



## Congenial environment for Aonla cultivation

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### Introduction

Aonla (*Emblica officinalis*) is native to India and also known as Amla, Indian gooseberry (English), Adiphala (Sanskrit) and it is also well known for its medicinal, acrid, cooling, diuretic and laxative properties. It is a good source of vitamin C. Dried fruits are useful in diarrhea, dysentery, jaundice, hemorrhages, anemia, dyspepsia and cough. Aonla is used in the indigenous medicines (Ayurvedic system) viz. chavanprash and trifla. Fruits are commonly used for making murabbas, pickles, jelly candy, and jam. Besides fruits, leaves, bark and even seeds are being used for various purposes. That's why it also considered as a wonder fruit.



It has been grown in India for last more than 3500 years. In fact, it is mentioned in ancient Indian text 'Ayurveda' by Sushruta, the father of ancient medicine (during 1500 BC-1300 BC).

India ranks first in the world in area and production. Aonla is mostly cultivated in the states of Uttar Pradesh, Maharashtra, Gujarat, Rajasthan, Andhra Pradesh, Karnataka, Tamil Nadu, Himachal Pradesh etc. in Uttar Pradesh, it is cultivated in the districts of Pratapgarh, Sultanpur, Raibareli, Jaunpur, Banda, Kanpur, Agra and Mathura districts. Pratapgarh district of U.P. is famous for the Aonla production.



### **Climatic normals for Aonla production:**

#### **Temperature**

Aonla plant can withstand almost all types of climate but performs well in tropical and sub-tropical climate. Planting of Aonla is mainly done in July-August. Heavy frost during the winter season is not suitable for its cultivation. The mature plants can tolerate freezing temperature as well as a high temperature up to 46°C. Warm weather is conducive for the initiation of fruit growth during July-August.

The sensitivity of individual crop to temperature depends on inherent tolerance and growing habits. Indeterminate crops are less sensitive to heat stress conditions due to extended flowering compared to determinate crops. The temperature rise may not be evenly distributed between day and night and between different seasons (Hazra et al., 2007).

#### **Moisture**

Annual rainfall of 630-800 mm is ideal for its growth. However, irrigation at 15-20 days interval till they are fully established is desirable in dry summer particularly during early stages of orchard establishment under wasteland conditions. Watering of bearing plants is advised during summer months at biweekly interval. No irrigation is required during rainy season. After the monsoon rains, during October-December about 25-30 liters of water per day

per tree through drip irrigation should be given. Mulching with organic wastes is helpful in improving the water use efficiency and organic-matter content.

### **Soil**

Aonla is a hardy subtropical fruit crop and cultivated in generally all types of soil but its cultivation in deep, fertile, well drained sandy loam soil is ideal. Heavy soils or land with high water table are not suited for its cultivation. It can tolerate salinity and alkalinity. Aonla can easily be cultivated in marginal soils. The plants can tolerate pH up to 9.5 and  $EC_e$  6-9  $dsm^{-1}$ . Slightly acidic to saline/sodic soil having pH between 6.5 to 9.5 is suitable for cultivation. Mulching with organic wastes is helpful in improving the soil organic-matter content.

### **Conclusion**

Aonla is a tropical fruit, also can be cultivated in sub-tropical climate. It can be grown on a wide range of soil but it suited best in well drained sandy loam soil. It can tolerate alkalinity as well as salinity. An annual rainfall about 630-800 mm is best for its cultivation.