

# Sweet Potato

Varieties	
Beauregard	Early, light red skin, orange flesh, consistent yield, high quality, resistant to Fusarium wilt, intermediately resistant to resistant to streptomyces soil rot, increasingly popular
Centennial	Soft-fleshed type, orange skin
Covington	Orange-fleshed, smooth-skinned, rose-colored, 5-10 days later than Beauregard. Resistant to Fusarium wilt, southern root-knot nematode, and moderately resistant to streptomyces soil rot.
Evangeline	Orange-flesh, produces fewer oversized or jumbo grade roots, southern root-knot nematode resistance, higher sucrose content
Hernandez	Copper skin, deep orange flesh
Nugget	Firm-fleshed type, orange skin, orange flesh, good quality, excellent keeper
Orleans	Orange-flesh, light rose-skin, superior shape, yields are equal to 'Beauregard,' resistant to Fusarium wilt, intermediate resistance to streptomyces soil rot
For Trial	
Carolina Ruby	Dark red skin; orange flesh; consistent yields for early-, middle-, or late-season planting; resistant to Fusarium wilt; excellent keeper

## Plant Production

Select seed stock from high-yielding hills that are smooth, well-shaped, and free of diseases (scurf, internal cork, wilt, black rot) and insect injury. Where internal cork is present, obtain seed stock from suppliers who have cork-free stock. Store seed stock in new crates to avoid disease contamination. Seed potatoes should be at least 1.5 inches in diameter. One bushel of small- to medium-sized roots should produce 2,000 to 2,500 plants (slips) from three pullings.

Treating seed before planting with Mertect 340-F<sup>®</sup> will protect roots from infection by certain disease-causing organisms. Bed the seed stock in new, clean sand taken from upland banks or pits. Allow 10 to 12 square feet of bed area per bushel of seed. Maintain plant bed temperature at 75°F to 85°F.

## Planting and Spacing

Transplanting machines are available for mechanically planting sweet potato slips. Common spacing is 1 foot apart in the row, with rows 3 to 4 feet apart, depending upon the cultivating and harvesting equipment used. 14,520 slips per acre are required at the 1 foot by 3 feet spacing, while 10,890 are needed at the 1 foot by 4 feet spacing. Transplant only strong, stocky slips. Yields can be increased up to 100 bushels per acre by using strong transplants.

## Fertilizing

**Lime:** None usually necessary. Soil pH of 5.0 to 6.0 is satisfactory.

**Preplant:** N: 30 pounds per acre. P<sub>2</sub>O<sub>5</sub>: 0 to 75 pounds per acre. K<sub>2</sub>O: 0 to 250 pounds per acre. Adjust according to soil type, previous management, and soil test results for your state. Set the slips with a starter solution at the rate of 1 cup (8 ounces) per plant.

**Sidedress N:** None usually necessary on finer textured soils. On irrigated sands, sidedress with 30 to 50 pounds N per acre approximately 3 to 4 weeks after transplanting.

## Harvesting

Remove vines by cutting with a rotary mower. Dig only those potatoes that can be picked up immediately and not left out overnight. Temperatures below 50°F can chill potatoes and cause internal breakdown in storage. Potatoes will sunburn if left in direct sunlight for more than an hour. Field grading is important.

Prevent skinning and breaking. Use cotton gloves when placing potatoes in crates. Place well-shaped No. 1's with No. 2's, and cuts with culls.

## Storing

When the storage house is filled, raise the temperature to 85°F. Keep it at this temperature for 6 to 8 days, with 85 percent to 90 percent humidity for proper curing. After curing, the temperature may be gradually dropped to 55°F. Hold this temperature until potatoes are marketed or used for producing slips.

## Pesticide Use in Greenhouses

Before using any pesticide, always read the product label for mention of greenhouse restrictions. See Selected Information About Recommended Fungicides (page 79), Selected Information About Recommended Herbicides (page 69), and Selected Information About Recommended Insecticides (page 54).

## Disease Control

### **Black Rot, Foot Rot, Fusarium Wilt, and Scurf**

Plant disease-free seed and/or resistant varieties. Follow 3-4 year crop rotations. Prevent bruising and maintain proper storage temperatures.

#### **Recommended Products**

**Botran 75W**® or **Botran 5F**® as a seed dip or plant bed spray. *Scurf only.*

**Mertect 340F**® at 8 fl. oz. per 7.5 gals. Of water. *Not for Fusarium wilt.*

#### **Storage Rots**

Fumigate storage boxes. Cure and store only healthy, blemish-free tubers.

## Weed Control

Sweet potatoes are often grown on black plastic mulch because they benefit from the higher soil temperature it provides early in the season. The mulch also provides weed control near the row. Between rows, cultivation and hand hoeing are typically used until the sweet potato vines cover the soil. A few herbicides are available for use in sweet potato.

For specific weeds controlled by each herbicide, check Relative Effectiveness of Herbicides for Vegetable Crops (page 68).

Rates provided in the recommendations below are given for overall coverage. For band treatment, reduce amounts according to the portion of acre treated.

### **Burndown or Directed/Shielded**

#### **Applications Broadleaves and Grasses**

##### **Recommended Products**

**Glyphosate** products at 0.75-3.75 lbs. acid equivalent (ae) per acre. Use formulations of 3 lbs. ae per gal. (4 lbs. isopropylamine salt per gal.) at 1-5 qts. per acre, or formulations containing 4.5 lbs. ae per gal. (5 lbs. potassium salt per gal.) at 0.66-3.3 qts. per acre. Broadcast before planting, or apply between crop rows with wipers or hooded or shielded

sprayers. Use low rate for annuals and higher rates for perennials. See label for suggested application volume and adjuvants. 14-day PHI.

### **Preemergence Broadleaves and Grasses**

#### **Recommended Products**

**Command 3ME**® at 1.3-4 pts. per acre. Use low rate on coarse soils. Apply before planting, or apply up to 1.5 pts. per acre after transplanting and before weeds emerge. 95-day PHI for rates up to 3.3 pts. per acre. 125-day PHI for rates more than 3.3 pts. per acre.

**Devrinol 50DF-XT**® at 2-4 lbs. per acre. Apply immediately after transplanting. If rain does not occur within 24 hours, incorporate shallowly or irrigate with 0.5 inch of water.

**Dual Magnum**® at 1-1.33 pts. per acre. *Michigan only — applicators must have 24(c) label.* Apply after transplanting before weeds emerge. Do not incorporate into soil. Close transplant trenches before application. 60-day PHI.

### **Preemergence Broadleaves**

#### **Recommended Products**

**Valor SX**® at 2 oz. per acre. Apply 2-5 days before transplanting. Do not use on greenhouse-grown transplants, or on transplants harvested more than 2 days before transplanting. Do not use on varieties other than 'Beauregard' unless you have tested for phytotoxicity under your conditions. Do not exceed 2.5 oz. per acre per growing season.

### **Preemergence Grasses**

#### **Recommended Products**

**Dacthal W-75**® at 6-14 lbs. per acre, or **Dacthal Flowable**® at 6-14 pts. per acre. Apply at transplanting or layby. May be applied over the top of transplants.

### **Postemergence Broadleaves and Grasses**

#### **Recommended Products**

**Glyphosate** products. See details above for Burndown or Directed/Shielded Applications.

### **Postemergence Broadleaves**

#### **Recommended Products**

**Aim EC**® at 0.5-2 fl. oz. per acre. Apply with hooded sprayers as a directed application between crop rows. Use COC or NIS. Weeds must be actively growing and less than 4 inches tall. Do not allow spray to contact crop. Do not exceed 6.1 fl. oz. per acre per season.

## Postemergence Grasses

### Recommended Products

**Fusilade DX 2E**® at 10-12 fl. oz. per acre. Use 1-2 pts. of COC or 0.5-1 pt. of NIS per 25 gals. of spray solution. Apply to actively growing grass. Do not exceed 48 fl. oz. per acre per season. 14-day PHI.

**Poast 1.5E**® at 1-1.5 pts. per acre Use 1 qt. of COC per acre. Spray on actively growing grass. Do not exceed 5 pts. per acre per year. 30-day PHI.

**Select Max**® at 12-32 fl. oz per acre, or **Select 2EC**® at 6-16 fl. oz. per acre. Use 1 qt. of COC per 25 gals. of spray solution (1% v/v). Spray on actively growing grass. Wait at least 14 days between applications. Do not exceed 64 fl. oz. of Select Max®, or 32 fl. oz. of Select 2EC® per acre per season. 30-day PHI.

## Insect Control

### Aphids

#### Recommended Products

**Actara**® (25WDG) at 3 oz. per acre. Do not exceed 6 oz. per acre per season. 14-day PHI.

**Admire Pro**® (4.6F) at the following rates:

*Soil applications:* 4.4-10.5 fl. oz. per acre. 125-day PHI.

*Foliar applications:* 1.2 fl. oz. per acre. 7-day PHI.

Do not exceed 10.5 fl. oz. or 1 application per acre per season.

**Assail 30SG**® at 2.5-4 oz. per acre. 7-day PHI.

**Belay 2.13SC**® at 2-3 fl. oz. per acre. 14-day PHI.

**Beleaf 50SG**® at 2-2.8 oz per acre. 7-day PHI.

**Fulfill**® (50WDG) at 2.75-5.50 oz. per acre. Do not exceed 11 oz. per acre per season. 14-day PHI.

**Movento**® (2SC) at 4-5 fl. oz. per acre. 7-day PHI.

**Platinum**® (2SC) at 5-8 fl. oz. per acre. Do not exceed 8 fl. oz. per acre per season. Apply at planting.

**Pyrenone**® at 1-12 fl. oz. per acre. 0-day PHI.

**Sivanto**® (200SL) at 7-10.5 fl. oz. per acre. Do not exceed 28 fl. oz. per acre per season. 7-day PHI.

**Voliam Flexi**® at 4 oz. per acre. 14-day PHI.

**Warrior II**® (2.08EC) at 1.28-1.92 fl. oz. per acre. Do not exceed 7.68 fl. oz. per acre per season. 7-day PHI.  
*RUP.*

## Colorado Potato Beetles

### Recommended Products

**Actara**® (25WDG) at 1.5-3 oz. per acre. Do not exceed 6 oz. per acre per season. 14-day PHI.

**Assail 30SG**® at 1.5-4 oz. per acre. 7-day PHI.

**Avant**® (30WDG) at 3.5-6 oz. per acre. 7-day PHI.

**Baythroid XL**® (1EC) at 1.6-2.8 fl. oz. per acre. Do not exceed 16.8 fl. oz. per acre per season. 0-day PHI.  
*RUP.*

**Belay**® (2.13SC) at 2-3 fl. oz. per acre. 14-day PHI.

**Entrust**® (2SC) at 1-2 fl. oz. per acre. Do not exceed 6.5 fl. oz. per acre per season. 7-day PHI.

**Mustang Maxx**® (0.8EC) at 3.2-4 fl. oz. per acre. 1-day PHI. *RUP.*

**Platinum**® (2SC) at 5-8 fl. oz. per acre. Do not exceed 8 fl. oz. per acre per season. Apply at planting.

**Radiant SC**® (1SC) at 4.5-8 fl. oz. per acre. Do not exceed 32 fl. oz. per acre per season. 7-day PHI.

**Rimon**® (0.83EC) at 6-12 fl. oz. per acre. Do not exceed 24 fl. oz. per acre per season. 14-day PHI.

**Sivanto**® (200SL) at 10.5-14 fl. oz. per acre. Do not exceed 28 fl. oz. or 2 applications per acre per season. 7-day PHI.

**Warrior II**® (2.08EC) at 1.28-1.92 fl. oz. per acre. Do not exceed 7.68 fl. oz. per acre per season. 7-day PHI.  
*RUP.*

## Potato Leafhoppers

### Recommended Products

**Actara**® (25WDG) at 1.5-3 oz. per acre. Do not exceed 6 oz. per acre per season. Control may require 2 applications at a 7-10 day interval. 14-day PHI.

**Admire Pro**® (4.6F) at the following rates:

*Soil applications:* 4.4-10.5 fl. oz. per acre. 125-day PHI.

*Foliar applications:* 1.2 fl. oz. per acre. 7-day PHI.

Do not exceed 10.5 fl. oz. or 1 application per acre per season.

**Assail 30SG**® at 1.5-4 oz. per acre. 7-day PHI.

**Baythroid XL**® (1EC) at 0.8-1.6 fl. oz. per acre. Do not exceed 16.8 fl oz. per acre per season. 0-day PHI.  
*RUP.*

**Belay**® (2.13SC) at 2-3 fl. oz. per acre. 14-day PHI.

**Malathion**® (5 EC) at 1.5-2.5 pts. per acre. 0-day PHI.

**Mustang Maxx**® (0.8EC) at 3.2-4 fl. oz. per acre. 1-day PHI. *RUP.*

**Platinum**® (2SC) at 5-8 fl. oz. per acre. Apply at planting. Do not exceed 8 fl. oz. per acre per season.

**Pyrenone**® at 1-12 fl oz. per acre. 0 day PHI.

**Sivanto**® (200SL) at 7-10.5 fl. oz. per acre at planting or as foliar spray. 7-day PHI.

**Voliam Flexi**® at 4 oz. per acre. 14 day PHI.

**Warrior II**® (2.08EC) at 0.96-1.6 fl. oz. per acre. Do not exceed 7.68 fl. oz. per acre per season. 7-day PHI. *RUP.*

## **Wireworms, Flea Beetle Larvae**

### **Recommended Products**

**Baythroid XL**® (1EC) at 1.6-2.8 fl. oz. per acre. *Flea beetles only.* Do not exceed 16.8 fl. oz. per acre per season. 0-day PHI. *RUP.*

**Brigade**® (2EC) at 9.6-19.2 fl. oz. per acre at planting. 21-day PHI.

**Capture LFR**® at 12.75-25.5 fl. oz. per acre. *Apply at planting or layby.* *RUP.*

**Lorsban 15G**® at 13.5 lbs. per acre Evenly distribute granules over treated area. After application, incorporate to a depth of 4-6 inches by rotary hoe or disc cultivator. Do not exceed 1 application per season. 125-day PHI. *RUP.*

**Lorsban 4E**® at 4 pts. per acre, or **Lorsban 75WG**® at 2.67 lbs. per acre. Apply to soil surface as a preplant broadcast spray. Incorporate immediately after application to a depth of 4-6 inches. Plant sweet potatoes no more than 14 days after treatment. Do not exceed 1 application per season. 125-day PHI. *RUP.*

**Platinum**® (2SC) at 5-8 fl. oz. per acre. *Seed treatment only.* Apply at planting.