

Potato Virus Y (PVY) Management In Tobacco



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Free diagnosis and advisory on all tobacco related problems

What is PVY?

PVY is a viral disease affecting tobacco and other solanaceous crops such as potatoes, tomatoes and peppers. It is one of the most damaging diseases of tobacco, it can cause up to 70% yield loss.

How is PVY transmitted?

PVY is transmitted primarily by aphids. At least 65 aphid species are known to transmit PVY. The green peach aphid

(*Myzus persicae nicotinae*), is the most efficient vector. PVY is also transmitted when there is sap exchange between an infected and a healthy plant via wounds. However, the virus is not seedborne.



Green peach aphid



Tobacco Plant infected with PVY

What must farmers do to reduce PVY impact?

To reduce PVY occurrence, spread and impact, **LEGISLATION** stipulates that:

- Tobacco seed may not be sown before **1 JUNE** each year;
- Tobacco may not be transplanted into the land before **1 SEPTEMBER** of each year;
- Tobacco plants in seedbeds **MUST BE DESTROYED** before **1 JANUARY** each year;
- Tobacco plants in the field **MUST BE DESTROYED** before **15 MAY** each year.

AND

- Sow aphicide-treated tobacco seed available from Kutsaga Seeds.
- Use TRB-registered aphicides (e.g., Imidacloprid and Thiamethoxam) at planting to manage aphids.
- Crop should be kept insect and weed-free at all times.
- Do not grow tobacco and its relatives in succession and/or close to each other.

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No Curative measures are currently available for PVY!

Are there any tobacco varieties resistant to PVY?

Currently, there are **NO** tobacco varieties resistant to PVY in Zimbabwe.

What must a farmer do when tobacco plants are already infected with PVY?

- If a few plants are infected, they can be uprooted, placed in a sack to avoid infecting healthy plants, and buried outside the field.
- Apply Bion to boost plant immunity.
- Apply some insecticides to kill the vectors.

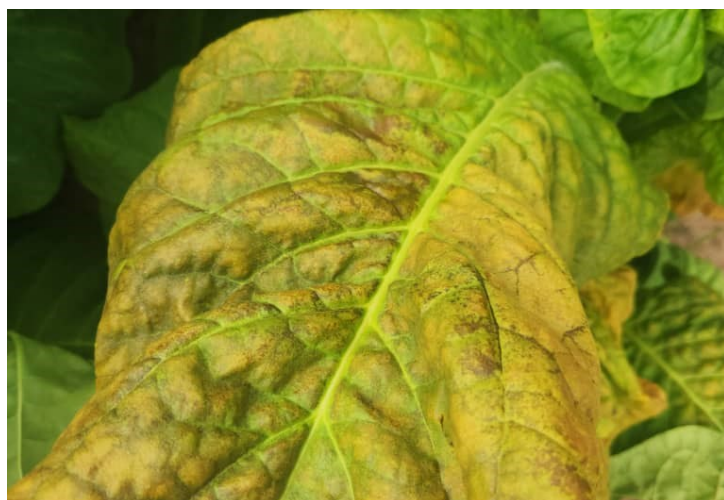
Various PVY symptoms on tobacco



Necrotic veins



Vein banding



Bronzing



Necrotic spots



Chlorotic rings

What is TRB doing to address the PVY issue?

- Research is underway to breed for PVY resistance in tobacco varieties. It will take many years to release a PVY resistant variety.
- Trials are underway to evaluate several pesticides for their ability to suppress PVY.
- Molecular studies on PVY strains present in Zimbabwe will form the basis of future control efforts.

For more information, call or visit the Kutsaga Plant Clinic

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