

Packaging/Storage

- For home use, pack the seeds in a thick plastic or paper envelopes and place them.
- In large aluminum cans or large-mouth jars lined at the bottom with charcoal, lime or silica gel.
- Seal the package well.
- Place the seeds in a cool, dry place.
- For large volume, pack the seeds in thick plastic or aluminum foil containers and seal well.
- Keep in a cool and dry place or storage area. The drier the stored seeds and the cooler the storage area, the longer the life of the seeds.



- Sidedressing (2x)	4	210	840
- Thinning	2	210	420
- Weeding (3x)		3,000	9,000
- Spraying (6x)	6	210	1,260
5. Trellising			
- Posting	10	210	2,100
- Wiring and netting	25	210	5,250
- Vine training (3x)	15	210	3,150
6. Roguing	2	210	420
7. Harvesting/hauling	20	210	4,200
8. Seed extraction/cleaning/drying	30	210	6,300
9. Seed sorting	10	210	2,100
10. Seed treatment	1	210	210

Subtotal 55,623

B. Supplies and Materials

	Quantity		
1. Seeds	2 kg	1250/kg	2,500
2. Fertilizers			
- Complete	2 bags	1990/bag	3,980
- Urea	4 bags	1780/bag	7,120
- Muriate of Potash	2 bags	2200/bag	4,400
3. Fungicide			1,000
4. Insecticide			3,000
5. Trellising materials			
- Ipil-ibil poles ²	1200 poles	7/pole	4,200
- GI wire # 16 ³	600 kg	65/kg	9,750
- Twisted synthetic rope	15 rolls	120 /roll	1,800
- Jute sacks	40 pcs	12 pcs	480
- Net bag (12 in x 15 in)	40 pcs	10/pcs	400

Subtotal 38,630
Grand Total 94,253

C. Seed Store Economics

1. Cost of production		94,253	
2. Seed yield (kg/ha)	Low	Medium	High
	150	250	350
3. Gross income (P1,000/kg)	150,000	250,000	350,000
4. Net income	55,747	155,747	255,747
5. ROI (%)	0.59	1.65	2.71

¹ Based on prevailing prices of labor and supplies as of July, 2008.

² Poles for trellis will be used for 2 seasons, hence cost is divided by 2.

³ Wires will be used for 4 seasons, hence cost divided by 4.

COST AND RETURN ANALYSIS

	MD	Unit Cost ¹	Total Cost
A. Labor Cost			
1. Land preparation (mechanized)			
- Mowing		2,164	2,164
- Disking		1,640	1,640
- Harrowing (2x)		2,164	4,328
- Rotavation		3,001	3,001
- Furrowing		1,640	1,640
2. Planting/basal fertilization	5	210	1,050
3. Hilling-up		2,350	2,350
4. Field maintenance			
- Irrigation (Furrow -10x)			
2 MD/Irrigation	20	210	4,200

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Seed Production of PATOLA

VARIETY DESCRIPTION

Talisay

- yield: 20–25 tons/hectare (t/ha)
- harvest maturity: 80–90 days from planting
- long harvest period (14 pickings in 40 days)
- long, slim, smooth fruits
- all-season
- IPB selection

ENVIRONMENTAL REQUIREMENTS

- 'Patola' or sponge gourd belongs to the family Cucurbitaceae and is adapted to the dry tropic.
- Optimum temperature for good growth ranges from 18°C to 24 °C.
- It can be seed produced at anytime of the year so long as water is available.
- Patola is a short day plant and therefore cool and long nights favor the development of female flowers. High relative humidity and high N-fertilization also stimulate development of female flowers.
- For greater yield, it is best to plant when flowering coincides with the long, cool nights of November to January and for harvesting to fall on the dry months of the year.

CULTURAL MANAGEMENT

Land Preparation

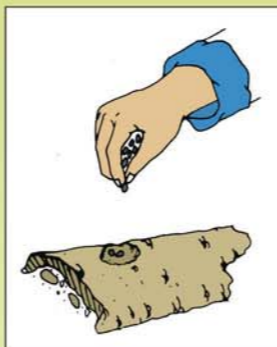
- Prepare land thoroughly by mechanical means or with the use of animal-drawn implements.



- Make sure to break big clods.
- Space the furrows 75 cm apart.

Planting/Thinning

- Patola is direct-seeded and requires 2 kg seeds/ha.
- Soak seeds in water 1–2 days or wrap in moist cloth to facilitate germination.
- Plant spacing is 0.75–1.0 m between hills and 2.25–3 m in-between rows.
- Sow 2–3 seeds per hill and cover with a thin layer of soil.
- Thin out weak seedlings leaving one healthy plant per hill.



Fertilization

- The rate of fertilization depends on the results of soil analysis, but in its absence, apply about 15 g or 1.5 tbsp complete fertilizer (14-14-14) per hill before planting. Cover with a thin layer of soil. Add a handful of chicken manure.
- At early vegetative stage or a month after sowing, sidedress 20 g of a mixture of 2 parts Urea (46-0-0) and 1 part Muriate of Potash (0-0-60). Follow it up immediately with hilling-up to cover fertilizer.



Irrigation

- Irrigate immediately after planting to ensure uniform seed germination.
- During dry months, furrow irrigate every ten days. Irrigate only when necessary during wet season. Construct drainage canals at the end of rows to avoid flooding.

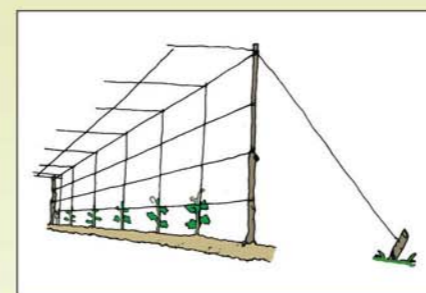
Weeding

- Handweed thoroughly the planted rows, and underbrush or rotavate the large spacing in between rows.
- After the first weeding, cultivate the soil and hill-up after sidedressing.



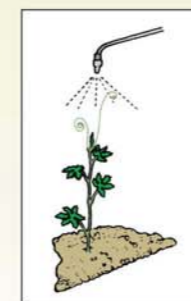
Trellising

- Before the vines creep, construct an overhead trellis.
- Lay out 2 m long, 2–2.5 diameter poles 4–5 m apart within the row.
- Connect the poles at the top along the rows with wire (#16) and tie the top wire to a posted stake at the end of the row to make the poles stable. Likewise, connect the poles between rows with wire and connect to a posted stake at the last row.
- Construct the overhead trellis by running alternately wires and straws lengthwise and crosswise at the top of trellis.
- Construct a structure for the vines to climb up to the overhead trellis.



Insect Pest Management

- Fruit fly is the most destructive insect pest in patola. Exercise sanitation by cutting off and discarding infected fruits to prevent increase of pest population. Wrap the fruits with paper or net bag. This process is laborious but effective.
- Spray insecticide when needed to control other pest as yellow beetle, aphids, leaf folders and mites.

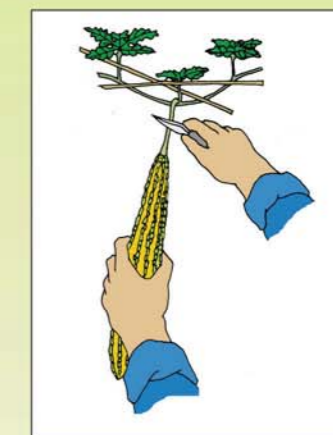


Disease Management

- Downy mildew and powdery mildew are the serious diseases in patola. Remove infected parts immediately to prevent the spread of the disease. Spray with fungicides judiciously.

Harvesting

- Harvest when fruits have turned leathery brown. Fruits can be harvested while they are still yellow, but they have to be dried further for easier seed extraction.
- Avoid late harvesting, the basal end of the fruits crack open at maturity, thus causing seeds to spill.



POSTHARVEST HANDLING

Seed Processing

- Shake fruits vigorously to extract seeds from the fruit.
- Remove the thin, transparent membrane covering the seeds though winnowing or by passing the seeds through an air-cleaner.
- Air dry the seeds for 2–3 days and sundry them for 3–4 days.
- Sort out the seeds by removing immature and unfilled seeds.
- After seed extraction, sponge can be processed and marketed for additional income.

