Sweet Potato

### Varieties

<table>
<thead>
<tr>
<th>Variety</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beauregard</td>
<td>Early, light red skin, orange flesh, consistent yield, high quality, resistant to Fusarium wilt, intermediately resistant to streptomyces soil rot, increasingly popular</td>
</tr>
<tr>
<td>Centennial</td>
<td>Soft-fleshed type, orange skin</td>
</tr>
<tr>
<td>Covington</td>
<td>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.</td>
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<tr>
<td>Evangeline</td>
<td>Orange-flesh, produces fewer oversized or jumbo grade roots, southern root-knot nematode resistance, higher sucrose content</td>
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<tr>
<td>Hernandez</td>
<td>Copper skin, deep orange flesh</td>
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<tr>
<td>Nugget</td>
<td>Firm-fleshed type, orange skin, orange flesh, good quality, excellent keeper</td>
</tr>
<tr>
<td>Orleans</td>
<td>Orange-flesh, light rose-skin, superior shape, yields are equal to 'Beauregard,' resistant to Fusarium wilt, intermediate resistance to streptomyces soil rot</td>
</tr>
<tr>
<td>Carolina Ruby</td>
<td>Dark red skin; orange flesh; consistent yields for early-, middle-, or late-season planting; resistant to Fusarium wilt; excellent keeper</td>
</tr>
</tbody>
</table>

### 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 5 to 7 days before harvest to toughen the skin. Dig only those potatoes that can be picked up immediately and not left out overnight. Temperatures below 55°F can chill potatoes and cause internal breakdown in storage. Potatoes will sunburn if left in direct sunlight for more than an hour. To prevent skinning and bruising use cotton gloves when placing potatoes in crates. Field grading is important.

### Curing and storing

Cure sweet potatoes immediately at 85°F and 85% to 90% humidity for 5 to 7 days. After curing, the temperature may be gradually dropped to 58°F. Hold this temperature until potatoes are marketed or used for producing slips.
**Disease Control**

**Recommended Controls**

**Black Rot of Sweet Potatoes - Ceratocystis Fungus**
Plant disease-free seed and/or resistant varieties. Follow 3-4 year crop rotations. Prevent bruising and maintain proper storage temperatures.

**Crop rotation** Rotate between crop families to reduce disease inoculum buildup.

**Mertect 340F® (thiabendazole)** 8 fl. oz. per 7.5 gal. of water. One application only. REI: see label. PHI: 0-day.

**Foot Rot of Sweet Potatoes - Plenodomus Fungus**
Plant disease-free seed and/or resistant varieties. Follow 3-4 year crop rotations. Prevent bruising and maintain proper storage temperatures.

**Crop rotation** Rotate between crop families to reduce disease inoculum buildup.

**Mertect 340F® (thiabendazole)** 8 fl. oz. per 7.5 gal. of water. One application only. REI: see label. PHI: 0-day.

**Scurf of Sweet Potatoes - Monilochaetes Fungus**
Plant disease-free seed and/or resistant varieties. Follow 3-4 year crop rotations. Prevent bruising and maintain proper storage temperatures.

**Crop rotation** Rotate between crop families to reduce disease inoculum buildup.

**Botran 75W® (dichloro-nitroaniline)** Use as seed potato dip or plant bed spray. REI: see label. PHI: 0-day.

**Mertect 340F® (thiabendazole)** 8 fl. oz. per 7.5 gal. of water. One application only. REI: see label. PHI: 0-day.

**Storage Rots of Sweet Potato**
Sanitation Fumigate storage boxes. Cure and store only healthy, blemish-free tubers.

**Wilt of Multiple Crops - Fusarium Fungus**
Plant disease-free seed and/or resistant varieties. Follow 3-4 year crop rotations. Prevent bruising and maintain proper storage temperatures.

**Crop rotation** Rotate between crop families to reduce disease inoculum buildup.

**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 table.

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

The critical period for weed control in sweet potato is 2-6 weeks after transplanting.

**Recommended Controls**

**Burndown or Directed/Shielded Application**

**Broadleaf and Grass Weeds**

**glyphosate formulations** (glyphosate) 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 qt. per acre or formulations containing 4.5 lbs. ae per gal. (5 lbs. potassium salt per gal.) at 0.66-3.3 qt. per acre. Broadcast before planting, or apply 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. REI: 4-hour. PHI: 14-day for foliar applications directed between rows, 7-day for wiper applications.

**paraquat formulations** (paraquat) 1-2 pt. of 2 lb. per gal. formulations. Add 1 qt. COC (1% v/v) or 0.5 pt. NIS (0.25% v/v) per 25 gal. of solution and apply to emerged weeds less than 6 inches tall prior to transplanting. Certified applicators must successfully complete an EPA-approved training program before mixing, loading, and/or applying paraquat. REI: 24-hour. RUP.

**Preemergence Broadleaf and Grass Weeds**

**Command 3ME® (clomazone)** 1.4-4.0 pt. per acre. Use low rate on coarse soils. Apply in a single application immediately after transplanting and before weeds emerge. When used alone may not adequately control pigweed species and does not control carpetweed. REI: 12-hour. PHI: 95-day for rates up to 3.3 pt. per acre, 125-day for rates over 3.3 pt. per acre.
Devrinol DF-XT® (napropamide) 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. REI: 24-hour.

Dual Magnum® (s-metolachlor) 1.0-1.3 pts. per acre. Illinois, Indiana, Michigan and Missouri only - applicators must have 24c label. Illinois label expires March 25, 2024. Michigan label expires December 31, 2021. Apply after transplanting before weeds emerge. Do not incorporate into soil. Close transplant trenches before application. Dual Magnum® applied shortly after transplanting and followed by moderate to heavy rainfall or irrigation can result in reduced yields and misshapen storage roots. Crop safety is improved by 10-14 days after transplanting when Dual Magnum® can be used as a layby application prior to canopy closure. REI: 24-hour. PHI: 60-day.

Preemergence Broadleaf Weeds
Valor SX® (flumioxazin) 2-3 oz. per acre. Apply to prepared planting beds prior to 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. REI: 12-hour.

Preemergence Grass Weeds
Dacthal® (DCPA) Dacthal W-75® at 6-14 lbs. per acre, or Dacthal Flowable® at 6-14 pts. per acre. Apply at transplanting or at layby up to 6 weeks after transplanting. May be applied over the top of transplants. REI: 12-hour.

Postemergence Broadleaf Weeds
Aim EC® (carfentrazone) 0.5-2 fl. oz. per acre. Apply with a hooded sprayer as a directed application between crop rows. Add 1 qt. COC (1% w/v) or 0.5 pt. NIS per 25 gal. of spray solution (0.25% v/v). Weeds must be actively growing and less than 4 in. tall. Do not allow spray to contact crop. Do not exceed 11.6 fl. oz. per acre per season. REI: 12-hour. PHI: 7-day.

Postemergence Grass Weeds
clethodim formulations (clethodim) Use 2 lb. per gal. formulations at 6-16 fl. oz. per acre with 1 qt. COC per 25 gals. of spray solution (1% w/v). Do not exceed 32 fl. oz. per acre per season. Use 0.97 lb. per gal. formulations at 9-32 fl. oz. per acre with 0.5 pt. NIS per 25 gals. of spray solution (0.25% v/v). Do not exceed 64 fl. oz. per acre per season. Use low rates for annual grasses and high rates for perennial grasses. Spray on actively growing grass. Wait at least 14 days between applications. REI: 24-hour. PHI: 30-day.

Fusilade DX® (fluazifop-P) 10-12 fl. oz. per acre. Add 1 qt. COC (1% v/v) or 0.5 pt. of NIS per 25 gals of spray solution (0.25% v/v). Apply to actively growing grass. Do not exceed 4 applications or 48 fl. oz. per acre per season. REI: 12-hour. PHI: 14-day.

Insect Control

Recommended Controls

Aphids
Actara® (thiamethoxam) 1.5-3.0 oz. per acre. Do not exceed 6 oz. per acre per season. REI: 12-hour. PHI: 14-day.

Admire Pro® (imidacloprid) 1.2 fl. oz. per acre foliar application, 4.4-10.5 fl. oz. per acre or 0.26 fl. oz. per 1,000 ft. of row soil application. Do not exceed 10.5 fl. oz. or 1 application per acre per season. REI: 12-hour. PHI: 7-day for foliar applications, or 125-day for soil applications.

Assail 30SG® (acetamiprid) 1.5-4.0 oz. per acre. Do not exceed 16 oz. per acre per season. REI: 12-hour. PHI: 7-day.

Baythroid XL® (beta-cyfluthrin) 2.8 fl. oz. per acre. Do not exceed 16.8 fl. oz. per acre per season. REI: 12-hour. PHI: 0-day. RUP

Belay® (clothianidin) 2-3 fl. oz. per acre. Foliar application: 2-3 fl. oz. per acre. Preplant broadcast, at-plant in-furrow, or post-plant sidedress application: 9-12 fl. oz. per acre. Do not exceed 12 fl. oz. per acre. REI: 12-hour. PHI: 14-day.

Beleaf 50SG® (flonicamid) 2.0-2.8 oz. per acre. Do not exceed 8.4 oz. per acre per season. REI: 12-hour. PHI: 7-day.

Fulfill® ( pymetrozine) 2.75-5.50 oz. per acre. Do not exceed 11 oz. per acre per season. REI: 12-hour. PHI: 14-day.

Movento® (spirotetramat) 4-5 fl. oz. per acre. Do not exceed 10 fl. oz. per acre per season. REI: 24-hour. PHI: 7-day.

Platinum 2SC® (thiamethoxam) 5-8 fl. oz. per acre. Apply at planting. Do not exceed 8 fl. oz. per acre per season. REI: 12-hour.

Sivanto 200SL® (flupyradifurone) 7.0-10.5 fl. oz. per acre. Apply at planting or as foliar spray. Do not exceed 28 fl. oz. per acre per season. REI: 4-hour. PHI: 7-day.
Sweet Potato - Insect Control

Transform WG® (sulfoxaflor) 1.5-2.75 oz. per acre. Do not exceed 8.5 oz. per acre per season. REI: 24-hour. PHI: 7-day.

Voliam Flexi® (thiamethoxam, chlorantraniliprole) 4 oz. per acre. Do not exceed 8 oz. per acre per season. REI: 12-hour. PHI: 14-day.

Warrior II® (lambda-cyhalothrin) 1.28-1.92 fl. oz. per acre. Do not exceed 7.68 fl. oz. per acre per season. REI: 24-hour. PHI: 7-day. RUP.

Armyworm Caterpillars

Entrust® (spinosad) 1.5-3.0 fl. oz. per acre. Do not exceed 6.5 fl. oz. per acre per season. REI: 4-hour. PHI: 7-day. OMRI-listed.

Mustang Maxx® (zeta-cypermethrin) 1.28-4.0 fl. oz. per acre. Do not exceed 24 fl. oz. per acre per season. REI: 12-hour. PHI: 1-day. RUP.

Radiant 1SC® (spinetoram) 4.5-8.0 fl. oz. per acre. Do not exceed 32 fl. oz. per acre per season. REI: 12-hour. PHI: 14-day. RUP.

Rimon 0.83EC® (novaluron) 6-12 fl. oz. per acre. Do not exceed 24 fl. oz. per acre per season. REI: 12-hour. PHI: 1-day. RUP.

Voliam Flexi® (thiamethoxam, chlorantraniliprole) 4 oz. per acre. Do not exceed 8 oz. per acre per season. REI: 12-hour. PHI: 14-day. RUP.

Warrior II® (lambda-cyhalothrin) 1.28-1.92 fl. oz. per acre. Do not exceed 7.68 fl. oz. per acre per season. REI: 24-hour. PHI: 7-day. RUP.

Cucumber Beetles

Assail 30SG® (acetamiprid) 1.5-4.0 oz. per acre. Do not exceed 16 oz. per acre per season. REI: 12-hour. PHI: 7-day.

Baythroid XL® (beta-cyfluthrin) 1.6-2.8 fl. oz. per acre. Do not exceed 16.8 fl. oz. per acre per season. REI: 12-hour. PHI: 0-day. RUP.

Brigade 2EC® (bifenthrin) 2.1-6.4 fl. oz. per acre. Foliar application. Do not exceed 32 fl. oz. per acre per season. REI: 12-hour. PHI: 21-day. RUP.

Capture LFR® (bifenthrin) 12.75-25.5 fl. oz. per acre. Apply at planting or layby. Do not exceed 41.67 fl. oz. per acre per season. REI: 12-hour. PHI: 21-day. RUP.

OMRI-listed indicates that the product is listed by the Organic Materials Review Institute (OMRI.org) and therefore may be acceptable for use in organic production. Check with your certifier before use.
chlorpyrifos formulations (chlorpyrifos) Use 15G formulations at 13.5 lbs. per acre. Use 75WG formulations at 2.67 lbs. per acre. Use 4E formulations at 4 pts. per acre. Evenly spread granules or spray soil surface preplant and incorporate to a depth of 4-6 inches. Plant sweet potatoes no more than 14 days after treatment. Do not exceed 1 application per season. REI: see label. PHI: 125-day. RUP.

Mustang Maxx® (zeta-cypermethrin) 1.28-4.0 fl. oz. per acre. Do not exceed 24 fl. oz. per acre per season. REI: 12-hour. PHI: 1-day. RUP.

Platinum 2SC® (thiamethoxam) 5-8 fl. oz. per acre. Apply at planting. Do not exceed 8 fl. oz. per acre per season. REI: 12-hour.

Sivanto 200SL® (flupyradifluorone) 7.0-10.5 fl. oz. per acre. Apply at planting or as foliar spray. Do not exceed 28 fl. oz. per acre per season. REI: 4-hour. PHI: 7-day.

Transform WG® (sulfoxaflor) 1.5-2.75 oz. per acre. Do not exceed 8.5 oz. per acre per season. PHI: 7-day.

Voliam Flexi® (thiamethoxam, chlorantraniliprole) 4 oz. per acre. Do not exceed 8 oz. per acre per season. PHI: 7-day.

Warrior II® (lambda-cyhalothrin) 0.96-1.60 fl. oz. per acre. Do not exceed 7.68 fl. oz. per acre per season. PHI: 7-day. RUP.

Looper Caterpillars

Avaunt 30WDG® (indoxacarb) 2.5-6.0 oz. per acre. Do not exceed 24 oz. per acre per season. REI: 12-hour. PHI: 7-day.

Baythroid XL® (beta-cyfluthrin) 1.6-2.8 fl. oz. per acre. Do not exceed 16.8 fl. oz. per acre per season. REI: 12-hour. PHI: 0-day. RUP.

Entrust® (spinosad) 1.5-3.0 fl. oz. per acre. Do not exceed 6.5 fl. oz. per acre per season. REI: 4-hour. PHI: 7-day. OMRI-listed.

Mustang Maxx® (zeta-cypermethrin) 1.28-4.0 fl. oz. per acre. Do not exceed 24 fl. oz. per acre per season. REI: 12-hour. PHI: 1-day. RUP.

Radiant 1SC® (spinetoram) 4.5-8.0 fl. oz. per acre. Do not exceed 32 fl. oz. per acre per season. REI: 4-hour. PHI: 7-day.

Rimon 0.83EC® (novaluron) 6-12 fl. oz. per acre. Do not exceed 24 fl. oz. per acre per season. REI: 12-hour. PHI: 7-day.

Voliam Flexi® (thiamethoxam, chlorantraniliprole) 4 oz. per acre. Do not exceed 8 oz. per acre per season. REI: 12-hour. PHI: 14-day.

Warrior II® (lambda-cyhalothrin) 1.28-1.92 fl. oz. per acre. Do not exceed 7.68 fl. oz. per acre per season. PHI: 7-day. RUP.
**Thrips**

**Admire Pro® (imidacloprid)** 4.4-10.5 fl. oz. per acre or 0.26 fl. oz. per 1,000 ft. of row soil application. Do not exceed 10.5 fl. oz. or 1 application per acre per season. REI: 12-hour. PHI: 125-day.

**Entrust® (spinosad)** 1.5-3.0 fl. oz. per acre. Do not exceed 6.5 fl. oz. per acre per season. REI: 4-hour. PHI: 7-day. OMRI-listed.

**Radiant 1SC® (spinetoram)** 4.5-8.0 fl. oz. per acre. Do not exceed 32 fl. oz. per acre per season. REI: 4-hour. PHI: 7-day.

**Warrior II® (lambda-cyhalothrin)** 1.28-1.92 fl. oz. per acre. Do not exceed 7.68 fl. oz. per acre per season. REI: 24-hour. PHI: 7-day. RUP.

**Wireworms**

**Brigade 2EC® (bifenthrin)** 9.6-19.2 fl. oz. per acre. Preplant-incorporated broadcast, directed bed spray, or T-band spray into the planting furrow. Do not exceed 32 fl. oz. per acre per season. REI: 12-hour. PHI: 21-day. RUP.

**Capture LFR® (bifenthrin)** 12.75-25.5 fl. oz. per acre. Apply at planting or layby. Do not exceed 41.67 fl. oz. per acre per season. REI: 12-hour. PHI: 21-day, RUP.

**chlorpyrifos formulations (chlorpyrifos)** Use 15G formulations at 13.5 lbs. per acre. Use 75WG formulations at 2.67 lbs. per acre. Use 4E formulations at 4 pts. per acre. Evenly spread granules or spray soil surface preplant and incorporate to a depth of 4-6 inches. Plant sweet potatoes no more than 14 days after treatment. Do not exceed 1 application per season. REI: see label. PHI: 125-day. RUP.