



Integrated Management of **PINK BOLLWORM** in Cotton

- bolts (atleast two bolts out of 20 having white or pink larvae or exit holes) or 8 moths catch per pheromone trap per night for consecutive 3 days.
- Picking of clean and infested cotton may be carried out separately. Clean cotton may be stored or marketed. Infested cotton should be destroyed
 - Install light traps and pheromone traps near ginneries, market yards for mass trapping of adult moths. Trapped adults should be destroyed / killed. This should be done during both season as well as off season
 - Concerned State Agricultural Universities and State Agriculture Department should initiate mass awareness campaign to alert cotton production stakeholders viz., farmers, farm input suppliers, ginneries owners, cotton market yards committees, seed producer companies, pheromone traps producers, pesticide companies, Krishi Vigyan Kendras, CIPMC etc to initiate action at their ends.

Table: Insecticides suggested for pink bollworm management

Month	Insecticide	Dose per 10 liter of water*
September	Quinolphos 20% AF	20 ml
	Thiodicarb 75% WP	20 g
October	Chlorpyriphos 20% EC	25 ml
	Thiodicarb 75% WP	20 g
November	Fenevelerate 20% EC	10 ml
	Cypermethrin 10% EC	10 ml

* Use three times higher dose for power sprayer

Contact details for more information

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Dear Cotton Growers,

Pink bollworm has now emerged as a major pest of Bt-cotton in all cotton growing areas of India. The pest mainly feed on seeds causing economic loss. Infestation occurs in mid and late stages of the crop, it remains undetected due to internal feeding behavior and causes loss of yield and quality. It impacts boll opening, coinciding with the second picking of cotton in most areas. Since the last 2-3 years, pink bollworm is appearing early (45-60 days after sowing) on Bt-cotton hybrids in Central and South India. The infestation varies from place to place. During 2017, major cotton producing states like Maharashtra, Telangana, Andhra Pradesh, Karnataka and Madhya Pradesh were under the grip of pink bollworm damage and infestation ranged from 8-92% with corresponding yield losses of 10-30%. Availability of cotton all round the year promotes rapid build up of the pest. In 2018, pink bollworm infestation is likely to be aggravated if suitable management strategies are not adopted in right perspective. ICAR-Central Institute for Cotton Research devised management strategies to bring down the infestation of pink bollworm in the coming crop season 2018 which needs to be implemented by all the concerned.



Integrated Management of Pink bollworm in cotton

- Terminate cotton crop by December-Mid January
- Do not sow cotton crop in the month of April-May as it will attract pink bollworm infestation at early crop stage
- Destroy residual stalks and partially opened bolls
- Refuge (20% non Bt seeds) should be planted along with Bt cotton, if provided in separate packet
- Do not store infested or stained cotton in house/ godowns
- Procure authentic Bt cotton hybrid/variety seeds, retain bills of seeds that have been purchased
- Take up sowing in the month of June with early maturing short duration Bt-cotton hybrids/ varieties recommended for the region
- Crop rotation should be followed to break the life cycle of pink bollworm
- Install pheromone traps @ 5/ha, after 45 days of sowing for monitoring moth activity of pink bollworm
- Inspect the crop at squaring and flowering stage for the presence of pink bollworm larvae within flowers
- At boll formation stage, farmers are advised to inspect presence and damage of pink bollworm by plucking 20 green bolls from different plants randomly
- Collect and destroy fallen squares, flowers and bolls in the field
- One spray of neem seed kernel extract 5%+ neem oil 5ml/lit. may be taken up at 60 days after sowing
- In the months of Oct. –Nov. release parasitoid *Trichogramma bactrie* @60000/acre wherever available
- Chemical control measures should be initiated (as shown in table below) when pest crossed ETL (Economic Threshold Level) - i.e. 10% damaged flowers (Rosette flowers) or 10% damaged green



Symptoms of pink bollworm damage in cotton



Rosette flower Damaged flower Exit hole Larvae inside boll Damaged boll