

Potato, white

(*Solanum tuberosum*)

Recommnd Varieties

White Rose

Kennebec

Chieftain

Norgold Russet

Red Lasoda

Many specially varieties are available also

Disease Resistance

LB

Grow white potatoes from sections of tubers. Do not use grocery store potatoes or potatoes from your own garden as a source of seed. Buy seed potatoes from a nursery that displays a Certified Seed Potato tag. If the seed potatoes are not already cut, cut the tubers into 1-1/2 to 2 ounce pieces. Make sure each piece has at least one eye. Store the freshly cut pieces at room temperature for 1 to 3 days before planting. This allows the cut surfaces to dry and form a callus, which decreases rotting.

To plant, drop the seed pieces into 3-inch deep furrows with the pieces spaced 6 to 12 inches apart. Closer spacing gives more but smaller potatoes at harvest. Fill in the furrow to ground level and leave until the potato plants emerge; then cover with 3 more inches of soil, making furrows between the rows that are at least 6 inches deep. Or you can plant the seed pieces in pre-made beds.

Potatoes are shallow-rooted and need light, frequent irrigations at least once a week during much of the growing season. Excessive irrigation, however, causes rotting. If soil moisture conditions are alternately wet and dry, it results in rough, knobby potatoes. Potatoes do not grow well in soils containing moderate or large amounts of clay; sandy or loam soils are best. Apply nitrogen fertilizer at planting time.

When the plants are about 4 to 6 in tall they should be "dirted," which means using your hoe or a similar tool to pull about 3 to 4 in of soil up to the plants. The seed piece should ideally be about 6 in beneath the surface of the soil after the dirting process. When the tops have grown too large to allow cultivation, a finishing cultivation, sometimes called "laying by" or "hilling up" is given. Laying by throws soil over the potatoes to prevent their exposure to sun, which can cause greening or scalding. Green potatoes taste bitter due to a poisonous alkaloid and should not be consumed.

Harvest early potatoes when large enough for table use. If you wish to store potatoes for later use, leave them in the ground until the plant tops are dead, or nearly so, and the skin on the tubers is firm, not flaky. Then dig them up and store in a cool, dark place.

Nutritional Value of White Potato

Serving size:	7 oz. Baked	<u>Primary Nutrients</u>	<u>%RDA(m)</u>	<u>%RDA(f)</u>
Calories	220	Vitamin C	26 mg	43
Fat	0.2 g	Vitamin B6	0.7 mg	35
Calories from fat	0.8%	Iron	2.75 mg	28
Cholesterol	0	Niacin	3.3 mg	17
Sodium	16 mg	Magnesium	55 mg	16
Protein	4.7 g	Thiamine	0.22 mg	15
Carbohydrate	51 g	Folic Acid	22 mcg	11
				<u>% Min. Requirement</u>
		Potassium	844 mg	42

Problem Diagnosis for White Potato

What the Problem Looks Like	Probable Cause	Comments
Tunneling in tubers, also visible in stalks, leaves. Pink tuber eyes from excrement. Shoots are wilting and dying.	Potato tuberworm	
Curled, distorted leaves. Stunted plants.	Aphids	Use insecticidal soap.
Leaves curled upward. Older leaves turn yellow, then brown. Margins of young leaves may be purple. Nodes and petioles are enlarged, twisted. Foliage rosetted. Aerial tubers may be visible. Tubers small, produced in chains. Entire plant brown, stiff, upright.	Potato psyllid Adults are size of aphids. Winged, light gray to dark brown. Found on undersides of leaves. Immature forms are flat, disklike, yellowish with marginal fringe.	Serious damage to young plants. Once tubers are formed, psyllids can be tolerated.
White stippling on upper leaf surface. Leaf margins, tips are yellow or brown. Plants stunted.	Leaf hoppers	Use insecticidal soap.

Problem Diagnosis for White Potato (continued)

What the Problem Looks Like	Probable Cause	Comments
Leaves full of small holes. Tubers with bumps and shallow winding trails on surface.	Flea beetles Brown, black or striped jumping beetles 1/16 inch	Control not necessary. Peel away damage on tubers
Bumps or pimples on tubers. Swellings on roots. Brown spots in outer part of tuber flesh.	Nematodes	
Poor crop in spite of good growing practices. Leaves rough, crinkled.	Viruses	Plant certified seed potatoes.
Leaves turn grayish brown with rings of grey-white downy spores when humidity is high. Leaves and stems die. Tubers have brown purple scars on surface and rot in storage.	Late blight Caused by a fungus that infects potatoes, tomatoes, and other potato family plants	Problem mainly in coastal areas and Bakersfield.. Destroy, remove volunteer potatoes before planting. Use resistant varieties. such as Kennebac. Plant certified tubers. Keep tubers covered with soil hills Bordeaux mixture is protectant. Cut vines 1" below soil surface and remove 10-14 days before harvest. Do not harvest under wet conditions. Eliminate all tubers and plants after harvest.
Plant leaves rolled, often with loss of dark green color and slowed growth. Brown speckling in stem end of tubers.	Leafroll and other viruses. Aphid-transmitted.	Use certified seed. Avoid saving seed potatoes from gardens. Use resistant varieties. Control insects. Control weeds.
Tubers knobby-shaped or with cavities.	Alternate wet and dry conditions	Keep soil moisture uniform. Do not plant in heavy soils.

Problem Diagnosis for White Potato (continued)

What the Problem Looks Like	Probable Cause	Comments
Plants fail to emerge from ground after planting seed pieces.	Soil organisms Market potatoes	Soil organisms can rot seed pieces. Potatoes bought at the market are often treated to prevent sprouting. Plant only certified seed potatoes. Cut them. When sprouts begin to form and plant seed pieces immediately. Plant when soil temp. is >45OF
Vines progressively decline and die earlier than normal. Brown streaks inside lower stem visible when stem split lengthwise.	Verticillium wilt Caused by a soilborne fungus	Rotate crops. Avoid ground planted to tomatoes, peppers, eggplant, or cucurbits.
Tubers have brown streaks and what appears to be a root inside	Nutsedge rhizomes	Keep potato plantings free of nutsedge.
Scabby spots or pHs on surface of tubers.	Scab Caused by bacterium In soil	Disease is cosmetic. Affected tubers are edible. Plant resistant varieties. If scab occurs, change varieties next year. Disease is favored by neutral to basic soil. Sulfur may be worked into soil to make h slightly acid and reduce disease.

Problem Diagnosis for White Potato (continued)

What the Problem Looks Like	Probable Cause	Comments
Green tubers	Exposure to sun	Do not eat green part of potato tuber because of toxin. Mound soil up around planting.
Tubers have slimy, smelly rot.	Soft rot (bacterial disease)	Plant in well-drained soil. Store properly.
Tubers show irregular white or brown cavities when cut open	Hollow heart Caused by plants growing too rapidly.	Do not overfertilize or plant too far apart.