



IPM Program/Approach for *Tuta absoluta* management campaign

The campaign aimed to demonstrate the various IPM strategies that can be used to manage *Tuta absoluta* pest, which has caused significant losses in the tomato production of farmers.

Some of the techniques (IPM) used are:

1. Cultural Method:

- Right variety selection
- Raised bed (10cm-15cm)
- Good planting distance (50cm x 50cm)
- Good field sanitation
- Mulching to retain moisture and prevent weeds that can host *Tuta absoluta* pest
- Trellising (Support against wind and good aeration)
- Do not use too much Nitrogen Fertilizer (Urea)

2. Physical and Mechanical Method:

- Net protection for seedling in nursery and use of black sticky trap to monitor moths
- Pheromone traps (Tutasan trap and DIY trap)

3. Biological Method:

- *Bacillus thuringiensis* (V-power)
- Neem oil extract

4. Chemical Method:

- Flubendiamide.
- Abamectin.
- Lamdacyhalothrin.
- Chlorantraniliprole.
- Chlorfenapyr.



Tsarin gamayyar hanyoyin magance matsalar tsutsar sharon/lbola

Wannan tsarin na wayar da kan Manoma manufar sa itace nuna hanyoyi da dama da ake amfani da su domin magance matsalar annobar tsutsar sharon, wanda yake haifar da gagarumar asara a noman tumatir ga Manoma.

Wasu daga cikin dubarun da ake amfani dasu na gamayyar hanyoyin magance matsalar tsutsar sharon (IPM):

1. Magance matsalar ta amfani da dubarun noman zamani:

- Zaben ingantaccen iri da nau'in iri
- Yin bedi mai bisa (10cm-15cm)
- Bada tazarar shuka (santi mita 50 tazara)
- Tsabtace gona
- Lullubar kuyya domin kare amfani daga ciyawa da zai iya zama mazaunin *tsutsar sharon* sannan zai taimaka wurin samar da lema a gonar
- Yin dubarar daure shuka musamman tumatir
- Kar ayi amfani da takin urea ba bisa kaida ba

2. Magance matsalar ta amfani da zahiri da Kuma a aikace:

- Ba da kariya a lokacin renon iri ta amfani da gidan sauro da kuma amfani da tarko mai launin baki domin kama kwarin da kuma sa masu ido
- Amfani da tarkon Pheromone

3. Magance matsalar ta amfani da tsarrai da maganin da babu sinadarin maganin bature:

- *Bacillus thuringiensis* (V-power)
- Man dalbejiye/Balbejiya

4. Magance matsalar ta amfani da Maganin bature:

- Flubendiamide
- Abamectin
- Lamdacyhalothrin
- Chlorantraniliprole
- Chlorfenapyr