

PHOTOGRAPHS

A number of photographs (Plates 1 to 15) have been inserted here and these represent some botanical aspects of the plant or plant parts. A short account of the photographs, taken from the experimental variety (type C, vide table 1.2), is given here.

Plate 1 : It shows a mature fruit in sprouting condition. Fruits are pear-shaped, narrower near the point of attachment and broader towards the apex. Spines are scattered throughout the surface of the fruits. The fruit surface is more or less uneven, and has, in addition, several deep longitudinal grooves or channels, more pronounced towards the ends. A centimeter scale placed by the side of the fruit, indicates the approximate length (cm) of mature fruit of the experimental plant variety.

Plate 2 : A longitudinal section of sprouting fruit with distally located single seed (dissected into 2 halves) is shown in this plate. Unlike other cucurbits, which bear multiple-seeded fruits and are propagated by seeds only, chayote bears a single large seed and is propagated by the entire fruit and this is evident from this plate that sprouting occurs from the single seed at the distal part of the fruit. The fruit is distinctly fleshy.



Plate 3 : This plate shows a germinating fruit producing a tuft of roots and tender shoots which arise from the sprouting point located at the distal end of the fruit. Due to its germination and emergence of root and shoot under laboratory condition in diffuse light the shoot looks etiolated with long slender internodes. Sufficient reserve food in the fruits keeps the propagating fruit almost intact for a long time.

Plate 4: This plate shows a noncultivated chayote plant growing wildly around the trunk of a common road-side tree (*Cryptomaria japonica*) with the support of its tendrils.



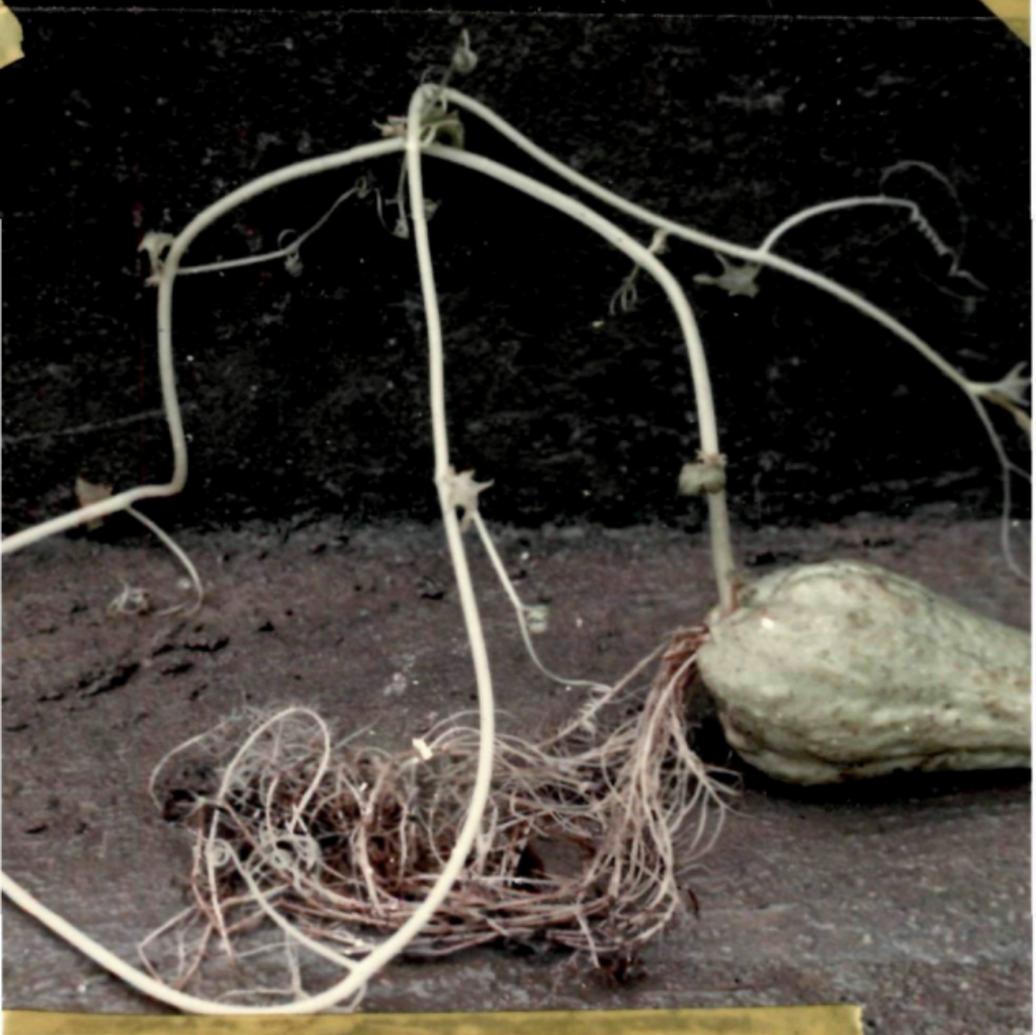


Plate 5 : A chayote vine is seen growing over a man-made scaffold (macchan). On such scaffold the chayote plants form a large canopy for better light harvesting, fruit setting and fruit development.

Plate 6 : A distant view of a well-grown chayote vine growing on hill slope over a scaffold.



Plate 7 : It shows an actively growing young shoot of chayote with extra-axillary tendrils and such young shoots are good source of green vegetables.

Plate 8 : A young twig of chayote showing branched and highly coiling nature of tendrils. A tendrillar stalk is seen to give rise 3-5 tendrillar branches which are sulcate and glabrous.



Plate 9 : This plate shows axillary female flowers with inferior ovary surmounted by calyx and corolla. Calyx-tube is hemispherical with 5 lobes, corolla rotate, deeply 5-partite, lobes ovate-lanceolate. Flowers whitish in colour, small, female flowers grown singly from leaf axils. A cluster of male flower buds is seen to grow from the same leaf axil; the peduncle of male flower is not fully grown.

Plate 10 : This plate reveals a freak of nature where two fruits originate from a single flower and the fruits seem to be almost united at their base. Branched and coily nature of tendrils very prominent in this plate.



Plate 11 : It shows tuberous underground storage root which is unique in chayote unlike other cucurbits. Two-year-old roots are seen to dug-up from the soil and such roots are most precious item among other yield components of chayote.

Plate 12 : Tuberous roots of one-year-old plants are seen here and such roots are in the process of tuberization as evidenced by their slender growth.



Plate 13 : This plate shows various morphological appearances of mature tuberous storage roots which are rich in easy-digestible starch and are used as delicious table items.

Plate 14 : Distal view of a mature fruit showing longitudinal grooves and initiation of sprouting to give rise tender roots.



Plate 15 : It shows a sprouted fruit emerging a young healthy shoot with suppressed growth of roots.

