

Late Blight of Tomatoes

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Late blight of tomato is a serious infectious disease with the potential for wide-spread devastation. The disease also occurs on petunias and potatoes. It is caused by a water mold, *Phytophthora infestans* under cool, wet conditions 55 – 73°F. All plant parts may be attacked with symptoms appearing rapidly on foliage, stems and fruit. During moist periods *Phytophthora* sporulates and is often visible on lower surfaces of foliage and other symptomatic tissue.

Once plants are infected, there are no products to cure them, but several products may be applied to prevent infections. These are some recommendations for growers of greenhouse tomatoes:

1. If disease occurs, first, remove infected plants and enclose them in secure containers to prevent the risk of spreading disease.
2. Next, immediately spray healthy plants with a preventative product (listed below).
3. Repeat preventative sprays according to labeled intervals.
4. Following harvest, remove all crop debris to reduce the risk of disease next year.
5. Clean and disinfect all surfaces including stakes and support systems with Strip-It and Kleengrow.

Preventative Products: Options for greenhouse tomatoes are limited to those listed below. Rotating spray applications of Fosphite with a tank mix combination of Milstop plus Cease is recommended. Depending on disease pressure Fosphite should be applied at 2 – 4 weeks as a spray. Apply MilStop plus Cease at 7 day intervals. Factors that may indicate high pressure include high relative humidity both in the greenhouse and outdoors. Warm temperatures outdoors and the presence of either potato or tomato crops nearby.

For outdoor commercial tomato crops, there are other effective products that Griffin does not sell. Contact your County Extension Agent, State Specialist or Agricultural Chemical Dealer for recommended products. Homeowners can use commonly available brands of chlorothalonil (Daconil) or products containing copper that are labeled for tomatoes.

Recommended program for greenhouse transplants and tomato crops:

Fosphite: 1 -3 qts per 100 gal or 2 – 6 teaspoons per gal. Add 8 oz Capsil per 100 gal or ½ teaspoon per gal. Apply at 2 -4 week intervals. Product is a true systemic – it moves up and downward within plants. Do not apply within 20 days of copper product (Camelot, Phyton, Kocide etc). Do not apply when foliage will remain wet for more than 4 hours. May be applied up to the day of harvest on fruiting crops.

Milstop + Cease: This tank mix has given good results for many foliar diseases and is suggested for control of *Phytophthora*. For preventative applications, apply MilStop at 1.25 lbs per 100 gal (1¼ tea per gal) and Cease at 2 qts per 100 gal (1⅓ Tbsp. per gal).

Suggested Spray Rotation for Late Blight of Tomato in Greenhouses

- Day 1: Fosphite
- Day 3: Milstop plus Cease
- Day 6: When disease is active and conditions favorable, repeat day 3 treatment
- Day 10: Fosphite
- Day 13 Milstop plus Cease
- Day 16 When disease is active and conditions are favorable repeat day 13 treatment
- Day 20: Repeat above rotation during periods of high humidity and moisture.

Other products are labeled and may be safe and effective if used as directed paying close attention to application intervals and thorough spray coverage (next page):

Other labeled products:

Actinovate SP: Apply 12 oz plus 8 oz Capsil per 100 gal or 1 tsp. plus ½ tsp. Capsil per gal. every 7 days up to the day of harvest. Spray until wet, but not runoff.

Companion: Apply 1 quart plus 8 oz Capsil per 100 gal or 2 teas Cease plus ½ teas Capsil per gal. Treat at 7 day intervals. (may be substitute for Cease).

Camelot: Labeled for tomatoes in greenhouses and outdoors. Apply 3 pts. Per 100 gal or 1 Tbsp. per gal. (no Capsil). Do not apply within 20 days of Fosphite. Treat at 7 day intervals up to the day of harvest.

Oxidate: Limited residual activity. Apply 1 gal. per 100 gal or 1-1/3 oz per gal. No Capsil. Treat at 7 day intervals up to the day of harvest. Shorten intervals and use high rate when conditions favor disease.

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