

Sweet Potato

Varieties	
Beauregard	Early, light red skin, orange flesh, 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.
Hernandez	Copper skin, deep orange flesh
Julian	Deep orange, good quality (same as Centennial)
Nugget	Firm-fleshed type, orange skin, orange flesh, good quality, excellent keeper
For Trial	
Carolina Ruby	Dark red skin, orange flesh

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* 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. P₂O₅: 0 to 75 pounds per acre. K₂O: 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.

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 Table 25 on page 66.

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

RR **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. Apply after transplanting before weeds emerge. Do not incorporate into soil. Close transplant trenches before application. *Growers in Michigan should be in possession of the 24(c) label.* 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. 55-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

RR **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 0.38 lb. a.i. or 1 application per acre per season.

RR This is a reduced-risk pesticide. See page 37 for details.

RR 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.

RR Fulfill® (50WDG) at 2.75-5.50 oz. per acre. 14-day PHI.

Malathion® (5 EC) at 1.5-2 pts. per acre. 3-day PHI.

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

RR Platinum® (2SC) at 5-8 fl. oz. per acre. Apply at planting.

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

Sivanto® at 7-10.5 fl. oz. per acre. Apply at planting or as foliar spray. 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

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

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

Avaunt® (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 3.6 fl. oz. per acre. 7-day PHI.

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

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

Sivanto® (0.83EC) at 6-12 fl. oz. per acre. Do not exceed 24 fl. oz. or 2 applications per acre per season. 14-day PHI.

Rimon® (200SL) at 10.5-14 fl. oz. per acre at planting or as foliar spray.

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

RR 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 0.38 lb. a.i. or 1 application per acre per season.

RR 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 pts. per acre. 3-day PHI.

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

RR Platinum® (2SC) at 5-8 fl. oz. per acre. Apply at planting.

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.

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

RR This is a reduced-risk pesticide. See page 37 for details.