



Young leaves are yellow and bunched up



Leaves are stiff, narrow and upright



Aphids are small, black insects that carry the virus

Produced by the  
**Banana Action Group**

**UNIVERSITY OF HAWAI'I AT MANOA**  
College of Tropical Agriculture and Human Resources  
(CTAHR)

**UNIVERSITY OF HAWAI'I AT HILO**  
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**HAWAI'I DEPARTMENT OF AGRICULTURE**  
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**HAWAI'I BANANA INDUSTRY ASSOCIATION**  
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**MAUI INVASIVE SPECIES COMMITTEE**  
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Photographs courtesy of the University of Hawaii and the Hawaii Department of Agriculture

# Banana Bunchy Top Virus

## Information & Control



Infected Banana Plant

### Control Banana Bunchy Top By:

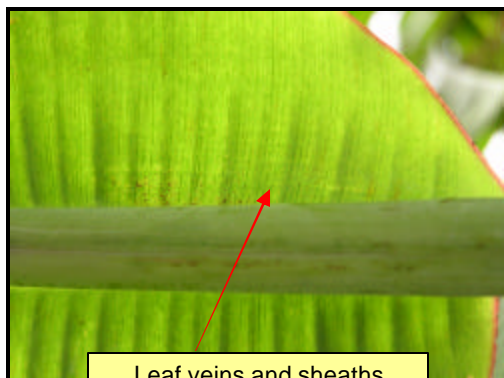
- Not moving banana corms, suckers, stems or leaves out of Pukalani and Makawao, or between the islands
- Inspecting for diseased plants
- Controlling aphids
- Destroying infected plants properly
- Calling the Hawaii Department of Agriculture (HDOA) for help & to report outbreaks of Banana Bunchy Top Virus  
**HDOA Maui: 873-3555**

## Stop the Spread of Bunchy Top!

Stopping banana bunchy top virus is everyone's business. Without a cooperative effort, the disease will spread throughout Hawai'i.

### INSPECT FOR DISEASED PLANTS.

Check your plants at least twice per month for disease symptoms. All diseased plants should be destroyed immediately as described in this brochure. Call HDOA if you need help identifying and/or destroying diseased plants. Some symptoms on older plants are hard to see. Symptoms on diseased suckers are easiest to identify.



Leaf veins and sheaths have "Morse code" streaks



Leaf rib has green J-hooks, best seen from underneath

### CONTROL APHIDS.

Controlling the aphid vector is the most important part in controlling the spread of Bunchy Top. Treating aphids on diseased bananas and surrounding plants helps reduce the spread of the virus to healthy bananas. Aphids are controlled using sprays of insecticidal soap or approved pesticides that kill aphids on contact. Aphid control should be a regular, long-term practice. Do not chop up diseased plants with aphids because the aphids will fly away to infect other plants.



Aphids hide under leaf sheaths

### DESTROY INFECTED PLANTS.

All of the mat or plants forming the group of plants must be destroyed, even if only one of the suckers is infected. After controlling the aphids on the plants, you can remove the main corm and any sucker coming from the mother plant. The corm should be chopped, dried and left as mulch to avoid re-growth. Killing infected plants chemically requires Roundup UltraMAX™ or other herbicides that specify use as a bananacide on the label. *Be sure to follow all pesticide label directions.* Leave treated plants to die in place and use later as mulch. Replant dead bananas decompose. Wait *at least* 45 days before replanting.

### DO NOT MOVE BANANA PLANTS OUT OF PUKALANI AND MAKAWAO.

This includes banana stems, leaves, corms and suckers. It is safe to move and eat banana fruits. Moving banana material spreads the virus and the aphids to new areas. Pukalani and Makawao already have the disease.

### PLANT HEALTHY SUCKERS.

Suckers with bunchy top will not produce fruit and are a source of disease. It is important to plant virus-free suckers.

### CONTACT INFORMATION

Hawaii Department of Agriculture\*  
HDOA-Maui: (808) 873-3555

Cooperative Extension Service  
<http://www.ctahr.hawaii.edu>  
UH-CTAHR (808) 244-3242

The Banana Action Group:  
<http://www2.hawaii.edu/~banana>

\*Please report outbreaks of banana bunchy top virus to the Hawaii Department of Agriculture