




Late blight on tomato

Phytophthora infestans

	Prevention	Monitoring	Direct Control	Direct Control	Restrictions
 <p>Large brown leaf spot surrounded by light green border (Margaret McGrath, Cornell University)</p>  <p>Elongated brown lesions on the stems (Yuan-Min Shen, Taichung Dist. Agri Research & Exten. Station, Bugwood.org)</p>  <p>Whole plant and fruit affect (Edward Sikora, Auburn University, Bugwood.org)</p>	<ul style="list-style-type: none"> Plant resistant varieties if available. Transplant disease-free seedlings (seedlings without symptoms and not from an infected crop). Keep wide plant spacing (80cm X 50cm) to reduce the spread of disease by improving aeration and plant-to-plant contact. Support the plants with sticks and prune for better aeration. Do not do this when conditions are wet since the disease can be spread by people and tools. Disinfect hands and tools after working on the infected plants to prevent the spread of the disease to healthy plants. Use household bleach or 5% sodium hypochloride. Water in the morning so the leaves can dry in the sun. Avoid planting during wet and cool periods. Use dry mulch to reduce water splash and therefore avoid spread of disease. Remove and burn debris from tomatoes and other solanaceous crops (potato, peppers and eggplant) after harvest. Do not plant solanaceous crops (e.g. tomato, Irish potato, pepper, eggplant, nightshade) on land that suffered from the disease in the previous season or near land that currently suffers from the disease. Practice crop rotation with non-solanaceous crops such as beans, sweet, potato, maize, cowpea, soybean, groundnuts, onion, carrots for 2 growing seasons. 	<ul style="list-style-type: none"> Monitor twice a week for symptoms and on a daily basis during the raining season as wet and humid conditions favour the disease. Look for irregular greasy greyish patches on the leaves which expand rapidly under damp/humid conditions. These patches are an early symptom of the disease. Leaf lesions turn brown have a light green border round the lesion - this is a typical symptom of late blight. Look for brown elongated lesions on the stems and brown-green blotches or spots on the tomato fruits. These are symptoms of the later stages of the disease. Look for white downy moulds at the margin of affected areas on the lower leaf surface. When dry weather is expected, some infection symptoms might be tolerated and infected plant parts can be removed. When wet, cool weather (<24°C) is expected, 2-4 plants with symptoms per ¼ acre are enough to consider quick action. 	<ul style="list-style-type: none"> If plant parts show early symptoms, remove the infected plant parts in dry conditions. Carry the diseased materials away in a closed container to prevent spreading the disease. Burn the planting material or bury to at least 1 m deep. Do not compost. If the plants are badly infected/show later symptoms then remove the entire plants in dry conditions. Carry the diseased materials away in a closed container to prevent spreading the disease. Burn the planting material or bury to at least 1 m deep. Do not compost. 	<ul style="list-style-type: none"> No chemical control is recommended. 	

Ethiopia

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