

REDGRAM

I. Package of Practices:

Varieties (Medium duration) : LRG 41, LRG 30, LRG 38, ICP 8863, ICPL 332, ICPL 87119,



MRG 66 ,ICPL 85063, PRG 100, WRG 27, PRG 158, MRG 1004, WRG 53.



Short duration : ICPL 84031 (Durga), ICPL 85010, CORG 9701

Wilt resistant varieties: ICPL 87119,ICP8863.

SMD resistant varieties: ICPL 87119, BSMR 736, BSMR 853.

Soils/areas: All types of soils with good drainage. Saline soils are not suitable.

Land preparation : Land should be prepared to fine tilth by ploughing 2 to 3 times followed by a harrowing.

Seed rate

Kharif: Medium duration varieties : 5-10 kg/ha
Short duration varieties : 15-18 kg/ha depending on type of soils

Rabi: 15-20 kg/ha. Avoid cultivation of short duration varieties in rabi

Spacing

Kharif: Medium duration varieties : 150 to 240 x 20 cm (depending on soil type)

Short duration varieties : 90 x 20 cm (black soils) or 60 x 20 cm (light soils)

Rabi: 45-90 cm between the rows depending on soil type and rainfall.

Sowing/planting with cut off dates :

Kharif: June 15th – August 15th .

Rabi: 20th September – 20th October.

Weed control: Spray Pendimethalin @ 3.25 to 3.75 lt/ha. immediately after sowing

Spray Imazithapyr @ 750 ml/ha after 20-25 days if necessary

Manures and fertilizers including bio-fertilizers and micronutrients etc.

Apply 20 N + 50 P₂O₅ kg/ha as basal dose. Treat the seed with *Rhizobium* cultures.

Irrigation: Flowering and pod formation stages are most critical for moisture stress. Light irrigations at above stages enhance the yield.

Inter-cultivation and other management practices, if any :

One or two hoeings to keep the crop free from weeds upto 60 DAS or application of Pendimethalin @ 1.5kg/ha as pre-emergence herbicide immediately after sowing will be effective in controlling the weeds.

INTERGRATED PEST MANAGEMENT OF *HELICOVERPA* ON REDGRAM

I. CULTURAL

- Summer ploughing
- Avoid mono-cropping
- Seed treatment with Rhizobium culture
- Follow crop rotation
- Adopt wider row spacing (more than 2 meters)
- Use recommended dose of fertilizers
- Cultivate tolerant/recouping varieties (LRG 41, ICPL 332, LRG 38 and LRG 30)
- Grow intercrops

Kharif : Sorghum, Soybean, Gingelly, Greengram, Blackgram, Greengram, Dry paddy, Bajra

Rabi: Coriander, Cowpea, Greengram, Blackgram, Groundnut

- Sow rabi redgram under irrigated conditions in September to escape *Helicoverpa*
- Cultivate short duration varieties in Telangana to escape *Helicoverpa*

II. MECHANICAL

- Monitor with Pheromone traps @ 10/ha
- Dislodge the larvae by shaking the plants

III. BIOLOGICAL

- Release of *Trichogramma* twice at weekly intervals @ 65000/ha
- Keep bird perches @ 50/ha
- Spray NPV and B.T. (NPV @ 500 LE/ha or B.T. @ 1 kg/ha)

IV. PLANT PRODUCTS

- Use Neem oil @ 5 ml/l or Repelin @ 10 ml/l or NSKE @ 50 g/l

V. SYNTHETIC PESTICIDES

- Follow need based application
- Avoid cocktail mixtures.
- Aim the sprayings at early instars
- Apply chlorpyrifos @ 2.5 ml/lit or quinolphos @ 2 ml/lit or acephate @ 1 g/lit or flubendiamide @ 0.2 ml/lit or spinosad @ 0.3 ml/lit or chlorantraniliprole @0.3 ml/lit alternatively during the flowering & pod formation stage.
- Ensure thorough coverage (500 l/ha)
- Use Hydraulic/Pneumatic hand compression sprayers
- Discourage synthetic pyrethroids
- Avoid sub-lethal dosage
- Adopt community approach

Plant Protection:

Maruca Pod borer: Spray a combination of chlorpyrifos 2.5 ml /lit or acephate 1gm/lit or novoluron 0.75ml/lit + nuvan 1ml/lit or flubendamide @0.2ml/lit of water or Spinosad @ 0.3 ml/lit or chlorantraniliprole @0.3 ml/lit.

Pod fly : monocrotophos 1.6 ml/lit or acephate 1 g/lit or dimethoate @ 2 ml/lit or profenophos @ 2 ml/lit.at the time of seed development on need basis.

Disease management

Wilt : Grow resistant varieties - ICPL 87119, PRG 158 and ICPL 8863



Sterility mosaic virus : Grow resistant varieties - BSMR 853, BSMR 736, ICPL 87119.

Macrophomina blight : Grow resistant varieties - MRG 66, MRG 1004.

Post harvest technology

Properly dried produce can be stored in nylon bag, polythene lined gunny bag or compactly knitted gunny bag upto a period of 180 days.

