

Benomyl against powdery mildew in pumpkin

Recognize the problem

Powdery mildew is a fungal disease that can affect many crops, including pumpkin. It first appears as a white powdery 'dust' on the upper side of leaves. This fungal dust slowly spreads over entire leaves, and sometimes to stems, flowers and fruits. Leaves slowly turn yellow, die, and may fall off. Powdery mildew can be confused with downy mildew which has small yellow angular spots on the upper side of leaves and greyish mildew dust on the underside of leaves and develops during wet conditions. In contrast to powdery mildew, this dust cannot be removed by scratching.

Background

The fungus moves from diseased to healthy leaves by wind or water splashes. Systemic chemical fungicides with protective and curative effects can be used, such as benomyl. Benomyl reduces the growth of the fungus and prevents whitish powder-like dust (spores) from developing. Benomyl is less poisonous to humans and animals than many other chemicals.

Management

- Buy your Benomyl from a registered agro-input dealer
- There are many trade names for Benomyl, such as Benomyl 500WP, Benlate and many others
- Use a knapsack sprayer. Mix 40-80 mls of benomyl in 20 litres of water (equals 2-3 litre of product per ha), but check product label for dosage
- Add 2 tablespoons of sticker (e.g. teepol, or any liquid soap) per 20 litres of water to allow the mixture to stick to the leaves. Mix properly.
- Spray 25-50 knapsacks containing 20 litres each per 1 ha, depending on the severity of the disease
- Consider spraying when 6-10 plants out of 100 are showing initial spots of whitish powder on the upper side of leaves
- Spray mid-morning when there is no dew or late afternoon when the day is calm. Spray the entire field, covering whole plants to protect them from the disease.
- Do not enter the field the same day you sprayed
- Do not store leftover spray solution, as it loses power and becomes ineffective
- Spraying can be repeated once every three weeks
- Stop spraying when no major new infections are occurring, but at least 10-14 days before harvest so that you do not poison the pumpkin harvest

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) > *Podosphaera fusca*

Pumpkin leaf showing few whitish powdery spots of early stages of the disease. (Photo by Ontario crop IPM)



Severe late symptoms of mildew. (Photo by Rasbak, CC BY-SA)



The recommendations in this factsheet are relevant to: Zambia



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