

Pruning of Fruit trees

I am the true vine, and my Father the wine-grower. Every branch in me that bears no fruit he cuts: and every branch which has fruit, he prunes to give more abundantly. “- John 15:1-2.

The origin of pruning as a cultural technique is lost in time. Probably arose from observations of the first farmers, who noted that plants which had cut the branches, either by animal bite or natural event had a singular development, different from plants not pruned. Nowadays pruning is a technique of fundamental importance to the cultivation of some fruit as the vine, peach and less important to others as citrus and avocado.

The word “pruning” comes from the Latin *putare*, which means clean, cut, chop, shed. The act of pruning, manually or mechanically, consists of simple operations which are summarized in deletions and cuts plant parts such as stems, branches, leaves, roots, flowers and fruits. However, the phytotechnical concept, in the art of growing plants, especially perennial, pruning is considered a cultural technique used to alter the natural development of the plant.

Didactically we can consider being three objectives to be achieved through pruning: reshape, control production and maintain the vigor and the health of the plant.

Plants in natural conditions, without suffering pruning feature a massive canopy and the interior is dense and shaded. One goal of pruning is to change the architecture of the plant in order to make it smaller, with more ventilation inside the canopy. Growing smaller plants facilitates the cultural practices, allows increasing the planting density and hence getting greater productivity. This pruning is performed in the first year of cultivation and may be associated with the branche inclination techniques and support systems. When pruning meets this goal is called formation pruning.

Generally the unpruned plants exhibit alternating crops, in other words, years with high production followed by years of low production. Its fruits are smaller and are located on the periphery of the canopy, often in inaccessible places. The pruning to control production aims to balance the number of fruit and vegetative development. This pruning is called of production or fruiting.

Another objective to be achieved is the maintenance of health, vigor and shape of the plant. They are operations of removing infected, weak or very vigorous branches and always being careful to keep the plant in the space given to it. It is performed mainly in adult plants in the process of vegetative rest. This pruning can be called of maintenance, but in agronomic means is best known as cleaning pruning.

Formation, production and cleaning pruning can receive different names according to the time in which they are performed (winter and summer pruning), with the plant leafiness (dry pruning and green pruning) and their intensity (heavy pruning, renewal, framing, etc). The name of the type of pruning is less important, because what really matters is the purpose with which it is held. It should be emphasized that the purpose of these prunings are not achieved with only one action, but rather a sequence of operations (pruning, blunts, thinning of flowers and fruits, among others) during plant development.

Do not fit as phytotechnical pruning those carried out for other purposes. For example, in urban trees are often made in order to prevent branches from coming into contact with the electrical grid, which although necessary, should not be considered as phytotechnical pruning.

The technique of pruning and the knowledge of some basic principles of physiology and morphology of plants and their interaction with the environment of cultivation, associated with cultivation techniques of fertilization, irrigation and use of plant growth regulators allow the growers to control the development of several fruit trees, making them produce in nontraditional regions and seasons.