Control of the Leaf Curl Virus in Tomato

Recognize the problem
Tomato Yellow Leaf Curl virus also known as “Curly Top” is a major economic disease of tomato. It causes a big reduction in the yield of the crops.

- The virus causes the edges of the leaves, especially those infected at a young stage, to curl upwards and become hairy to the touch. Older leaves become leathery and turn yellow then brown and dry.
- Plants are stunted and bushy, fruits are small and some flowers drop.

Background
The virus lives in the plant and is spread from plant to plant by whiteflies, which feed on the plants. The virus cannot be spread in any other way. Whiteflies feed on a range of different plants.

Management
Cultural control:
- Fields should be inspected daily for the presence of whiteflies. A trap can be made with a piece of board 12 inches x 12 inches painted bright yellow. Spread petroleum jelly or Biotac on it. The yellow colour attracts the whiteflies to the boards and they stick to them. The boards are placed at the height of the plants. Monitor all crops, not just tomato plants as the whitefly may have passed the virus onto another crop.
- Plants that show signs of the virus after 3-4 weeks of transplanting should be bagged (to prevent the whiteflies leaving), uprooted and burned to reduce spread of the virus.
- Plants should be watered and fertilized adequately to reduce stress and to build plant health.

Chemical control:
- Imidacloprid should be sprayed on the entire plant and below the leaves; eggs and flies are often found below the leaves. Spray every 14-21 days and rotate on a monthly basis with Abamectin so that the whiteflies do not build-up resistance to chemicals.
- Chemicals are most effective when used early in the morning and late in the evening. This is because insects are most active at these times of the day.

Scientific name(s) > Bemisia tabaci (whitefly), Tomato yellow leaf curl virus

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: Grenada