



Aloe Vera Farming in India: A Profitable Agri Business

Shanjeevika.V^{1*}, Balasubramaniam.P² and Muhammad Iqshanullah .A³

¹Ph.D. Scholar, Department of Agricultural Extension and Rural Sociology, Tamil Nadu Agricultural University, Coimbatore.

²Professor and Head, Department of Agricultural Extension and Rural Sociology, Tamil Nadu Agricultural University, Coimbatore.

³Assistant professor, Department of Agricultural Extension and Rural Sociology, S.Thanghapazham Agricultural College, Vasudevanallur

**Corresponding author. E-mail: shanjeevikav@gmail.com*

Aloe Vera farming in India is gaining popularity as aloe vera production profit per acre is much higher than normal agriculture and it can be done using much less water and effort. Aloe vera business can be done by selling the plant leaves or extracting and marketing the juice. Aloe Vera or Ghrith Kumari (Alloeh means “Shining bitter substance”) is a succulent plant with great commercial importance and health potentials. Aloe Vera is a perennial shrub, they are mainly cultivated in tropical or subtropical regions across the globe where weather doesn't have chilling condition. Its commercial cultivation is mainly followed in Aruba, Haiti, India, South Africa, United States of America and Venezuela. In India, it is grown in Rajasthan, Andhra Pradesh, Gujarat, Maharashtra and Tamil Nadu.



Want to start Farming or Agri Business Project?

Aloevera Cultivation

Climatic Requirements in Aloevera Farming

Aloe vera plants can survive constant drought conditions. However, the crop thrives well in entire tropical and sub-tropical regions with mean annual rainfall of 35-40 cm.

Soil Requirements for Aloevera Plantation

Marginal to sub-marginal soils having low fertility can bud aloe vera plants. Aloe vera plantation can survive in soils with high pH, sodium and potassium values. In central India, black cotton soil is found to be appropriate for aloe vera cultivation. For commercial cultivation, well-drained loam soils to coarse sandy loam soils with pH value up to 8.5 are more suitable.

Aloe Vera plantation



Aloe vera varieties

There are around 150 species of aloe vera. Aloe barbedensis, Aloe indica, Aloe vulgaris, Aloe chinensis, Aloe perfoliata, Aloe littoralis and Aloe abyssinica are commonly grown species for consumption and therapeutic purposes. Below are the varieties released for Indian market:

- IC111271, IC111269, IC111280, IC111273, IC111279 and IC111267 varieties were introduced by National Botanical and Plant Genetic Resource (Indian Council of Agricultural Research), New Delhi. These varieties have high aloin content with great therapeutic value.
- IC111267, IC1112666, IC111280, IC111280, IC111272 and IC111277 varieties were also released by National Botanical and Plant Genetic Resource (Indian Council of Agricultural Research), New Delhi. The gel density and quantity are abundant and hence mostly used in cosmetic products.
- AL-1 variety was released by Central Institute of Medicinal and Aromatic Plants, Lucknow.

Land Preparation

Ploughing is totally dependent on the soil type and agroclimatic condition. Generally, 1-2 ploughing is done followed by levelling. Proper care should be taken when ploughing, soil should not be disturbed because the root system of aloe plants does not penetrate below 20-30 cm. The entire field can be divided into several small plots of 10-15 m × 3 m. The fields must have slope for proper drainage of water and source of irrigation water. At the stage of final ploughing, apply farm yard manure at the rate of 10-15 tonne per hectare to enhance crop productivity.

Propagation

Either root suckers or rhizome cuttings are used for aloe vera propagation. When propagating with the help of rhizome, then the underground rhizome is dug out. A cutting of 5 to 5.5 cm is recommended which should contain minimum of two to three nodes. These cuttings are rooted in sand beds or containers after its sprouting is ready for the plantation. In the case of root suckers, the suckers are dug out from the parent plant and planted in row to row distance of 50×45 cm. In this, two third portion of the aloe plant must be inside the ground. After planting the suckers, the soil around the suckers should be firmly pressed to prevent water lodging. However, the spacing between plant to plant varies sometimes, depending on the required yield.

Seed Rate in Aloe Vera farming

Basically, in a hectare land 37,000-56,000 suckers can be planted. However, it completely depends up on the required planting density.

Irrigation for Aloe Vera Farming in India

During dry conditions, irrigation should be applied with interval of 15 days. In rainy or humid season, irrigation is not required. However, depending on the water availability less irrigation can be provided to the crop during winter season. First irrigation must be done immediately after root suckers are planted. Over watering the plants may create water logging in the field which can further destroys crops. The field should be dried first before any water application. Proper drainage should be maintained to expel extra water from the field.

Crop Nutrition

Use of organic manures, like farm yard manure, vermicompost or green manure are preferred for aloe vera crops. Recommended dose of farm yard manure is 10-15 tons per hectare which should be given at the time of soil preparation. It is advisable to follow FYM application in subsequent years



also to harvest a high gel yielding crop. Vermicompost can be applied at the rate of 2.5-5.0 tons per hectare for obtaining higher leaf yield.

Harvesting and Aloe Vera Production

Aloe vera becomes fully mature in 18-24 months. Within a year the plants bear yellow tubular flowers and fruits that contain numerous seeds. Harvesting can be initiated 8 months onwards. It takes around 2 to 5 years duration to get bountiful yield for commercial purpose. Farmers often harvest aloe leaves in 3-4 pickings per year which further depends upon the growth of plants. In India, mostly manual harvesting is followed. In this, the leaves are plucked, and broken rhizome is left in the soil which will further sprout again to a new plant. On an average, aloe vera production from a hectare of non-irrigated crop may yield 15-20 tons of aloe vera leaves and irrigated crop can yield up to 30-35 tons of aloe vera leaves.

Aloe Vera Processing

Aloe Vera farming business is not limited to only cultivation of the plant. One can set up a aloe vera processing plant and extract the aloe juice. Aloe vera juice is colourless and transparent like water. It is extracted from fresh aloe leaves. The juice doesn't have any taste or odour, still it is used by many consumers for therapeutic purpose. Aloe vera gel and juice have various properties, hence can be used in either raw or processed forms.

Aloe Vera gel business

Aloe Vera business involves post harvesting operations to make aloe products by crushing, grinding or pressing of the aloe vera leaves. The resultant product is aloe vera gel which is present inside leaves. Further, different kind of filtration process is followed along with stabilization of the gel. The final solution is mixed with other agents, creams, lotions to make pharmaceutical, cosmetic or edible items. Harvested aloe vera can be directly sold to local vendors or processors. Even, within a limited budget and small man power setup, aloe vera processing plant can be installed. Processing plant will yield aloe vera juice or gel. Which can be further sold to cosmetic industries, pharma industries and other stakeholders. In this case, the aloe vera production profit margin would be huge, earning can be in crores. To make 150 liters of aloe vera juice, only one ton of aloe vera is required. The expenses incurred to make one liter of aloe vera juice is just Rs 40 only. Hence, one ton of aloe vera can generate good amount of income by processing into aloe vera juice.

Consumption Pattern

People are consuming aloe vera juice regularly to fight digestive issues, cholesterol and diabetes. The consumption of aloe vera juice or aloe products is rising among urban population. Awareness towards health benefits and its positive results are the main drivers of aloe industry. There are countless medicinal benefits of aloe vera, which is increasing its demand year on year. It has antibiotic and antifungal properties therefore ideal for skin diseases. Several cosmetic industries use aloe vera in their products like cream, body lotion, hand wash, shampoo, etc.

Aloe Vera Profit Per Acre

Incidences of low rains, the decreasing level of ground water and soil degradation etc. are leaving few lands unproductive. They have become barren and not suitable for grain or legume crops. Therefore, cultivation of aloe vera in these lands would be profitable for farmers. Since, it requires minimum input of water the returns from aloe crop would be satisfactory. Around 30 tons of aloe vera can be produced in 2 acres of land. The cost of harvested aloe vera stands at Rs 15,000 – 20, 0000 per tons in Indian market. Aloe vera is a low maintenance crop and doesn't need huge funds to start aloe vera farming. Around Rs 40, 000 investments can give 5 to 6



lakhs rupees from aloe vera leaf production profit every year. One-time plantation of aloe vera can be harvested for 3 to 5 long years.

Aloe Vera Yield Schedule

Year	3 years	4 to 5 years
Leaves(t/ha)	30	40

Conclusion

So I would highly recommend you guys specially those who have enough land and they are planning to do any agriculture or farming business do this farming which you will never regret and the profit margin will speak itself.

Reference

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