

INTEGRATED PEST MANAGEMENT IN REDGRAM

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Redgram is an important pulse crop which is a valuable source of protein. Area under redgram in TamilNadu is around 0.86 lakh ha and the average productivity is 875 kg/ha which is less when compared to other states of India. The major constrain in red gram production is the damage by insect pests viz., gram pod borer, spotted pod borer, blue butterflies, pod bugs, pod fly, blister beetle and aphids. Diseases also cause heavy yield loss. The possible way to reduce the yield losses due to these insect pests and diseases is to adopt integrated pest management practices along with other crop management strategies.

- Summer ploughing and timely sowing of varieties
- Use of high yielding varieties like VBN2, VBN3 and Co(RG)7
- Seed treatment with *Trichoderma viride* @ 4 g/kg seed or *Pseudomonas fluorescens* @10 g/kg seed
- Seed treatment with carbendazim + thiram (1 g + 2 g/kg seed, or carbendazim (2 g/kg seed) or thiram (3 g/kg seed).
- Planting of castor or tall sorghum/maize varieties on borders for conserving natural enemies.

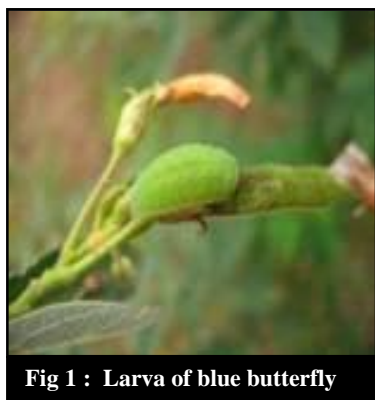
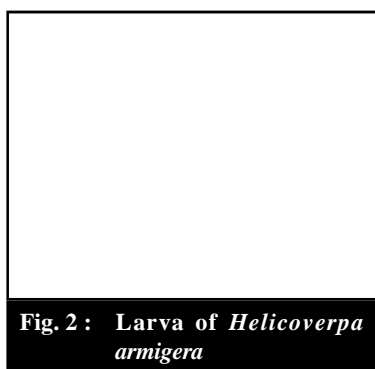


Fig 1 : Larva of blue butterfly

Fig. 2 : Larva of *Helicoverpa armigera*

- Plant short stature crop like cowpea, blackgram, greengram, fodder soybean etc. in 1 m wide band after 8-10 rows of redgram

- Growing trap crop like marigold on the borders and in between rows as inter crop as their flowers shall attract oviposition which can then be plucked and disposed.

- Inter-culture and hand weeding for keeping the crop, weed free for 6-8

weeks.

- Conservation of predatory spiders and wasps etc.
- Use of pheromone trap for monitoring and controlling *Helicoverpa armigera* @ 12 No's/ha
- Installing bird perches @ 50 No's/ha or growing of sorghum crop along borders to encourage birds
- Collection of larvae/beetles and destruction
- Spray of NSKE 5% at pre-flowering stage 3 times at 15 days interval
- Application of TNAU pulse wonder @ 2.5 kg/

acre (nutrient mix) in 250 lts of water during flowering period

- Spraying of NAA @ 4 ml/4.5 lt at the time of flowering and 15 days later to prevent flower dropping.

- Spraying of Ha NPV @ 1.5 x 10¹² POB/ha for management of *Helicoverpa armigera*

- Spraying of Indoxacarb 14.5 SC @ 0.75 ml/lt at 50 % flowering or monocrotophos 36 WSC 2 ml/lt at the time of flowering/early pod formation stage to manage pod borers

- Spraying of 100 ppm Cycocel to mitigate drought condition (100 g in 1 lt).

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Fig 3 : Aphid colony on redgram



Fig. 4 : Pod bug



Fig. 5 : Blister beetle