

Chow- Chow: A Promising Nutrient Dense Cucurbitaceous Vegetable

Mukesh Kumar¹, *Anamika Sajwan², Harshita Bora² and Manoj Raghav³

¹Assistant Professor, Tula's Institute, Dhoolkot, Selaqui, Dehradun, Uttarakhand, India

²Ph.D. Research Scholar, Department of Horticulture, G. B. Pant University of Agriculture and Technology, Pantnagar, Uttarakhand, India

³Professor, Department of Vegetable Science, G. B. Pant University of Agriculture and Technology, Pantnagar, U. S. Nagar, Uttarakhand, India

*Corresponding Author's email: anamikasajwan94@gmail.com

Chow-Chow is a perennial vegetable crop which is botanically known as *Sechium edule* belonging to the family Cucurbitaceae with Chromosome number: $2n=24$. It is originated from Southern Mexico and Central America and it is widely distributed in Tropical, Sub-Tropical and Temperate regions. It is widely grown in many countries like South and Central America. However, in India it is grown in Karnataka, Tamil Nadu, Gujrat, Maharashtra, Assam, Tripura, Himanchal Pradesh and Uttarakhand. It is commonly known as chayote, single seeded fruit and in the hilly regions of Uttarakhand, it is known as Eskosh or skosh. As the crop is not getting sufficient agricultural attention therefore, grown on a very small scale and hence the production is not up to the mark.



Importance and uses

It is rich in vitamins and minerals particularly calcium. Generally, fruits are consumed in the cooked form. Whereas, in some areas, tuberous roots and tender terminal shoots are also consumed as vegetable. It can be also consumed in pickled form.

Soil and climate

It can be grown on well drained sandy loam soil rich in well decomposed organic matter with a pH range of 5.5-6.5. However, it is susceptible to very low and high temperature. The crop can be successfully grown up to an altitude of 1200-1600 m. It requires a temperature of 20-25°C for proper growth and development.

Botanical description

It is a perennial monoecious climber. The vine generally grows up to a length of 10-15 m long which remains for 2-4 years. Fruits are fleshy, pear shaped with shallow longitudinal furrows. The fruit color varies from light green to dark green in colour. Generally, the fruits are 10-20cm long with a large tuberous root.

Propagation and planting

It is propagated by planting a whole sprouted fruit which contains a single seed. The sprouted mature fruits are selected for planting. Generally, the sprouting occurs in mature fruit in the

tree itself when it is still attached to the mother plant this phenomenon is known as vivipary. The mature fruit is planted in the hills at a spacing of 3.5×2.0 m. Fruits are planted in soil at a depth of 5-10cm putting the broader end downwards 2/3rd portion inside the soil. In some cases, tuberous roots are also used for the propagation of chow-chow. Generally, in hills the planting is done during April-May whereas, in Plains planting is done during July-August. Flowering in vine starts after 3-4 month of planting.

Nutrient management

At the time of planting, basal application of FYM @10kg along with N:P:K (250:500:500 g/pit), respectively is recommended for better growth and development of the crop. However, during the later stages of crop growth, application of FYM@10 kg along with 1.5kg neem cake and N:P:K (100:100:50 g/per plant/year) was applied, respectively.

Training and pruning

The vines are trained on trellis by providing stakes for support of the vines. Generally, the height of trellis or pandal ranges from 1.5-2 m. Pruning is done during December-January, when they are in dormant condition about 1-1.5m above the ground level.

Irrigation and intercultural operations

Frequent irrigation is given during the summer season and subsequent irrigation was given as per requirement of the crop. Light hoeing and weeding are practised during the early stages of vine growth.

Harvesting and yield

Harvesting of fruits starts 30-35 days after flower opening and continues up to 3-4 years. The average fruit weight is 200-400g with average yield of 20-25t/ha.