

Sweet Potato – Horticulture

Major update by Ben Phillips, Liz Maynard – Oct 2020

Reviewed by Brad Bergesford – Apr 2022

Crop Description

Sweet potatoes (*Ipomoea batatas*) are of tropical origin and are related to morning glories. They can perform well in the Midwest too. The varieties that are easiest to get, and that perform well in the Midwest are listed below. Some varieties need up to 140 frost free days to mature. Sweet potatoes can make for a productive hoop house crop, and in this way the longer maturing varieties can also be grown. Asian sweet potato varieties are starchier than more commonly grown varieties, and often are white or purple fleshed, instead of orange. In the table below, FW = Fusarium wilt resistant, SRKN = Southern root knot nematode resistant, SSR = Streptomyces soil rot resistant, * = varieties that performed well in midwestern trials.

| Variety Name | Description |
|-----------------|------------------------------------------------------------------------|
| *Beauregard | Red skin, orange flesh, vine type, 90-100 days. FW, SSR. |
| *Carolina Ruby | Red skin, orange flesh, vine type, 95-100 days. FW. |
| *Centennial | Orange skin, orange flesh, vine type, 100 days. FW. |
| *Covington | Red skin, orange flesh, bush type, 95-105 days. FW, SRKN, SSR. |
| Evangeline | Red skin, orange flesh, vine type, 100 days. FW, SRKN, SSR. |
| Hernandez | Orange skin, orange flesh, vine type, 120 days. FW, SRKN, SSR. |
| Georgia Jets | Orange skin, orange flesh, vine type, 120 days. FW, SRKN, SSR. |
| Molokai Purple | Purple skin, purple flesh, vine type, 120 days. Starchy. |
| Murasaki | Purple skin, white flesh, bush type, 120 days. Starchy. FW, SRKN, SSR. |
| O-Henry | White skin, white flesh, vine type, 90-100 days. Starchy. FW, SSR. |
| Okinawan Purple | Beige skin, purple flesh, vine type, 140 days. Starchy. |
| Porto Rico | Orange skin, orange flesh, bush type, 100 days. FW. |
| Vardaman | Red skin, orange flesh, bush type, 100 days. FW. |
| White Bonita | White skin, white flesh, vine type, 110-115 days. SRKN. |
| *Red Japanese | Purple skin, purple flesh, vine type, 110 days. Starchy. FW. |

Planting and Spacing

Root production: Water wheel and finger-style transplanters work well 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. It is common for the tops to wither after transplanting until they root. Transplanting with water is important to improve their rooting recovery time. Slips may be transplanted into beds covered with plastic mulch; the warmed soil will enhance growth and mulch will help with control.

Slip/cutting 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. When possible, obtain certified G1 or G2 (generation) seed stock. Store seed stock in new crates to avoid disease contamination. Seed potatoes should be at least 1-1/2 inches in diameter. One bushel of small- to medium-sized roots should produce 500 to 800 sprouts in 10 to 15 square feet of bed area (one cut).

Slip/cutting production should be in movable protected systems (low or high tunnels) for early planting in the field to maximize production season. Before bedding, seed stock should be pre-sprouted at 85 F and 90% relative humidity for 3 to 4 weeks until the sprouts are 1 to 1-1/2 inch. Treat seed stock before planting with Mertect 340F to protect roots from soil-borne diseases. Bed the seed stock in clean land that has not been planted with sweet potato for 4 years. Optimal temperature for growth is 75 F to 85 F. Remove tunnels 7 days prior to planting to harden the slips.

Fertilizing

pH: Maintain the soil pH above 5.0.

Before planting, apply 30 pounds N per acre, 0 to 75 pounds P₂O₅ per acre, and 0 to 250 pounds K₂O per acre based on soil test results and recommendations from your state. Set the slips with a starter solution at the rate of 1 cup (8 fl. oz.) per plant.

Sidedress with 30 to 50 pounds N per acre three to four weeks after transplanting on irrigated sands. Finer textured soils usually do not need sidedressing. Reduce the amount of fertilizer N applied by the value of N credits from green manures, legume crops grown in the previous year, compost and animal manures, and soils with more than 3% organic matter. The total amount of N from fertilizer (including starter) and other credits should be 80 pounds per acre or less.

Harvesting

The last month or so of production is when sweet potato roots put on all their size. Thin, long roots indicate that they are still bulking up. Harvests can begin when roots reach a desired size but should be finished before regular freezing temperatures begin. Tops can freeze off without damaging roots right away, but the decomposing tops can eventually lead to rots in the roots. As soil temperatures go below 65 F tuber growth stops.

Remove vines by cutting with a rotary mower 5 to 7 days before harvest to toughen the skin. Plowing out and hand-collecting sweet potatoes is a common harvest method because their thin skins are easily damaged from chain-diggers. Dig only those potatoes that can be picked up immediately. 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. Overnight temperatures below 55 F can chill any dug sweet potatoes that were not collected and cause internal breakdown in storage.

Flavor improves and sweetens a few weeks after digging. Uncured sweet potatoes will last 3 to 6 months in storage. To cure them for 6- to 12-month storage, immediately place them at 80 to 85 F and 85% to 95% humidity for 4 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.

Sweet Potato - Diseases

Reviewed by Dan Egel – Aug 2022

Black Rot of Sweet Potatoes - *Ceratocystis* Fungus

Non-Pesticide

Plant disease-free seed and/or resistant varieties. Follow 3-4 year crop rotations. Prevent bruising. Cure and store only healthy, blemish-free tubers, and maintain proper storage temperatures.

Pesticide

Mertect 340-F (SC) (thiabendazole) | 8 fl. oz. per 7.5 gal. of water. One application only. REI: 12-hour. PHI: 0-day. FRAC 01.

Foot Rot of Sweet Potatoes - *Plenodomus* Fungus

Non-Pesticide

Plant disease-free seed and/or resistant varieties. Follow 3-4 year crop rotations. Prevent bruising. Cure and store only healthy, blemish-free tubers, and maintain proper storage temperatures.

Pesticide

Mertect 340-F (SC) (thiabendazole) | 8 fl. oz. per 7.5 gal. of water. One application only. REI: 12-hour. PHI: 0-day. FRAC 01.

Scurf of Sweet Potatoes - *Monilochaetes* Fungus

Non-Pesticide

Plant disease-free seed and/or resistant varieties. Follow 3-4 year crop rotations. Prevent bruising. Cure and store only healthy, blemish-free tubers, and maintain proper storage temperatures.

Pesticide

Botran 75W (dichloro-nitroaniline) | Use as seed potato dip or plant bed spray. REI: 12-hour. PHI: 0-day. FRAC 14.

Mertect 340-F (SC) (thiabendazole) | 8 fl. oz. per 7.5 gal. of water. One application only. REI: 12-hour. PHI: 0-day. FRAC 01.

Storage Rots of Sweet Potato

Non-Pesticide

Prevent bruising. Cure and store only healthy, blemish-free tubers, and maintain proper storage temperatures.

Wilt of Multiple Crops - *Fusarium* Fungus

Non-Pesticide

Plant disease-free seed and/or resistant varieties. Follow 3-4 year crop rotations. Prevent bruising. Cure and store only healthy, blemish-free tubers, and maintain proper storage temperatures.

Sweet Potato - Insects

Reviewed by Laura Ingwell, Donald Lewis – Sep 2021

Aphids

Pesticide

Actara (25WDG) (thiamethoxam) | 3.0 oz. per acre. Do not exceed 6 oz. per acre per season. Control may require two applications. Allow 7 days between applications. See pollinator precautions. REI: 12-hour. PHI: 14-day. IRAC 04A.

Admire Pro (4.6SC) (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. IRAC 04A.

Assail 30SG (acetamiprid) | Use 30SG formulations at 2.5-4.0 oz. per acre and do not exceed 16 oz. per acre per season. Use 70WP formulations at 1.0-1.7 oz. per acre and do not exceed 7.0 oz. per acre per season. Allow 7 days between applications. REI: 12-hour. PHI: 7-day. IRAC 04A.

Baythroid XL (1EC) (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. IRAC 03A. *RUP.*

Belay (2.13SC) (clothianidin) | *Soil applications:* 9-12 fl. oz. per acre. *Foliar applications:* 2-3 fl. oz. per acre. Do not exceed 12 fl. oz. per acre per season. REI: 12-hour. PHI: 14-day. IRAC 04A.

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. IRAC 29.

Fulfill (50WDG) (pymetrozine) | 2.75-5.50 oz. per acre. Do not exceed 11 oz. per acre per season. REI: 12-hour. PHI: 14-day. IRAC 09B.

Movento (2SC) (spirotetramat) | 4-5 fl. oz. per acre. Do not exceed 10 fl. oz. per acre per season. REI: 24-hour. PHI: 7-day. IRAC 23.

Mustang Maxx (0.8) (zeta-cypermethrin) | 3.2-4.0 fl. oz. per acre. Do not exceed 24 fl. oz. per acre per season. REI: 12-hour. PHI: 1-day. IRAC 03A. *RUP.*

Platinum 2SC (thiamethoxam) | Use 2SC formulations at 5-8 fl. oz. per acre and do not exceed 8 fl. oz. per acre per season. Use 75SG formulations at 1.66-2.67 oz. per acre and do not exceed 2.67 oz. per acre per season. Apply as in-furrow spray during planting only. REI: 12-hour. IRAC 04A.

Sivanto 200 (1.67SL) (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. IRAC 04D.

Transform WG (50) (sulfoxaflor) | 0.75-1.0 oz. per acre. Do not exceed 8.5 oz. per acre per season. REI: 24-hour. PHI: 7-day. IRAC 04C.

Voliam Flexi (WDG) (thiamethoxam, chlorantraniliprole) | 4 oz. per acre. Do not exceed 8 oz. per acre per season. REI: 12-hour. PHI: 14-day. IRAC 04A, IRAC 28.

Warrior II (2.08CS) (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. IRAC 03A. *RUP.*

Caterpillars

Pesticide

Avaunt (30WDG) (indoxacarb) | 2.5-6.0 oz. per acre. For loopers. Do not exceed 24 oz. per acre per season. REI: 12-hour. PHI: 7-day. IRAC 22.

Baythroid XL (1EC) (beta-cyfluthrin) | 0.8-2.8 fl. oz. per acre. For cutworms, and loopers. Do not exceed 16.8 fl. oz. per acre per season. REI: 12-hour. PHI: 0-day. IRAC 03A. *RUP.*

Blackhawk (36G) (spinosad) | 2.25-3.5 oz. per acre. Do not exceed 14.4 oz. per acre per season. REI: 4-hour. IRAC 05.

Endigo ZC (thiamethoxam, lambda-cyhalothrin) | 3.5-4.5 fl. oz. per acre. Do not exceed 10 fl. oz. per acre per season. Allow 7 days between applications. REI: 24-hour. IRAC 04A, IRAC 03A. *RUP.*

Entrust SC (2) (spinosad) | For armyworms, and loopers. Use 2SC formulations at 4.5-10.0 fl. oz. per acre and do not exceed 21 fl. oz. per acre per season. Use 80WP formulations at 1.5-3.0 oz. per acre and do not exceed 9 oz. per acre per season. Allow 7 days between applications. REI: 4-hour. PHI: 7-day. IRAC 05. *OMRI-listed.*

Mustang Maxx (0.8) (zeta-cypermethrin) | 1.28-4.0 fl. oz. per acre. For armyworms, cutworms, and loopers. Do not exceed 24 fl. oz. per acre per season. REI: 12-hour. PHI: 1-day. IRAC 03A. *RUP.*

Radiant 1SC (spinetoram) | 6.0-8.0 fl. oz. per acre. For armyworms, and loopers. Do not exceed 32 fl. oz. per acre per season. REI: 4-hour. PHI: 7-day. IRAC 05.

Rimon 0.83EC (novaluron) | 6-12 fl. oz. per acre. For armyworms, and loopers. Do not exceed 24 fl. oz. per acre per season. REI: 12-hour. PHI: 14-day. IRAC 15.

Sevin XLR Plus (4SC) (carbaryl) | 1-2 qts. per acre. For armyworms and cutworms. Do not apply more than 6 qts. per acre per crop per year. REI: 12-hour. PHI: 7-day. IRAC 01A.

Tombstone (2EC) (cyfluthrin) | 0.8-2.8 fl. oz. per acre. For cutworms and loopers. Do not exceed 16.8 fl. oz. per acre per season. REI: 12-hour. PHI: 0-day. IRAC 03A. *RUP*.

Voliam Flexi (WDG) (thiamethoxam, chlorantraniliprole) | 4 oz. per acre. For armyworms and loopers. Do not exceed 8 oz. per acre per season. REI: 12-hour. PHI: 14-day. IRAC 04A, IRAC 28.

Warrior II (2.08CS) (lambda-cyhalothrin) | 0.96-1.92 fl. oz. per acre. For armyworms, cutworms, and loopers. Do not exceed 7.68 fl. oz. per acre per season. REI: 24-hour. PHI: 7-day. IRAC 03A. *RUP*.

Cucumber Beetles

Pesticide

Assail 30SG (acetamiprid) | Use 30SG formulations at 1.5-4.0 oz. per acre and do not exceed 16 oz. per acre per season. Use 70WP formulations at 0.6-1.7 oz. per acre and do not exceed 7.0 oz. per acre per season. Allow 7 days between applications. REI: 12-hour. PHI: 7-day IRAC 04A.

Baythroid XL (1EC) (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. IRAC 03A. *RUP*.

Brigade 2EC (bifenthrin) | Use 2EC formulations at 2.1-6.4 fl. oz. per acre as a foliar spray and do not exceed 32 fl. oz. per acre per season at plant application. Do not use 10DF, 10WP, or 10WSB formulations as they are not labeled for sweet potatoes. Allow 21 days between applications. REI: 12-hour. PHI: 21-day. IRAC 03A. *RUP*.

Capture LFR (1.5) (bifenthrin) | Apply as a foliar spray at 2.8-8.5 fl. oz. per acre. Do not exceed 2 applications per season. REI: 12-hour. PHI: 21-day, IRAC 03A. *RUP*.

Mustang Maxx (0.8) (zeta-cypermethrin) | 3.2-4.0 fl. oz. per acre. Do not exceed 24 fl. oz. per acre per season. REI: 12-hour. PHI: 1-day. IRAC 03A. *RUP*.

Warrior II (2.08CS) (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. IRAC 03A. *RUP*.

Flea Beetles

Pesticide

Actara (25WDG) (thiamethoxam) | 3.0 oz. per acre. Do not exceed 6 oz. per acre per season. Control may require two applications. Allow 7 days between applications. See pollinator precautions. REI: 12-hour. PHI: 14-day. IRAC 04A.

Admire Pro (4.6SC) (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. IRAC 04A.

Assail 30SG (acetamiprid) | Use 30SG formulations at 1.5-2.5 oz. per acre and do not exceed 16 oz. per acre per season. Use 70WP formulations at 0.6-1.1 oz. per acre and do not exceed 7.0 oz. per acre per season. Allow 7 days between applications. REI: 12-hour. PHI: 7-day. IRAC 04A.

Baythroid XL (1EC) (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. IRAC 03A. *RUP*.

Belay (2.13SC) (clothianidin) | *Soil applications:* 9-12 fl. oz. per acre. *Foliar applications:* 2-3 fl. oz. per acre. Do not exceed 12 fl. oz. per acre per season. REI: 12-hour. PHI: 14-day. IRAC 04A.

Brigade 2EC (bifenthrin) | Use 2EC formulations at 2.1-6.4 fl. oz. per acre as a foliar spray and do not exceed 32 fl. oz. per acre per season at plant application. Do not use 10DF, 10WP, or 10WSB formulations as they are not labeled for sweet potatoes. Allow 21 days between applications. REI: 12-hour. PHI: 21-day. IRAC 03A. *RUP*.

Capture LFR (1.5) (bifenthrin) | Apply at planting at 12.75-25.5 fl. oz. per acre, or apply as a foliar spray at 2.8-8.5 fl. oz. per acre. Do not exceed 2 applications per season. REI: 12-hour. PHI: 21-day, IRAC 03A. *RUP*.

Mustang Maxx (0.8) (zeta-cypermethrin) | 3.2-4.0 fl. oz. per acre. Do not exceed 24 fl. oz. per acre per season. REI: 12-hour. PHI: 1-day. IRAC 03A. *RUP.*

Platinum 2SC (thiamethoxam) | Use 2SC formulations at 5-8 fl. oz. per acre and do not exceed 8 fl. oz. per acre per season. Use 75SG formulations at 1.66-2.67 oz. per acre and do not exceed 2.67 oz. per acre per season. Apply as in-furrow spray during planting only. REI: 12-hour. IRAC 04A.

Scorpion 35SL (3.24) (dinotefuran) | *Soil application:* Use Scorpion 35SL at 11.5-13.25 fl. oz. per acre, or Venom 70SG at 6.5-7.5 fl. oz. per acre applied in-furrow at planting, or side-dressed to both sides of the row at ground crack. *Foliar application:* Use Scorpion 35SL at 2.0-2.75 fl. oz. per acre, or Venom 70SG at 1.0-1.5 fl. oz. per acre applied to foliage. Allow 14 days between applications. See pollinator precautions. REI: 12-hour. PHI: 7-day. IRAC 04A.

Sevin XLR Plus (4SC) (carbaryl) | 0.5-1.0 qts. per acre. Do not exceed 6 qts. per acre per season. Allow 7 days between applications. REI: 12-hour. PHI: 7-day. IRAC 01A.

Tombstone (2EC) (cyfluthrin) | 0.8-1.6 fl. oz. per acre. Do not exceed 16.8 fl. oz. per acre per season. REI: 12-hour. PHI: 0-day. IRAC 03A. *RUP.*

Voliam Flexi (WDG) (thiamethoxam, chlorantraniliprole) | 4 oz. per acre. Do not exceed 8 oz. per acre per season. REI: 12-hour. PHI: 14-day. IRAC 04A, IRAC 28.

Warrior II (2.08CS) (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. IRAC 03A. *RUP.*

Leafhoppers

Pesticide

Actara (25WDG) (thiamethoxam) | 3.0 oz. per acre. Do not exceed 6 oz. per acre per season. Control may require two applications. Allow 7 days between applications. See pollinator precautions. REI: 12-hour. PHI: 14-day. IRAC 04A.

Admire Pro (4.6SC) (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. IRAC 04A.

Assail 30SG (acetamiprid) | Use 30SG formulations at 1.5-4.0 oz. per acre and do not exceed 16 oz. per acre per season.

Use 70WP formulations at 0.6-1.7 oz. per acre and do not exceed 7.0 oz. per acre per season. Allow 7 days between applications. REI: 12-hour. PHI: 7-day IRAC 04A.

Baythroid XL (1EC) (beta-cyfluthrin) | 0.8-1.6 fl. oz. per acre. Do not exceed 16.8 fl. oz. per acre per season. REI: 12-hour. PHI: 0-day. IRAC 03A. *RUP.*

Belay (2.13SC) (clothianidin) | *Soil applications:* 9-12 fl. oz. per acre. *Foliar applications:* 2-3 fl. oz. per acre. Do not exceed 12 fl. oz. per acre per season. REI: 12-hour. PHI: 14-day. IRAC 04A.

Malathion 5EC (malathion) | Use 5EC and 57EC formulations at 1.5-2.5 pts. per acre. Do not exceed 2 applications per season. Allow 7 days between applications. REI: 12-hour. PHI: 0-3-day. IRAC 01B.

Mustang Maxx (0.8) (zeta-cypermethrin) | 3.2-4.0 fl. oz. per acre. Do not exceed 24 fl. oz. per acre per season. REI: 12-hour. PHI: 1-day. IRAC 03A. *RUP.*

Platinum 2SC (thiamethoxam) | Use 2SC formulations at 5-8 fl. oz. per acre and do not exceed 8 fl. oz. per acre per season. Use 75SG formulations at 1.66-2.67 oz. per acre and do not exceed 2.67 oz. per acre per season. Apply as in-furrow spray during planting only. REI: 12-hour. IRAC 04A.

Scorpion 35SL (3.24) (dinotefuran) | *Foliar application:* Use Scorpion 35SL at 2.0-2.75 fl. oz. per acre, or Venom 70SG at 1.0-1.5 fl. oz. per acre applied to foliage. Allow 14 days between applications. See pollinator precautions. REI: 12-hour. PHI: 7-day. IRAC 04A.

Sivanto 200 (1.67SL) (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. IRAC 04D.

Tombstone (2EC) (cyfluthrin) | 0.8-1.6 fl. oz. per acre. Do not exceed 16.8 fl. oz. per acre per season. REI: 12-hour. PHI: 0-day. IRAC 03A. *RUP.*

Transform WG (50) (sulfoxaflor) | 0.75-1.0 oz. per acre. Do not exceed 8.5 oz. per acre per season. REI: 24-hour. PHI: 7-day. IRAC 04C.

Voliam Flexi (WDG) (thiamethoxam, chlorantraniliprole) | 4 oz. per acre. Do not exceed 8 oz. per acre per season. REI: 12-hour. PHI: 14-day. IRAC 04A, IRAC 28.

Warrior II (2.08CS) (lambda-cyhalothrin) | 0.96-1.60 fl. oz. per acre. Do not exceed 7.68 fl. oz. per acre per season. REI: 24-hour. PHI: 7-day. IRAC 03A. *RUP.*

Thrips

Pesticide

Admire Pro (4.6SC) (imidacloprid) | In-furrow spray or side dress 4.4-10.5 fl. oz. per acre or 0.31-0.74 fl. oz. per 1,000 ft. of row. Do not exceed 10.5 fl. oz. or 1 application per acre per season. REI: 12-hour. PHI: 125-day. IRAC 04A.

Entrust SC (2) (spinosad) | Use 2SC formulations at 4.5-10.0 fl. oz. per acre and do not exceed 21 fl. oz. per acre per season. Use 80WP formulations at 1.5-3.0 oz. per acre and do not exceed 9 oz. per acre per season. REI: 4-hour. PHI: 7-day. IRAC 05. *OMRI-listed.*

Radiant 1SC (spinetoram) | 6.0-8.0 fl. oz. per acre. Do not exceed 32 fl. oz. per acre per season. REI: 4-hour. PHI: 7-day. IRAC 05.

Warrior II (2.08CS) (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. IRAC 03A. *RUP.*

Wireworms

Pesticide

Brigade 2EC (bifenthrin) | 9.6-19.2 fl. oz. per acre. Use 2EC formulations at 9.6-19.2 fl. oz. per acre and do not exceed 6.4 fl. oz. per acre per season as a preplant-incorporated broadcast, directed bed spray, or T-band spray into the planting furrow and do not exceed 32 fl. oz. per acre per season.. Do not use 10DF, 10WP, or 10WSB formulations as they are not labeled for sweet potatoes. Allow 21 days between applications. REI: 12-hour. PHI: 21-day. IRAC 03A. *RUP.*

Capture LFR (1.5) (bifenthrin) | Apply at planting at 12.75-25.5 fl. oz. per acre, or apply as a foliar spray at 2.8-8.5 fl. oz. per acre. Do not exceed 2 applications per season. REI: 12-hour. PHI: 21-day, IRAC 03A. *RUP.*

Platinum 2SC (thiamethoxam) | Use 2SC formulations at 5-8 fl. oz. per acre and do not exceed 8 fl. oz. per acre per season. Use 75SG formulations at 1.66-2.67 oz. per acre and do not exceed 2.67 oz. per acre per season. Apply as in-furrow spray during planting only. REI: 12-hour. IRAC 04A.

Sweet Potato - Weeds

Reviewed by Stephen Meyers – Sep 2022

All Weeds

The critical period for weed control in sweet potato is between 2-6 weeks after transplanting. Maintaining the crop weed-free during this period of time allows the vines to close canopy and compete better with weeds later in the season.

Herbicide choices are limited, especially for postemergence control of broadleaf weeds. For this reason, it is important to include pre-emergence herbicides and mechanical control in the weed management plan.

For specific weeds controlled by each herbicide, check the Relative Effectiveness of Herbicides for Vegetable Crops table.

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

Non-Pesticide

A stale seedbed can be prepared prior to transplanting with flame weeding or very shallow cultivation to control emerged weeds, instead of herbicides. The more quickly vines cover the soil surface, the better they will suppress late-emerging weeds. In-row plant spacing can be decreased to close canopy more quickly. However, this practice can delay storage root bulking later in the growing season. Sweet potatoes can benefit from the soil warming properties of plastic mulch in addition to the in-row weed control it provides. Materials include landscape cloth/fabric, plastic, and biodegradable plastic. Straw mulch can delay growth by suppressing soil temperatures. Weeds between rows and along the edges of beds can be controlled with a combination of cultivation, mowing, or hand-hoeing/pulling. Weeds along the edge of the mulches can be a particular challenge to avoid ripping the mulch. Some fresh market plantings are often small enough to accommodate some hand hoeing or pulling. For larger plantings it may make more sense to mechanically cultivate with tow-able tools between plastic rows or between bare-soil rows. In bare-soil production, rolling cultivators on wide tool-bars offer effective high-speed cultivation between rows and can also hill before row closure from vines.