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CAU Advisory

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MANAGEMENT OF FALL ARMY WORM (FAW) IN MAIZE

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Fall Armyworm (FAW) is a highly damaging pest of maize. The FAW is a polyphagous migratory lepidopteran pest causing significant damage to the crop. It has a very rapid spreading capacity. Nowadays, it is becoming a major threat in India as well as in North-eastern states. Proper quarantine measures should be strengthened to control the further entry of pests through a different medium.

EXTENT OF DAMAGE: (**Figs.** 1 to 4)

Fig. 1 Larvae damage to initial stage

Fig. 2 Larvae make holes in leaves

Fig. 3 Larvae excreta on leaves

Fig. 4 Damage to reproductive stage

INTEGRATED PEST MANAGEMENT (IPM) STRATEGIES

1. **Monitoring:** Installation of FAW pheromone traps @ 5 acre^{-1} (**Fig**. 5) on or before germination of the crop to monitor pest and population build-up. If 3 moths are detected per trap spraying is recommended.

Fig. 5 Pheromone trap

2. **Scouting:** Start scouting in "W" pattern in the field after leaving 3-4 outer rows as soon as maize seedlings emerge.
3. **Cultural control:** Deep summer ploughing is recommended before sowing, and intercropping with pigeon pea/black gram/green gram and erection of bird perches @ 10 nos. acre^{-1}.
4. **Mechanical control:**
   - Application of sand or ash into plantwhorl of affected maize plants (**Fig**. 6).
   - Hand picking (**Fig**. 7) and destruction of egg masses and neonate larvae in mass by crushing or immersing in kerosine water.

Fig. 6 Sand into plant whorl

Fig. 7 Hand picking

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5. Biological control: (**Fig**. 7 & 8)

- Increase the plant diversity by intercropping with pulses and ornamental flowering plants which help in build-up of natural enemies.
- Augmentative release of *Trichogramma pretiosumor Telenomus remus*@ 50,000 acre^{-1} at weekly intervals or based on trap catch of 3 moths trap^{-1}. Application of *Metarhizium anisopliae* talc formulation (1 × 108 cfu g^{-1}) @ 5 g l^{-1} at 15-25 days after sowing. Application of *Bacillus thuringiensis* v. *kurstaki* formulations @ 2 g l^{-1} (or) 400 g acre^{-1}.

Fig. 8 Application *M. anisopliae*

6. Chemical control:

- Seed treatment with Cyantraniliprole 19.8% + Thiomethoxam 19.8% @ 4 ml kg^{-1} of seed. At seedling stage spray 5% neem seed kernel extract (NSKE) or Azadirachtin 1500 ppm @ 5 ml l^{-1} of water to kill eggs and neonate larvae.
- Mid-whorl stage, spray Chlorantraniliprole 18.5% SC @ 0.4 ml l^{-1} or Spinetoram 11.7% SC @ 0.5 ml l^{-1} of water.
- Late whorl stage, spray Emamectin benzoate 5% SG @ 0.4 ml l^{-1}or Thiamethoxam 12.6% + lambda cyhalothrin 9.5% @ 0.25 ml l^{-1} of water.

Fig. 9 Release *T. pretiosum*

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(March 09–10, 2021)

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INFORMATION BROCHURE

WORKSHOP
on
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