

Mint - Horticulture

per acre to the surface as a burndown early preplant through preemergence up to 3 days before cracking. Add MSO at 1 pt. per acre when used as a pre-plant burndown. Suppresses black nightshade, lambsquarters, pigweed, and velvetleaf. Higher rates in lentils and chickpeas will provide more, but still limited, residual weed control. Plant legumes at least 1/2-inch deep to avoid injury. Do not apply group 14 herbicides within 30 days of planting. REI: 12-hour. WSSA 14.

Spartan 4F (sulfentrazone) Peas (Dry) | 2.25-8.0 fl. oz. per acre. Spring-apply early-preplant, preplant-incorporated, or preemergence up to 3 days after planting before cracking. Rate depends on soil texture, organic matter, and pH. Do not use on sand soils with less than 1% organic matter or apply after crop emerges. *Michigan, Minnesota, and Wisconsin only*: a fall application before soil freezes is allowed. REI: 12-hour. WSSA 14.

Spartan Charge (SE) (carfentrazone, sulfentrazone) Peas (Dry) | 3.0-10.2 fl. oz. per acre. **For dry peas and chickpeas**: apply preplant-burndown, early-preplant, or preemergence. Do not use on coarse soils with less than 1% soil organic matter. Rate depends on soil texture, organic matter, and pH. Do not apply after crop emerges. REI: 12-hour. WSSA 14.

Grass Weeds Only - Postemergence

Pesticide

Assure II (10.3EC) (quizalofop) Beans (Dry), Beans (Fresh), Peas (Dry), Peas (Fresh) | 5-12 fl. oz. per acre. Use 1 qt. of COC per acre. Apply to actively growing grass. Do not exceed 14 fl. oz. per acre. REI: 12-hour. PHI: 15-day for succulent beans; 30-day for dry beans and succulent peas; 60-day for dry peas. WSSA 1.

clethodim products (clethodim) Beans (Dry), Beans (Fresh), Lima Beans, Peas (Dry), Peas (Fresh), Southern Peas/Cowpeas | Use 2EC formulations at 6-16 fl. oz. per acre with 1 qt. of

COC per 25 gals. of spray solution (1% v/v). Use Select Max at 9-32 fl. oz. per acre with 8 fl. oz. of NIS per 25 gals. of spray solution (0.25% v/v). Use low rates for annual grasses, the high rates for perennial grasses. Spray on actively growing grass. Wait at least 14 days between applications. Do not exceed 32 fl. oz. of 2EC formulations per acre per season. Do not exceed 64 fl. oz. of Select Max per acre per season. REI: 24-hour. PHI: 21-day for succulent legumes, 30-day for dry legumes. WSSA 1.

Fusilade DX (2EC) (fluazifop-P) Beans (Dry) | 8-12 fl. oz. per acre. Include 1-2 pts. of COC or 0.5-1 pt. of NIS per 25 gals. of spray solution. Spray on actively growing grass. Wait at least 14 days between applications. Do not exceed 48 fl. oz. per acre per season. REI: 12-hour. PHI: 60-day. WSSA 1.

Poast (1.5EC) (sethoxydim) Beans (Dry), Beans (Fresh), Lima Beans, Peas (Dry), Peas (Fresh), Southern Peas/Cowpeas | 1-2.5 pts. per acre. Use 1 qt. of COC per acre. Spray on actively growing grass. Use high rate on quackgrass. Do not exceed 4 pts. per acre per season. REI: 12-hour. PHI: 15-day for succulent legumes, 30-day for dry legumes. WSSA 1.

Mint - Horticulture

Reviewed by Ben Phillips, Liz Maynard – Oct 2020

Crop Description

Mints are a group of perennial herbs that are commercially important as sources of essential oils obtained by distillation of their hay. The discussion in this section refers to production for essential oils. They are also commonly grown as a leaf herb; see the leafy vegetable section for common production practices for that product. The most common cultivated types are peppermint and spearmint.

Peppermint (*Mentha x piperita*): All peppermints are a hybrid of two other species, watermint (*M. aquatica*) and native spearmint (*M. spicata*). The varieties include Black Mitcham, Murray Mitcham, Robert's Mitcham, and Todd's Mitcham. The latter three varieties are more resistant to verticillium wilt.

Spearmint: Scotch Spearmint (*M. cardiaca*) and Native Spearmint (*M. spicata*). These two species of spearmints have distinctly different oils.

Because verticillium wilt disease is an important problem (even with the more resistant varieties), growers should always use disease-free planting stock. Certified and disease-free stocks are available.

Planting and Spacing

Mints are grown from 3- to 4-inch long dormant runners dug from existing fields in the late fall or spring. They spend their first year as a row crop before spreading through runners. The following years are spent as a solid stand or meadow crop. Careful fall plowing of established stands is important for both winter protection and for reducing the incidence of mint rust and other foliar diseases. "Squirelly" mint, which occurs primarily on peppermint, is caused by the mind bud mite, *Tarsonemus pipermenthae*. Although mints are perennials, older stands may show serious build-ups of disease, insect, and weed problems and should be rotated out every 3 to 4 years.

Fertilizing

pH: Maintain a soil pH of 5.5 to 6.5.

New plantings: Before planting new stolons, apply 40 pounds N per acre, 0 to 100 pounds P₂O₅ per acre, and 0 to 400 pounds K₂O per acre based on soil test results and recommendations from your state. Broadcast the fertilizer and plow it under when preparing the land for the planting furrows.

Topdress with 40 pounds N per acre on muck soils, or 80 pounds N per acre for mineral soils in early June.

Established plantings: Each year before emergence, broadcast or drill in 40 to 60 pounds N per acre, 0 to 50 pounds P₂O₅ per acre and 0 to 150 pounds K₂O per acre if a soil test recommends it.

Topdress with 60 to 90 pounds N per acre after canopy closure. The total amount of N from fertilizer should be 120 to 150 pounds N per acre.

Irrigation significantly increases oil yields both on muck and mineral soils, even in seasons with normal rainfall.

Harvesting

For oil production, maximum yield and quality is reached when 10% of peppermint is in full bloom, or 100% of spearmint is in full bloom. Cut, windrow, and allow to partially dry for 24 to 36 hours before collecting for distillation. The machines for this are similar to hay, but the collection into distillation tubs requires a specialized procedure and equipment.

Mint - Diseases

Reviewed by Dan Egel – Nov 2020

Recommended Controls

Leaf Spot of Mint - Septoria Fungus

Pesticide

chlorothalonil products (chlorothalonil) | *Indiana only*. Several formulations of chlorothalonil (Bravo, Echo, Equus) are labeled at various rates. See product labels. REI: 12-hour. PHI: 80-day. FRAC M5.

Rust of Multiple Crops - Puccinia Fungus

Pesticide

azoxystrobin products (azoxystrobin) | Use 2 lb. a.i. per gallon formulations (Quadris) at 6.0-15.5 fl. oz. per acre. Use 3.3 lb. per gallon formulations (Azteroid) at 3.9-9.7 fl. oz. per acre. Use 0.5 lb. per gallon formulations (Heritage) on greenhouse transplants only at 0.08-0.18 oz. per 1,000 sq. ft. REI: 4-hour. PHI: 0-day for fresh; 7-day for processed. FRAC 11.

chlorothalonil products (chlorothalonil) | *Indiana only*. Several formulations of chlorothalonil (Bravo, Echo, Equus) are labeled at various rates. See product labels. REI: 12-hour. PHI: 80-day. FRAC M5.

Headline (SC) (2.08) (pyraclostrobin) | 9-12 fl. oz. per acre. Additional formulations of Headline may be labeled. REI: 12-hour. PHI: 14-day. FRAC 11.

propiconazole products (propiconazole) | 4 fl. oz. per acre. Propimax EC and Tilt are labeled. REI: 12-hour. PHI: 90-day. FRAC 3.

Rally 40WSP (myclobutanil) | 4-5 fl. oz. per acre. REI: 24-hour. PHI: 30-day. FRAC 3.

Wilt of Multiple Crops - Verticillium Fungus

Non-Pesticide

Rotate plantings after no more than 3 or 4 years. Use wilt resistant varieties of peppermint. Native spearmint is resistant.

Mint - Insects

Reviewed by Laura Ingwell, Elizabeth Long – Nov 2020

Recommended Controls

Caterpillars

The primary caterpillar pests of mint are loopers, cutworms, and the mint root borer.

Non-Pesticide

The soil-dwelling mint root borer caterpillar can be treated with the commercially-available parasitic nematode, *Steinernema carpocapsae*. Mix the nematodes with water and apply at a rate that deposits 1 - 1.5 billion nematodes per acre.

Pesticide

Avaunt (30WDG) (indoxacarb) | 3.5 oz. per acre. For cutworms, and loopers. Do not exceed 14 oz. per acre per season or 4 applications per crop. REI: 12-hour. PHI: 7-day. IRAC 22.

Bacillus thuringiensis products for caterpillars (Bacillus thuringiensis aizawai strain ABTS-1857, Bacillus thuringiensis aizawai strain GC-91, Bacillus thuringiensis kurstaki strain ABTS-351, Bacillus thuringiensis kurstaki strain EVB-113-19, Bacillus thuringiensis kurstaki strain SA-11) | For armyworms, cutworms, and loopers. Various Bt products are available for control of young caterpillars (Agree, Biobit, Dipel, Javelin, etc.) Different Bt subspecies have different control properties. Check labels for pest insects controlled before use. Follow label directions for rates, timing of application and required safety equipment. REI: 4-hour. PHI: 0-day. IRAC 11A.

Coragen (1.67SC) (chlorantraniliprole) | 3.5-7.0 fl. oz. per acre. For armyworms, cutworms, loopers, and mint root borers. Do not exceed 15.4 fl. oz. per

acre season or 4 applications per crop. Allow 14 days between applications. REI: 4-hour. PHI: 3-day. IRAC 28.

Entrust SC (2) (spinosad) | For armyworms, cutworms, and loopers. Use 2SC formulations at 4.0-10.0 fl. oz. per acre. Do not exceed 29 fl. oz. per acre per season or 3 applications per crop. Use 80WP formulations at 1.25-3.0 oz. per acre. Do not exceed 9 oz. per acre per season or 3 applications per crop. Allow 4 days between applications. REI: 4-hour. PHI: 7-day. IRAC 5. *OMRI-listed*.

Intrepid 2F (methoxyfenozide) | 10-16 fl. oz. per acre. For armyworms, cutworms, and loopers. Do not exceed 16 fl. oz. per acre per application or 64 fl. oz. per acre per year. REI: 4-hour. PHI: 14-day. IRAC 18.

Lannate LV (2.4L) (methomyl) | 3 pts. per acre. For cutworms, and loopers. Do not exceed 6 pts. per acre per crop or 4 applications per crop. REI: 48-hour. PHI: 14-day. IRAC 1A. *RUP*.

Lorsban 4E (chlorpyrifos) | For cutworms and mint root borers. Use 4E formulations at 2-4 pts. per acre. Do not exceed 1 application per growing season with maximum rate of 4 pts. per acre. Use 75WG formulations at 1.33-2.67 lbs. per acre. Do not exceed 1 application per growing season with maximum rate of 2.67 lbs. per acre. Use lower rates when cutworm larvae are less than 0.75 inch long. REI: 24-hour to 3-day. PHI: 90-day. IRAC 1B. *RUP*.

Orthene 97 (S) (acephate) | 1 lb. per acre. For cutworms, and loopers. Do not exceed 2 1/8 lbs. per acre per season or 2 applications per season. Allow 7 days between applications. REI: 24-hour. PHI: 14-day. IRAC 1B.

Radiant 1SC (spinetoram) | 4-12 fl. oz. per acre. For armyworms, cutworms, and loopers. Do not exceed 39 fl. oz. per acre per season or 4 applications per season. Allow 4 days between treatments. REI: 4-hour. PHI: 7-day. IRAC 5.

Flea Beetles

Pesticide

Actara (25WDG) (thiamethoxam) | 1.5-3.0 oz. per acre. Do not exceed 12 oz. per acre per season. Allow 14 days between applications. See pollinator precautions. REI: 12-hour. PHI: 7-day. IRAC 4A.

Lannate LV (2.4L) (methomyl) | 2.25-3 pts. per acre. For best results, apply immediately after harvest on stubble. Do not exceed 6 pts. per acre per crop or 4 applications per crop. REI: 48-hour. PHI: 14-day. IRAC 1A. *RUP*.

Malathion 5EC (malathion) | Use 5EC formulations at 1.5 pts. per acre. Use 57EC formulations at 1.0-1.5 pts. per acre. Do not exceed 3 application per year. Allow 7 days between applications. For best results, apply immediately after harvest on stubble. REI: 12 to 24-hour. PHI: 7-day. IRAC 1B.

Mites

Squirrely mint, which occurs primarily on peppermint, is caused by the mint bud mite, *Tarsonemus pipermenthae*.

Pesticide

Acramite 50WS (bifenazate) | 0.75-1.5 lbs. per acre. Do not exceed 1 application per season. REI: 12-hour. PHI: 7-day. IRAC UN.

Agri-Mek SC (0.7) (abamectin) | 8-12 fl. oz. per acre. Use 0.7EC formulations at 1.75-2.5 fl. oz. per acre. Do not exceed 7.75 fl. oz. per acre per season or 3 applications per season. Allow 7 days between applications. Use 0.15EC formulations at 8-12 fl. oz. per acre. Do not exceed 36 fl. oz. per acre per season or 3 applications per season. Allow 7 days between applications. REI: 12-hour. PHI: 28-day. IRAC 6. *RUP*.

Mint - Weeds

Dicofol 4E (dicofol) | 1.75-2.5 pts. per acre. Do not exceed 1 application per season. REI: 32-day. PHI: 30-day. IRAC UN.

Portal (0.4EC) (fenpyroximate) | 1-2 pts. per acre. Do not exceed 4 pts. per acre per season or 2 applications per season. Allow 7 days between applications. REI: 12-hour. PHI: 1-day. IRAC 21A.

Zeal (72WP) (etoxazole) | 2-4 oz. per acre. Do not exceed 4 oz. per acre per season or 1 application per season. REI: 12-hour. PHI: 7-day. IRAC 10B.

Mint - Weeds

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Recommended Controls

All Weeds

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

The herbicides listed below may also be used. Most herbicides that control broadleaves must be applied while mint is dormant. Others require application with shielded equipment between the row, as stated on the label. Grass herbicides, and some broadleaf herbicides may be applied over the top of mint 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 mint, 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

Chateau SW (51WDG) (flumioxazin) | 2-4 oz. per acre. Apply to established, dormant mint from November 25 to March 1. Do not apply to frozen or snow covered ground. Do not exceed 4 oz. per acre in a single application or more than 8 oz. per acre in a single growing season. Do not make a sequential application of Chateau within 60 days of first application. Applying to nondormant mint may result in unacceptable injury. For improved postemergence control, tank-mix with paraquat and add NIS at 0.5 pt. per 25 gal. of solution (0.25% v/v). Adding a nitrogen source will increase activity. REI: 12-hour. PHI: 80-day. WSSA 14.

glyphosate products (glyphosate) | Apply as a spot treatment in a 1-2% solution to actively growing weeds. The sprayed mint crop will be killed. Not all glyphosate formulations are labeled for mint. Apply as a spot treatment to no more than 10% of any acreage but can reapply to the same area at 30-day intervals. Avoid any drift to nontarget crops. REI: 4 to 12-hour. PHI: 7-day. WSSA 9.

paraquat products (paraquat) | 1.3-2 pt. per acre of 3 lb. per gal. formulation or 2-3 pt per acre 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. Apply to

dormant mint when weeds are less than 6 in. tall. Do not make more than 2 applications per year or apply more than 2 pt. per dormant season. 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

Chateau SW (51WDG) (flumioxazin) | 2-4 oz. per acre. Apply to established, dormant mint from November 25 to March 1. Do not apply to frozen or snow covered ground. Do not exceed 4 oz. per acre in a single application or more than 8 oz. per acre in a single growing season. Do not make a sequential application of Chateau within 60 days of first application. Applying to nondormant mint may result in unacceptable injury. For improved postemergence control, tank-mix with paraquat and add NIS at 0.5 pt. per 25 gal. of solution (0.25% v/v). Adding a nitrogen source will increase activity. REI: 12-hour. PHI: 80-day. WSSA 14.

Command 3ME (clomazone) | 1.3 pts. per acre. Apply in spring before mint starts to grow. Do not apply to emerged mint. Do not exceed 1 application per season. Some whitening of tissue may occur as mint emerges. REI: 12-hour. PHI: 84-day. WSSA 13.

Devrinol DF-XT (50) (napropamide) | 8 lb. per acre. *New plantings:* Apply soon after planting. *Established plantings:* Must be established for at least one growing season. REI: 24-hour. WSSA 15.

pendimethalin products (pendimethalin) | 1.5-4.0 pts. per acre. *Established mint only.* Apply 3.8 formulations to dormant mint before mint and weeds start to grow. Use low rate on coarse soils. REI: 24-hour. PHI: 90-day. WSSA 3.

trifluralin products (trifluralin) | Apply 1.0-1.5 pt. per acre of 4 lb. per gal. trifluralin to established, dormant or semi-dormant mint, late winter to spring or in the fall after harvest prior to emergence of targeted weed species. Must be incorporated mechanically or by 0.5 in. rainfall or irrigation within 3 days of application. REI: 12-hour. WSSA 3.

Broadleaf Weeds Only - Postemergence

Pesticide

Aim EC (2) (carfentrazone) | 0.5 to 1.92 fl. oz. per acre Apply before crop emergence to emerged weeds less up to 4 in. tall. 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: 5-day WSSA 14.

Basagran (4) (bentazon) | Use 4L formulations at 1-2 pts. per acre and 5L formulations at 1.2-1.6 pt per acre. Apply after mint and weeds have emerged. To control yellow nutsedge and Canada thistle, repeat application 7-10 days later. Crop oil will enhance activity. Do not exceed 4 pts. per acre per season. REI: 48-hour. PHI: 20-day. WSSA 6.

GoalTender (4) (oxyfluorfen) | *Indiana and Michigan only - applicators must have supplemental label.* 2-3 qt. per acre **Goal 2XL** or 1 pt. per acre **GoalTender**. Use 20-40 gals. of water per acre. Add 0.5 pt. NIS per 25 gal. of solution if emerged weeds are present. Apply to dormant spearmint and peppermint on muck soil (greater than 20% organic matter) before weeds are 4 in. tall. Application to emerged mint will result in severe injury. Not for use on mineral or black sand soils. REI: 24 to 48-hour. WSSA 14.

Moxy 2E (bromoxynil) | 1.0-1.5 pts. per acre. Apply in at least 10 gals. water per acre. Apply before weeds have more than 4 leaves, and only on established mint that has been harvested at least one year prior to application. Do not apply to mint growing under stressful conditions, or when air temperatures are, or are expected to be, more than

Mint - Weeds

70 F within 5 days of application. REI: 24-hour.

PHI: 70-day. WSSA 6.

Sinbar WDG (80) (terbacil) | As a preemergence application for weeds, apply 1-2 lb. per acre in the spring just after the last cultivation and before mint starts growing. As a postemergence application for weeds, apply 1.0-1.5 lb. per acre in the spring to broadleaf weeds less than 2 inches tall or grasses less than 1 inch tall and before mint starts growing. For postemergence application, add 1 qt. COC (1% v/v) or 0.5 pt. NIS (0.25% v/v) to 25 gal. of solution. Do not apply more than 2 lb. per acre per season. Discontinue use 1 year before rotating to other crops. REI: 12-hour. PHI: 60-day. WSSA 5.

Stinger (3) (clopyralid) | 0.33-1.0 pt. per acre. Use 4 fl. oz. of NIS per 25 gals. of spray solution. Apply up to 0.5 pt. in spring or up to 1 pt. in fall. Controls mainly composites and nightshade. To control Canada thistle in spring, apply before bud stage. Do not use mint straw, hay, or spent hay for compost or mulch and do not dispose of on land to be rotated to broadleaf crops due to herbicide remaining in mint hay or straw that will injure broadleaf plants. Do not exceed 1 pt. per acre per growing season. REI: 12-hour. PHI: 45-day. WSSA 4.

Thistrol (2L) (MCPB) | 1-2 pts. per acre. Apply in spring after mint emerges to suppress broadleaf weeds, or apply in fall to control winter annuals. May injure mint. Oil yields may be reduced if mint is more than 6 inches tall at the time of application. Bindweed suppression is best with spring application when weeds are 6-8 inches long. REI: 24-hour. PHI: 40-day. WSSA 4.

Broadleaf Weeds Only - Preemergence

Pesticide

GoalTender (4) (oxyfluorfen) | *Indiana and Michigan only - applicators must have supplemental label.* 2-3 qt. per acre **Goal 2XL** or 1 pt. per acre **GoalTender**. Use 20-40 gals. of water per acre. Add 0.5 pt. NIS per 25 gal. of solution if

emerged weeds are present. Apply to dormant spearmint and peppermint on muck soil (greater than 20% organic matter) before weeds are 4 in. tall. Application to emerged mint will result in severe injury. Not for use on mineral or black sand soils. REI: 24 to 48-hour. WSSA 14.

Sinbar WDG (80) (terbacil) | As a preemergence application for weeds, apply 1-2 lb. per acre in the spring just after the last cultivation and before mint starts growing. As a postemergence application for weeds, apply 1.0-1.5 lb. per acre in the spring to broadleaf weeds less than 2 inches tall or grasses less than 1 inch tall and before mint starts growing. For postemergence application, add 1 qt. COC (1% v/v) or 0.5 pt. NIS (0.25% v/v) to 25 gal. of solution. Do not apply more than 2 lb. per acre per season. Discontinue use 1 year before rotating to other crops. REI: 12-hour. PHI: 60-day. WSSA 5.

Spartan 4F (sulfentrazone) | New plantings: 3.3-9.0 fl. oz. per acre. Established plantings: 4.5-12.0 fl. oz. per acre. *New plantings:* Apply after planting before weeds and mint emerge. *Established plantings:* Apply to established mint when it is dormant, in the fall after postharvest cultivation, and/or in the spring after cultivation. *Renovation applications:* Up to 8 fl. oz. per acre can be applied at dormancy followed by up to 4 fl. oz. per acre 1-3 days after the first harvest. Dormant and postharvest applications must be at least 100 days apart. Use lower rates on coarse soils with low organic matter. Rainfall or irrigation is required to move herbicide into the soil. Application may injure crop as mint emerges. Application to emerged mint will result in severe injury. Do not exceed 12 fl. oz. per 12-month period. Do not apply to mint grown on sands with less than 1% organic matter. REI: 12-hour. PHI: 92-day for dormant and new planting applications, 55-day for renovation applications. WSSA 14.

peppers, and tomatoes, they are not a related species and share few pests.

Grass Weeds Only - Postemergence

Pesticide

Assure II (10.3EC) (quizalofop) | 8-12 oz. per acre. Add 1 qt. COC or 0.5 pt. NIS per 25 gal. of spray solution. Apply to actively growing grass. Do not exceed 2 applications or 24 fl. oz. per acre per season. Applications must be greater than 7 days apart. REI: 12-hour. PHI: 30-day. WSSA 1.

clethodim products (clethodim) | 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 9-16 fl. oz. per acre to control annual grasses and 12-32 fl. oz. per acre to control perennial grasses. Add 1 qt. COC (1% v/v) or 0.5 pt. NIS per 25 gals. of spray solution (0.25% v/v). Do not exceed 64 fl. oz. per acre per season. Spray on actively growing grass. Wait at least 14 days between applications. REI: 24-hour. PHI: 21-day. WSSA 1.

Poast (1.5EC) (sethoxydim) | 1.0-2.5 pts. per acre. Add 1 qt. COC per 25 gal. of spray solution (1% v/v). Spray on actively growing grass. Do not exceed 5 pt. per acre per season. REI: 12-hour. PHI: 20-day. WSSA 1.

Okra - Horticulture

Reviewed by Ben Phillips, Liz Maynard – Oct 2020

Crop Description

Okra (*Abelmoschus esculentus*) is a subtropical plant related to hibiscus that is grown for its young green fruit. Okra requires warm weather for best growth. Some varieties have many small spines, similar to vine crops, which can irritate the skin when harvesting. There are also spineless varieties and red-fruited varieties. Though okra is often listed on pesticide labels along with eggplants,

Planting and Spacing

Seed 12 to 18 inches apart in rows 36 inches apart. Seed only after the soil has warmed to 65° F to 70° F for several days. Black plastic mulch with drip irrigation will increase yields. Transplants can be used for early production.

Fertilizing

pH: Maintain a soil pH of 6.0 to 6.5. Okra is very sensitive to low pH soils.

Before planting, apply 40 pounds N per acre, 0 to 200 pounds P₂O₅ per acre, and 0 to 300 pounds K₂O per acre based on soil test results and recommendations from your state.

Sidedress with 40 pounds N per acre after the first harvest.

Harvesting

Okra should be harvested every 2 to 3 days to maintain optimal market size (2- to 4-inch long pods). Frequent harvesting increases overall yield since the plant will reset pods faster. Okra will yield 8,000 to 10,000 pounds per acre. Time from transplanting to harvest ranges between 50 to 65 days.