

SWEET CHERRY POLLINATION

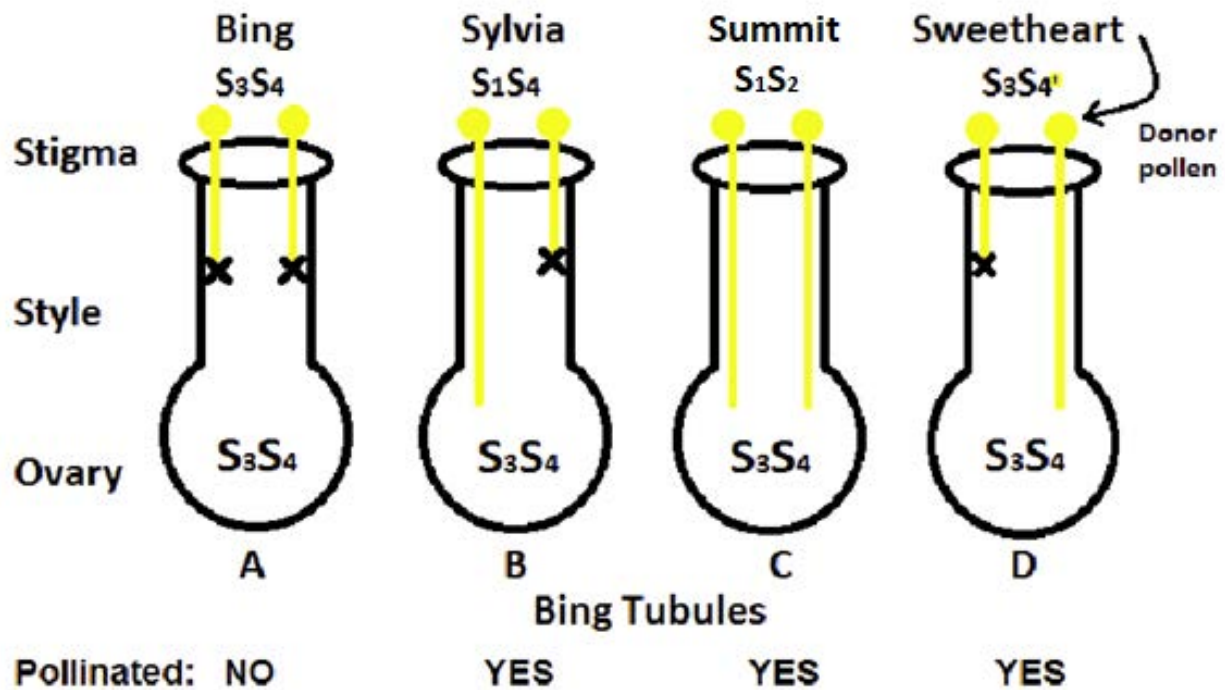


Figure 1. Sweet cherry pollen compatibility. Four Bing tubules matched with four cultivars; Bing, Sylvia, Van and Sweetheart. (A) Bing cannot be fertilized with pollen from another Bing flower as it is non-self-fertile, at least one allele must be different that either S_3 or S_4 to pollinate Bing. (B) The second Bing pollen tube is fertilized. The first allele of Sylvia S_1 is different than the first allele of Bing S_3 ; only one difference is required for successful pollination. (C) The alleles of Bing are completely different than those of Van, pollination is once again successful. (D) Sweetheart has a 4' (four prime) allele, which is known as a universal donor. Cultivars with a 4' allele are self-fertile and can be used to fertilize all other compatibility groups, therefore Bing would be pollinated by Sweetheart here.