences with gibberellin at doses 50 ppm, was carried out at the stage of post-fertilization (3-5 days after flowering), with a diameter of berries of 3-5 mm, locally (only the inflorescence zone). It is shown that the use of gibberellin on the studied grape varieties leads to a change in the morphological parameters of bunches, berries and productivity of the varieties. There is an increase in the size and mass of clusters, berries in the cluster and ridge. Due to the increase in the mass of the ridge, occurs decrease in the index of the structure of the bunch (the ratio of the mass of pulp to the mass of the ridge). Under the action the influence of gibberellin in seed grape varieties, the number of berries in the bunch increases. In berries, the number of seeds decreases and the seed index increases (the ratio of pulp mass to seed mass) up to 2 bout, depending on the variety. In the juice of berries in varieties of early ripening (Codreanca, Cardinal, Presentabil), the sugar content increases and the concentration of titratable acids changes. There is an increase in the yield of varieties and planting productivity in 1.3-1.5 bout, compared with untreated plants. At the same time, in some varieties (Codreanca) when using gibberellin, the transportability of bunches decreases due to the weak attachment of berries to the crest and their shedding.

Keywords: Grapes, Table varieties, Gibberellin, Preparation GobbiGib 2LG, Productivity