

STANDARD CULTIVATION PROCEDURE FOR ALOEVERA

INTRODUCTION: → Aloe vera is a valuable and significant medicinal plant. It is a perennial plant that grows to a height of 112 to 212 feet. Its leaves are large and thick, juicy, and have a phylotaxy-like wheel. The leaves have a thorny structure on both sides and a thorny tip. The leaves' inner composition is jelly-like, with a foul odor and a terrible flavor. The leaves are 25-30 cm long and 3-5 cm wide, with a length of 25-30 cm and a width of 3-5 cm.

It usually flowers from **October to January**, with a vast number of little pink flowers scattered along the long inflorescence. Fruits are produced between **February and April**. Seeds are rarely used to spread it. Vegetative propagation is easy and convenient. Of late, because of sky rocketing price of allopathic medicines with its known side effects, medicinal plants and ayurvedic medicines are becoming popular.

CULTIVATION:

Soil and Climate: → Aloe vera thrives in hot, humid climates with lots of rain. It may be cultivated in a variety of soils, although it prefers a well-drained, high-organic-matter environment. It thrives in direct sunlight. Disease infestation is caused by shady environments. It is quite sensitive to stagnant water. As a result, well-drained highland should be used for farming. For aloe vera growing, rainfall between 1000 and 1200 mm is excellent.

Planting and Preparation of Seedlings because it's difficult to cultivate Aloe vera from seeds, seedlings are usually grown from the plants' roots. Suckers can be used as seedlings in the same way that bananas can. Sucker plantation thrives during the rainy season.

A spacing of 1.5 x 1 ft, 1 ft x 2 ft or 2 ft x 2 ft is followed. Land Preparation About 2-3 ploughings and laddering are done to make the soil weed free and friable. Land leveling is then followed. Along the slope, 15-20 ft apart drainage are made.

Application of Plant Nutrients: → Approximately **8-10 tonnes FYM/ha** is applied prior to land preparation. 35 kg N, 70 kg P₂O₅, and 70 kg K₂O/ha are added before the last ploughing. 350-400 kg Neem Cake per hectare can be used to control termites. In September and October, a top dressing of 35-40 kg N can be applied. N dose can be lowered if the soil is rich in organic materials.

Irrigation and Inter-culture: → Weeding and earthing up are completed after around 40 days. After applying a top dressing of fertilizer, earthing up is also done. Drought tolerance is limited in aloe vera, although it is extremely sensitive to water stagnation. As a result, adequate drainage takes precedence over irrigation. During droughts, minimal irrigation is sufficient.

Plant Protection: → Various insects and pests infest aloe vera. Controlling them is especially important in medical plants like aloe vera, where the juice from the leaves is directly used as medicine. Clean cultivation, inter-culture operation, regular and need-based irrigation, application of enough organic manure, treatment of sucker before planting, and aloe vera cultivation in sunny conditions are all favourable to good aloe vera crop growth. Use of organic source of plant protection materials like raw garlic juice, neem oil (10,000 ppm) 2-3 ml / lit, tobacco extractant 20 ml / lit gave reasonably good result.

Harvesting: → After 7-8 months of sowing, the leaves can be harvested. Harvesting is done using a sharp knife. It's important to keep an eye on the amount of fluid that escapes from the cut part. If you only harvest once a year, October and November are the optimum months to do it. The second year yields the most, and good yields can be collected for around 4-5 years. After harvesting, the leaves are first dried in

the shade, then in the sun, before being stored. Flowers are picked in December and January and dried properly before being preserved.

Yield: → Yearly 100 - 115 quintals raw leaves and **350 - 400 kg flowers / ha** are obtained.