

Wheat Aphid

Recognize the problem

Aphids can cause significant losses in cereal crops. Adults are yellow green and the same size as ants. Younger ones are the same shape but smaller. The pest is present on the spikes and leaves from February to March. The adults feed on the sap and deposit a sugary and sticky liquid that covers the leaves and makes them black. This black film will stop the formation of food and will reduce the strength and vigour of the plant. This means the wheat will be less productive. Wheat aphids prefer to feed on leaves and grain spikes. While feeding, these aphids can transmit a toxin that causes discoloration and distortion of the plant. Heavily infested leaves will have white, purple or yellow streaks, plant and head stunting and poorly formed grains or no grains at all.

Background

Several kinds of aphids infest wheat in Pakistan. Aphid eggs hatch on a plant or tree in the spring (February-March) when the weather begins to warm. All of the hatched eggs develop into wingless females. Females mature and start to feed on their host plant and reproduce. The pest's active period is February to October and inactive period is from December to January.

Attack is more common on crops that are sown late and high in nitrogen (which makes the wheat tender and succulent). High temperatures will kill the aphids, so the aphids will start dying when temperatures increase. Aphids prefer feeding on canola rather than wheat. Wheat aphid adults can be attacked by other insects such as ladybird beetle or lacewings.

Management

- Select certified varieties that are well-suited for the growing area. Contact your local agronomist or seed supplier for more details.
- Sow the crop in November, not after
- Intercrop the wheat with canola. Plant 1 canal block of canola after every 400 feet of wheat to successfully manage the aphid attack
- Avoid overdosing the soil with nitrogenous fertiliser
- Scout the field weekly so that the pest is recognised early in its attack
- Remove infested plants, grains and wheat grasses
- Apply biological control from parasitic wasps, predators, ladybird beetles and lacewings which can eat hundreds of aphids in a lifetime
- Use orange peel: 5 Kg/100 litre of water
 - dip 5 kg orange peel for 24 hours in 100 litres of water in a drum
 - separate the water and spray it on the crop attacked by aphid
- Spray neem extract azadirachtin 250 ml /100 litre of water when attack is found in patches
- Use a seed treatment: tebuconazole + imidacloprid 4ml per kg of seed

Aphids in Wheat. (Photo by Division of Agriculture, University of Arkansas)



Biological Control (Aphelinus Spp.) (Photo by Frank Peairs, Colorado State University (CC BY))



When using a pesticide, always wear protective clothing and follow the instructions on the product label, such as dosage, timing of application, and pre-harvest interval.

Scientific name(s) > *Macrosiphum granarium*

The recommendations in this factsheet are relevant to: Pakistan

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