

Investigation of different types of persian walnut dichogamy

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In this investigation the objective is to determine the pollinizer genotypes and the best of them for reciprocal conformity on 411 persian walnuts with 17 determined characters such as, the date of the growing of staminate flower bud, date of pistillate flower bud appearance, leafing date, dates of beginning, peak and end of pollination and pistillate receptivity, Susceptibility to cold, male floribondity, type of flowering fruit weight, fruit shape, shell thickness, shell texture, shell, seal, kernel weight, kernel percentage, kernel colour and kernel plumpness.

On the base of the type of dichogamy and desired characters which mentiend above, the best genotypes were introduced.

The date of pistillate receptivity from early to late flowering genotypes in population were about 20 days. The average of pistillate receptivity i each genotype were about 6 days. And also the date of pollination in the population were about 15 days, and the average of pollination in each genotype were about 5.6 days.

From the all genotypes 20 of them (4.8%) had not male flower, 199 genotyps (48.4%) were protandrous or relatively protandrous and 192 genotypes (46.7%) were protogynous or relatively protogynous, non of them showed homogamous form.

In 67 genotypes(16.7%) the date of pollination either early or very late or even very short were not effective in pollination of the population, the rest which about 324 genotypes(78.8%) recognized as a pollinizer for one or more genotypes. More than 90 pairs of genotypes (one protandrous and protogynous) with reciprocal pollination conformity were found. Which 28 pair with desired botanical and pomological characters with high fertility and fruit set also were found. So it is possible for us to multiply those genotypes vegetatively and establish the high yielding, homogenous and most economic orchards