Created in Pakistan, September 2013



Citrus withertip

Recognize the problem

The branches and fruits of the affected trees start drying at the top of the plant. As the disease progresses, the drying symptoms move down the plant. This disease often spreads slowly. The leaves become wilted, turn yellow and then drop from the trees. When twigs are dried, small brown to black, slightly raised cankers are observed. Dried twigs are ash-coloured. There are blackish stains on the infected fruits.

Background

Citrus withertip is caused by fungi. It is more likely in wet weather and can be spread in rain splash or in water used for irrigation. Wounds on the stem provide an entry point for this opportunistic disease.

Symptoms on Citrus leaves. (Photo by Florida Division of Plant Industry Archive, Florida Department of Agriculture and Consumer, CC BY-NC)



Management

Cultural control:

- Avoid overhead irrigation
- Get healthy nursery plants from registered nursery growers
- In case of infection, cut the infected or dead twigs and burn them

Chemical control (when the disease first appears):

- Scratch the infected part of the twig and apply a fungicide paste e.g.
 Bordeaux paste at 1:2:12, i.e. 1 kg of copper sulphate and 2 kg of lime mixed in 12 litres of water
- Spray copper based fungicides e.g. copper oxychloride 3 ml per litre of
 water starting in July and repeat twice with an interval of 21 days.
 Difenoconazole 3ml per litre of water also show good results. Do not eat
 and smoke during the spray. Wash hands, eyes and exposed parts of the
 body after spraying.

Fungal growth on lemon. (Photo by Anna L. Snowdon)



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.

The recommendations in this factsheet are relevant to: Pakistan



Authors: Fayyaz Ahmed, Muhammad Usman Saleem, Syed Ismat Hussain Govt. of the Punjab Agriculture Department

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