

Study of self_compatibility and self_incompatibility of important sweet cherry cultivars of Iran

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The knowledge based on previous research shows that most of sweet cherry cultivars are self-incompatible and cross incompatible. In order to carry out breeding programmes this is important to have knowledge on self- and cross fertility of sweet cherry cultivars. The objectives of present research was to determine self- and cross compatibility of some important sweet cherry cultivars in Iran. This experiment were carried out on 12 sweet cherry cultivars in the Kamal-Abad research orchard of Seed and Plant Improvement Institute (SPII). The chosen cultivars were: Sorati-Lavasan, Mahaly-e-Karaj, Siaha-Zoodras, Mashhad, Haje-Yosefy, Shoaosaltaneh, Hybrid-Nol-Karaj, Ghazvin, siah-Daneshkadeh, Sejid-Rezaeieh, White-Red-Baghno and Napoleon. Selected shoots were protected with cotton tissue bag before anthesis and in flower bud balloon stage. Initial and final fruit sets were measured 2 and 5 weeks after full bloom respectively. Note that in each studied cultivar 50 to 80 flower buds in each shoot were chosen in 3 replications. Results showed that all studied cultivars were self_incompatible except cultivar White_Red_Baghno showed only 3% self_compatibility.