

Multivitamin greens-Chekurmanis

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Chekurmanis (*Sauropus androgynus* Meer) is a perennial small shrubby leafy vegetable. Due to high nutritive value, it is commonly called 'Multivitamin Greens' Chekurmanis, occupying prominent place in almost household kitchen gardens of Kerala, has not been cultivated on a large scale for commercial purpose. Hence, no data on area and production of this vegetables are available.

The plant is native of India and Burma region. it is



found in the Sikkim, Himslayas, Khasi and Akra hills at 1200m elevations and in the Western ghats of Kerala from Wynad northwards at an attitude of 300- 1200m.

It is reported to be introduced into Kerala from Malaysia in 1953 and is known in malayam as 'Madura keera'.

The plant is a slow growing glabrous perennial shrub and attain a height of 2-3.5m. Its main branches are terete and flaccid. Lateral branches are thin. Leaves are ovate, oblong, sessile, alternate, membranous and short stacked. The inflorescence is auxiliary with small reddish flowers. Flowers are monoecious, minute, auxiliary, pedicelled and clustered. Fruits sessile, white or pinkish-white, 0.2cm in diameter with a fleshy epycarp. The crop is highly cross-pollinated and entomophilous because of photogynous and monoecious nature of flower. The genus *Sauropus* consists of several other species like *S. assimilis* Thw, *S. netroversus* Wight, *S. rigidus* Thw and *S. quadrangularis* Mwell. As a leafy vegetable, it is usually maintained as a perennial plant at a height of 1-1.5m by frequent harvest of leaves and apical system. The leaves are rich in protein (6.8-7.4% as compared to 3.2% is amaranthus), minerals and vitamins. The leaves and tender shoots are mainly used as leafy vegetable either as salad or after frying. The leaves are also said to be used to give a light green colour to pastry and to fermented rice in the Dutch East Indies and Java for preparation of soup.

It comes up well in all types of soils. The growth and yield are high when they are grown in rich, well drained sandy loam or semi-laterite soils. A. warm humid climate with good rainfall is best suited and its grows

luxuriantly at a lower elevations at 500m above MSL though plants are found at higher elevations up to 1,200m above MSL. When the plants are raised under shade, it produces broader leaves.

There are no distinct varieties or types available in this crop.

It is propagated by seeds and stem cuttings. Seed propagated plants come to harvest little later than cuttings. Herbaceous stem cuttings (6- 12 months old) may be collected with 5-6 nodes or 20-30cm length and planted in polybags containing manure mixture. Rooting can be harvested by dipping the cuttings in 50ppm IAA/ IBA before planting in polybag. It takes 20-25 days for rooting.

Usually, it is grown as hedge or fence around vegetable plots or in kitchen gardens. For planting a hectare area, about one lakh cuttings are required. The cuttings are planted in shallow furrows at least 15 days earlier to the onset of monsoon during April-May. Cuttings are planted at a spacing of 60cm between the plants.

If the crop is planted in pits (30cm³ size), 5kg of farmyard manure is added. In addition to 25g each of urea, superphosphate and muriate of potash. Application of 30g of 7:10:5 NPK mixture per plant supplemented with 1 % urea spray after each clippings enhances leaf yield considerably. When the plants are about one meter height, they are tipped to develop laterals. If left untrimmed in early age, the plant reaches the size of a small tree. It can be trained as hedge or even on bowers or on trellises.

The plant is devoid of any serious pests and diseases except an occasional incidence of scale insects and aphids which can be controlled by spraying Malathion at 1 ml/litre. Caution should be taken not to pluck the leaves and tender shoots immediately after spraying insecticide.

The first clipping of succulent leaves can be done 3-4 months after plantings, *i.e.* when the plant reaches about 60-90cm height subsequently in every fortnight, another harvest is possible, if the plants are manured and irrigated. Plants are usually trimmed to 1-1.5m height to facilitate easy harvest. The tender shoots and leaves are used for culinary purpose. The annual productivity is 30-50 tonnes/ha with a per plant yield of 1-3kg leaves per year.

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