Tomato big bud (212)

Photo 1. Upward curling of leaves, and erect nature of branches on tomato caused by big bud, *Candidatus* Phytoplasma aurantifolia.

Photo 2. Tomato infected with big bud, *Candidatus* Phytoplasma aurantifolia, showing short, thick stems and deformed leaves.

Photo 3. Mass of leaves stimulated to form after infection by *Candidatus* Phytoplasma aurantifolia.

Photo 4. Erect shoots and bushy tomatoes infected by big bud, *Candidatus* Phytoplasma aurantifolia.

Summary

- Uncertain distribution. Many strains infecting different crops, ornamentals and weeds. Usually, a minor disease.
- Leaves yellow-green or purple, small, curled, stems thick, erect, flower buds swollen, petals green, and plants bushy as dormant buds grow. Fruit tough.
- Spread by leafhoppers moving from weeds to crops when dry.
- Cultural control: use a screened nursery; remove volunteers; remove diseased plants; weed; collect and burn trash after harvest.
- Chemical control: probably not effective or economic against migrating leafhoppers.

Common Name

Tomato big bud

Scientific Name

Candidatus Phytoplasma aurantifolia; there are several strains of the phytoplasma identified in tomato throughout the world; the strain in the Pacific is in the phytoplasma group/subgroup coded 16SrII. This code refers to analysis of ribosomal RNA.

AUTHOR Grahame Jackson

Information from *Diseases of vegetable crops in Australia* (2010). Editors, Denis Persley, Tony Cooke, Susan House. CSIRO Publishing; and from D Blancard (2012) *Tomato diseases - Identification, Biology and Control.* Manson Publishing Ltd., London NW11 7DL, UK. Photos 2&4 Kohler F, Pellegrin F, Jackson G, McKenzie E (1997) *Diseases of cultivated crops in Pacific Island countries.* South Pacific Commission. Pirie Printers Pty Limited, Canberra, Australia. Photo 3 Sione Foliaki, Deputy Director and Head of Agricultural Research and Information Division, MAF, Tonga.

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