• Shake plants for 4-5 times a day starting from October.
• Undertake need based spray of Endosulfan @ 2 litre/ha in areas around Varanasi, UP.

RAPESEED - MUSTARD (RAYA SARSON)

The oilseeds crops and primarily rapeseed and mustard are the major source of edible oils in the Indogangetic plains. The major pest problems like aphids and white rust are mainly managed by advancing date of sowing. Sowing of crop in second and third week of October provides aphid free growing period and can enable the farmers to grow it under pesticide free umbrella.

Key Pests and Diseases

The mustard aphid (Lipaphis erysimi) is the key pest of this crop. Hence the IPM strategy is primarily based on the control of this pest.

IPM Approach

• Undertake early sowing of crop (between 15-25 October).
• Grow tolerant varieties like T 59, RLM 198, RL 1359 to save the crop from mustard aphid infestation and grow Vaibhav, Vordan varieties to the save the crop from attack of white rust.
• Monitor the crop after every 10-15 days to find out the extent of damage, if any by aphids. Remove twigs heavily infested by aphids without disturbing the whole plant so as to check its proliferation.
• Mechanically remove, preferably on community basis, twigs and leaves harbouring Hairy Caterpillar.
• To control white rust caused by Albugo candida, carry out three sprays of Dithane-M-45 or Ridomil @ 0.2% solution after a gap of 15 days each, when the crop is 50 to 60 days old.

CABBAGE

Cabbage is mainly infested by Diamond Black Moth and Black rot. Use of Neem seed kernel extract and Pongamia soap solution, use of healthy seedlings, light trap augmentation of Colesia mutilata are some of the approaches to reduce chemical pesticides use.

For more details contact:
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Key Pests and Diseases

Diamond Back Moth (Plutella xylostella), leaf webber (Crocidoloma binotalis), stem borer (Helicula undalis), black rot (Xanthomonas campestris), aphids (Brevicoryne brassicae) and soft rot.

IPM Approach

Nursery

- About two to three weeks before sowing, undertake soil solarization of nursery beds with polythene sheets (60-100 gauge).
- Add 50 g of Trichoderma harzianum to FYM and mix in 1 m² of nursery beds to prevent infection from soil and seed borne fungal diseases.
- Soak 1 kg seed in 100 ppm Streptocycline sulphate solution for 15 minutes before sowing to prevent the black rot infection.
- Use nylon nets in nursery beds to avoid entry of white fly, aphids etc.

Main field

- If Diamond Back Moth (DBM) population is observed at early stage after transplanting, spray Bacillus thuringiensis @ 500g/ha and repeat it after every fortnight.
- Starting from 30 days of transplanting, take up inundative releases of Trichogramma bactrae @ 0.5-0.75 lakh/ha at weekly interval. Four to five releases will be required.
- Periodically remove Alternaria affected bottom leaves.
- Spray Chlorothalonil @ 0.2% incose the Alternaria disease is severe.
- Periodically remove black rot affected heads. If the disease is severe, then spray Blitox 0.2%+100ppm Streptocycline sulphate/ ha.
- Spray of Neem seed kernel extract (5%) or Pongamia soap solution for the management of Diamond Black Moth.

TOMATO

Tomato is highly susceptible to diseases and pests. The most prevalent among those are fruit borer, whitefly, tomato leaf curl virus, Alternaria blight, collar rot, and bacterial leaf spot. A comprehensive pest and disease management module has been developed by the Indian Institute