

Organic production of Chinese potato and arrowroot

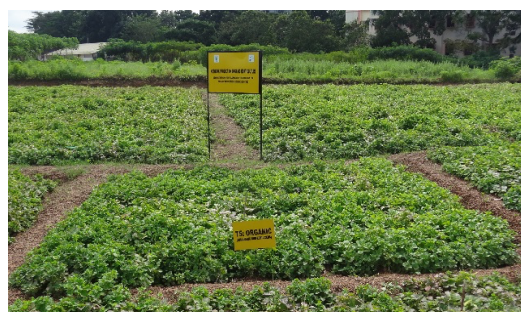


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CHINESE POTATO, a lesser known tuber crop, is preferred as an ethnic vegetable in homesteads due to its excellent cooking quality, aromatic flavour and delicious taste. It is rich in calories and essential nutrients and has medicinal values. It is important as a health food due to the anti-oxidant potential of flavonoids present in it. Protocols for organic production of Chinese potato are described here.

Raise green manure cowpea (seeds at a rate of 20 kilograms per hectare) prior to planting Chinese potato and incorporate 10-15 tons per hectare of green matter thus generated. Apply FYM at the rate of 10 tons per hectare at the time of planting. Apply neem cake at the rate of 1 ton per hectare in the ridges at the time of planting. Apply biofertilizers, *Azospirillum*, P solubilizer and K solubilizer each at the rate of 3 kilograms per hectare, at the time of planting. Plant organically produced vines of 10-15 cm length at a spacing of 45 x 30 cm on ridges.



Advantages

- Higher yield (+5.55%)
- Safe and quality tubers (+15.64% dry matter, +30% starch, +15.22% crude protein, +P, +K, +Mg, +Fe, +Mn, +Zn & +Cu)
- Soil health (+1.14 unit pH, +15% organic C, + N & +P)
- Higher net income (Rupees 362,600 per hectare)

ARROWROOT, is mostly cultivated by tribal and marginal farmers for the rhizomatous edible tubers, which contains good quality starch. It has versatile uses in food, feed and industrial sectors. Rhizomes are valued as a food, particularly for infants and invalids and useful to treat intestinal disorders. The rhizomes are a good substitute for maize in broiler rations. The fibrous debris after starch extraction is used as feed or manure. Protocols for organic production of arrowroot that would definitely help in area expansion are briefed herewith.

Raise green manure cowpea (seeds at a rate of 20 kilograms per hectare) prior to planting arrowroot and incorporate 10-15 tons per hectare of green matter thus generated. Apply farmyard manure (FYM) at the rate of 10 tons per hectare at the time of planting. Apply biofertilizers, *Azospirillum*, P solubilizer and K solubilizer each at the rate of 3 kilograms per hectare at the time of planting. Plant organically produced rhizome pieces of 20-25 grams size at a spacing of 30 x 15 cm on raised beds of convenient length, 1 meter breadth and 15-20 cm height. Suckers of 30 cm length can also be used for planting.



Advantages

- Sustainable yield (12.81 tons per hectare)
- Safe and quality rhizomes (+Ca, +Fe & +Cu)
- Soil health (+0.45 unit pH, +14% organic C, +5.47% water holding capacity, + P, +Ca, +Mn, +Zn & +Cu)
- Better net income (Rupees 173,900 per hectare)