Rhubarb - Horticulture

Reviewed by Ben Phillips, Liz Maynard – Oct 2020

Crop Description

Rhubarb is a plant of unknown European origin, but most commercial varieties are hybrids, *Rheum x hybridum*, that will not produce true from seed. Variety names have been lost, confused, and rebranded over the years. There are only a handful of varieties that can be sourced in the United States, and the varieties most grown commercially are Canada Red, MacDonald, Sutton, and Victoria – all red-stalked varieties. There are more productive varieties that produce green stalks, but red-stalked varieties are more popular at market and are more amenable to a process called “forcing”. After two years of unharvested growth, plants can begin to be annually harvested in the field for 3 to 8 productive years. Alternatively, after three years of unharvested growth, plants can be dug in late fall or early winter and stored in dark indoor facilities where they are sprouted early for a lucrative late winter and early spring harvest, after which the roots are exhausted and discarded. Victoria is the most reliable forcing variety, and the most widely available.

Planting and Spacing

Use only young, healthy crowns having preferably 2 or 3 buds. Rows 5 to 6 feet apart. Set crowns in rows 3 feet apart in shallow furrows so crowns will be 2 inches below surface. Break off flower stalks to maintain a strong root system year after year. Infertile soil, extreme heat or cold, drought, or long days that expose plants to too much light may cause bolting, and older plants bolt more. A productive planting can be maintained for 3 to 8 years.

For forcing, crowns are placed in a dark room with about 1 square foot per crown on an open dirt floor, or in apple crates, and a few inches of soil is piled around each crown. Plants can be held dormant with temperatures below 40 degrees.

Fertilizing

pH: Maintain a soil pH of 6.2 to 6.8.

New plantings: Before planting, apply 50 pounds N per acre, 0 to 150 pounds P_2O_5 per acre, and 0 to 200 pounds K_2O per acre based on soil test results and recommendations from your state. Apply an additional 25 pounds P_2O_5 per acre directly in furrows when setting crowns. Sidedress with 50 pounds N per acre after growth starts in the spring.

Established plantings: Each year before emergence, apply 50 pounds N per acre by broadcasting and incorporate by lightly tilling. After harvests conclude, apply 30 pounds N per acre. The total amount of N from fertilizer should be 80 pounds N per acre. No P_2O_5 is necessary if adequate fertilization was achieved prior to planting. Every fourth year apply up to 120 pounds K_2O per acre if a soil test recommends it.

Harvesting

Harvest no longer than 4 weeks, beginning with the third season of growth. Harvest for about 8 to 10 weeks after the third season. Do not remove more than two-thirds of the developed stalks from any plant at one time.

Rhubarb is forced by wetting the soils around the crowns and maintaining a temperature between 50° and 65° F. The plants then produce many bright pink stalks for about one month and are usually picked twice a week. After experiencing a forcing process, crowns are generally too weak to produce well again.

Rhubarb - Diseases

Reviewed by Dan Egel – Nov 2020

Recommended Controls

Leaf Spot of Rhubarb - Ascochyta Fungus

Non-Pesticide

Fertilize in the fall for growth in the spring. Improves rapid, strong plant growth and uniform establishment, and enhances competitiveness. Remove older yellowed leaves or leaves with lesions in the fall.

Phytophthora Blight of Multiple Crops - Phytophthora Oomycete

Non-Pesticide

Use disease-free plants. Plant only on well-drained soil.

Rhubarb - Insects

Reviewed by Laura Ingwell – Nov 2020

Recommended Controls

Aphids

Pesticide

Actara (25WDG) (thiamethoxam) | 1.5-3.0 fl. oz. per acre. Apply as a foliar spray. Do not exceed 11 oz. per acre per season. Allow 7 days between applications. REI: 12-hour. PHI: 7-day. IRAC 4A.

Admire Pro (4.6SC) (imidacloprid) | 4.4-10.5 fl. oz. per acre Applied at soil. Do not exceed 10.5 fl. oz. per acre per season. REI: 12-hour. PHI: 45-day. IRAC 4A.

Assail 30SG (acetamiprid) | Use 30SG formulations at 2.0-4.0 oz. per acre and do not exceed 20 oz. per acre per season. Use 70WP formulations at 0.8-1.7 oz. per acre and do not exceed 8.5 oz. per acre per season. Allow 7 days between applications. REI: 12-hour. PHI: 7-day. IRAC 4A.

Belay (2.13SC) (clothianidin) | For whiteflies *suppression only*.*Soil applications*: 9-12 fl. oz. per acre of 2.13SC formulation. 4.8-6.4 oz. per acre of 50WDG formulation. *Foliar applications*: 3-4 fl. oz. per acre of 2.13SC formulation. 1.6-2.1 oz. per acre of 50WDG formulation. Do not exceed 0.2 lb active ingredient clothianidin per acre per year. See bee warning on label. REI: 12-hour. PHI: 7-day. IRAC 4A.

Beleaf (50SG) (flonicamid) | 2-2.8 oz. per acre. REI: 12-hour. PHI: 0-day. IRAC 29.

Brigade 2EC (bifenthrin) | 2.1-6.4 fl. oz. per acre. Caterpillars include armyworms, cutworms and loopers. Use 2EC formulations at 2.1-6.4 fl. oz. per acre and do not exceed 32 fl. oz. per acre per season. Use 10DF, 10WP, or 10WSB formulations at 5.3-16 oz. per acre and do not exceed 80 oz. per acre per season. Allow 7 days between applications. REI: 12-hour. PHI: 7-day. IRAC 3A. *RUP*.

Fulfill (50WDG) (pymetrozine) | 2.75 oz. per acre. For whiteflies *suppression only*. Do not exceed 5.5 oz. per acre per season. REI: 12-hour. PHI: 1-day. IRAC 9B.

Mustang Maxx (0.8) (zeta-cypermethrin) | 2.24-4.0 fl. oz. per acre Caterpillars include armyworm, cutworm, cabbageworm and loopers. Do not exceed 24 fl. oz. per acre per season. REI: 12-hour. PHI: 1-day. IRAC 3A. *RUP*.

Perm-Up 25DF (permethrin) | 3.2-12.8 oz. per acre. For armyworms, cutworms, and loopers. Use 25W, 25WP or 25DF formulations at 6.4-12.8 oz. per acre and do not exceed 64 oz. per acre per

season. Use 3.2EC formulations at 2-8 fl. oz. per acre and do not exceed 80 fl. oz. per acre per season. Allow 7 days between applications. REI: 12-hour. PHI: 1-day. IRAC 3A. *RUP*.

Platinum 2SC (thiamethoxam) | Use 2SC formulations as a soil treatment at 5-11 fl. oz. per acre and do not exceed 11 fl. oz. per acre per season. Use 75SG formulations as a soil treatment at 1.66-3.67 oz. per acre and do not exceed 3.67 oz. per acre per season. REI: 12-hour. PHI: 30-day. IRAC 4A.

Sivanto 200 (1.67SL) (flupyradifurone) | Use Sivanto 200SL and Sivanto Prime at 7-14 fl. oz. per acre. Do not exceed 28 fl. oz. per acre per crop season. REI: 4-hour. PHI: 1-day. IRAC 4D.

Caterpillars

There are many minor caterpillar pests of rhubarb, including corn earworm/tomato fruitworm, tomato hornworm, European corn borer, cutworms, loopers, and armyworms. Always check the label for the specific list of caterpillars that the product can be used on.

Non-Pesticide

Remove curly dock weeds from fields and field edges. Curly dock is the normal host for common stalk borer caterpillars that feed on rhubarb.

Pesticide

Baythroid XL (1EC) (beta-cyfluthrin) | 0.8-3.2 fl. oz. per acre. For armyworms, cutworms, and loopers. See label for pest-specific rates. Do not exceed 12.8 fl. oz. per acre per season. REI: 12-hour. PHI: 0-day. IRAC 3A. *RUP*.

Brigade 2EC (bifenthrin) | 2.1-6.4 fl. oz. per acre. Caterpillars include armyworms, cutworms and loopers. Use 2EC formulations at 2.1-6.4 fl. oz. per acre and do not exceed 32 fl. oz. per acre per season. Use 10DF, 10WP, or 10WSB formulations at 5.3-16 oz. per acre and do not exceed 80 oz. per acre per season. Allow 7 days between applications. REI: 12-hour. PHI: 7-day. IRAC 3A. *RUP*.

Coragen (1.67SC) (chlorantraniliprole) | 3.5-7.5 fl. oz. per acre. For armyworms and loopers. Can be applied through soil or foliar applications. Do not exceed 15.4 fl. oz. per acre per season. REI: 4-hour. PHI: 1-day. IRAC 28.

Entrust SC (2) (spinosad) | For armyworms, and loopers. Use 2SC formulations at 1.5-8.0 fl. oz. per acre and do not exceed 29 fl. oz. per acre per season. Use 80WP formulations at 0.5-2.5 oz. per acre and do not exceed 9 oz. per acre per season. Allow 4 days between applications. REI: 4-hour. PHI: 1-day. IRAC 5. *OMRI-listed.*

Exirel (0.83SE) (cyantraniliprole) | 7-17 fl. oz. per acre. For armyworms and loopers. Allow 5 days between treatments. Do not exceed 61.7 fl. oz. per acre per season. REI: 12-hour. PHI: 1-day. IRAC 28.

Intrepid 2F (methoxyfenozide) | 4-10 fl. oz. per acre. For armyworms, and loopers. Do not exceed 64 fl. oz. per acre. REI: 4-hour. PHI: 1-day. IRAC 18.

Mustang Maxx (0.8) (zeta-cypermethrin) | 2.24-4.0 fl. oz. per acre Caterpillars include armyworm, cutworm, cabbageworm and loopers. Do not exceed 24 fl. oz. per acre per season. REI: 12-hour. PHI: 1-day. IRAC 3A. *RUP*.

Perm-Up 25DF (permethrin) | 3.2-12.8 oz. per acre. For armyworms, cutworms, and loopers. Use 25W, 25WP or 25DF formulations at 6.4-12.8 oz. per acre and do not exceed 64 oz. per acre per season. Use 3.2EC formulations at 2-8 fl. oz. per acre and do not exceed 80 fl. oz. per acre per season. Allow 7 days between applications. REI: 12-hour. PHI: 1-day. IRAC 3A. *RUP*.

Radiant 1SC (spinetoram) | 5-10 fl. oz. per acre. For armyworms and loopers. Do not exceed 34 fl.

oz. per acre per season. REI: 4-hour. PHI: 1-day. IRAC 5.

Sevin XLR Plus (4SC) (carbaryl) | 1-2 qts. per acre. For armyworms. Do not exceed 6 qts. per acre per season. REI: 12-hour. PHI: 14-day. IRAC 1A.

Flea Beetles

Pesticide

Belay (2.13SC) (clothianidin) | For whiteflies *suppression only.Soil applications*: 9-12 fl. oz. per acre of 2.13SC formulation. 4.8-6.4 oz. per acre of 50WDG formulation. *Foliar applications*: 3-4 fl. oz. per acre of 2.13SC formulation. 1.6-2.1 oz. per acre of 50WDG formulation. Do not exceed 0.2 lb active ingredient clothianidin per acre per year. See bee warning on label. REI: 12-hour. PHI: 7-day. IRAC 4A.

Brigade 2EC (bifenthrin) | 2.1-6.4 fl. oz. per acre. Caterpillars include armyworms, cutworms and loopers. Use 2EC formulations at 2.1-6.4 fl. oz. per acre and do not exceed 32 fl. oz. per acre per season. Use 10DF, 10WP, or 10WSB formulations at 5.3-16 oz. per acre and do not exceed 80 oz. per acre per season. Allow 7 days between applications. REI: 12-hour. PHI: 7-day. IRAC 3A. *RUP*.

Mustang Maxx (0.8) (zeta-cypermethrin) | 2.24-4.0 fl. oz. per acre Caterpillars include armyworm, cutworm, cabbageworm and loopers. Do not exceed 24 fl. oz. per acre per season. REI: 12-hour. PHI: 1-day. IRAC 3A. *RUP*.

Platinum 2SC (thiamethoxam) | Use 2SC formulations as a soil treatment at 5-11 fl. oz. per acre and do not exceed 11 fl. oz. per acre per season. Use 75SG formulations as a soil treatment at 1.66-3.67 oz. per acre and do not exceed 3.67 oz. per acre per season. REI: 12-hour. PHI: 30-day. IRAC 4A.

Leafhoppers

Pesticide

Actara (25WDG) (thiamethoxam) | 1.5-3.0 fl. oz. per acre. Apply as a foliar spray. Do not exceed 11 oz. per acre per season. Allow 7 days between applications. REI: 12-hour. PHI: 7-day. IRAC 4A.

Admire Pro (4.6SC) (imidacloprid) | 4.4-10.5 fl. oz. per acre Applied at soil. Do not exceed 10.5 fl. oz. per acre per season. REI: 12-hour. PHI: 45-day. IRAC 4A.

Belay (2.13SC) (clothianidin) | For whiteflies *suppression only.Soil applications*: 9-12 fl. oz. per acre of 2.13SC formulation. 4.8-6.4 oz. per acre of 50WDG formulation. *Foliar applications*: 3-4 fl. oz. per acre of 2.13SC formulation. 1.6-2.1 oz. per acre of 50WDG formulation. Do not exceed 0.2 lb active ingredient clothianidin per acre per year. See bee warning on label. REI: 12-hour. PHI: 7-day. IRAC 4A.

Brigade 2EC (bifenthrin) | 2.1-6.4 fl. oz. per acre. Caterpillars include armyworms, cutworms and loopers. Use 2EC formulations at 2.1-6.4 fl. oz. per acre and do not exceed 32 fl. oz. per acre per season. Use 10DF, 10WP, or 10WSB formulations at 5.3-16 oz. per acre and do not exceed 80 oz. per acre per season. Allow 7 days between applications. REI: 12-hour. PHI: 7-day. IRAC 3A. *RUP*.

Mustang Maxx (0.8) (zeta-cypermethrin) | 2.24-4.0 fl. oz. per acre Caterpillars include armyworm, cutworm, cabbageworm and loopers. Do not exceed 24 fl. oz. per acre per season. REI: 12-hour. PHI: 1-day. IRAC 3A. *RUP*.

Platinum 2SC (thiamethoxam) | Use 2SC formulations as a soil treatment at 5-11 fl. oz. per acre and do not exceed 11 fl. oz. per acre per season. Use 75SG formulations as a soil treatment at 1.66-3.67 oz. per acre and do not exceed 3.67 oz. per acre per season. REI: 12-hour. PHI: 30-day. IRAC 4A.

Sivanto 200 (1.67SL) (flupyradifurone) | Use Sivanto 200SL and Sivanto Prime at 7-14 fl. oz. per acre. Do not exceed 28 fl. oz. per acre per crop season. REI: 4-hour. PHI: 1-day. IRAC 4D.

Rhubarb Curculio Beetle

There are no registered insecticides that will give adequate control.

Non-Pesticide

Remove curly dock weeds from fields and field edges. Curly dock is the normal host for rhubarb curculios.

Stink Bugs

Pesticide

Brigade 2EC (bifenthrin) | 2.1-6.4 fl. oz. per acre. Caterpillars include armyworms, cutworms and loopers. Use 2EC formulations at 2.1-6.4 fl. oz. per acre and do not exceed 32 fl. oz. per acre per season. Use 10DF, 10WP, or 10WSB formulations at 5.3-16 oz. per acre and do not exceed 80 oz. per acre per season. Allow 7 days between applications. REI: 12-hour. PHI: 7-day. IRAC 3A. *RUP*.

Whiteflies

Pesticide

Actara (25WDG) (thiamethoxam) | 3.0-5.5 oz. per acre. Apply as a foliar spray. Do not exceed 11 oz. per acre per season. Allow 7 days between applications. REI: 12-hour. PHI: 7-day. IRAC 4A.

Admire Pro (4.6SC) (imidacloprid) | 4.4-10.5 fl. oz. per acre Applied at soil. Do not exceed 10.5 fl. oz. per acre per season. REI: 12-hour. PHI: 45-day. IRAC 4A.

Assail 30SG (acetamiprid) | Use 30SG formulations at 3.0-4.0 oz. per acre and do not exceed 20 oz. per acre per season. Use 70WP formulations at 1.1-1.7 oz. per acre and do not exceed 8.5 oz. per acre per season. Allow 7 days between applications. REI: 12-hour. PHI: 7-day. IRAC 4A.

Baythroid XL (1EC) (beta-cyfluthrin) | 3.2 fl. oz. per acre. *Suppression only*. Do not exceed 12.8 fl. oz. per acre per year. REI: 12-hour. IRAC 3A. *RUP*.

Belay (2.13SC) (clothianidin) | For whiteflies *suppression only.Soil applications*: 9-12 fl. oz. per acre of 2.13SC formulation. 4.8-6.4 oz. per acre of 50WDG formulation. *Foliar applications*: 3-4 fl. oz. per acre of 2.13SC formulation. 1.6-2.1 oz. per acre of 50WDG formulation. Do not exceed 0.2 lb active ingredient clothianidin per acre per year. See bee warning on label. REI: 12-hour. PHI: 7-day. IRAC 4A.

Brigade 2EC (bifenthrin) | 2.1-6.4 fl. oz. per acre. Caterpillars include armyworms, cutworms and loopers. Use 2EC formulations at 2.1-6.4 fl. oz. per acre and do not exceed 32 fl. oz. per acre per season. Use 10DF, 10WP, or 10WSB formulations at 5.3-16 oz. per acre and do not exceed 80 oz. per acre per season. Allow 7 days between applications. REI: 12-hour. PHI: 7-day. IRAC 3A. *RUP*.

Fulfill (50WDG) (pymetrozine) | 2.75 oz. per acre. For whiteflies *suppression only*. Do not exceed 5.5 oz. per acre per season. REI: 12-hour. PHI: 1-day. IRAC 9B.

Mustang Maxx (0.8) (zeta-cypermethrin) | 2.24-4.0 fl. oz. per acre Caterpillars include armyworm, cutworm, cabbageworm and loopers. Do not exceed 24 fl. oz. per acre per season. REI: 12-hour. PHI: 1-day. IRAC 3A. *RUP*.

Platinum 2SC (thiamethoxam) | Use 2SC formulations as a soil treatment at 5-11 fl. oz. per acre and do not exceed 11 fl. oz. per acre per season. Use 75SG formulations as a soil treatment at 1.66-3.67 oz. per acre and do not exceed 3.67 oz.

per acre per season. REI: 12-hour. PHI: 30-day. IRAC 4A.

Sivanto 200 (1.67SL) (flupyradifurone) | Use Sivanto 200SL and Sivanto Prime at 7-14 fl. oz. per acre. Do not exceed 28 fl. oz. per acre per crop season. REI: 4-hour. PHI: 1-day. IRAC 4D.

Rhubarb - Weeds

Reviewed by Stephan Meyers, Ben Phillips – Nov 2020

Recommended Controls

All Weeds

Before establishing a rhubarb planting, reduce perennial weeds in the area to be planted with systemic broad-spectrum herbicides.

The herbicides listed below may also be used. Herbicides that control broadleaves must be applied while rhubarb is dormant or with shielded equipment between the row, as stated on the label. Herbicides that kill only emerged grasses may be applied over the top of rhubarb plants.

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.

Non-Pesticide

Good weed control in the planting year is especially important. Multivators, tines, rolling cultivators, flame weeders work well before emergence of rhubarb, but it is important to avoid damaging crowns when cultivating. Row-middle cultivate and hand hoe after emergence. After established, and before spring growth, harrow bed thoroughly but carefully to avoid injuring the crowns. During the growing season, cultivate row-middles and hand hoe to keep the planting clean. Following the first light freeze in fall, mulch with 3-4 inches of straw around plants, but not on crowns. If additional mulch is needed in the spring, apply before hot, dry weather. Add more mulch during summer (if needed) to control weeds and retain moisture.

Broadleaf and Grass Weeds - Postemergence

Pesticide

Caparol 4L (prometryn) | 2-4 pts. per acre. Apply to dormant, established rhubarb before leaves emerge in spring. Use low rate on light soils. If weeds are present, add 1 qt. COC (1% v/v) or 0.5 pt. NIS per 25 gal. of spray solution (0.25% v/v). REI: 12-hour. PHI: 40-day. WSSA 5.

glyphosate products (glyphosate) | 0.75-3.75 lbs. acid equivalent (ae) per acre. Use formulations containing 3 lbs. ae per gal. (4 lbs. isopropylamine salt per gal.) at 1-5 qt. per acre, or formulations containing 4.5 lb ae per gal. (5 lb. potassium salt per gal.) at 0.66-3.3 qt. per acre. Broadcast before plants emerge, or apply between 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. REI: 4 to 12-hour. PHI: 14-day. WSSA 9.

Kerb SC (3.3) (pronamide) | 2.5-5 pt. per acre. *Michigan only (MI 24c exp. 04/06/22):* apply to dormant plants after frost has killed leaves in fall. Suppresses quackgrass. Do not apply to rhubarb the year of planting. Include glyphosate with application for better weed control. REI: 24-hour. PHI: 38-day. WSSA 3. *RUP*.

Lorox DF (50) (linuron) | 2-3 lbs. per acre. Apply broadcast to dormant rhubarb in the spring before leaves emerge. REI: 24-hour to 8-day. WSSA 7.

paraquat products (paraquat) | 2.5-4 pt. per acre of 2 lb. per gal. formulation or 1.7-2.7 pt. per acre

of 3 lb. per gal. formulation. Add 1 qt. COC (1% v/v) or 0.5 pt. NIS (0.25%) to 25 gal. of solution. Apply during the dormant season before buds begin to grow. Do not exceed 2 applications per year. Certified applicators must successfully complete an EPA-approved training program before mixing, loading, and/or applying paraquat. REI: 12 to 24-hour. WSSA 22. *RUP*.

Broadleaf and Grass Weeds - Preemergence

Pesticide

Caparol 4L (prometryn) | 2-4 pts. per acre. Apply to dormant, established rhubarb before leaves emerge in spring. Use low rate on light soils. If weeds are present, add 1 qt. COC (1% v/v) or 0.5 pt. NIS per 25 gal. of spray solution (0.25% v/v). REI: 12-hour. PHI: 40-day. WSSA 5.

Casoron 4G (dichlobenil) | 50 lb. per acre. Apply before rhubarb emerges in early spring. Broadcast on soil, and thoroughly incorporate granules by watering in. REI: 12-hour. WSSA 20.

Command 3ME (clomazone) | 2 qt. per acre. Apply to dormant rhubarb prior to leaf emergence. Do not make more than one application per crop per year. REI: 12-hour. WSSA 13.

Dual Magnum (7.62EC) (s-metolachlor) | 0.67-1.33 pts. per acre. Apply in spring before rhubarb and weeds emerge. Do not exceed one application and 1.33 pts. per acre per year. REI: 24-hour. PHI: 62-day. WSSA 15.

Kerb SC (3.3) (pronamide) | 2.5-5 pt. per acre. *Michigan only (MI 24c exp. 04/06/22):* apply to dormant plants after frost has killed leaves in fall. Suppresses quackgrass. Do not apply to rhubarb the year of planting. Include glyphosate with application for better weed control. REI: 24-hour. PHI: 38-day. WSSA 3. *RUP*.

Lorox DF (50) (linuron) | 2-3 lbs. per acre. Apply broadcast to dormant rhubarb in the spring before leaves emerge. REI: 24-hour to 8-day. WSSA 7.

Broadleaf Weeds Only - Postemergence

Pesticide

Aim EC (2) (carfentrazone) | 0.5-2.0 fl. oz. per acre. Apply a minimum of 1 day prior to transplanting, or apply between crop rows with hooded sprayer. Do not allow spray to contact crop. 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 exceed 6.1 fl. oz. per acre per season. REI: 12-hour. WSSA 14.

QuinStar 4L (3.8) (quinclorac) | 12.6 fl. oz. per acre. Apply as a foliar spray to control Canada thistle and field bindweed. Can make a second application 30 days after the first. Do not exceed 25.2 fl. oz. per acre per year. REI: 12-hour. PHI: 30-day. WSSA 4.

Sandea (75) (halosulfuron) | 0.5-1.0 oz. per acre. Apply to dormant rhubarb in the spring. If weeds are present, add 0.5 pt. NIS per 25 gal. of solution (0.25% v/v). May cause crop stunting. Use low rate to determine crop safety under field conditions. Controls yellow nutsedge. Does not control grass. REI: 12-hour. PHI: 60-day. WSSA 2.

Broadleaf Weeds Only - Preemergence

Pesticide

Callisto (40SC) (mesotrione) | 6 fl. oz. per acre. Apply to dormant, established rhubarb. Applying after growth begins will cause crop stunting and bleaching. If weeds are emerged, add 1qt. COC (1% v/v) or 0.5 pt. NIS per 25 gal. of spray solution (0.25% v/v). Has residual activity to control weeds that have not emerged. Do not exceed 6 fl. oz. per acre per year, or 1 application per year. REI: 12-hour. PHI: 21-day. WSSA 27.

Sandea (75) (halosulfuron) | 0.5-1.0 oz. per acre. Apply to dormant rhubarb in the spring. If weeds are present, add 0.5 pt. NIS per 25 gal. of solution (0.25% v/v). May cause crop stunting. Use low rate to determine crop safety under field conditions. Controls yellow nutsedge. Does not control grass. REI: 12-hour. PHI: 60-day. WSSA 2.

Grass Weeds Only - Postemergence

Pesticide

clethodim products (clethodim) | Use 2EC formulations at 6-8 fl. oz. per acre with 1 qt. COC per 25 gals. of spray solution (1% v/v). Do not exceed 32 fl. oz. of 2EC formulations per acre per season. Use Select Max at 9-16 fl. oz. per acre with 8 fl. oz. NIS per 25 gals. of spray solution (0.25% v/v). Do not exceed 64 fl. oz. of Select Max 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. WSSA 1.

Fusilade DX (2EC) (fluazifop-P) | 10-16 fl. oz. per acre. Add 1 qt. COC (1% v/v) or 0.5 NIS per 25 gal. of spray solution (0.25% v/v). Apply to small actively growing grass. Do not exceed 32 fl. oz. per acre per year. REI: 12-hour. PHI: 14-day. WSSA 1.

Poast (1.5EC) (sethoxydim) | 1-1.5 pts. per acre. Add 1 qt. COC per 25 gal. of spray solution (1% v/v). Spray on actively growing grass. Do not exceed 3 pt. per acre per growing season. REI: 12-hour. PHI: 15-day in Illinois, Indiana, Michigan, and Minnesota; 30-day in other states. WSSA 1.

Root Crops - Horticulture

Reviewed by Ben Phillips, Liz Maynard – Dec 2020

Crop Description

Most root crops are biennial plants that do not normally flower within a typical production season unless they are under stress. They come from a few different plant groups and species. Most are amenable to direct seeding before last frost, and some can be transplanted. Some are short season crops that offer double-cropping opportunities, while others are some of the longest season vegetable crops grown in an annual production system.

It is important to know the botanical relationships of root crops because similar pests will go to related plants. Root crops come from at least five botanical families. Within those family groups you can expect similar pests. In this guide we try to provide some precision to this. *However, when using pesticides, you must abide by the EPA Crop Groupings on pesticide labels.*

Apiaceae, the Carrot family, contains Carrots, Celeriac, and Parsnips classified as “root and tuber vegetables” in EPA Crop Group 1. But this family also includes Celery, Cilantro, Coriander, Dill, Fennel, Florence Fennel, and Parsley (EPA Crop Groups 4 and 19). The pests for plants in this family are shared with the Celery, and Leafy Vegetables and Herbs chapters.

Brassicaceae, the Mustard family, contains Horseradish, Radish, Rutabaga, and Turnip classified as “root and tuber vegetables” in EPA Crop Group 1. But, this family also includes cole crop and mustard-type plants (EPA Crop Groups 4 and 5). The pests for plants in this family are shared with the Cole Crops and Brassica Leafy Greens, and Leafy Vegetables and Herbs chapters.