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LITTLE LEAF OF BRINJAL (*Solanum melongena*) CAUSED BY PHYTOPLASMA

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INTRODUCTION

Little Leaf Disease is a common and significant problem affecting brinjal (eggplant) crops worldwide. It is caused by phytoplasma, a type of bacteria-like organism that infects the plant's phloem tissue.

Symptoms

- The disease causes the leaves of the plant to become small, stunted, and distorted, with a reduced leaf size (hence the name "Little Leaf").
- The leaves may also become curled, wrinkled, or distorted, with a reddish-purple colour.
- Infected plants may also exhibit reduced growth, flower and fruit production, and premature defoliation.
- In severe cases, the disease can cause complete defoliation and plant death.

Causes

- Phytoplasma is transmitted to brinjal plants through the feeding activity of phloem-feeding insects, such as aphids, whiteflies, and leafhoppers.
- The phytoplasma bacteria multiply within the insect's body and are then transmitted to the plant when the insect feeds on its sap.
- Phytoplasma can also be transmitted through contaminated seedlings, grafting materials, and infected propagative materials.

Transmission

- The disease is typically spread during the growing season, usually from May to October.
- Leaf hopper and other vectors are most active during this period, allowing for rapid transmission of the disease.

Diagnosis

- Diagnosis is typically made based on the symptoms mentioned above.
- Laboratory tests can be performed to confirm the presence of phytoplasma using PCR (polymerase chain reaction) or ELISA (enzyme-linked immunosorbent assay) techniques.

MANAGEMENT

Control measures includes;

- Removing and destroying infected plants to prevent spread of the disease.
- Using resistant varieties of brinjal.
- Applying insecticides to control vector populations (aphids, whiteflies, and leafhoppers).
- Avoiding mechanical transmission through contaminated seedlings, grafting materials, and propagative materials.
- Practicing good agricultural practices such as crop rotation, soil sanitation, and proper farm hygiene.

PREVENTION

- Implementing integrated pest management (IPM) strategies that incorporate physical, chemical, and biological controls.
- Monitoring fields regularly for signs of infection and vector populations.
- Maintaining good plant hygiene practices throughout the farm.

CONCLUSION

Little Leaf Disease caused by phytoplasma is a significant problem affecting brinjal crops worldwide. Early detection and implementation of control measures are crucial to preventing the spread of the disease. A combination of cultural practices, resistant varieties, and integrated pest management strategies can help minimize the impact of this disease on brinjal production.