

Rajmah or French bean (Pulse type) (*Phaseolus vulgaris* L.)

Variety:

Uday (PDR-14): A promising variety selected by Directorate of Pulses Research, Kanpur. Plant type is erect, branched, determinate type, 35-50cm in height. It matures in 10-120 days. Grain yield is 15-20 q/ha. Pods are 10-12 cm long, 3-4 seeds per pod, 15-20 pods per plant.

New varieties recommended:

Varieties	Year of release	Sowing time	Duration (days)	Grain yield (t/ha)	Agroclimatic zones	Remarks
HUR-301	-	Mid Oct. to mid Nov.	95-105	2.00	All zones	Resistant to wilt, leaf crinkle & BCMV
HUR- 203	-	-do-	95-105	2.00	-do-	Resistant to major insect pests
ARUN	2007	-do-	95-100	2.00	CBVZ, LBVZ, NBPZ, BVZ	-do-

Soil type: Sandy loam

Time of Sowing:

October 15 to November 30. (Best time Nov. 20-30 when temperature reaches 27.7°C)

Field Preparation:

Land should be prepared thoroughly to a fine tilth. Avoid sowing in highly moist soil.

Seed rate: 75 kg/ha or 10 kg /bigha

Seed Treatment: Seeds should be treated with carboxin @ 2 g/kg of seed before sowing.

Spacing: 30 cm x 10 cm

Manures and Fertilizers: FYM/compost @ 10 t/ha or 13 q/bigha should be applied.

Nutrient	Requirement (kg/ha)	Form	Fertilizer requirement	
			kg/ha	kg/bigha
N	60	Urea	132	18
P ₂ O ₅	45	SSP	281	38
K ₂ O	40	MOP	68	9

Half of N and full doses of FYM, P₂O₅ and K₂O should be applied as basal dressing and the remaining half of N to be top dressed 30 days after sowing. Apply 2% urea spray 3 times at 45, 60 and 70 DAS.

Since no nodulation takes place, the variety “Uday” responds to high nitrogen fertilizer (up to 120 kg/ha). For better yield of rajmah, a higher fertilizer dose of 60:80:40 kg NPK/ha for North Bank Plains Zone is recommended.

Inoculate seeds with PSB @ 50 g/kg seed.

Application of Lime:

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

Interculture:

First weeding should be done at 20-25 days after emergence, and subsequent weeding as and when necessary. Earthing up should follow immediately after weeding.

Irrigation:

Two irrigations one at flowering (40 days after sowing) and other at early pod formation stage (65-70 days after sowing) are needed for proper growth and pod filling. Water logging should be avoided.

Plant Protection:

- For controlling aphids and jassids apply Emamectin benzoate 5SG @ 220g/ha.
- To escape leaf crinkle disease, sow Rajmah seed from 20-30th November.

Harvesting:

Harvesting should be done when 75-80% of the pods turn brownish in colour. Delayed harvesting leads to pod shattering.