

Pre-storage seed treatment

- Treat the seeds with Carbendazim at 2 g / kg of seed along with Carbaryl at 200 mg / kg of seed.
- Treat seeds with Halogen mixture ($\text{CaOCl}_2 + \text{CaCO}_3 + \text{arappu}$ (*Albizzia amara*) leaf powder mixed in the ratio of 5:4:1 @ 3 g / kg as eco-friendly treatment.

Storage

- Store the seeds with a seed moisture content of 9 - 10% in gunny or cloth bags for short term storage (8-9 months).
- Store the seeds with a seed moisture content of 8 - 9 % in polylined gunny bag for medium term storage (12 - 15 months).
- Store the seeds with a seed moisture content less than 8 % in 700 gauge polythene bag for long term storage (more than 15 months).

(viii) FIELD LAB-LAB (MOCHAI) (*Lab lab purpureus* (L.) var. *ignosus*)

CLIMATE REQUIREMENT

T_Max°C	T_Min°C	Optimum °C	Rainfall mm	Altitude m MSL
35	4 - 6	18 - 30	800 - 1000	1800 - 3000

Tropical and sub tropical crop. Hot weather and drought stress are damaging to peas during the flowering period. Field peas can be grown as a winter crop in warm and temperate areas because pea seedlings have considerable frost resistance. High humidity is harmful to pea crop due to incidence of disease. Short day plant.

CROP IMPROVEMENT

District /Season	Varieties
All districts except Nilgiris All throughout the year	CO 2

II. Description of mochai variety

PARTICULARS	Co 2
Year of Release	1984
Year of Notification	SO.596(E)/13.08.1984
Parentage	Derivative of Co 8 X Co 1
50% flowering(days)	35-45

Duration (days)	105
Grain yield(kg/ha)	
Rainfed	900
Irrigated	1400
Habit	Erect and bushy determinate photo insensitive
Hight (cms)	60
Colour of Flowers	Purple
Colour of pod	Green
Shape of pod	flat
Colour of grain	Black
100 seed weight (g)	20.0

I. SEED RATE

Particulars	Quantity of seed required kg/ha	
	Sole crop	Mixed crop
CO 1	20	10.0
CO 2	25	12.5

CROP MANAGEMENT

II. MANAGEMENT OF FIELD OPERATIONS

1. FIELD PREPARATION

Prepare the land to fine tilth.

2. SEED TREATMENT WITH FUNGICIDES

Treat the seeds with Carbendazim (or) Thiram @ 2g/kg of seed 24hrs before sowing (or) with talc formulation of *Trichoderma viride* @ 4 g/kg seed (or) *Pseudomonas fluorescens* @ 10 g/kg seed.

- Biocontrol agents are compatible with biofertilizers.
- First treat the seeds with biocontrol agents and then with Rhizobium.
- Fungicides and biocontrol agents are incompatible

3. SEED TREATMENT WITH BACTERIAL CULTURE

Fungicide treated seeds should be again treated with bacterial culture. There should be an interval of atleast 24 hours between fungicidal and bacterial culture treatments. Three packets of bacterial culture are sufficient for treating seeds required for one hectare. The bacterial culture may be prepared with rice kanji. Dry the inoculated seeds in shade for 15 minutes, before sowing.

4. FERTILIZER APPLICATION

Apply 20 kg N and 80 kg P_2O_5 and 40 kg K_2O per ha 40 kg of S as Gypsum (220 kg/ha)/ ha as basal dressing. Soil application of 25 kg $ZnSO_4$ /ha, 10 kg borax, 25 kg $FeSO_4$ + FYM under irrigated condition if the soil is deficient in respective nutrients.

5. FOLIAR APPLICATION

- i. Foliar spray of NAA 40 mg/litre and Salicylic acid 100 mg/litre once at pre-flowering and another at 15 days thereafter to reduce flower drop and enhance seed set.
- ii. Foliar spray of DAP 20 g/litre or urea 20 g/litre once at flowering and another at 15 days thereafter to enhance flower number and pod set

6. SOWING

Dibble the seeds, adopting the following spacing.

Strain	Sole crop	Mixed crop
CO 1	90 cm x 30 cm	200 cm x 30 cm
CO 2	45 cm x 15 cm	200 cm x 15 cm

7. WEED MANAGEMENT

- i) Pre emergence application of Pendimethalin @ 2 litres/ha on 3 days after sowing using Backpack/ Knapsack/Rocker sprayer fitted with flat fan nozzle using 500 l of water for spraying one ha. After this, one hand weeding on 40-45 days after sowing gives weed free environment throughout the crop period.
- ii) If herbicides are not applied, give two hand weedings on 25th and 45th days after sowing.

8. WATER MANAGEMENT

Irrigate immediately after sowing, followed by life irrigation on third day. Irrigate at an interval of 7 to 10 days depending upon soil and climatic conditions. Flowering and pod formation stages are critical periods when irrigation is a must. Avoid water stagnation at all stages. Apply KCl at 0.5 percent as foliar spray during vegetative stage if there is moisture stress.

9. HARVESTING

Dry pods may be collected for grain purposes. Green mature pods may be collected for vegetable purpose.

CROP PROTECTION

Seed treatment: Treat the seeds with *T. asperellum* @ 4 g or *P. fluorescens* @ 10 g/kg or carbendazim @ 2 g/kg or thiram @ 4 g/kg seeds

Disease	Recommendations
Anthracnose and die-back: <i>Colletotrichum</i> <i>lindemuthianum</i>	Spray Mancozeb @ 1000 g or Carbendazim @ 250 g/ha soon after the appearance of the disease and if necessary, spray once again a fortnight later

(ix) SOYABEAN (*Glycine max* (L.) Merr.)

CLIMATE REQUIREMENT

T_Max°C	T_Min°C	Optimum °C	Rainfall mm	Altitude m MSL
40	10	25 - 32	600 - 750	2000

Tropical and subtropical warm and moist climate. Short day plant. It can withstand short periods of waterlogging and short drought.

CROP IMPROVEMENT

1. SEASON AND VARIETIES

DISTRICT/SEASON	VARIETIES
Adipattam (June - July)	Co(Soy)3
Purattasipattam (Sep. - Oct.)	
Masipattam (February - March)	
Rice fallows	