

**APHIS-Approved Packing House Procedures  
for *Elsinoë australis*,  
Causal Agent of Sweet Orange Scab (SOS)**

**Washing, brushing, and treatment of fruit with fungicides, chemicals, and disinfectants alone, is not a substitute for all the additional requirements of the SOS Federal Order. Packing houses and processors must have a signed compliance agreement with APHIS.**

All fungicides, chemicals, and disinfectants that are used must be registered for use in the State in which they are being applied. The treatment must be applied in accordance with all label directions. Applications must be made within the confines of a controlled production facility or packing house that has a signed compliance agreement with APHIS. Precautions must be taken to prevent contamination of water, and contact with all wildlife, including federally protected species.

**Packing House Procedures**

A. Regulated fruit of *Citrus* spp. and *Fortunella* spp. from a SOS quarantined area may move interstate with a certificate to all States provided it has met all conditions of the SOS Federal Order and is treated as follows:

1. Washed, and
2. Brushed, and
3. Surface disinfested with at least one of the following treatments, and

Treatment: D301.75-11(a-1) — Chemical Treatment

Thoroughly wet the fruit for at least 2 minutes with a solution containing 200 parts per million sodium hypochlorite. Maintain the solution at a pH of 6.0 to 7.5. Must be applied in accordance with label directions. Treatment must be applied in accordance with label directions.

Treatment: D301.75-11(a-2) — Chemical Treatment

Thoroughly wet the fruit with a solution containing sodium o-phenyl phenate at a concentration of 1.86 to 2.0 percent of the total solution. If the solution has sufficient soap or detergent to cause a visible foaming action, wet for 45 seconds. If the solution does not contain sufficient soap to cause a visible foaming action, wet for 1 minute. Treatment must be applied in accordance with label directions.

Treatment: D301.75-11(a-3) — Chemical Treatment

Thoroughly wet the fruit with a solution of 85 parts per million peroxyacetic acid (PAA) for at least 1 minute. Treatment must be applied in accordance with label directions.

4. Treated at the time of packing, in accordance with label directions, with at least one of the following treatments, and

- Imazalil
- Thiabendazole
- Combination of fludioxonil plus azoxystrobin

#### 5. Waxed

B. Regulated asymptomatic fruit of *Citrus* spp. and *Fortunella* spp., from a SOS quarantined area, may move interstate with a certificate to all States provided it has been inspected by an inspector, meets all other conditions of the SOS Federal Order, and is treated as follows:

1. Washed, and
2. Brushed, and
3. Surface disinfested with an organic disinfestant, such as PAA or hydrogen dioxide (also known as hydrogen peroxide). Treatments must be applied in accordance with label directions.

C. Regulated fruit of *Citrus* spp. and *Fortunella* spp., from a SOS quarantined area, may move interstate with a limited permit to non-commercial citrus producing States and commercial citrus-producing States with a State-wide SOS quarantine provided it meets all other conditions of the SOS Federal Order, and is treated as follows:

1. Washed, and
2. Brushed, and
3. Surface disinfested with an organic disinfestant, such as PAA or hydrogen dioxide (also known as hydrogen peroxide). Treatments must be applied in accordance with label directions.

D. Regulated fruit from SOS quarantined areas, that is destined for processing in a commercial citrus-producing State without a State-wide SOS quarantine, may move under limited permit provided it meets all other conditions of the SOS Federal Order, and is treated as follows:

1. Washed, and
2. Brushed, and
3. Surface disinfested with one or more of the disinfestants listed in A3 above, or an organic disinfestant, such as PAA or hydrogen dioxide (also known as hydrogen peroxide). Treatments must be applied in accordance with label directions.

#### E. References

USDA APHIS PPQ. Treatment Manual. Sections D301.75-11 (a-1), (a-2), and (a-3). [http://www.aphis.usda.gov/import\\_export/plants/manuals/ports/downloads/treatment\\_pdf/domestic\\_treatments.pdf](http://www.aphis.usda.gov/import_export/plants/manuals/ports/downloads/treatment_pdf/domestic_treatments.pdf) (last accessed, December 21, 2010).

USDA APHIS PPQ, 2010. The significance of *Citrus* spp. fruit as a pathway for the introduction or spread of *Elsinoë australis*, the organism that causes Sweet orange scab disease. Center for

Plant Health Science and Technology, Plant Epidemiology and Risk Analysis Laboratory,  
Raleigh, NC, USA.

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Bitanc. & Jenkins, Causal Agent of Sweet Orange Scab (SOS).  
[http://www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/citrus/sweet\\_orange.shtml](http://www.aphis.usda.gov/plant_health/plant_pest_info/citrus/sweet_orange.shtml)

USDA APHIS PPQ, March 2011. Federal Domestic Quarantine Order. *Elsinoë australis* Bitanc.  
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