Sweet Potato - Horticulture

Major update by Ben Phillips, Liz Maynard – Oct 2020
Reviewed by Brad Bergefurd – 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 hoophouse 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 P_2O_5 per acre, and 0 to 250 pounds K_2O 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

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 (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 (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 (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

Aphids

Pesticide

Actara (thiamethoxam) | 3.0 oz. per acre. Control may require two applications. See pollinator precautions. REI: 12-hour. PHI: 14-day. IRAC 04A.

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. IRAC 04A.

Assail 30SG (acetamiprid) | Use 30SG formulations at 2.5-4.0 oz. per acre. Use 70WP formulations at 1.0-1.7 oz. per acre. REI: 12-hour. PHI: 7-day. IRAC 04A.

Baythroid XL (beta-cyfluthrin) | 2.8 fl. oz. per acre. REI: 12-hour. PHI: 0-day. IRAC 03A. *RUP.*

Belay (clothianidin) | *Soil applications*: 9-12 fl. oz. per acre. *Foliar applications*: 2-3 fl. oz. per acre. REI: 12-hour. PHI: 14-day. IRAC 04A.

Beleaf (flonicamid) | 2.0-2.8 oz. per acre. REI: 12-hour. PHI: 7-day. IRAC 29.

Fulfill (pymetrozine) | 2.75-5.50 oz. per acre. REI: 12-hour. PHI: 14-day. IRAC 09B.

Movento (spirotetramat) | 4-5 fl. oz. per acre. REI: 24-hour. PHI: 7-day. IRAC 23.

Mustang Maxx (zeta-cypermethrin) | 3.2-4.0 fl. oz. per acre. REI: 12-hour. PHI: 1-day. IRAC 03A. *RUP.*

Platinum 2SC (thiamethoxam) | Use 2SC formulations at 5-8 fl. oz. per acre or 75SG formulations at 1.66-2.67 oz. per acre as an in-furrow spray during planting. REI: 12-hour. IRAC 04A.

Sivanto 200 (flupyradifurone) | 7.0-10.5 fl. oz. per acre. Apply at planting or as foliar spray. REI: 4-hour. PHI: 7-day. IRAC 04D.

Transform WG (sulfoxaflor) | 0.75-1.0 oz. per acre. REI: 24-hour. PHI: 7-day. IRAC 04C.

Voliam Flexi (thiamethoxam, chlorantraniliprole) | 4 oz. per acre. REI: 12-hour. PHI: 14-day. IRAC 04A, IRAC 28.

Warrior II (lambda-cyhalothrin) | 1.28-1.92 fl. oz. per acre. REI: 24-hour. PHI: 7-day. IRAC 03A. *RUP.*

Caterpillars

Pesticide

Avaunt (indoxacarb) | 2.5-6.0 oz. per acre. For loopers. REI: 12-hour. PHI: 7-day. IRAC 22.

Baythroid XL (beta-cyfluthrin) | 0.8-2.8 fl. oz. per acre. For cutworms, and loopers. REI: 12-hour. PHI: 0-day. IRAC 03A. *RUP.*

Blackhawk (spinosad) | 2.25-3.5 oz. per acre. REI: 4-hour. IRAC 05.

Endigo ZCX (thiamethoxam, lambda-cyhalothrin) | 3.0-3.5 fl. oz. per acre. REI: 24-hour. IRAC 04A, IRAC 03A. *RUP.*

Entrust SC (spinosad) | For armyworms, and loopers. Use 2SC formulations at 4.5-10.0 fl. oz. per acre. Use 80WP formulations at 1.5-3.0 oz. per acre. REI: 4-hour. PHI: 7-day. IRAC 05. *OMRI-listed.*

Mustang Maxx (zeta-cypermethrin) | 1.28-4.0 fl. oz. per acre. For armyworms, cutworms, and loopers. REI: 12-hour. PHI: 1-day. IRAC 03A. *RUP.*

Radiant 1SC (spinetoram) | 6.0-8.0 fl. oz. per acre. For armyworms, and loopers. REI: 4-hour. PHI: 7-day. IRAC 05.

Rimon 0.83EC (novaluron) | 6-12 fl. oz. per acre. For armyworms, and loopers. REI: 12-hour. PHI: 14-day. IRAC 15.

Sevin XLR Plus (carbaryl) | 1-2 qts. per acre. For armyworms and cutworms. REI: 12-hour. PHI: 7-day. IRAC 01A.

Tombstone (cyfluthrin) | 0.8-2.8 fl. oz. per acre. For cutworms and loopers. REI: 12-hour. PHI: 0-day. IRAC 03A. *RUP.*

Voliam Flexi (thiamethoxam, chlorantraniliprole) | 4 oz. per acre. For armyworms and loopers. REI: 12-hour. PHI: 14-day. IRAC 04A, IRAC 28.

Warrior II (lambda-cyhalothrin) | 0.96-1.92 fl. oz. per acre. For armyworms, cutworms, and loopers. 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. Use 70WP formulations at 0.6-1.7 oz. per acre. REI: 12-hour. PHI: 7-day IRAC 04A.

Baythroid XL (beta-cyfluthrin) | 1.6-2.8 fl. oz. per acre. 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. Do not use 10DF, 10WP, or 10WSB formulations as they are not labeled for sweet potatoes. REI: 12-hour. PHI: 21-day. IRAC 03A. *RUP.*

Capture LFR (bifenthrin) | Apply as a foliar spray at 2.8-8.5 fl. oz. per acre. REI: 12-hour. PHI: 21-day, IRAC 03A. *RUP.*

Mustang Maxx (zeta-cypermethrin) | 3.2-4.0 fl. oz. per acre. REI: 12-hour. PHI: 1-day. IRAC 03A. *RUP.*

Warrior II (lambda-cyhalothrin) | 1.28-1.92 fl. oz. per acre. REI: 24-hour. PHI: 7-day. IRAC 03A. *RUP.*

Flea Beetles

Pesticide

Actara (thiamethoxam) | 3.0 oz. per acre. Control may require two applications. See pollinator precautions. REI: 12-hour. PHI: 14-day. IRAC 04A.

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. IRAC 04A.

Assail 30SG (acetamiprid) | Use 30SG formulations at 1.5-2.5 oz. per acre. Use 70WP formulations at 0.6-1.1 oz. per acre. REI: 12-hour. PHI: 7-day. IRAC 04A.

Baythroid XL (beta-cyfluthrin) | 1.6-2.8 fl. oz. per acre. REI: 12-hour. PHI: 0-day. IRAC 03A. *RUP.*

Belay (clothianidin) | *Soil applications*: 9-12 fl. oz. per acre. *Foliar applications*: 2-3 fl. oz. per acre. 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. Do not use 10DF, 10WP, or 10WSB formulations as they are not labeled for sweet potatoes. REI: 12-hour. PHI: 21-day. IRAC 03A. *RUP.*

Capture LFR (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. REI: 12-hour. PHI: 21-day, IRAC 03A. *RUP.*

Mustang Maxx (zeta-cypermethrin) | 3.2-4.0 fl. oz. per acre. REI: 12-hour. PHI: 1-day. IRAC 03A. *RUP.*

Platinum 2SC (thiamethoxam) | Use 2SC formulations at 5-8 fl. oz. per acre or 75SG formulations at 1.66-2.67 oz. per acre as an in-furrow spray during planting. REI: 12-hour. IRAC 04A.

Scorpion 35SL (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. See pollinator precautions. REI: 12-hour. PHI: 7-day. IRAC 04A.

Sevin XLR Plus (carbaryl) | 0.5-1.0 qts. per acre. REI: 12-hour. PHI: 7-day. IRAC 01A.

Tombstone (cyfluthrin) | 0.8-1.6 fl. oz. per acre. REI: 12-hour. PHI: 0-day. IRAC 03A. *RUP.*

Voliam Flexi (thiamethoxam, chlorantraniliprole) | 4 oz. per acre. REI: 12-hour. PHI: 14-day. IRAC 04A, IRAC 28.

Warrior II (lambda-cyhalothrin) | 1.28-1.92 fl. oz. per acre. REI: 24-hour. PHI: 7-day. IRAC 03A. *RUP.*

Leafhoppers

Pesticide

Actara (thiamethoxam) | 3.0 oz. per acre. Control may require two applications. See pollinator precautions. REI: 12-hour. PHI: 14-day. IRAC 04A.

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. IRAC 04A.

Assail 30SG (acetamiprid) | Use 30SG formulations at 1.5-4.0 oz. per acre. Use 70WP formulations at 0.6-1.7 oz. per acre. REI: 12-hour. PHI: 7-day IRAC 04A.

Baythroid XL (beta-cyfluthrin) | 0.8-1.6 fl. oz. per acre. REI: 12-hour. PHI: 0-day. IRAC 03A. *RUP.*

Belay (clothianidin) | *Soil applications*: 9-12 fl. oz. per acre. *Foliar applications*: 2-3 fl. oz. per acre. REI: 12-hour. PHI: 14-day. IRAC 04A.

Malathion 5EC (malathion) | Use 5EC and 57EC formulations at 1.5-2.5 pts. per acre. REI: 12-hour. PHI: 0-3-day. IRAC 01B.

Mustang Maxx (zeta-cypermethrin) | 3.2-4.0 fl. oz. per acre. REI: 12-hour. PHI: 1-day. IRAC 03A. *RUP.*

Platinum 2SC (thiamethoxam) | Use 2SC formulations at 5-8 fl. oz. per acre or 75SG formulations at 1.66-2.67 oz. per acre as an in-furrow spray during planting. REI: 12-hour. IRAC 04A.

Scorpion 35SL (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. See pollinator precautions. REI: 12-hour. PHI: 7-day. IRAC 04A.

Sivanto 200 (flupyradifurone) | 7.0-10.5 fl. oz. per acre. Apply at planting or as foliar spray. REI: 4-hour. PHI: 7-day. IRAC 04D.

Tombstone (cyfluthrin) | 0.8-1.6 fl. oz. per acre. REI: 12-hour. PHI: 0-day. IRAC 03A. *RUP.*

Transform WG (sulfoxaflor) | 0.75-1.0 oz. per acre. REI: 24-hour. PHI: 7-day. IRAC 04C.

Voliam Flexi (thiamethoxam, chlorantraniliprole) | 4 oz. per acre. REI: 12-hour. PHI: 14-day. IRAC 04A, IRAC 28.

Warrior II (lambda-cyhalothrin) | 0.96-1.60 fl. oz. per acre. REI: 24-hour. PHI: 7-day. IRAC 03A. *RUP.*

Thrips

Pesticide

Admire Pro (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. Allowed 1 application per acre per season. REI: 12-hour. PHI: 125-day. IRAC 04A.

Entrust SC (spinosad) | Use 2SC formulations at 4.5-10.0 fl. oz. per acre. Use 80WP formulations at 1.5-3.0 oz. per acre. REI: 4-hour. PHI: 7-day. IRAC 05. *OMRI-listed.*

Radiant 1SC (spinetoram) | 6.0-8.0 fl. oz. per acre. REI: 4-hour. PHI: 7-day. IRAC 05.

Warrior II (lambda-cyhalothrin) | 1.28-1.92 fl. oz. per acre. 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 as a preplant-incorporated broadcast, directed bed spray, or T-band spray into the planting furrow. Do not use 10DF, 10WP, or 10WSB formulations as they are not labeled for sweet potatoes. REI: 12-hour. PHI: 21-day. IRAC 03A. *RUP.*

Capture LFR (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. REI: 12-hour. PHI: 21-day, IRAC 03A. *RUP.*

Platinum 2SC (thiamethoxam) | Use 2SC formulations at 5-8 fl. oz. per acre or 75SG formulations at 1.66-2.67 oz. per acre as an in-furrow spray during planting. REI: 12-hour. IRAC 04A.

Sweet Potato - Weeds

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 biodegradeable 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.

Pesticide

Aim EC (carfentrazone) POST | 0.5-2 fl. oz. per acre. Apply as a burndown application prior to transplanting or apply with a hooded sprayer as a directed application between crop rows. Add 1 qt. COC (1% v/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. HRAC 14.

Chateau SW (flumioxazin) PRE | 2-3 oz. per acre of SW formulations, or 2-3 fl. oz. per acre of EZ formulations. 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. Provides suppression of many grass weeds. REI: 12-hour. HRAC 14.

clethodim products (clethodim) POST | Use 2EC formulations at 6-16 fl. oz. per acre with 1 qt. COC per 25 gals. of spray solution (1% v/v). Do not exceed 32 fl. oz. per acre per season. Use Select Max 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. HRAC 01.

Command 3ME (clomazone) PRE | 1.4-4.0 pt. per acre. Use a lower rate on coarse textured 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. HRAC 13.

Devrinol DF-XT (napropamide) PRE | 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. HRAC NC.

Dual Magnum (s-metolachlor) PRE | 1.0-1.3 pts. per acre. *Illinois, Indiana, Michigan, Minnesota, and Missouri 24c label only.* Apply after transplanting but 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. HRAC 15.

Fusilade DX (fluazifop-P) POST | 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. HRAC 01.

glyphosate products (glyphosate) POST | 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. REI: 4-hour to 12-hour. PHI: 14-day for foliar applications directed between rows, 7-day for wiper applications. HRAC 9.

Optogen (bicyclopyrone) POST PRE | 2.6-3.5 fl. oz. per acre. Apply to prepared planting beds prior to transplanting or apply to row middles after transplanting. When applied to row middles, use a hooded or shielded sprayer to minimize crop injury. When weeds are present, add 0.5 pt. NIS (0.25% v/v) or 1 qt. COC per 25 gals. of spray solution (1% v/v). Use 3.5 fl. oz. per acre on medium and fine-textured soil and 2.6 fl. oz. per acre on coarse-textured soil. Do not make more than 1 application per crop per year. Do not apply more than 3.5 fl. oz. per acre per year. Do not apply to sweet potatoes grown on sand or loamy sand with <1% organic matter. Do not apply to greenhouse-grown transplants. REI: 24-hour. PHI: 60-day. HRAC 27.

paraquat products (paraquat) POST | 1-2 pt. of 2 lb. per gal. formulation. 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" tall prior to transplanting. Certified applicators must successfully complete an EPA-approved training program before mixing, loading, and/or applying paraquat. REI: 12 to 24-hour. HRAC 22. *RUP.*