# Large scale adoption of use of biological inputs in farming

#### **Background / Problem Statement:**

High and injudicious use of chemical inputs in various crops, especially in cotton and onion was evident in the district. The crops are vulnerable to sucking pests, especially thrips infestation and farmers generally use chemicals for its management. Due to long term injudicious use of chemicals the pest showed resistance to the chemicals and the problem of sucking pest infestation was not easily manageable with chemical pesticides. KVK extended the information about use of biological inputs through trainings and mass awareness programmes. However, the inputs were not easily available in the district.

#### **Intervention of KVK:**

- Through group discussions and meetings, KVK came to know about the problem of unavailability of the inputs.
- KVK- Bhavnagar planned and implemented capacity building programmes as well as awareness programmes to create awareness and to encourage use of biological inputs like *Beuvaria bassiana*, *Trichoderma*, NPK consortium, etc.
- KVK planned Integrated Crop Management with IPM for major crops like cotton, onion and pulses. Biological inputs were supplied under FLDs for wider spread and adoption.
- On demand of farmers of the district, a resource cell was started at KVK to make available the biological inputs from KVK, manufactured at Junagadh Agricultural University for easy and cost effective availability of the inputs in district.
- The resource cell received encouraging positive response from the farming community as more than 2000 kg biological inputs were sold from KVK in a single year (2017-18).

### **Output:**

- In the FLDs, laid out with the use of biological inputs exhibited 12 to 16 per cent increase in yield in comparison to the check plots where the inputs were not used.
- Cost of cultivation could be reduced by reduction in use of the chemical pesticides
- Implementation of ICM strategy proved useful in reducing the pest infestation at a manageable level.

### **Outcome of the intervention:**

- A large-scale awareness for the use of biological inputs was created through extension activities
- Large scale adoption of the use of biological inputs was achieved through FLDs and by making it available at KVK
- A successful and functional linkages among KVK, farmers' organizations, SAU, line departments of district and pesticide dealers were established
- Very promising and successful demand supply chain for non-chemical farm inputs was established in the district

- Cost of cultivation could be reduced by reduction in use of chemical inputs
- Farmers developed faith in effectiveness of biological inputs

## Large Scale Impact/ Horizontal Dissemination:

- Use of *Beauvaria bassianna*, *Trichoderma*, *pseudomonas*, NPK consortium, etc has increased many folds in district since its introduction in 2017-18. Starting form negligible demand /sell in district in the year 2015-16, the demand for biological inputs has reached to more than 60 T per year in district (Estimated).
- Earlier, only KVK and few private dealers were making the bio inputs available in the district. However, today all the FPOs, farmer cooperatives, many private dealers across the district are selling these products which shows demand and spread of the technology in district.



