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INVESTIGATION OF PLUM REPRODUCTIV SYSTEM DEVELOPMENT RELATED TO BIOTEHNOLOGICAL APPLICATIONS

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As a result of preventive investigation and pomological evaluation of plum (*Prunus domestica* L.) within variable micro-climatic conditions of Republic of Moldova where selected for biotechnological experimentations 4 varieties (Udlinenaia and Super President, created in RPIHAT), as well as Stanley and President (introduced) with late fruits maturation. Scope experimental investigations there are fresh plum fruits capacity of prolongation preservation period within controlled conditions. Biologic stimulator and experimented microelements (Reglalg and complex of microelements (B, Zn, Mn, Mo), as well as $CaCl_2$ where applicated during intensive leaves growing, initial period of fruit development and within the final stage of fruits pulp development. There was evaluated favourable influence regarding flower bud initiations, as well as integral development of reproductive system.

As a result of 3 early repeated treatments there where noticed growth of resistance to droughts conditions, including qualitative heterogeneity of flower structures development during winter and spring periods, flowering processes (quality of pollen and embryo sac development, efficient period of pollination). As well as there where noticed a better correspondence of flowering and pollination of introduced varieties with registered ones for industrial culture in the frame of Rep. Moldova. But the most important results there are reflected on stimulated quantity and qualities of developed late plum varieties, needed for prolongation of future preservation.

There what it is possible to concluded that noticed biotehnological applications there are important for stable homeostasis manifestation during whole period of reproductive structures development, including fruits formation.

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