

Table 5. Vegetable crop rotation recommendations to avoid soil-borne diseases.

Crop	Disease	Rotation Recommendation
Asparagus	Fusarium Wilt, Root & Crown Rot	Indefinite; use transplants grown from treated seed, plant on clean ground in raised beds; rotate with grasses and cereals
Basil	Fusarium Wilt	Indefinite; plant disease-free seed in disease-free soil or potting mix
Bean, Dry	White Mold (Sclerotinia Rot)	8–9 years of non-host crops
Bean, Green	Fusarium Root Rot	5–6 years, rotate with grass or small grain crops
	Gray Mold	2 years, rotate with cereals and corn
	White Mold (Sclerotinia Disease)	2–3 years; avoid tomato, potato, lettuce, cabbage, celery, carrot, peas
	Bacterial Blight	2 years; eliminate overhead irrigation
Beet, Red	Cercospora Leaf Spot	3 years
	Root Rots	3 years; rotate with grain crops and sweet corn
Cabbage and Cauliflower	Blackleg	5 years; no adjacent crucifer crops for this time period
	Black Rot	2–3 years, no crucifer crops
	Club Root	6+ years; no crucifer crops; adjust pH to 6.8 or above
	Damping-off and Wirestem	3 years; rotate with cereals
	Leaf Spot	3 years
	Phytophthora Root Rot	3 years, rotate with nonsusceptible crops such as grass or grains
	Water Soft Rot (White Blight)	3 years, rotate with nonsusceptible crops such as grass or grains
Cabbage	White Mold (Sclerotinia)	3 years, rotate with grains and sweet corn
	Nematode (Sugar Beet Cyst)	2 years for slight infestations, 5–6 years for severe infestations; avoid crucifers. Rotate with beans, clover, corn, grains, peas, potatoes, and tomatoes annually. Alfalfa is suitable for a long rotation period.
Cantaloupe	Fusarium Wilt	4+ years; no cucurbit crops; avoid soil with a history of this disease
	Leaf Blight	2+ years; do not plant other cucurbits
	Leaf Spot, Gummy Stem Blight, & Scab	2+ years; do not plant other cucurbits
Carrot	Alternaria Leaf Spot & Leaf Blight	1–2 years
	Bacterial Leaf Blight	2–3 years
	Black Rot	1–2 years
	Cavity Spot	6–7 years; avoid fields with a recent history of cavity spot
	Cercospora Leaf Spot, Leaf Blight	1–2 years
	Cottony Soft Rot (White Mold)	2 years; rotate onions, grasses, cereals; do not rotate with beans, lettuce, parsnips, crucifers; do not grow early or late crops in fields with a history of this disease as heavy rains can cause severe losses
	Nematode (Root-knot)	4–5 years; rotate with a nonhost crop such as corn or cereals
	Violet Root Rot	4–5 years, rotate with cereals and grasses
Celery	Fusarium Yellows	2–3 years, rotate with corn, crucifers, cucurbits, or onions
	Late Blight	2 years
	Leaf Blight	2 years
	Sclerotinia Pink Rot	2–3 years, rotate with corn, cereals, beets, onions, and spinach

Crop	Disease	Rotation Recommendation
Corn	Leaf Spots and Blights	2–3 years
	Seed Rot and Seedling Blight	2–3 years
	Smut (Head)	3–4 years
	Stalk Rots	2–3 years
Cucumber	Alternaria Leaf Spot	2 years
	Powdery Mildew	2-year, plant no cucurbits during this time
	Scab (Gummosis)	2–3 years, plant no cucurbit crops during this time
	Sclerotinia Stem Rot (White Mold)	2–3 years, do not follow potato or tomato crops
Eggplant	Anthrachnose	Rotate crops
	Cercospora Leaf Spot	Rotate crops
	Root Rot	Practice light irrigation and crop rotation
	Verticillium Wilt	4–5 years, rotate with grasses and grains, no solanaceous crops, strawberry or brambles
Garlic	Leaf Blight	2–3 years
	Nematode (Stem & Bulb)	2 years
	White Rot	6–7 years; plant only disease-free cloves in disease-free soil
Ginseng	Verticillium Wilt	3–4 years; rotate with alfalfa or cereal crops
Lettuce	Anthrachnose	4–5 years
	Bottom Rot	3 years, rotate with sweet corn or onions
	Drop (Watery Soft Rot)	3 years; rotate with corn, cereals, grasses, onions, table beets, spinach; avoid tomato, potato, beans, cabbage, celery, carrots
	Varnish Spot	2–3 years
Onion	Basal Plate Rot	4 years
	Botrytis Leaf Blight	2–3 years, no allium crops
	Downy Mildew	3–4 years
	Nematode (Stubby-root)	5–6 years, do not plant after a mint crop
	Pink Root	3–6 years
	Purple Blotch	5–6 years, no allium crops
	White Rot	6–7 years, plant only disease-free material in disease-free soil
Parsley	Damping-off	3 years
Parsnip	Leaf Spot and Root Canker	2 years
Pea	Aphanomyces Root Rot	4–5 years
	Ascochyta Blight (Basal Stem Rot or Black Stem)	4 years; do not include vetch or alfalfa in the rotation
	Downy Mildew	2–3 years, do not rotate with legumes
	Nematode (Pea Cyst)	4 years for slight infestations, eliminate peas if high infestation
	Powdery Mildew	1 year
	Root Rots	5 years
	Seed Rot and Damping-off	3 years
	Wilt and Near-wilt	5 years
Pepper	Anthrachnose	3 years
	Cercospora Leaf Spot	3–4 years
	Phytophthora blight	3 years; avoid tomato, eggplant, cucurbits
	Root Rot	3–4 years
	Verticillium Wilt	3 years, rotate with grass and grain crops

Crop	Disease	Rotation Recommendation
Potato	Black Dot	2–3 years
	Early Blight	2 years; do not plant tomatoes
	Fusarium Wilt	4–5 years
	Nematode (Potato Rot)	2–3 years, rotate with cereals and corn
	Nematode (Root-knot)	2–3 years, rotate with cereals or sweet corn
	Nematode (Root-lesion)	2–3 years, rotate with cereals or sweet corn
	Powder Scab	3–4 years; avoid planting on previously contaminated ground
	Pythium Leak, Pink Rot	4 years
	Rhizoctonia Canker (Black Scurf)	3 years; best with cereals or grass
	Scab	2–3 years; no root crops; adjust pH to 5.2 or below
	Sclerotinia Stalk Rot	4 years, avoid tomato, lettuce, beans, cabbage, celery, carrot, beans
	Silver Scurf	3 years
	Verticillium Wilt (Potato Early Dying)	3–4 years, do not solanaceous, cucurbits, mint, or nursery maple crops; rotate with alfalfa or cereals
Radish	Black Root	3–4 years
	Clubroot	7 years; do not plant crucifers; adjust pH to 6.8
Spinach	Downy Mildew & White Rust	2–3 years
Tomato	Anthracnose	1–2 years; alternate every other year with nonsolanaceous crop
	Bacterial Canker	3–4 years
	Bacterial Spot	2 years; do not plant peppers
	Early Blight	3–4 years
	Wilt	4–6 years
Turnip and Rutabaga	Black Root Rot	3 years, do not plant any crucifers during this period
	Club Root	6–7 years; do not plant crucifers; adjust pH to 6.8
	Powdery Mildew	1 year
Winter Squash & Pumpkin	Alternaria Leaf Blight	2–3 years, do not plant any cucurbits during this period
	Angular Leaf Spot	2 years
	Crown and Foot Rot (Fusarium Root Rot)	3–5 years, plant no cucurbits
	Gummy Stem Blight (Black Rot)	2–3 years, plant no cucurbits
	Phytophthora Blight	3 years; do not plant tomato, pepper, eggplant, or cucurbits
	Pythium Root Rot	2 years
	Scab (Gummosis)	2–3 years, plant no cucurbits
	Sclerotinia Stem Rot	2–3 years, do not plant potatoes

Table 5 courtesy of Debra A. Inglis and Babette Gundersen, WSU-Mount Vernon REC Vegetable Pathology Program, and Carol Miles, WSU-Vancouver REU Agricultural Systems Program. Based on crop rotation recommendations listed in the 2000 PNW Plant Disease Control Handbook. Adapted from A.A. McNab and T.A. Zitter, *Do Rotations Matter Within Disease Management Programs*, Cornell Cooperative Extension of Oswego County.