

Package of Practice

Ridge Gourd Farming



**ADVANCING
NORTH EAST**

An Initiative of North Eastern Council (NEC)

Implemented by North Eastern Development Finance Corporation Limited (NEDFi)

Ridge gourd
Luffa acutangula
Cucurbitaceae

Ridge gourd or ribbed gourd is a monoecious viny vegetable. It is cultivated on a commercial scale and grown in homesteads for its immature fruits which are used as cooked vegetable. The tender fruits are easily digestible and appetizing. It is used to treat chest pain and congestion.

Climate and Soil: Ridge gourd prefers warm humid climate for its cultivation. Optimum temperature required is 25-30°C for its growth and development. Sandy loam soil, rich in organic matter with a soil pH of 6.0-7.0 is most suited for higher yield.

Varieties: Arka Sumeet, Arka Sujata, Pusa Nasdar, Pant Torai-1, CO.1, CO.2, PKM-1, Swarna Manjari, Swarna Uphar, Punjab Sadabhar, Konkan Harita, Pusa Nutan, IIHR 8, Satputia.

Seed rate: Seeds are sown in raised beds, furrows or pits @ 3.5-5.0 kg/ha for ridge gourd.

Seed Treatment: Treat the seed with Thiram or Bavistin @2.5g per kg of seed to protect the young seedlings from the seed born diseases.

Sowing: Suitable time for sowing are June-July and February- March. Sow the seeds @ three seeds/pit and thin the seedlings to two/pit after 15 days.

Spacing: A row-to-row distance of 1.5-2.5 m and hill to hill distance of 60-120 cm is required for Ridge gourd crop under bower or trellis system. When it is trailed to ground under pit system, a row-to-row spacing of 1.5-2.0 m and pit-to-pit distance of 1.0-1.5 m is recommended for Ridge gourd.

Manures and Fertilizers: Apply FYM@20-25tonnes/ha at the time of field preparation. The fertilizer requirement of the crop is 100kg N, 50kgP and 50kg K per hectare.

Plant Growth Regulators: The seedlings should be sprayed with Ethrel (250ppm) 4 times starting from 2-leaf stage at weekly intervals to enhance production of female flowers.

Weed Control: Application of Baslin@2.0-2.5 litre per hectare before sowing helps in controlling weeds.

Water Management: Irrigation is given once in a week depending on soil moisture.

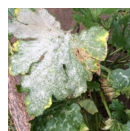
Harvesting and Yield: Crop is ready for harvest in about 60 days after sowing. The fruits should be harvested in immature and tender stage. Delay in harvesting reduces the fruit quality. On an average its yield is 16-18t/ha.

Post Harvest Management: Harvested fruits of Ridge gourd are packed in baskets to avoid injury and can be kept for 3-4 days in a cool atmosphere.

Plant Protection Measures:

Diseases:

Powdery mildew: Symptoms appear as white to dirty grey spots or patches on leaves which become white powdery as they enlarge. Powdery coating covers entire plant parts and causes defoliation. Fortnightly spray of Karathane (0.5%) or Calixin (0.05%) or Carbendazim (0.1%) are recommended for control of powdery mildew.



Downy mildew : Symptoms appear as water soaked lesions on under surface of leaf lamina and angular spots on upper surface corresponding to the water-soaked lesions on under surface. Disease spreads very fast. Plucking and destruction of affected leaves. Spraying Dithane M-45 (0.2%) on under surface of leaves give effective control.

Anthracose: Symptoms on young fruits appear in the form of numerous water soaked depressed oval spots, which coalesce covering large areas. Symptoms on vines occur as brownish specks which grow into angular to circular spots. Clean cultivation and crop rotation minimize disease incidence. Treating seeds with Carbendazim @ 25 g/kg of seed and spraying crop at 10 days intervals with Indofil M-45 (0.35%). Benomyl or Carbendazim (0.1%) gives effective control.



Gummy stem blight: The fruit rot phase becomes serious during rainy season on ground crop. Wet water favours gummy stem blight development and failure to control foliar diseases leads to the fruits being more susceptible to black rot. Foliar spray of Mancozeb (0.25%) or Carbendiazim (0/1%) control secondary infection.



Mosaic: Young leaves develop small greenish yellow are restricted by smaller veins of leaf. Yellow mottled leaves, leaf distortion and stunting of the plants are observed. The stem node are shortened. Ultimately entire fruits becomes mottled with yellowish green colour. Spray of Dimethoate or Metasystox @ 1.5 ml/l of water at 10 days interval will control the vector.

Pests:

Red pumpkin beetle: The beetle are very destructive particularly in summer season at two to four leaf stage of the plant. Spraying the crop with carbaryl @ 2.0g/l of water early in the morning is very effective to control the beetle.



Leaf miner: Leaf miner infestation takes places during the month of April – May. It makes mines in the leaves especially on mature leaves and making zigzag tunnels. Foliar spray of neem kernel extract @ 4% at weekly interval is recommended. For chemical control foliar spray of Thiomethoxane 25 wg @ 0.3g/l is recommended.



Cost and Returns of Ridge gourd Crop (Rs/ ha.)

Particulars	Approx. amount of Cost/Returns (Rs)
Land Preparation	11500
Seed Cost	8800
Sowing / Planting Cost	5200
Manures and Fertilizers	15700
Labour cost (Intercultural operations)	16000
Plant Protection Cost	14200
Irrigation cost	5200
Equipment and farm machinery cost	3200
Rental cost of land	24000
Cost of Harvesting	8000
Cost of marketing	5400
Miscl. Expenditure	3000
Total Cost of Cultivation	120200
Yield	16 tonnes/ha
Average selling price of Ridge gourd	Rs.20/kg
Total Income / Return	320000
Net Income	199800
