

Pea (*Pisum sativum* L)

Varieties:

Varieties	Year of release	Plant type	Maturity (days)	Yield (q/ha)	Other characters
Rachna	1980	Tall (135-138 cm)	120-125	10-12	Almost similar to T-163, tolerant to powdery mildew

New variety recommended:

Varieties	Year of release	Sowing time	Duration (days)	Yield (q/ha)	Agroclimatic zone	Pest reaction
FP-255 (Pant-14)	2004	October	108	11.49	Hill Zone	Moderately resistant to rust

Soil Type:

Peas can be grown on a variety of soils. Well drained light soils are suitable.

Liming:

After soil test to bring pH around 6.0, requisite quantity of lime is to be applied at least 21 days before sowing.

Time of Sowing:

The optimum time of sowing is mid October to mid November

Field Preparation:

Peas generally require reasonably deeply worked soils. The field is to be ploughed 3 to 4 times to obtain a good tilth.

Seed Rate:

60 kg/ha or 10 kg/bigha. In riverine tracts, recommended seed rate is 4-6 kg/bigha

Relay Cropping of Pea:

Pea seeds at 25-50% higher seed rate are to be broadcast in the standing crop of rice about 15-20 days before harvest provided the soil is in moist condition.

In rice + pea relay cropping, seeding of pea at 20 days after 50% flowering of rice with a seeding rate of 90 kg/ha is recommended in medium *sali* land for Hills zone. Pea seeds are to be soaked overnight before sowing.

Seed Treatment:

Seed treatment with carboxin @ 2 g/kg of seed is recommended.

Spacing:

The seeds are to be sown in lines at a spacing of 30 cm between rows and 10 cm between plants.

Fertility Management:

Compost or FYM @ 4-5 t/ha or 6 q/bigha should be applied.

Nutrient	Requirement (kg/ha)	Form	Fertilizer requirement	
			kg/ha	kg/bigha
A. Without Rhizobium culture				
N	20	Urea	45	6
P ₂ O ₅	46	SSP	287	38
K ₂ O	15	MOP	25	3
B. With Rhizobium culture				
N	10	Urea	22	3
P ₂ O ₅	46	SSP	287	38
K ₂ O	15	MOP	25	3

Apply all the fertilizers i.e. urea, SSP and MOP as basal followed by foliar spray of 0.5% NPK (19:19:19) at pre-flowering and pod initiation stages

In North Bank Plains Zones, 10 kg Borax/ha is also recommended.

Diammonium phosphate (DAP) @ 100 kg/ha or 13 kg/bigha should be applied in lieu of urea and SSP in noninoculated crop. NPK may also be supplied in the form of mixed fertilizers.

Application of lime:

CaCO₃ in the form of dolomitic lime @ 65.5 kg/bigha should be applied 15 days before seeding and incorporate in the soil in areas where multiple cropping is practiced.

Weed Control:

Fluchloralin 45% EC @ 1.5 kg a.i./ha as pre-emergence spray one day before sowing be incorporated in the soil with light hoeing.

Suitable Rhizobium Culture: PAU and IARI or any other suitable strains can be used.

Irrigation: If required and available, one irrigation should be given at 40-50 days of sowing.

Plant Protection:

A). Insect Pests

To control cutworm (*Agrotis ipsilon*) in field pea, apply rice stubbles @ 3.5 t/ha (2 cm thick) as mulch just after sowing.

B). Disease:

Disease	Fungicide	Dose/ha	Conc. (%)	Mode of application
Wilt	Carboxin	2 g/kg of seeds	-	Seed treatment
Rust	Tebuconazole or Propiconazole	2g/lit	0.2	10 days interval starting from the appearance of disease
Powdery mildew	Wettable sulphur	2.5 to 3.5 kg in 500-700 ml in 500-700 lit of water	0.5	-do-

Harvesting:

Harvesting should be done when 75-80% of the pods turn yellow.

Protection against storage pests:

Properly dried seeds of pea should be mixed thoroughly with black pepper seed powder @ 3g/kg of seed for protection against bruchid infestation during storage. Treated seeds should be kept in polybags with outer covering of gunny bags.