IPM IN MUSTARD

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OBJECTIVES

- Minimise the Misuse, unnecessary use and overuse of Pesticides in farmer's field.
- Pesticides being applied by the farmers is not necessarily needed.
- Remove the misconception of the farmers about judicious use of pesticides.
- Minimise the cost of cultivation of Mustard.
- IPM implementation with proper motivation and involvement of farmers.

Major constraints of Low Yield

Biotic

- Insects
  - **Mustard Aphids an important insect pest**
  - **Painted bug as sporadic pest**
  - **Mustard Saw fly as minor pest**
- Weeds
  - **Motha(***Cyperus rotundus***)**
  - **Bathua(***Chenopodiyum album***)**
  - **Piyaji(***Asphodelus tenuifolius***)**
  - **Doob (***Cynodon dactylon)*

Major constraints of Low Yield contd…

- **Other Factors**
  - Broadcast sowing
  - Not adopting seed treatment
  - Late sowing
  - Not applying balanced dose of fertilizers.
  - Use 2-3 spray of pesticides for Mustard aphids
  - They believe that smell of pesticides prevent the mustard crop from aphids.

Location specific IPM Modules Developed

- **Crop stage- Pre-sowing**
  - Proper ploughing to kill the residue population of pests
  - Remove all residue from the field
  - Seed tratment with Carbendazim @2gm/Kg seed.

Location specific IPM Modules Developed

- **Crop stage- Sowing**
  - Normal Sowing(1st week of November to reduce the incidence of Mustard Aphids.
  - Line Sowing at distance of 30X10 cm
  - Application of balanced dose of fertilizers(N:P:K 50:50:40)

Location specific IPM Modules Developed

- **Crop stage- Vegetative**
  - Periodical weeding and monitoring
  - Irrigate the crop in 4th week after sowing
  - Manual collection and destruction of larvae of mustard saw fly during early monitoring time
  - Conserve natural enemy by avoiding pesticide spray

Location specific IPM Modules Developed

- **Crop stage-** Flowering and Pod formation
  - Manaual removal of aphid infested twigs at initial level of pest attack
  - Conserve predator *Coccinella* by avoaiding chemical spray
  - Spray pesticide when aphid population exceeds ETL

50-60 aphids/10cm terminal portion of central shoot or 0.5-1cm terminal portion of cental shoot covered by aphis colonies.

Results

- IPM field yielded of 8.85q/ha(Rs.13275)
- Farmers field yielded 7.05q/ha(Rs.10575)
- 1.8q/ha more yield in IPM field (Rs.2700)
- Cost of Management in farmers field (Rs.1440)
- Cost of Management in IPM field (Rs.705)
- C:B ratio 1:18.32in IPM field
- C:B ratio 1:7.34in farmers field.

Constraints Faced to Adopt IPM

- Knowledge about ETL
- Knowledge about need based application of pesticides
- Lack of knowledge and skill to identify the natural enemies
- Unavailability of good quality of pesticides
- Absence of collective action by farmers organization.

Conclusion

Adopting IPM with improved variety B-9 farmers got more yield and benefit in Mustard cultivation

Thanks