

Chemical control of downy mildew of onion

Recognize the problem

Downy mildew is a disease that is caused by a fungus. The fungus cannot be seen by the naked eye but when the problem is severe, you can see the symptoms of the disease on the plant leaves. Infected bulbs are usually small compared to healthy bulbs. The disease causes leaves to turn pale green or yellow, and curl downwards. A greyish-violet downy growth develops on infected leaf tissue. The disease is more common on seed crops than bulb crops.

Downy mildew of onion is becoming a major threat for farmers in Pakistan, as it can damage up to 70% of the crop.

Background

The disease develops when infected seeds, harvested from an infected crop, are used.

It is very hard to control downy mildew of onion using cultural control but chemical control offers an effective solution. The chemical used should be a fungicide, which are chemicals developed specifically for the control of fungal diseases. You can control the disease when symptoms are seen on the leaves, using a foliar spray.

Management

- Seed treatment is the most important chemical control method. Use thiophanate methyl @ 2.5 g/kg seed.
- For a foliar application, spray the crop with metalaxyl+mancozeb @ 250g/ litre of water. Spray at weekly intervals depending on the severity of the disease.

Onion downy mildew disease.
(Photo by Howard F. Schwartz,
Colorado State University,
Bugwood)



The downy growth on the leaf surface eventually kills the leaf.
(Photo by Gerald Holmes, California
Polytechnic State University at San
Luis Obispo, Bugwood)



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) > *Peronospora destructor*

The recommendations in this factsheet are relevant to: Pakistan



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