

Neem to support control of late blight in potato

Recognize the problem

Late blight is a fungus-like mould disease in potato that spreads fast in cool and humid weather. Infected plants have necrotic areas on their leaves which wilt, bend downwards, become weak and eventually die. Look for white cotton-like surfaces on root necks after rains. Inside tubers, late blight causes reddish-brown lesions or spots that have an unpleasant smell.

Background

Late blight can cause complete field destruction. The disease spreads through leftover plant residues from the previous crop. Affected plants and residues should be buried deeply outside the field. Late blight is also spread by planting infected tubers or by splashing during overhead irrigation. The most powerful tool is the use of resistant varieties such as Avalance, or at least moderately resistant varieties such as Kennebec, Sebago, and Allegany. Direct control measures are difficult and often too late. Neem sprays have some protective anti-fungal properties but will not help if most of the potato plants are already infected. Neem trees naturally grow in Zambia, but commercial neem products (Azadirachtin) can be bought from agro-input dealers.

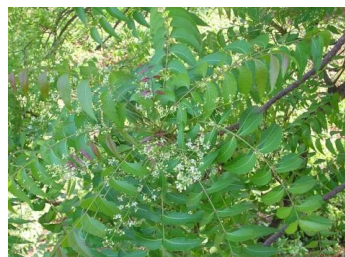
Management

- Fresh leaves are collected from neem trees that usually grow in your neighbourhood
- To grow your own neem trees, seeds can be sourced from ZARI research stations such as Mt. Makulu and Nanga, Zambia
- Pound the fresh neem leaves in a mortar
- Soak 1kg crushed leaves in 5 litres of water for 24 hours. Mix well.
- Remove the crushed soaked leaves from the water and squeeze to let the extract drain back into the bucket
- The extracted solution is sieved using a sieve or mutton cloth to get a clear solution for use in the sprayer
- Dilute the concentrated neem solution with water in a 2:1 ratio
- Liquid soap (10 ml / 20 litres) is added to the solution to make the extract stick to the potato plants
- The extract is applied to the leaves to completely cover the plants using a sprayer or a broom. Spray every 7 to 10 days if weather is wet and cool, but maximum three times.

Leaflets are blighted due to infection by *P. infestans*. (Photo by Mauritius Sugar Industry Research Institute)



Neem tree leaves used to prepare a spray liquid. (Photo by Lalithamba, via Flickr, CC-BY)



Scientific name(s) > *Phytophthora infestans*

The recommendations in this factsheet are relevant to: Zambia



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