

Crop, Situation, and Active Chemical Per Broadcast Acre	Weeds Controlled	Formulated Material Per Broadcast Acre	Time of Application	Method of Application and Precautions
VEGETABLES				
Broccoli				
Go this website for more information on weed control in vegetables: http://www.sripmc.org/docs/SoutheasternVegetableGuide.pdf				
S-metolachlor @ 0.47 to 1.2 lb/A	Annual grasses and small-seeded broadleaf weeds.	Dual Magnum 7.62 EC* 0.5 to 1.3 pt/A.	Post-transplant.	Do not exceed 1.3 pt/A. Make only one application per year. Do not harvest within 60 days of application. Do not mechanically incorporate Dual Magnum before transplanting. The risk of crop injury is less with post-transplant applications than from pre-transplant applications, and the risk of crop injury is less with post-directed than from post over-the-top applications. Application before bed formation may result in crop injury. The addition of another registered herbicide, especially Goal, will increase the risk of crop injury from postemergence applications.
oxyfluorfen @ 0.25 to 0.5 lb/A	Annual grasses and small-seeded broadleaf weeds.	Goal 2XL 1 to 2 pt/A.	Pre-transplant.	Do not apply if Dual Magnum herbicide has been applied to the field during the current growing season. Do not apply as a preemergence treatment to direct-seeded broccoli. Do not apply post-transplant or over-the-top of broccoli. Sprinkler irrigation is recommended during early establishment of transplants. Do not apply more than 2 pt/A per season.
bensulide @ 4 to 6 lb ai/A	Annual grasses and broadleaf weeds. Less effective on pig-weeds and morningglories. Will not control emerged weeds.	Prefar 4E 4 to 6 qt/A.	Preplant or preemergence.	For preplant application, incorporate 1-2 inches deep. For preemergence application, incorporate by irrigation 1 to 2 inches. Apply in at least 10 GPA carrier volume. Do not apply more than 6 lb ai/A. Use low rate on light soil. Cool, wet conditions may cause crop injury.
Cabbage				
S-metolachlor @ 0.47 to 1.2 lb/A	Annual grasses and small-seeded broadleaf weeds.	Dual Magnum 7.62 EC* 0.5 to 1.3 pt/A.	Post-transplant.	Do not exceed 1.3 pt/A. Make only one application per year. Do not harvest within 60 days of application. Do not mechanically incorporate before transplanting. The risk of crop injury is less with post-transplant applications than from pre-transplant applications, and the risk of crop injury is less with post-directed than from post over-the-top applications. Application before bed formation may result in crop injury. The addition of another registered herbicide, especially Goal, will increase the risk of crop injury from postemergence applications. Chinese varieties are more sensitive to injury.

*Use of the Dual Magnum 24(c) labels for spinach, collards, kale, mustard greens, turnip greens, cantaloupe, cucumber, summer squash, watermelon, transplanted broccoli, cabbage and Chinese cabbage requires agreeing to **Syngenta's waiver of liability and indemnification agreement**. To accept, go to the website, www.syngenta-us.com/labels/indemnified-label-login, and register to set up an account. After registering go to the top left of the home page, click on **Products** and then **Indemnified Labels**. You will then be prompted to select the state, **Arkansas**, the product, **Dual Magnum** and the crop. Read the **waiver of liability and indemnification agreement** and either accept or decline. If the conditions are unacceptable, return the Dual Magnum herbicide at once unopened or use the Dual Magnum herbicide for a different approved use in accordance with the label on the product container.

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VEGETABLES				
Cabbage [cont.]				
oxyfluorfen @ 0.25 to 0.5 lb/A	Annual grasses and small-seeded broadleaf weeds.	Goal 2XL 1 to 2 pt/A.	Pre-transplant.	Do not apply if Dual Magnum herbicide has been applied to the field during the current growing season. Do not apply as a preemergence treatment to direct-seeded cabbage. Do not apply post-transplant or over-the-top of cabbage. Sprinkler irrigation is recommended during early establishment of transplants. Do not apply more than 2 pt/A per season.
bensulide @ 4 to 6 lb ai/A	Annual grasses and broadleaf weeds. Less effective on pig-weeds and morningglories. Will not control emerged weeds.	Prefar 4E 4 to 6 qt/A.	Preplant or preemergence.	For preplant application, incorporate 1-2 inches deep. For preemergence application, incorporate by irrigation at least 2 inches. Apply in at least 10 GPA carrier volume. Do not apply more than 6 lb ai/A. Use low rate on light soil. Cool, wet conditions may cause crop injury.
Cucurbits - Cantaloupe, Cucumber, Summer Squash, Watermelon				
Preplant - Burndown				
carfentrazone @ 0.03 lb/A	Annual broadleaves, excellent control of morningglories.	Aim 2EC 2 fl oz/A.	Apply to actively growing weeds less than 4 inches tall.	Crops: All cucurbits Apply to preformed beds. Transplants: Apply no later than one day before transplanting. Seeded: Apply no later than 7 days after seeding.
glyphosate @ 1 to 2 lb/A	Annual grasses and broadleaf weeds.	Glyphosate (4 lb/gal formulations) 2 to 4 pt/A.	Prior to planting for planting into a weed-free bed.	Crops: All cucurbits Apply directly to emerged weeds. Provides only postemergence control.
paraquat @ 0.5 to 1 lb/A	Annual weeds and foliage of perennials.	Gramoxone SL 2 to 4 pt/A.	Apply to emerged and actively growing weeds.	Crops: All cucurbits Apply to emerged weeds prior to planting. Herbicide has no residual activity.
Cucurbits				
Preplant				
ethalfluralin + clomazone @ 0.52 lb total ai	Small-seeded broadleaves and annual grasses.	Strategy 2.1L 1 qt/A.	Incorporate to soil 14 days before seeding on bare ground.	Crops: All cucurbits Activate with at least ½ inch of irrigation. Helps reduce weed population early in the season. Follow with appropriate residual herbicide PRE or POST-row middles.
halosulfuron @ 0.024 to 0.048 lb ai/A	Sedges, ragweed, pigweed, smartweed, morningglory.	Sandea 75 DG 0.5 to 1 oz.	Apply to soil surface 7 days pre-transplant or 7 days before seeding, before plastic installation.	Crops: All cucurbits

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bensulide @ 5 to 6 lb/A	Annual grasses and broadleaf weeds, not very effective on pigweeds and morningglories.	Prefar 4EC 4 qt/A.	Apply to soil surface of preformed beds and shallow incorporate 14 days before planting.	Crops: All cucurbits. Incorporate prior to planting with either a light cultivating implement or irrigation.
S-metolachlor @ 0.67 to 1.33 lb/A	Annual grasses, yellow nutsedge and small-seeded broadleaf weeds.	Dual Magnum 7.62 EC* 0.7 to 1.4 pt/A.	7 to 14 days before planting.	Section 24(c), indemnified label. Crops: All cucurbits. See pumpkin on the regular label. Use lower rates on coarse-textured soils and higher rates on fine-textured soils. Control emerged weeds with an appropriate foliar herbicide or mechanical or physical methods.
Cucurbits Preemergence				
bensulide @ 5 to 6 lb/A	Annual grasses and broadleaf weeds, not very effective on pigweeds and morningglories.	Prefar 4EC 4 qt/A.	Apply to soil surface of preformed beds.	Crops: All cucurbits. Incorporate prior to planting with either a light cultivating implement or irrigation.
clomazone @ 0.15 to 0.25 lb/A	Small-seeded broadleaves and annual grasses.	Command 3ME 0.4 to 0.67 pt/A.	Apply to soil surface of preformed beds.	Crops: All cucurbits. Activate with at least ½ inch of irrigation. Apply after seeding or before transplanting. DO NOT APPLY UNDER PLASTIC.
ethalfluralin + clomazone @ 0.4 to 1.2 lb/A + 0.125 to 0.375 lb/A	Small-seeded broadleaves and annual grasses.	Strategy 2.1L 2 to 6 pt/A.	Apply to soil surface of preformed beds.	Crops: All cucurbits. Apply immediately after planting. Activate with at least ½ inch of irrigation. DO NOT APPLY UNDER PLASTIC.
S-metolachlor @ 0.67 to 1.33 lb/A	Small-seeded broadleaves, annual grasses, yellow nutsedge.	Dual Magnum 7.62 EC* 0.7 to 1.4 pt/A.	Apply to soil surface before crop emergence or before transplanting. May also be applied in row middles.	Section 24(c), Indemnified label. Crops: All cucurbits. See pumpkin on the regular label. Use lower rates on coarse-textured soils and higher rates on fine-textured soils. Control emerged weeds with an appropriate foliar herbicide or mechanical or physical methods. The risk of injury is less with transplants than with direct-seeded melons. Application to emerged melon may cause injury. Do not harvest within 60 days of application.
ethalfluralin @ 1.1 to 1.7 lb/A	Small-seeded broadleaves and annual grasses.	Curbit 3 EC 3 to 4.5 pt/A.	Apply to the soil surface of preformed beds immediately after seeding.	Crops: All cucurbits. Activate with at least ½ inch of irrigation. DO NOT SOIL-INCORPORATE. DO NOT APPLY UNDER PLASTIC. Do not use under row covers or hot caps. May be used as banded spray between beds. Irrigate within 5 days for activation. Injury may occur under extreme cold or high moisture conditions.

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halosulfuron @ 0.024 to 0.044 lb/A	Yellow and purple nutsedge, ragweed, pigweed, smartweed, cocklebur and morningglory.	Sandea 75 DG 0.5 to 1.0 oz.	Apply after seeding on bare ground, before cracking.	Crops: All cucurbits
S-metolachlor + halosulfuron @ 0.64 to 0.95 + 0.024 to 0.044 lb/A	Sedges, annual grasses, small-seeded broadleaves.	Dual Magnum + Sandea 0.67 to 1 pt/A + 0.5 to 1 oz/A.	Apply after seeding on bare ground, before cracking. May also be applied in row middles.	Crops: all cucurbits Dual Magnum registered for use in watermelons under Section 24(c) indemnified label.
Cucurbits Postemergence				
clethodim @ 0.09 to 0.125 lb/A	Annual and perennial grasses ONLY. Very effective on annual bluegrass.	Select 2 EC or Select Max 8 fl oz/A.	Apply to emerged and actively growing weeds not under drought stress. Multiple applications for perennial grass control. Repeat application on 14- to 21-day intervals.	Crops: All cucurbits Add 1 gal crop oil concentrate per 100 gal spray mix. Do not apply more than 8 oz/A per application. Do not apply within 4 days of harvest.
halosulfuron @ 0.024 to 0.044 lb/A	Sedge and broadleaf control; should be mixed with other herbicides to enhance grass activity.	Sandea 75 DG 0.5 to 0.75 oz.	Apply to emerged and actively growing weeds when crop is at 3 to 5 leaves. Split application (PRE fb POST) for better sedge control.	Crops: All cucurbits Do not apply sooner than 14 days after transplanting. Can be applied over the top, if bareground, but reduce late-season applications when the temperature and humidity are high. If on plastic, apply in row middles; keep off the plastic . Do not apply more than 2 oz/A per year. Do not apply to crops treated with organophosphate insecticides.
sethoxydim @ 0.2 to 0.5 lb/A	Annual and perennial grasses ONLY.	Poast 1.5 EC 1 to 2.5 pt/A.	Apply to emerged and actively growing weeds,	Crops: All cucurbits Add 1 gal crop oil concentrate per 100 gal of spray mix. Total herbicide cannot exceed 2.5 pt/A/year. Do not apply on unusually hot and humid days. Do not apply within 7 days of harvest.
S-metolachlor @ 0.67 to 1.33 lb/A	Annual grasses, yellow nutsedge and small-seeded broadleaves. Will not control emerged weeds.	Dual Magnum 7.62 EC* 0.67 to 1 pt/A	Apply to the crop at 1-2 leaf stage. Apply to row middles in mulched crops.	Section 24(c), Indemnified label. Crops: All cucurbits. Dual Magnum is a residual herbicide; it has no foliar activity. Soil should be weed-free at preemergence application. If weeds are present, mix with a post-emergence herbicide for residual control.

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Greens [Collards, Kale, Mustard, Turnips]				
trifluralin @ 0.3 to 0.5 lb/A		Treflan 4 EC 0.6 to 1 pt/A.	Anytime from 6 weeks prior to planting up to planting.	Trifluralin requires thorough incorporation into soil top a depth of 1 to 1½ inches.
sethoxydim @ 0.2 to 0.3 lb/A	Annual and perennial grasses.	Poast 1.5 EC 1 to 1.5 pt/A.	Postemergence. Consult label for the correct timing for the target weed(s).	Do not apply within 30 days of harvest. Do not apply more than 1.5 pt/A per treatment. Do not exceed 3 pt/A per growing season.
clethodim @ 0.094 to 0.125 lb/A	Grasses.	Select 2 EC or Select Max 8 or 16 oz/A. Add crop oil concentrate + AMS.	Postemergence.	Apply postemergence for annual grasses at 6 to 8 oz/A or bermudagrass and johnsongrass at 8 oz/A. Add 1 gallon crop oil concentrate per 100 gallons spray mix. Adding crop oil may increase the likelihood of crop injury at high air temperatures. Very effective in controlling annual bluegrass. Apply to actively growing grasses not under drought stress. Do not apply more than 8 ounces per acre per application. Do not apply within 14 days of harvest of green crops. Do not apply within 30 days of harvest of turnips grown for roots.
S-metolachlor @ 0.64 to 0.95 lb/A	Annual grasses and small-seeded broadleaf weeds.	Dual Magnum 7.62 EC* 0.67 to 1 pt/A.	Preemergence.	Do not exceed 1 pt/A. Make only one application per year. Do not harvest within 30 days of application. Will not control emerged weeds. May be post-applied when the crop has 1 to 2 true leaves.
bensulide @ 4 to 6 lb/A	Annual grasses and broadleaf weeds. Less effective on pigweeds and morningglories. Will not control emerged weeds.	Prefar 4E 4 to 6 qt/A.	Preplant or preemergence.	Do not use on turnips. For preplant application, incorporate 1-2 inches deep. For preemergence application, incorporate by irrigation at least 2 inches. Apply in at least 10 GPA carrier volume. Do not apply more than 6 lb ai/A. Use low rate on light soil. Cool, wet conditions may cause crop injury.
Okra				
trifluralin @ 0.5 to 0.75 lb/A	Grasses, pigweed, purslane.	Treflan 4 EC 1 to 1.5 pt/A.	Preplant incorporated.	Apply and incorporate before planting.
sethoxydim @ 0.3 lb/A	Grasses only.	Poast 1.5 EC 1 to 1.5 pt/A.	Postemergence.	Apply to grasses that are actively growing and not under stress. Do not apply within 14 days of harvest.
Glyphosate (see labels)	Annual and perennial grass and broadleaf weeds.	Many trade names Check labels	Postemergence application to row-middles	Row middles only. Apply as a hooded spray in row middles, as shielded spray in row middles, as wiper applications in row middles, or postharvest. To avoid severe injury to crop, do not allow herbicide to contact foliage, green shoots or stems, exposed roots, or fruit of crop. PHI = 14 days.

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VEGETABLES				
Okra [cont.]				
Halosulfuron-methyl @ 0.024 to 0.048 lb/A	Yellow and purple nutsedge and broadleaf weeds	Sandea 75 DG 0.5 to 1 oz/A	Postemergence application to row-middles	Apply to row middles as a postemergence shielded or hooded spray to avoid contact of herbicide with planted crop. In plasticulture, do not allow spray to contact plastic. Do not apply more than 2 oz/A per 12-month period. PHI = 30 days.
Peppers				
trifluralin @ 0.5 to 0.75 lb/A	Small-seeded annual grass and broadleaf weeds.	Treflan 4 EC 1 to 1.5 pt/A.	Any time from 6 weeks before planting up to planting. After bedding if beds are used.	Requires thorough incorporation to a depth of 1 to 1½ inches.
sethoxydim @ 0.19 to 0.38 lb/A	Grasses.	Poast 1.5 EC 1 to 2 pt/A.	Before annual grasses exceed 14 days after emergence. Timing is very important. Johnsongrass – 15 to 20 inches; bermudagrass – 1-inch height or 6-inch maximum runner length.	Apply only under conditions of active growth. Thorough coverage required. Do not tank mix with other pesticides. Do not cultivate 7 days before or after treatment. Cultivation soon after 7 days will be helpful. Do not apply within 20 days of harvest. Do not apply more than 3 pt/A per season.
clethodim @ 0.094 to 0.125 lb/A	Grasses.	Select 2 EC or Select Max 8 or 16 oz/A. Add crop oil concentrate + AMS.	Postemergence.	Apply postemergence for annual grasses at 6 to 8 oz/A or bermudagrass and johnsongrass at 8 oz/A. Add 1 gallon crop oil concentrate per 100 gallons spray mix. Adding crop oil may increase the likelihood of crop injury at high air temperatures. Very effective in controlling annual bluegrass. Apply to actively growing grasses not under drought stress. Do not apply more than 8 oz/A per application. Do not apply within 20 days of harvest.
glyphosate @ 0.67 to 0.94 lb/A	Nonselective.	Roundup WeatherMax 5.5L 16 to 22 fl oz/A.	Preplant burndown.	At least 7 days before planting.
paraquat @ 0.5 to 1.0 lb/A	Nonselective.	Gramoxone 2.0 SL 2 to 4 pt/A.	Preplant burndown, or pretransplant.	Add nonionic surfactant, 0.25% v/v.
bensulide @ 4 to 6 lb lb/A	Annual grasses and broadleaf weeds. Less effective on pig-weeds and morningglories. Will not control emerged weeds.	Prefar 4E 4 to 6 qt/A.	Preplant, or preemergence.	For preplant application, incorporate 1-2 inches deep. For preemergence application, incorporate by irrigation at least 2 inches. Apply in at least 10 GPA carrier volume. Do not apply more than 6 lb ai/A. Use low rate on light soil. Cool, wet conditions may cause crop injury.
carfentrazone @ 0.007 to 0.022 lb ai/A	Broadleaf weeds.	Aim 1.9EW 0.5 to 1.5 fl oz/A.	Preplant, pretransplant burndown, before crop emergence or post-directed in row middles.	Apply in the row middles using hooded sprayer. Apply with NIS or crop oil at recommended rates. Does not have residual activity. Drift will burn the crop leaves.
clomazone @ 0.25 to 0.50 lb ai/A	Annual grasses, common lambs-quarters, spurred anoda, velvet-leaf, prickly sida.	Command 3ME 0.67 to 1.34 pt/A.	Preplant, pretransplant, or pre-emergence.	Do not use on banana peppers. Place seed or root of transplants below the herbicide layer. Do not make more than one application. Use lower rate on light-textured soils.

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halosulfuron @ 0.023 to 0.047 lb ai/A	Broadleaf weeds and nutsedge.	Sandea 75DF 0.5 to 1 oz/A.	Preemergence, or in row middles of direct-seeded or transplanted pepper.	Avoid contact with the crop, or with plastic. Do not make more than two applications per crop. Do not exceed 2 oz product/season.
pendimethalin @ 0.95 to 1.42 lb/A	Annual grasses and small-seeded broadleaf weeds. Will not control emerged weeds.	Prowl H2O (3.8 EC) 2 to 3 pt/A.	Preplant-incorporated, before transplanting.	Bell and nonbell. For non-mulched crop only.
			Preplant, NOT incorporated, on top of firmed bed, before laying plastic.	Bell and nonbell. For mulched crop only. Can be applied also in the row middles, tank-mixed with a labeled postemergence herbicide. Needs irrigation or shallow incorporation for activation.
			Post-directed to transplants, or to established direct-seeded crop.	Bell and nonbell. For non-mulched crop only. Can be applied also in the row middles, tank-mixed with a labeled postemergence herbicide. Needs irrigation or shallow incorporation for activation.
Snapbeans, Lima Beans				
halosulfuron @ 0.02 to 0.04 lb/A	Yellow and purple nutsedge, ragweed, pigweed, smartweed, cocklebur and morningglory.	Sandea 75 DF 0.5 to 1 oz/A.	Preemergence.	Preemergence: apply after planting but before cracking.
S-metolachlor @ 0.6 to 1.01 lb/A	Annual weeds.	Dual Magnum 7.62 EC 10 oz to 16 oz/A.	Preemergence.	Apply during or after planting but before weeds emerge.
EPTC + trifluralin @ 3.5 + 0.5 lb/A	Annual weeds.	Eptam + Treflan 4 EC 3.5 pt/A + 1 pt/A.	Just prior to planting.	Requires thorough incorporation to a depth of 3 inches.
trifluralin @ 0.5 lb/A	Small-seeded broadleaf weeds and annual grasses.	Treflan 4 EC 1 pt/A.	Any time from 6 weeks before planting up to planting. After bedding if beds are used.	Requires thorough incorporation to a depth of 1 to 1½ inches.
bentazon @ 0.25 to 0.5 lb/A	Purslane, velvetleaf, ragweed, smartweed, cocklebur, jimsonweed.	Basagran 0.5 to 1 pt/A.	Postemergence to small weeds.	See label for details and weed sizes.
sethoxydim @ 0.3 to 0.5 lb/A	Annual and perennial grasses.	Poast 1.5 EC 1.5 to 2.5 pt/A.	Treat annual grasses within 14 days of emergence. Johnsongrass at 12 to 18 inches.	Do not apply within 15 days of harvest. Do not exceed 4 pt/A per season. Add 1% crop oil concentrate.
fomesafen @ 0.1875 to 0.25 lb lb/A	Many broadleaf weeds.	Reflex 2L 0.75 to 1 pt/A.	Apply postemergence to dry beans having at least 4 expanded trifoliolate leaves or snap beans having at least 1 expanded trifoliolate leaf. Include a nonionic surfactant at 1 quart per 100 gallons spray mixture.	Dry or snap beans only. Total use per year cannot exceed 1.5 pt/A. Do not apply within 45 days of dry bean harvest or 30 days of snapbean harvest. See label for further information.
fomesafen @ 0.25 to 0.375 lb/A	Broadleaf weeds.	Reflex 2L 1 to 1.5 pt/A.	Preplant or early post.	Do not exceed 1.5 pt/A rate. Dry or snapbeans.

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Snapbeans, Lima Beans [cont.]				
sulfentrazone + carfentrazone @ 0.1 to 0.2 lb/A + 0.01 to 0.02 lb/A	Annual grasses and small-seeded broadleaves, good activity on pigweeds.	Spartan Charge 3.8 to 7.6 fl oz/A.	Apply to the soil surface 14 to 7 days prior to planting. Will control small seedlings at the time of application. Can also be applied preemergence.	Tank mixing with Dual Magnum preemergence may cause stunting, but will increase weed control spectrum. Apply to the soil surface immediately after planting. Do not apply to sandy soil with <1% organic matter, or soils above Ph7.
sulfentrazone + S-metolachlor @ 0.1 lb/A to 0.14 + 0.95 to 1.27 lb/A	Annual grasses and small-seeded broadleaves, excellent on pigweeds and morning-glories; good control of yellow nutsedge.	Authority Elite 19 to 26 fl oz/A.	Apply to a weed-free bareground soil. Can also be applied pre-emergence.	Preplant application is safer than pre-emergence application.
Southernpea - Preemergence				
imazethapyr @ 0.063 lb/A	Small-seeded broadleaves and annual grasses.	Pursuit 2 AS 4 fl oz/A.	Preplant soil-incorporated, preemergence, or early postemergence.	Has activity on pigweeds, but will not control ALS-resistant pigweed.
S-metolachlor @ 0.64 to 0.95 lb/A	Small-seeded broadleaves and annual grasses.	Dual Magnum 7.62 EC 0.67 to 1 pt/A.	Preplant soil-incorporated or preemergence. Apply to a weed-free bareground soil.	Excellent control of pigweeds, other small-seeded broadleaves and annual grasses. Needs 1 inch of rainfall for activation. Rainfall exceeding 2 inches will reduce residual activity.
trifluralin @ 0.5 to 0.75 lb/A	Annual grasses and small-seeded broadleaves.	Treflan 4 L 1 to 1.5 pt/A.	Apply to a weed-free bareground soil.	Requires thorough incorporation to a depth of 1 to 1.5 inches. Tankmix with another herbicide to improve spectrum.
Southernpea - Postemergence				
bentazon @ 0.5 lb/A	Prickly sida, smartweeds, and common cocklebur.	Basagran 1 pt.	Apply over the top of the crop and weed; good coverage required.	Apply over the top. Weak on pigweeds. Excellent activity on prickly sida, smartweeds and common cocklebur.
clethodim @ 0.094 to 0.125 lb/A	Grasses.	Select 2 EC 6 to 8 fl oz/A.	Apply to actively growing grass seedlings.	Add 1 gallon of crop oil concentrate per 100 gallons of spray mixture. Adding crop oil may cause crop injury at high temperature conditions. Do not apply on days that are unusually hot or humid. Do not apply within 14 days of harvest.
fomesafen @ 0.2 lb/A	Small annual grasses and small-seeded broadleaves, good activity on pigweeds 2 inches tall.	Reflex 2 SL 13 oz/A.	2- to 4-trifoliolate crop.	For dry beans only. Will burn crop leaves; crop injury will be severe if applied on a very hot, sunny, humid day, but the crop will recover. Some varieties will be injured more than others. Total use per year cannot exceed 1.5 pt/A. Do not apply within 45 days of dry bean harvest.

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imazamox @0.03 lb/A	Small-seeded broadleaves, annual grasses, and sedges.	Raptor 4 fl oz/A.	Apply over the top of the crop and weed; good coverage required.	Similar to Pursuit, but has shorter residual activity. Will not control ALS-resistant pigweeds. Some varieties may be stunted by Raptor.
imazethapyr @ 0.063 lb/A	Small-seeded broadleaves, annual grasses and sedges.	Pursuit 2 AS 4 fl oz/A.	Apply over the top of the crop and weed; good coverage required.	Annual grasses and broadleaves. Will not control ALS-resistant pigweeds. Good on sedges.
sethoxydim @ 0.2 to 0.5 lb/A	Annual and perennial grasses ONLY.	Poast 1.5 EC 1 to 2.5 pt/A.	Apply to emerged and actively growing weeds.	Thorough coverage required. Do not tank mix with other pesticides. Do not cultivate 7 days before or after treatment. Cultivation after 7 days is helpful. Add 1 quart of crop oil concentrate per acre. This may cause injury on a hot, sunny day. Total cannot exceed 2.5 pt/A/year. Do not apply within 15 days of harvest.
Spinach				
sethoxydim @ 0.19 to 0.38 lb/A	Grasses.	Poast 1.5 EC 1 to 1.5 pt/A.	Before annual grasses exceed 14 days after emergence. Timing is very important. Johnsongrass: 15 to 20 inches Bermudagrass: 1-inch height or 6-inch maximum runner length	Apply only under conditions of active growth. Thorough coverage required. Do not tank mix with other pesticides. Do not cultivate 7 days before or after treatment. Cultivation soon after 7 days will be helpful. Do not apply within 15 days of harvest.
clethodim @ 0.094 to 0.125 lb/A	Grasses.	Select 2 EC 6 to 8 oz/A.	Postemergence.	Apply to emerged grasses. Consult manufacturer's label for specific rates and best times to treat. For sethoxydim, add 1 quart of crop oil concentrate per acre. For clethodim, add 1 gallon of crop oil concentrate per 100 gallons of spray solution. Adding crop oil to Poast or Select may increase the likelihood of crop injury at high air temperatures. Do not apply Poast or Select on days that are unusually hot and humid. Do not apply sethoxydim within 15 days of harvest or clethodim within 14 days of harvest.
S-metolachlor @ 0.32 to 0.64 lb/A	Annual grasses and small-seeded broadleaf weeds.	Dual Magnum 7.62 EC* 0.33 to 0.67 pt/A.	Preemergence.	Do not incorporate. Make only one application per year. Do not exceed 0.67 pt/A. Use low rate on coarse soil. Do not harvest within 50 days of application. Do not apply through an irrigation system. Irrigate within 2 days of application.

*Use of the Dual Magnum 24(c) labels for spinach, collards, kale, mustard greens, turnip greens, cantaloupe, cucumber, summer squash, watermelon, transplanted broccoli, cabbage and Chinese cabbage requires agreeing to **Syngenta's waiver of liability and indemnification agreement**. To accept, go to the website, www.syngenta-us.com/labels/indemnified-label-login, and register to set up an account. After registering go to the top left of the home page, click on **Products** and then **Indemnified Labels**. You will then be prompted to select the state, **Arkansas**, the product, **Dual Magnum** and the crop. Read the **waiver of liability and indemnification agreement** and either accept or decline. If the conditions are unacceptable, return the Dual Magnum herbicide at once unopened or use the Dual Magnum herbicide for a different approved use in accordance with the label on the product container.

Crop, Situation, and Active Chemical Per Broadcast Acre	Weeds Controlled	Formulated Material Per Broadcast Acre	Time of Application	Method of Application and Precautions
VEGETABLES				
Spinach [cont.]				
phenmedipham @ 0.5 to 1 lb/A	Annual broadleaf.	Spin-Aid 1.3 EC 3 to 6 pt/A.	Postemergence.	Do not use when expected high temperatures will be above 75°F. For best results, spray when weeds are in the 2-leaf stage. Use the 6 pint rate only on well-established crops which are not under stress. Do not apply within 40 days of harvest. Spinach plants must have 6 true leaves or more. For processing spinach only. Do not exceed 22 gallons per acre water. Avoid drift.
Sweet Corn				
S-metolachlor + atrazine 1.25 to 1.5 lb + 1 to 1.6 lb/A	Annual weeds.	Dual Magnum 7.62 EC + AAtrex, atrazine See label for specific formulations.	Preplant incorporated, preemergence or early postemergence.	Use high atrazine rate where cocklebur and morningglory are severe. Rainfall in 5-7 days is necessary for best results. With preplant, shallow incorporate 2-3 inches within 7 days of planting.
bentazon @ 0.75 to 1 lb/A	Cocklebur, common ragweed, jimsonweed, Pennsylvania smartweed, velvetleaf, yellow nutsedge, and morningglory.	Basagran 0.75 to 1 qt/A.	Apply early postemergence over top when weeds are small and corn has 1 to 5 leaves.	See label for rates according to weed size and special directions for annual morningglory and yellow nutsedge control. Use a crop oil at a rate of 1 qt/A.
halosulfuron @ 0.032 lb/A	Cocklebur, passionflower, pigweed, pokeweed, ragweed, smartweed, velvetleaf.	Permit 75 DF 0.67 oz/A.	Postemergence.	Apply over the top with drop nozzles to sweet corn from spike to lay-by for control of emerged weeds. Add nonionic surfactant at 0.5 oz per gallon of spray solution or 1 quart per 100 gallons of spray solution. See label for all instructions and restrictions.
S-metolachlor + atrazine @ 1 to 2 + 0.78 to 1.56	Most annual grass and broadleaf weeds.	Bicep II Magnum 1.3 to 2.6 qt/A.	Preemergence.	Apply to soil surface immediately after planting. See label for further instructions.
atrazine @ 1 to 2 lb/A	Most annual broadleaf and grass weeds.	Aatrex 4L 1 to 2 qt/A.	Preemergence or postemergence.	Apply to soil surface immediately after planting. Shallow cultivation of preemergence applications improves control. Postemergence: Use the 2 quart rate and apply before weeds reach 1.5 inches. See label for amount of crop oil to add. For best results, tank mix with a grass herbicide such as Dual.
Sweet Potatoes				
sethoxydim @ 0.3 to 0.5 lb/A	Annual and perennial grasses.	Poast 1.5 EC 1.5 to 2.5 pt/A.	Apply to small annual grasses, preferably within 14 days after emergence. See label for timing perennial grasses.	Do not apply within 30 days of harvest. Do not apply more than 4 pt/A in one season. Add 1% crop oil concentrate.

Crop, Situation, and Active Chemical Per Broadcast Acre	Weeds Controlled	Formulated Material Per Broadcast Acre	Time of Application	Method of Application and Precautions
clethodim @ 0.09 to 0.25 lb/A	Grasses.	Select 2 EC or Select Max 8 to 16 oz/A. Add crop oil concentrate + AMS.	Postemergence.	Apply postemergence for annual grasses at 6 to 8 oz/A or bermudagrass and johnsongrass at 8 oz/A. Add 1 gallon crop oil concentrate per 100 gallons of spray mix. Adding crop oil may increase the likelihood of crop injury at high air temperatures. Very effective in controlling annual bluegrass. Apply to actively growing grasses not under drought stress. Do not apply within 30 days of harvest.
clomazone @ 0.48 to 1.5 lb/A	Annual grasses.	Command 3 ME 1.3 to 4 pt/A.	Pre-transplant.	Use the low rate on coarse soils and the high rate on fine soils. May also be applied as a single, post-transplant application to the crop before weeds emerge at a maximum of 1.5 pt/A.
fluazifop-P @ 0.19 lb/A	Grasses.	Fusilade DX 2 EC 6 to 18 oz/A.	Before annual grasses exceed 14 days after emergence. Timing is very important. Johnsongrass: 12 to 18 inches. Bermudagrass: 3-inch height or 6- to 12-inch maximum runner length.	Less effective than Poast on annual grasses. More effective on bermudagrass and johnsongrass. Thorough coverage required. Do not tank mix. Do not cultivate 7 days before or after application. Do not apply within 20 days of harvest.
flumioxazin @ 0.094 lb/A	Annual broadleaf weeds including pigweed.	Valor 51 WDG 3 oz/A.	Apply 2 to 5 days prior to transplanting crop.	Movement of soil during transplanting should not occur or reduced weed control may result. Do not use on greenhouse-grown transplants. Do not apply postemergence or serious crop injury will occur. Do not use on transplants harvested more than 2 days prior to transplanting. Do not use on transplant propagation beds. See label for instructions on use. Use only on the 'Beauregard' variety.
S-metolachlor @ 0.95 to 1.26 lb/A	Annual sedge and yellow nutsedge.	Dual Magnum 7.62 EC 1 to 1.33 pt/A.	After the sweet potatoes have been transplanted but before weeds emerge.	Do not incorporate following application. Use the lower rate on coarse-textured soils. The transplanter trench must be closed before applying. Do not apply more than 0.5 inches of irrigation for the first irrigation following application. Make only one application per season.
Tomatoes				
S-metolachlor @ 0.95 to 1.5 lb/A	Yellow nutsedge, annual grasses, broadleaf weeds.	Dual Magnum 7.62 EC 1 to 2 pt/A.	Preplant or postdirected to transplants.	Apply preplant or postdirected to transplants after the first settling rain or irrigation. In plasticulture, apply to preformed beds just prior to applying plastic mulch. Minimize contact with crop. Do not apply within 90 days of harvest. Also registered for use in row middles, and in seeded crop. See label for further instructions.
trifluralin @ 0.5 to 0.75 lb/A	Annual weeds.	Treflan 4 EC 1 to 1.5 pt/A.	Preplant any time from 6 weeks before transplanting up to transplanting. After bedding if beds are used.	Requires thorough incorporation to a depth of 1 to 1½ inches. Do not use on direct-seeded tomatoes.

Crop, Situation, and Active Chemical Per Broadcast Acre	Weeds Controlled	Formulated Material Per Broadcast Acre	Time of Application	Method of Application and Precautions
VEGETABLES				
Tomatoes [cont.]				
metribuzin @ 0.25 to 0.5 lb/A	Annual broadleaf and grass weeds.	Metribuzin 75 DF 0.33 to 0.67 lb/A.	After transplants have 5-6 leaves or have fully recovered from shock of transplanting and weeds are small.	Over top. Do not apply within 3 days after period of cool, wet or cloudy weather or injury will occur. See label for other precautions.
halosulfuron @ 0.02 to 0.04 lb/A	Yellow and purple nutsedge, ragweed, pigweed, smartweed, cocklebur and morningglory.	Sandea 75 DF 0.5 to 1.0 oz/A.	Preemergence and postemergence.	Direct-seeded, postemergence: Sandea may be applied over the top from the 4-leaf stage to first bloom. After bloom, use shields or directed spray to avoid contact with the plant. Transplants: May be applied from 14 days after transplanting to first bloom. After first bloom, apply as a directed spray.
metribuzin @ 0.5 to 1 lb/A	Same as above but better control.	Metribuzin 75 DF 0.67 to 1.33 lb/A.	Before direct seeding or transplanting.	Directed spray. Avoid contact with foliage. See above precautions and refer to label for further details.
sethoxydim @ 0.19 to 0.38 lb/A	Grasses.	Poast 1.5 EC 1 pt/A.	Before annual grasses exceed 14 days after emergence. Timing is very important. Johnsongrass: 15 to 20 inches. Bermudagrass: 1-inch height or 6-inch maximum runner length.	Apply only under conditions of active growth. Thorough coverage required. Do not tank mix with other pesticides. Do not cultivate 7 days before or after treatment. Cultivation soon after 7 days will be helpful. Do not apply within 20 days of harvest. Do not apply more than 4.5 pt/A per season.
clethodim @ 0.09 to 0.25 lb/A	Annual and perennial grasses.	Select 2E 6 to 16 oz/A.	Postemergence.	Add 1.0% crop oil concentrate. Apply to actively growing grasses. Repeat applications may be needed for perennial grass control. Good on annual bluegrass and broadleaf signalgrass.
trifloxysulfuron-sodium @ 0.0047 to 0.0094 lb/A	Yellow nutsedge, morningglory, common cocklebur, common lambsquarters and other broadleaf weeds.	Envoke 75 DG 0.1 to 0.2 oz/A.	Post-directed.	In row. Apply post-directed to tomato grown on plastic for control of nutsedge and certain broadleaf weeds. Crop should be transplanted at least 14 days prior to application. The application should be made prior to fruit set and at least 45 days prior to harvest. Use nonionic surfactant at 1 quart per 100 gallons spray solution with all applications. Row middles. Apply for control of nutsedge and certain broadleaf weeds. Crop should be transplanted at least 14 days prior to application. Use nonionic surfactant at 1 quart per 100 gallons spray solution with all applications. See label for information on registered tank mixes. Tank mixtures with Select or Poast may reduce grass control. See label for more information.

Crop, Situation, and Active Chemical Per Broadcast Acre	Weeds Controlled	Formulated Material Per Broadcast Acre	Time of Application	Method of Application and Precautions
Carfentrazone @ up to 0.031 lb/A	Most broadleaf weeds less than 4 in. tall or rosettes less than 3 in. in diameter; does not control grasses	Aim 1.9 EW or Aim 2 EC Up to 2 oz/A. Add nonionic surfactant	Apply as a preplant burndown treatment.	See label for rates. May be tank-mixed with other registered burndown herbicides. Efficacy requires good coverage and the use of a non-ionic surfactant. Transplanted crop. Apply no later than 1 day before transplanting. Seeded crop (Aim 2 EC only). Apply no later than 7 days before planting seeded crop.
Paraquat @ 0.5 to 1 lb/A	Contact kill of all green foliage, stale bed application	(Firestorm, Parazone) 3 SL 1.3 to 2.7 pt/A Gramoxone 2 SL 2 to 4 pt/A	Preplant burndown application.	Apply to emerged weeds in a minimum of 20 gal spray mix per acre before crop emergence as a broadcast or band treatment over a pre-formed row. Row should be formed several days ahead of planting and treating to allow maximum weed emergence. Use a nonionic surfactant at a rate of 16 to 32 oz per 100 gal spray mix or 1 gal approved crop oil concentrate per 100 gal spray mix.
Oxyfluorfen @ 0.5 lb/A	Broadleaf weeds including Carolina geranium and cutleaf eveningprimrose and a few annual grasses	Goal 2 XL Up to 2 pt/A	Preplant burndown/preemergence application.	Plasticulture only. Apply to soil surface of pre-formed beds at least 30 days prior to transplanting crop. While incorporation is not necessary.
Napropamide @ 1 to 2 lb/A	Annual grasses and small-seeded broadleaf weeds including lambsquarters, pigweed, carpetweed, and common purslane	Devrinol 50 DF or Devrinol 2 EC 2 to 4 lb/A 2 to 4 qt/A	Preemergence.	Bareground: Apply preplant and incorporate into the soil 1 to 2 in. as soon as possible with a rototiller or tandem disk. Can be used on direct-seeded or transplanted tomatoes. See label for instructions on use. Plasticulture: Apply to a weed-free soil before laying plastic mulch. Soil should be well worked yet moist enough to permit a thorough incorporation to a depth of 2 inches. Mechanically incorporate or irrigate within 24 hours after application. If weed pressure is from small seeded annuals, apply to the surface of the bed immediately in front of the laying of plastic mulch. If soil is dry, water or sprinkle irrigate with sufficient water to wet to a depth of 2 to 4 inches before covering with plastic mulch. Between rows: Apply to a weed free soil surface between the rows (bareground or plastic mulch). Mechanically incorporate or irrigate Devrinol into the soil to a depth of 1 to 2 inches within 24 hours of application. See XT labels for information regarding delay in irrigation event.

Crop, Situation, and Active Chemical Per Broadcast Acre	Weeds Controlled	Formulated Material Per Broadcast Acre	Time of Application	Method of Application and Precautions
VEGETABLES				
Tomatoes [cont.]				
Pendimethalin @ 0.5 to 1.5 lb/A	Annual grasses and small-seeded broadleaf weeds including lambsquarters, pigweed, carpetweed, and common purslane	Prowl H20 AS 1 to 3 pt/A	Preemergence.	<p>Plasticulture In-row. May be applied as a preplant surface application or a preplant incorporated application prior to transplanting tomato.</p> <p>Bareground In-row. May be applied as a broadcast preplant surface application or preplant incorporated application prior to transplanting tomato.</p> <p>Post-directed spray. May be applied as a post-directed spray on the soil at the base of the plant, beneath plants, and between rows. Avoid direct contact with tomato foliage or stems. Do not apply over the top of tomato. PHI=21 days. Do not apply more than 3 pt per acre per season. See label for specific use rate for your soil type. Emerged weeds will not be controlled. See label for further instructions and precautions.</p>
Rimsulfuron @ 0.25 to 0.5 lb/A	Most broadleaf weeds including wild radish, common purslane, redroot and smooth pigweed	Matrix 25 WDG, Pruvin 25 WDG 1 to 2 oz/A	Postemergence.	Apply in tomatoes after the crop has at least two true leaves and weeds are small (1 in. or less) and actively growing. Add nonionic surfactant at 1 qt per 100 gal of spray solution. Do not apply within 45 days of tomato harvest. See label for further instruction.