

Evaluate Biological control protocols on sweet pepper



BACKGROUND:

Sweet pepper one of sensitive crops to the aphids, thrips, whiteflies and spiders , those insects will damage the plant and lead to affect on production, so most farmers spray over usage of pesticides , which affects on quality and safety of the product

OBJECTIVES:

- Implemental hygiene protocol on greenhouse and workers
- Implemented Biological control through specialists
- Introducing a group of predators to attack the sweet pepper pests and spreading them inside the greenhouses in stages according to age and life cycle of biological predators

TREATMENTS:

Released predators from pests against aphids, thrips, whiteflies and spiders. experiment was carried in high-tech greenhouse (400 m2) from Jan to Dec 2021, compared to traditional chemical control.

RESULTS:

- No used the pesticides during the season, which lasted of 11 months.
- Average production for greenhouse when used biological control was applied was 26.9 kg/m², while the average production when used chemical control as needed was 30.0 kg/m².



CONCLUSION

- Cost of used biological control amount to 0.32 SAR per kg compared to 0.11SAR for chemical pesticides.
- Marketing production as health-safe food to obtain premium prices to compensate the production decrease and additional cost.