

Starting an Avocado Orchard

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It is of paramount importance that the beginning of an efficient avocado producing enterprise be based on sound judgment in the selection of a site with satisfactory climatic conditions, good soil and water, quality trees and careful orchard management.

Selection of a Site

It is necessary in the growing of any crop to have as nearly as possible, ideal weather conditions for the growing of that crop. Avocados do best where the humidity is not too low, where there is little wind and in areas where the early spring mean temperature is conducive to fruit setting which appears to be 55 degrees or above. It is desirable also to grow avocados where the minimum temperature does not go below 29 or 30 degrees, otherwise heating maybe necessary. An adequate supply of good quality water is a necessity. It is important that the soil have good penetrability with no clay horizon, or hard pan which may prevent good drainage. It is also highly important that the surface soil not be disturbed but be left intact. The surface few inches is the most fertile part of the soil profile, preserve it as an environment for a major part of the more active roots.

In leveling the land frequently the surface soil to a depth of twelve inches is removed from portions of the prospective planting. This may result in poor growth and often in stunting the trees in that part of the orchard.

Preparing the Land

As already stated above, as little as possible of the surface soil should be removed from one place to another. A land leveler may be used to level the surface. Planting on level land results in a more efficient orchard from the standpoint of economy. Contour planting may have to be resorted to in many cases especially where the grade is too great for furrow irrigation or where the water is run in furrows to supply water for basin irrigation. Terraces are sometimes made on the contour but should be avoided as much as possible.

Terracing disturbs the soil, and in case of clean culture, the cultivated area is likely to be the subsoil. All operations on terraces are more expensive than where the orchard is on level land and the trees planted so that equipment of all kinds can be used. Before planting is begun the soil should be disced or plowed and leveled. Since morning glory can be killed with two or three applications of 2,4,D this pest if present should be eradicated before discing. Steep grades if cultivated need to be provided with some means of draining the surface to prevent erosion. This can be provided for by running

deep furrows or an intake pipeline on a contour so as to carry the water from excessive rainfall or run-off irrigation water to one side of the orchard where it can be carried off in the country drainage.

Planting

The planting is marked off in rows at a grade, which is not too great, that is a maximum of two per cent if furrow irrigation is to be practiced. With a line drawn in the case of each row the location of each tree should be indicated and a stake placed for each tree. The distance between trees depends upon the variety and the anticipated program. For Fuertes the distance might well be 48 feet apart if the planting is in a good deep well drained sandy loam soil. If it is desired to double plant with the intention of removing trees later in thinning the orchard then in the same deep soil it may be efficient to plant at a distance of from 24 to 28 feet apart. Get all the information possible as to the type of growth of the variety to plant before deciding on the distance. The Hass variety may have a spread of 32 feet, the Anaheim only 20 feet, the Nabal 50 feet and the MacArthur 40 feet.

Only the best quality trees should be planted. They should have been budded with buds selected from mother trees, which are healthy and have a record of good production. The tree grown to the proper size for planting in as short a time as possible is more of a commercial tree than one, which is too large. Generally a standard tree about 3 feet in height is best.

In digging the hole a planting board should be used with a notch at the center. The notch is set against the stake where the tree is to be located and stakes placed at either end of the board. The tree stake then can be removed and the hole dug. This should be just deep enough for the ball of the tree and wide enough so that some top soil can be tamped around the ball in the hole. The top of the ball should be level with the surface of the soil. Thoroughly tamping the soil around the ball is important.

Irrigation

Immediately after planting, the tree is irrigated. A second irrigation may well be given the trees in a few days regardless of weather. The methods of applying water vary considerably but one of the most desirable is by means of basins. Small circular basins are at first made and enlarged as necessary and used for at least 2 years. The water can be hauled to the basins in a tank or run in furrows. When furrows are used the best plan is to fill the basin and follow by cutting the water back into the furrow. Further irrigations should follow as often as is necessary. The soil in and near the ball should frequently be examined for moisture. The soil should not be allowed to reach the wilting point and neither should too high a moisture content be maintained.

Fertilization

It is desirable to maintain a mulch of bulky organic material around the tree. For this purpose straw with a little manure is good. A large amount of manure especially when it

contains too small an amount of straw may cause difficulty. The first year a little concentrated nitrogenous fertilizer, about the equivalent of a heaping teaspoonful every 6 weeks will usually show results in increased growth.

Protection

From Sunburn. As soon as planted the trunks need to be protected from the sun's rays. This is important and can be accomplished by wrapping paper around them up to 16 inches in height and in addition apply a thick coating of white water paint above the paper. There are other materials which are heavier than paper that can be purchased for the purpose.

From Rodents. Certain kinds of rodents attack avocado trees especially when other feed is not available. A heavy protector may be necessary for the purpose or the trees can be surrounded by one inch mesh chicken wire.

From Cold. Where freezing temperatures are likely to occur the trunk should be wrapped with corn stalks or other good material. Put on 2 or 3 thicknesses and wrap tightly. The wrapping is placed only around the trunk. The top with its green leaves should not be covered.

From Wind. In some locations protection from wind is advisable. For this purpose burlap, palm leaves or wooden frames are used.

Cultivation

To eliminate competition between weeds and the young trees, the weeds must be controlled. Keep them from growing to a distance of 5 feet from the trunks. Cultivation is necessary only for keeping down weeds. Weeds can also be successfully controlled with weedicides if carefully used.