

भारत सरकार

कृषि एवं किसान कल्याण मंत्रालय
(कृषि, सहकारिता एवं किसान कल्याण विभाग)
दलहन विकास निदेशालय
छठवीं मंजिल, विन्ध्याचल भवन
भोपाल-462004 (म.प्र.)

**Government of India**

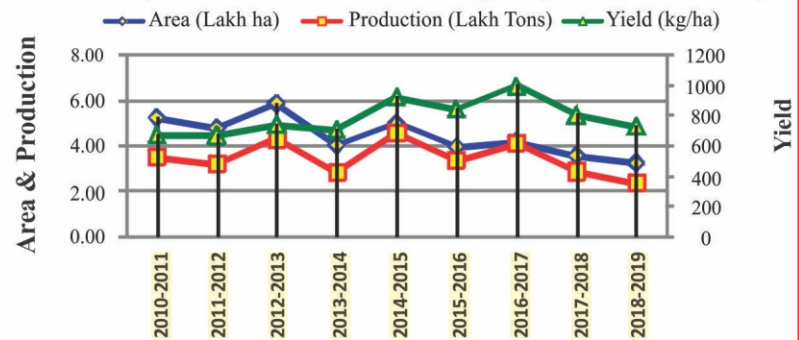
Ministry of Agriculture & Farmers Welfare,
Deptt. of Agriculture, Cooperation & Farmers Welfare
Directorate of Pulses Development
6th Floor, Vindhyachal Bhavan
Bhopal - 462004 (M.P.)

E-mail: dpd.mp@nic.in Telefax: 0755-2571678, Phone: 0755-2550353/ 2572313

**LATHYRUS
(KHESARI)**

Scientific Name:
Lathyrus sativus L.

Area : 3.98 Lakh ha
Production: 3.45 Lakh tonnes
Yield: 868 kg/ha
(Avg. of 2014-15 to 2018-19)
**Ever Highest Production –
4.56 Lt. (2014-15)**

Area, Production & Yield of Lathyrus (2010-11 to 2018-19)**Major States (Avg.: 2014-15 to 2018-19)**

(Area in lakh ha; Production in lakh tonnes; Yield in kg/ha)

Major States	Area	% Contri	Prod.	% Contri	Yield
Chhattisgarh	2.71	68	2.14	62	791
West Bengal	0.67	17	0.75	22	1127
Bihar	0.57	14	0.56	16	973
All Above	3.94	(99%)	3.45	(100%)	874
All India	3.98		3.45		868

Major Districts

Major States	Year	Major Districts
Chhattisgarh (98%)	2018-19	Mungeli, Balod, Rajnandgaon, Dhamtari, Raipur, Bemetara, Balodabazar, Durg, Bilaspur, Kabirdham, Gariyaband
West Bengal (98%)	2016-17	Purba Medinipur, Murshidasbad, South & N 24 Parganas, Malda, Nadia, Birbhum, Paschim Medinipur, Howrah, Alipurduar, Coochbehar
Bihar (95%)	2017-18	Aurangabad, Patna, Jahanabad, Bhojpur, Nalanda, Lakhisarai, Rohtash, Buxer, Shekhpura, E.Champaran, Nawada, Bhagalpur

Economic Importance:

Lathyrus is considered as drought-tolerant hardy crop, and is grown in low-rainfall regions under rainfed conditions. The crop has unique tolerance ability against stress environmental conditions not only drought but also for water logging. Lathyrus leaves about 36-48 kg/ha nitrogen economy for the succeeding cereal.

Crop Products:

- Consumed as whole grains, as well as dal in a variety of ways and Chappati.
- Green pods are delicious source of vegetables.
- Used as a source of food, feed, fodder.
- It contains 34% protein and other essential micro-nutrients and may provide nutritional security to the low income people in the society.

New Varieties

Year	Varieties	Year	Varieties
1976	Pusa-24	2008	Mahateora (RLS 4595)
1982	Nirmal (B-1)	2019	Bidhan Khesari -1 BK-14 -1 (LAT15-6)
1997	Ratan (Bio. L 212)		
2006	Prateek		

भारत सरकार

कृषि एवं किसान कल्याण मंत्रालय
(कृषि, सहकारिता एवं किसान कल्याण विभाग)
दलहन विकास निदेशालय
छठवीं मंजिल, विन्ध्याचल भवन
भोपाल-462004 (म.प्र.)



Government of India

Ministry of Agriculture & Farmers Welfare,
Deptt. of Agriculture, Cooperation & Farmers Welfare
Directorate of Pulses Development
6th Floor, Vindhyachal Bhavan
Bhopal - 462004 (M.P.)

E-mail: dpd.mp@nic.in Telefax: 0755-2571678, Phone: 0755-2550353/ 2572313

Sowing Season: Rabi

Sowing Time : Crop is sown on residual soil moisture after harvest of kharif during last October to early November as pure crop. In utera cropping last week of September or first week of October.

Spacing : 30 cm x 10 cm.

Seed Depth : 2-3 cm

Seed Rate : **Broadcast-** 70-80 kg/ha in Utera Farming

Line Sowing- 40-60 kg/ha

Seed Treatment: Seed must be inoculated with Rhizobium and PSB before sowing.

Soil Type: It grows abundantly in loamy and deep black soils and produce excellent crop. For cultivation of lathyrus under utera system (relay cropping), no tillage is required. However, for planting after harvest of rice, one deep ploughing followed by cross harrowing and planking is necessary.

Climate: Being a winter season crop it prefers temperate climate with good adoption under climatic extremities.

Plant Nutrient Management: 100 kg DAP + 100 kg gypsum/ha applied as basal dose, 2-3 cm side and below the seed with the help of ferti-seed drill.

Weed Management: One hand-weeding at 30-35 days after sowing Weeds can also be managed effectively by spray of fluchloralin (Basalin) 35 EC @ 1 kg a.i./ha in 500-600 liters of water as pre-plant incorporation.

Application of fertilizer should be based on Soil Test Report.

Irrigation : The crop is grown as rain fed crop on residual moisture. However, under high moisture stresses one irrigation at 60-70 days after sowing may be remunerative in terms of production.

Cropping System:

It is grown as single crop of the year in areas where water gets accumulated during rainy season or as a relay crop after paddy often as utera / paira crop in standing paddy, due to its ability to withstand in high moisture conditions at sowing time and moisture stress during growth period.

Harvesting/Threshing & Storage:

- When colour of pods change to brown and grains are at dough stage having approximately 15% moisture in-side them.
- Harvested produce after 3-4 days sun drying in the bundles and transferred to threshing floors.
- The clean seed should be sun dried for 3-4 days to reduce their moisture content up to 9-10%.
- The small quantity of the produce can also be protected by mixing inert material (soft stone, lime, ash, etc).

Yield: A well managed crop can easily give 8-10qtls/ha yields under direct sowing and 3-4 qtls under utera cultivation.

Insect-Pest & Disease Management:

Name Insect-Pest/ Disease	Control Measures
Aphid	• Spray with Oxydemeton methy (Metasystox) 25 EC @ 1 ml/liter of water.
Rust	• Grow early maturing variety. • Seed Treatment with Agrosan GN @ 2.5 g/kg seed. • Spray the crop with Maneb, Zined or Ferbam @ 2.5 g/litre.
Downy Mildew	• Spray with Agrosan GN 0.25%
Powdery Mildew	• Wettable Sulphur @ 3 gm/ litre of water.

Recommendation to achieved higher production:

- Deep summer ploughing once in 3 years.
- Seed treatment should be done before sowing.
- Application of fertilizer should be based on soil test value.
- Foliar spray of 2% urea or 20 ppm Salicylic acid at flowering and pod formation stage increases the yield.
- Weed control should be done at right time.
- Adopt integrated approach for plant protection.