Influence of the first fruit set on further flowering and fruiting of Passionsfrucht (Passiflora edulis)

Morteza Daneshkhah

Karaj Junior Agricultural College

The influence of the first fruit set on the subsequent flowering and fruit-bearing of Passiflora f.edulis x Passiflora edulis f. flavicarpa hybrids was investigated by the periodic removal of blossom and fruit from the plants. In this experiment, conducted under greenhouse conditions between 15th May and 5th August 1986 in Berlin Dahlem, either the blossom (immediately) or the fruit (after 7,14,21 and 67) was removed from the plants.

The removal of fruit after 67 days was taken as a control treatment. Blossom and fruit removal had relatively little effect on vegetative development. Shoot-length, leaf-number and leafsize were in the highest rate when the blossom was removed immediately.

The first two parameters were at their lowest when the fruit was removed after 21 days, while the smallest leaf size was recorded with the untreated control plants (67 days).

Dry matter accumulation was greatest in the stems when blossom was removed, and in the leaves when the fruit was harvested after 7 or 14 days.

In this experiment, the removal of blossom and fruit at different stages and no differential effect on further development of blossom and fruit; in all cases there was no further flowering.

The treatments had no significant effect on the number of buds, open blossom and fruit formed. However the fruit set was somehow higher in the 7-day treatment than the 21-day treatment.

The plants with no fruit or with 7-days old fruit had the lowest net assimilation rate, while the control plants had the highest rate.

The different treatments had hardly any effect on mineral contents (N, P, K, and Mg) in the vegetative organs, The mineral content of the fruits decreased, with the exception of potassium, as they ripened.