

**Package of Practice**

# **Brussels Sprout Farming**



**ADVANCING**  
NORTH EAST

**An Initiative of North Eastern Council (NEC)**

Implemented by North Eastern Development Finance Corporation Limited (NEDFi)

**Brussels Sprout**  
*Brassica oleracea* var. *gemmifera*  
Cruciferae



Brussels sprout is an important cole vegetable. The sprouts resemble miniature cabbage and appear in the axils of leaves. The miniature heads or sprouts are used for soup, cooked vegetables as well as fresh salads. They are a rich source of vitamin A, ascorbic acid, riboflavin, niacin, calcium and iron.

**Climate and Soil:** Brussels sprout grows well in cool and humid climate with a temperature of 15-25°C. It can withstand frost as well as snowfall. Generally good quality sprouts are obtained when temperature is 10-20°C. A well drained, sandy loam soil with a pH of 6.0-6.8 is best suited for its cultivation.

**Varieties:** Jade Cross, Hilds Ideal, Rubine, Captain marvel, Prince marvel, Improved Long Island, Danish Prize, Early Morn, Amager Market and Frontier Zuerg.

**Sowing and Planting Time:** Seeds are sown on raised nursery beds in September to October in plains and from February to April in hills.

**Seed rate:** About 500g of seeds is sufficient to raise seedlings for transplanting in one hectare.

**Nursery raising:** The sowing is done either in raised or flat nursery beds depending upon season. The seed may be treated with Thiram @2g/kg seed for controlling damping off as per emergence where as Ridomil MZ72 by drenching the soil in case of post emergence.

**Transplanting:** The seedlings are ready for transplanting at 35-45 days after seed sowing. Generally 10-15cm tall seedlings are used for transplanting.

**Spacing:** A spacing of 60cm X 45cm or 45cm X 45cm depending upon the variety and fertility status of the soil is recommended.

**Manures and Fertilizers:** Apply FYM @20-25 tonnes /ha. during land preparation. A fertilizer dose of 200kg N, 100kg P<sub>2</sub>O<sub>5</sub>, 100kg K<sub>2</sub>O per hectare is required for good yield.

**Weed Control:** Pre planting application of Trifluralin (1.0kg/ha) or Basalin (0.5lit/ha) is used to control weeds effectively.

**Water Management:** Seedlings should be watered immediately after transplanting and thereafter irrigation may be applied at 15 days interval.

**Harvesting and Yield:** Brussels sprouts are harvested on attaining maximum size and compactness. The sprouts become ready for harvesting in 120 days after transplanting. Generally, 3-6 harvestings are done. The average yield varies from 100-160q/ha from multiple harvesting.

**Post Harvest Management:** The sprouts are sorted, graded and packed in baskets or crates for transport to markets. It can be stored at 0-0.5°C with 90-95% RH for 3-5 weeks. The sprouts can be stored in perforated plastic bags at 1-1.5°C.

**Plant Protection Practices:**

**Diseases:**

- **Black rot:** Treat the seed with 1.0 % Mercuric chloride solution for 25-35 minutes before sowing in the nursery or green houses.



- **Club root:** Treat the seedlings at the time of transplanting with mercuric solution (1:1500) @ 125.0ml per 100 seedlings. Destroy infested seedlings. Lime the soil properly. Adopt proper crop rotation.



- **Damping off:** Treat the seed with Agrosan GN or Captan @ 1:1500. Drench the seedling in the nursery beds with Captan or Fytolan @1:1500 in water.



### Pests:

- **Aphid:** Spray the crop with 0.2 % Malathion as and when the infestation occurs.



- **Cabbage borer:** Dust 4 % Carbaryl or Spray 0.1 % Malathion or 0.002 % Pyrethrine is suggested.
- **Cabbage butterfly:** Dusting of 4 % Carbaryl. Collect these insects and kill them.
- **Diamond black moth:** Spray Cartap hydrochloride 1 g/lit or *Bacillus thuringiensis* 2 g/lit at primordial stage (ETL 2 larvae/plant)

**Cost and Returns of Brussels Spout (Rs/ ha.)**

<b>Particulars</b>	<b>Approx. amount of Cost/Returns (Rs)</b>
<b>Land Preparation</b>	11000
<b>Seed / Nursery and planting/ sowing cost</b>	9500
<b>Transplanting Cost</b>	5000
<b>Manures and Fertilizers cost</b>	16700
<b>Labour cost (Intercultural operations)</b>	16000
<b>Plant Protection Cost</b>	14000
<b>Irrigation cost</b>	5800
<b>Equipment and farm machinery cost</b>	3500
<b>Rental cost of land</b>	24000
<b>Cost of Harvesting</b>	8000
<b>Cost of marketing</b>	5000
<b>Miscl. Expenditure</b>	3000
<b>Total Cost of Cultivation</b>	121500
<b>Yield</b>	16 tonnes/ha
<b>Average selling price of Brussel Sprout</b>	Rs.25/kg
<b>Total Income / Return</b>	400000
<b>Net Income</b>	278500

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