CABBAGE PRODUCTION IN THE EASTERN REGION

Cabbage is a cool season crop.
The nursery sowing times are:
Early crop: August-September
Mid-season: September
Late season crop: September-January
Climatic Requirements

- Cabbage thrives in a relatively cool, moist climate.
- Cabbage tolerates frost and extreme cold.
- The optimum temperature for proper growth and heading is 15-20 OC.
Cabbage can be grown in almost all types of soil.
- Sandy loam is for early cultivars
- Clay loam or silt loams are for higher yields

The optimum pH for cabbage is 5.5-6.5
Cabbage cultivars are classified by maturity;
- Early (55-60 days after transplanting)
- Mid (80-90 days after transplanting)
- Late (120 days or more after transplanting)

Other characteristic
- Head shape
- Leaf texture
- Color
Varieties

Available cultivars in the E.R

- Early maturity
  - Golden Cross
  - Charmant
  - Farao
  - Golden Acer
  - Ruby Ball

- Mid Maturity
  - Brunswick
  - Cairo
  - Copenhagen Market
  - Ruby Queen
Planting Techniques

- Seeding rate 200-300g/jerib
- Seedling, Which have been hardened
- Transplanted into the main field 3-6 Weeks after sowing.
- Spacing depends on soil fertility, season, variety and market demand.
Planting Techniques

- Traditional distance for Early varieties between rows 45 cm With 45 cm between plants.

- For late varieties traditional space between row 60 cm and 45 cm between plants.
Planting Techniques

- Transplanting onto raised beds will increase plant density in the field.
- The raised bed should be 1.1 m from bed center to bed center.
- Distance between plants to planted 40 cm.
- Distance between two rows 50 cm.
Fertilization

- For optimum yield, 3-4 tons/ jerib Animal manure.
- Urea 16-24 kg per/jerib.
- P$_2$O$_5$ 12-20 per/jerib.
- k$_2$O 12-24 per/jerib.
Irrigation

- The seedlings should be irrigated immediately after transplanting.
- In the hills during the summer months, fields should be irrigated every 10 days.
- Light sandy soils need to be irrigated every 2-3 days during the hot days.
Pest Management

- Weeding 2-3 times (by hand or using a hoe) will keep the field weed-free.

- Weeds can also be controlled by pre-planting application of Trifiuralin (0.1L/J) Basalin (0.1L/J).

- Mulching the surface of the raised beds with crop residues will also reduce weed pressure.
Insect Pests

- Organism: Cabbage Moth
- moth
- Symptoms: Larvae
- Heads, and drop greenish fecal pellets that may make the cabbage unit for the market.

- Control: Pick larvae off plant and destroy; Spray with Marathon (0.1%) or dust with Carbonyl (0.15%) upon emergence of the pest.
Insect Pests (Cont.)

Green caterpillars make a web on the leaf surface and live inside the knotted mass making the head unmarketable.
Organism: Leaf Webber

(*Crocidolomia binotalis*)

- **Symptoms:** Green caterpillars make a web on the leaf surface and live inside the knotted mass making the head unmarketable.

- **Control:** Remove and destroy webbed bunches of leaf; Dust the crop with Carbaryl (4%) or spray with Malathion (0.05%).
Organism: **Downy Mildew**  
(*Perenospora parasitica*)

- The first symptoms are small, light green-yellow lesions on the upper leaf surface, later showing on the undersurface. The spots turn yellow as they enlarge.

- Control: Plant resistant or tolerant varieties; rotate crops and remove crop residues after harvest. Irrigate carefully to avoid periods of high humidity. Use wide spacing to promote
Organism: Yellows or Fusarium Wilt (*Fusarium oxysporum f*)

- **Symptoms:** The disease affects the seedlings in the nursery but plants exhibit symptoms 2 to 4 weeks after transplanting. A yellowish green color develops on one side of the plant.

- **Control:** Conventional control methods such as rotation, seed treatment, fungicide sprays, and destruction of crop debris are of little value once the fungus has established itself on a farm or in a specific field.
Harvesting and Handling

- Maturity is based on head compactness.
- At maturity a cabbage head should weigh 0.5 - 3 Kg.
- Cabbage is cut by hand and packed in the field for the fresh market.
- Cabbage should be harvested during the coolest part of the day.
Post Harvest Handling

- Heads are graded by size and Heads are graded quality.
- Buyers demand uniformly sized heads, 18 to 22 heads in a carton.
- Cartons bring a premium price and help protect the heads from damage during transportation and distribution.