



Occurrence of Vegetable Diseases in Utah

This guide provides a list of vegetable crop diseases that have been documented in Utah along with some that are likely to occur. Plant diseases are caused by pathogens such as fungi, bacteria, viruses, and fungal-like organisms. Diagnosing specific plant diseases takes careful observation of signs, symptoms, and sometimes diagnostics tools in a laboratory setting.

Casual Agent	Disease Occurrence
 Fungal and Fungal-like Pathogens	● ○ ○ ○ ○ Rare
 Bacterial Pathogens	● ● ○ ○ ○ Occasional
 Viral Pathogens	● ● ● ○ ○ Common
	● ● ● ● ● Widespread

Pod Rot		<i>Alternaria</i> spp.	● ○ ○ ○ ○
Stem Rot		<i>Rhizoctonia solani</i>	● ○ ○ ○ ○
White Mold		<i>Sclerotinia sclerotiorum</i>	● ○ ○ ○ ○

Beet

Disease	Pathogen	Occurrence
Beet Curly Top Virus	Curtovirus	● ● ● ○ ○
Cercospora Leaf Spot	<i>Cercospora beticola</i>	● ○ ○ ○ ○
Damping-Off	*fungal complex	● ● ○ ○ ○
Phoma Leaf Spot & Root Rot	<i>Phoma betae</i>	● ○ ○ ○ ○
Powdery Mildew	<i>Erysiphe betae</i>	● ● ○ ○ ○

Bean

Disease	Pathogen	Occurrence
Common Bacterial Blight	<i>Xanthomonas axonopodis</i> pv. <i>phaseoli</i>	● ○ ○ ○ ○
Bacterial Brown Spot	<i>Pseudomonas syringae</i> pv. <i>syringae</i>	● ○ ○ ○ ○
Bean Common Mosaic Virus	Potyvirus	● ● ○ ○ ○
Beet Curly Top Virus	Curtovirus	● ● ● ○ ○
Damping-Off	*fungal complex	● ● ○ ○ ○
Fusarium Foot Rot	<i>Fusarium solani</i> f. sp. <i>phaseoli</i>	● ○ ○ ○ ○
Halo Blight	<i>Pseudomonas syringae</i> pv. <i>phaseolicola</i>	● ○ ○ ○ ○

Cantaloupe

Disease	Pathogen	Occurrence
Alternaria Leaf Blight	<i>Alternaria cucumerina</i>	● ○ ○ ○ ○
Beet Curly Top Virus	Curtovirus	● ● ○ ○ ○
Damping-Off	*fungal complex	● ● ○ ○ ○
Fusarium Crown and Root Rot	<i>Fusarium solani</i> f. sp. <i>cucurbitae</i>	● ● ● ○ ○
Fusarium Fruit Rot	<i>Fusarium</i> spp.	● ● ○ ○ ○
Fusarium Wilt	<i>Fusarium oxysporum</i> f. sp. <i>melonis</i>	● ● ● ○ ○
Powdery Mildew	<i>Golovinomyces cichoracearum</i> , <i>Podosphaera xanthii</i>	● ● ● ● ●
Pythium Fruit Rot	<i>Pythium</i> spp.	● ● ○ ○ ○
Verticillium Wilt	<i>Verticillium dahliae</i>	● ● ○ ○ ○
Watermelon Mosaic Virus	Potyvirus	● ● ○ ○ ○

Carrot

Disease	Pathogen	Occurrence
Bacterial Soft Rot	<i>Pectobacterium carotovorum</i> subsp. <i>carotovorum</i>	● ● ○ ○ ○
Cavity Spot	<i>Pythium sulcatum</i> , <i>P. violae</i>	● ○ ○ ○ ○
Cottony Soft Rot (White Mold)	<i>Sclerotinia sclerotiorum</i>	● ○ ○ ○ ○
Powdery Mildew	<i>Erysiphe heraclei</i>	● ● ○ ○ ○
Damping-Off	*fungal complex	● ○ ○ ○ ○



Cole Crops

Disease	Icon	Pathogen	Severity
Bacterial Soft Rot		<i>Pectobacterium carotovorum</i> subsp. <i>carotovorum</i>	●○○○
Black Leg		<i>Phoma lingam</i>	●○○○
Black Rot		<i>Xanthomonas campestris</i>	●○○○
Damping-Off		*fungal complex	●●○○
Rhizopus Soft Rot		<i>Rhizopus</i> spp.	●○○○
Powdery Mildew		<i>Erysiphe cruciferarum</i>	●○○○
Turnip Mosaic Virus		Potyvirus	●○○○



Eggplant

Disease	Icon	Pathogen	Severity
Alfalfa Mosaic Virus		Alfavirus	●○○○
Cercospora Leaf Spot		<i>Cercospora melongenae</i>	●○○○
Damping-Off		*fungal complex	●○○○
Early Blight		<i>Alternaria solani</i>	●○○○
Verticillium Wilt		<i>Verticillium dahliae</i> , <i>V. albo atrum</i>	●●○○



Corn

Disease	Icon	Pathogen	Severity
Bacterial Stalk Rot		<i>Pectobacterium chrysanthemi</i> pv. <i>zeae</i>	●○○○
Common Rust		<i>Puccinia sorghi</i>	●○○○
Corn Smut		<i>Ustilago maydis</i>	●○○○
Penicillium Ear Rot		<i>Penicillium</i> spp.	●○○○
Wheat Mosaic Virus		Emaravirus	●○○○



Garlic

Disease	Icon	Pathogen	Severity
Embellisia Skin Blotch		<i>Embellisia alli</i>	●○○○
Garlic Clove Rot		<i>Fusarium proliferatum</i>	●○○○
Leek Yellow Strip Virus		Potyvirus	●●○○
Onion Yellow Dwarf Virus		Potyvirus	●●○○
Blue Mold		<i>Penicillium hirsutum</i>	●○○○
Stemphylium Leaf Blight		<i>Stemphylium vesicarium</i>	●○○○



Cucumber

Disease	Icon	Pathogen	Severity
Angular Leaf Spot		<i>Pseudomonas lacrymans</i>	●○○○
Cucumber Mosaic Virus		Cucumovirus	●○○○
Damping-Off		*fungal complex	●●○○
Pythium Fruit Rot		<i>Pythium</i> spp.	●●○○
Fusarium Wilt		<i>Fusarium oxysporum</i> f. sp. <i>cucumerinum</i>	●●○○
Powdery Mildew		<i>Golovinomyces cichoracearum</i> , <i>Podospaera xanthii</i>	●●●●
Scab		<i>Cladosporium cucumerinum</i>	●○○○
White Mold		<i>Sclerotinia sclerotiorum</i>	●●○○



Leafy Greens

Disease	Icon	Pathogen	Severity
Beet Curly Top Virus		Curtovirus	●○○○
Cercospora Leaf Spot		<i>Cerospora beticola</i>	●○○○
Cladosporium Leaf Spot		<i>Cladosporium variabile</i>	●○○○
Damping-Off		*fungal complex	●●○○
Downy Mildew		<i>Personospora farinosa</i> f. sp. <i>spinaciae</i>	●○○○
Drop		<i>Sclerotinia sclerotiorum</i>	●○○○
Gray Mold		<i>Botrytis cinerea</i>	●○○○
Phoma Leaf Spot + Root Rot		<i>Phoma betae</i>	●○○○
Powdery Mildew		<i>Erysiphe polygoni</i> , <i>E. betaei</i>	●○○○
Stemphylium Leaf Spot		<i>Stemphylium botryosum</i> f. sp. <i>spinacia</i>	●○○○
Verticillium Wilt		<i>Verticillium dahliae</i>	●○○○



Onion

Disease	Pathogen	
Bacterial Soft Rot	<i>Pectobacterium carotovorum</i> subsp. <i>carotovorum</i>	●●○○○
Black Mold	<i>Aspergillus niger</i>	●○○○○
Blue Mold	<i>Penicillium</i> spp.	●○○○○
Botrytis Neck Rot	<i>Botrytis allii</i> , <i>B. aclada</i>	●●○○○
Enterobacter Bulb Decay	<i>Enterobacter</i> spp.	●○○○○
Fusarium Basal Rot	<i>Fusarium oxysporum</i> f. sp. <i>cepae</i>	●○○○○
Fusarium Bulb Rot	<i>Fusarium proliferatum</i>	●○○○○
Iris Yellow Spot Virus	Tospovirus	●○○○○
Pink Root	<i>Pyrenochaeta terrestris</i>	●●○○○
Powdery Mildew	<i>Leveillula taurica</i>	●○○○○
Purple Blotch	<i>Alternaria porri</i>	●●○○○
Slippery Skin	<i>Burkholderia gladioli</i> pv. <i>alliiicola</i>	●○○○○
Smudge	<i>Colletotrichum circinans</i>	●○○○○
Stemphylium Leaf Blight	<i>Stemphylium vesicarium</i>	●●○○○



Pepper

Disease	Pathogen	
Alfalfa Mosaic Virus	Alfamovirus	●●○○○
Anthracnose	<i>Colletotrichum</i> spp.	●○○○○
Bacterial Leaf Spot	<i>Xanthomonas campestris</i>	●●○○○
Bacterial Soft Rot	<i>Pectobacterium carotovorum</i> subsp. <i>carotovorum</i>	●○○○○
Beet Curly Top Virus	Curtovirus	●○○○○
Big Bud	<i>Candidatus Phytoplasma trifolii</i>	●●○○○
Fusarium Wilt	<i>Fusarium oxysporum</i> f. sp. <i>lycopersici</i>	●○○○○
Liberibacter	<i>Candidatus Liberibacter solanacearum</i>	●○○○○
Pepper Mottle Virus	Tobamovirus	●○○○○
Phytophthora Fruit and Root Rot	<i>Phytophthora capsici</i>	●○○○○
Powdery Mildew	<i>Leveillula taurica</i>	●○○○○
Tobacco/Tomato Mosaic Virus	Tobamovirus	●●○○○
Tobacco Etch Virus	Potyvirus	●○○○○
Tomato Spotted Wilt Virus	Orthospovirus	●●●○○
Verticillium Wilt	<i>Verticillium dahliae</i> , <i>V. albo atrum</i>	●●○○○













Pea

Disease	Pathogen	
Alfalfa Mosaic Virus	Alfamovirus	●○○○○
Damping-Off	*fungal complex	●○○○○
Fusarium Wilt	<i>Fusarium oxysporum</i> f.sp. <i>pisi</i>	●●○○○
Powdery Mildew	<i>Erysiphe pisi</i>	●○○○○
Pseudomonas Blight	<i>Pseudomonas syringae</i> pv. <i>pisi</i>	●○○○○
























Potato













Disease	Pathogen	
Alfalfa Mosaic Virus	Alfamovirus	●○○○○
Black Leg	<i>Pectobacterium atrosepticum</i>	●○○○○
Corky Ringspot	Tobravirus	●○○○○
Early Blight	<i>Alternaria solani</i>	●●○○○
Fusarium Foot Rot	<i>Fusarium solani</i> f. sp. <i>eumartii</i>	●○○○○
Late Blight	<i>Phytophthora infestans</i>	●○○○○
Leaf Roll Virus	Polerovirus	●○○○○
Pink Rot	<i>Phytophthora erythroseptica</i>	●●○○○
Powdery Mildew	<i>Golovinomyces orontii</i>	●○○○○

Potato Virus Y		Potyvirus	●●○○
Powdery Scab		<i>Spongopora subterranea</i> f. sp. <i>subterranea</i>	●○○○
Pythium Leak		<i>Pythium debaryanum</i>	●○○○
Scab		<i>Streptomyces scabies</i>	●○○○
Stem Canker		<i>Rhizoctonia solani</i>	●○○○
Tomato Spotted Wilt Virus		Orthospovirus	●○○○
Tuber Dry Rot		<i>Fusarium</i> spp.	●○○○
Verticillium Wilt		<i>Verticillium albo-atrum</i>	●●○○
White Mold		<i>Sclerotinia sclerotiorum</i>	●○○○
Zebra Chip Disease		<i>Candidatus Liberibacter solanacearum</i>	●●○○

Tomato

Disease		Pathogen	
Alfalfa Mosaic Virus		Alfamovirus	●○○○
Bacterial Canker		<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i>	●○○○
Bacterial Spot		<i>Pseudomonas syringae</i> pv. <i>tomato</i>	●●○○
Beet Curly Top Virus		Curtovirus	●●●○
Big Bud		<i>Candidatus phytoplasma</i> sp.	●●○○
Black Mold		<i>Alternaria alternata</i>	●○○○
Buckeye Rot		<i>Phytophthora parasitica</i>	●○○○
Damping-Off		*fungal complex	●●●○
Early Blight		<i>Alternaria solani</i>	●●○○
Fusarium Crown and Root Rot		<i>Fusarium oxysporum</i> f sp. <i>radicis-lycopersici</i>	●○○○
Fusarium Wilt		<i>Fusarium oxysporum</i> f.sp. <i>lycopersici</i>	●●○○
Late Blight		<i>Phytophthora infestans</i>	●○○○
Leaf Blotch		<i>Septoria lycopersici</i>	●○○○
Leaf Mold		<i>Passalora fulva</i>	●●○○
Liberibacter		<i>Candidatus</i> <i>Liberibacter solanacearum</i>	●○○○
Pepino Mosaic Virus		Potexvirus	●○○○
Powdery Mildew		<i>Leveillula taurica</i>	●○○○
Phytophthora Root, Stem, Crown, and Fruit Rots		<i>Phytophthora</i> spp..	●○○○
Tobacco Etch Virus		Potyvirus	●○○○
Tobacco/Tomato Mosaic Virus		Tobamovirus	●●○○
Tomato Spotted Wilt Virus		Tospovirus	●●○○
Verticillium Wilt		<i>Verticillium dahliae</i> , <i>V. albo atrum</i>	●●○○

Squash

Disease		Pathogen	
Beet Curly Top Virus		Curtovirus	●○○○
Cucumber Mosaic Virus		Cucumovirus	●○○○
Damping-Off		*fungal complex	●●○○
Fusarium Wilt		<i>Fusarium oxysporum</i> f. sp. <i>cucurbitae</i>	●●●○
Gummy Stem Blight (Black Rot)		<i>Didymella bryoniae</i>	●●○○
Powdery Mildew		<i>Golovinomyces cichoracearum</i> , <i>Podosphaera xanthii</i>	●●●●
Pythium Root & Fruit Rot		<i>Pythium</i> spp.	●●○○
Phytophthora Fruit and Root Rot		<i>Phytophthora</i> spp.	●○○○
Verticillium Wilt		<i>Verticillium dahliae</i>	●●○○
Watermelon Mosaic Virus		Potyvirus	●●●○
White Mold		<i>Sclerotinia sclerotiorum</i>	●○○○
Zucchini Yellow Mosaic Virus		Potyvirus	●○○○



Watermelon

Disease		Pathogen	
Beet Curly Top Virus		Curtovirus	● ○ ○ ○ ○
Damping-Off		*fungal complex	● ○ ○ ○ ○
Fusarium Wilt		<i>Fusarium oxysporum</i> f. sp. <i>niveum</i>	● ○ ○ ○ ○
Gummy Stem Blight (Black Rot)		<i>Didymella bryoniae</i>	● ○ ○ ○ ○
Leaf Spot		<i>Alternaria cucumerina</i>	● ● ○ ○ ○
Pythium Root & Fruit Rot		<i>Pythium</i> spp.	● ○ ○ ○ ○
Verticillium Wilt		<i>Verticillium dahliae</i>	● ● ○ ○ ○
Watermelon Mosaic Virus		Potyvirus	● ● ● ○ ○

*Different fungal pathogens such as *Rhizoctonia* spp., *Fusarium* spp., *Pythium* spp., etc. can cause root rot in young seedlings that is simply called damping-off.



Learn more!

USU Extension - Utah Pests provides fact sheets, videos, guide books, pesticide tables, and many more resources to help growers best manage disease problems in their vegetable production.



Have a diseased plant?

Diseased plant samples can be submitted to the Utah Plant Pest Diagnostic Lab for diagnosis. For pricing and details visit extension.usu.edu/pests/upddl