STATE OF HAWAII
Department of Agriculture
ACCEPTED
LICENSE NO.

9226.499
Disc.

# RESTRICTED USE PESTICIDE

**(GROUND AND SURFACE WATER CONCERNS)**

***FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION.***

***THIS PRODUCT IS A RESTRICTED-USE HERBICIDE DUE TO GROUND AND SURFACE WATER CONCERNS. USERS MUST READ AND FOLLOW ALL PRECAUTIONARY STATEMENTS AND INSTRUCTIONS FOR USE IN ORDER TO MINIMIZE POTENTIAL FOR ATRAZINE TO REACH GROUND AND SURFACE WATER.***

**For Ground Application Only**

# SYN-AI7227A Herbicide

## *SELECTIVE HERBICIDE*

*A Preemergence Herbicide for Control of Annual Grass and Broadleaf Weeds in Field Corn, Field Production Seed Corn, Field Silage Corn, Sweet Corn, Yellow Popcorn, and Grain Sorghum*

*Active Ingredients*:*

| | |
|---|---|
| *S*-Metolachlor: (CAS No. 87392-12-9) | 29.40% |
| Atrazine**: (CAS No. 1912-24-9) | 11.00% |
| Mesotrione: (CAS No. 104206-82-8) | 2.94% |
| *Other Ingredients:* | 56.66% |
| *Total:* | 100.00% |

*EPA Reg. No. 100-1356*

**Active ingredients per gallon: S-metolachlor 2.68 pounds, Mesotrione 0.268 pounds, and Atrazine 1.0 pound.*

***Atrazine with a maximum of 0.4% related triazines.*

## *KEEP OUT OF REACH OF CHILDREN.*

## *CAUTION*

*See additional precautionary statements and directions for use inside booklet.*

***SCP 1356A-L1A 1109***
***337695***

| FIRST AID | |
|---|---|
| **If in eyes** | • Hold eye open and rinse slowly and gently with water for 15-20 minutes.<br>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.<br>• Call a Poison Control Center or doctor for treatment advice. |
| **If swallowed** | • Call a Poison Control Center or doctor immediately for treatment advice.<br>• Have person sip a glass of water if able to swallow.<br>• Do not induce vomiting unless told to do so by a poison control center or doctor.<br>• Do not give anything by mouth to an unconscious person. |
| **If on skin or clothing** | • Take off contaminated clothing.<br>• Rinse skin immediately with plenty of water for 15-20 minutes.<br>• Call a Poison Control Center or doctor for treatment advice. |
| **If inhaled** | • Move person to fresh air.<br>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.<br>• Call a Poison Control Center or doctor for further treatment advice. |
| Have the product container or label with you when calling a poison control center or doctor, or going for treatment. | |
| **HOT LINE NUMBER**<br>For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire or Accident), Call<br>**1-800-888-8372** | |

## PRECAUTIONARY STATEMENTS

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION**

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear protective eyewear.

### Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category C on an EPA Chemical-resistant Category Selection Chart.

**Mixers, Loaders, Applicators and other handlers must wear the following:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves – Category C (barrier laminate, butyl rubber >14 mils, nitrile rubber >14 mils, neoprene rubber >14 mils, polyvinyl chloride (PVC) >14 mils, or Viton® > 14 mils)
- Shoes plus socks

See engineering controls for additional requirements.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

### Engineering Control Statements

When applicators use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(5)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### User Safety Recommendations

**Users should:**

- Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

## Environmental Hazards

This product is toxic to aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water or rinsate. This pesticide contains atrazine, which has been shown to be toxic to aquatic invertebrates. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply when weather conditions favor drift from treated areas.

## Ground Water Advisory

SYN-A17227A Herbicide contains the active ingredients *S*-metolachlor, mesotrione and atrazine.

Atrazine can travel (seep or leach) through soil and can enter ground water which may be used as drinking water. Atrazine has been found in ground water. Users are advised not to apply atrazine to sand and loamy sand soils where the water table (ground water) is close to the surface and where these soils are very permeable, i.e., well-drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of ground water.

*S*-metolachlor has the potential to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

## Surface Water Advisory

The active ingredients in this product have the potential to contaminate surface water through ground spray drift. Under some conditions, the active ingredients may also have a high potential for runoff into surface water (primarily via dissolution in runoff water) for several months post-application. These include poorly drained or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surface water.

A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

## Mixing/Loading Instructions

Care must be taken when using this product to prevent back-siphoning into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates.

*continued…*

## PRECAUTIONARY STATEMENTS *(continued)*

Check valves or antisiphoning devices must be used on mixing equipment.

This product must not be mixed/loaded or used within 50 feet of wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing to this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited, unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rain water that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain, at a minimum, 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site.

Additional State imposed requirements regarding well head setbacks and operational area containment must be observed.

This product must not be mixed or loaded within 50 feet of perennial or intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be applied within 66 feet of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 feet from the edge of natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66 ft. buffer or setback from runoff entry points must be planted to crop, or seeded with grass or other suitable crop.

### Tile-Outletted Terraced Fields Containing Standpipes

One of the following restrictions must be used in applying atrazine to tile-outletted terraced fields containing standpipes:

1. Do not apply this product within 66 feet of standpipes in tile-outletted terraced fields.
2. Apply this product to the entire tile-outletted terraced field and immediately incorporate it to a depth of 2-3 inches in the entire field.
3. Apply this product to the entire tile-outletted terraced field under a no-till practice only when a high crop residue management practice is practiced. High crop residue management is described as a crop management practice where little or no crop residue is removed from the field during and after crop harvest.

## Physical and Chemical Hazards

Do not use or store near heat or open flame.

## CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and, (2) Buyer and User assume the risk of any such use. To the extent permitted by applicable law, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

# DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

ANY USE OF THIS PRODUCT IN AN AREA WHERE USE IS PROHIBITED IS A VIOLATION OF FEDERAL LAW. Before using this product, you must consult the Atrazine Watershed Information Center (AWIC) to determine whether the use of this product is prohibited in your watershed. AWIC can be accessed through www.atrazine-watershed.info or 1-866-365-3014. If use of this product is prohibited in your watershed, you may return this product to your point of purchase or contact Syngenta Crop Protection, LLC for a refund.

SYN-A17227A Herbicide must be used only in accordance with requirements on this label or in separately published Syngenta supplemental labeling requirements for this product.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

## AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.** Exception: If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

For early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil and water, wear:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves made of any waterproof material
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure.

**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.**

**Note: Not for sale, use, or distribution in Nassau County or Suffolk County, New York.**

## GENERAL INFORMATION

SYN-A17227A Herbicide is a combination of the herbicides: *S*-metolachlor, mesotrione, and atrazine. SYN-A17227A Herbicide controls weeds by interfering with normal germination and seedling development. It is recommended for management of the weed species listed in Tables 1 and 2.

SYN-A17227A Herbicide may be used preemergence and postemergence in the culture of field corn, field seed corn, and field corn silage. SYN-A17227A Herbicide may also be used in the culture of sweet corn, yellow popcorn, and grain sorghum but the application must be made prior to crop emergence, (i.e., preemergence) or severe crop injury may occur.

The organic matter of the soil on which the application is to be made must be known or determined prior to application. The use rate of SYN-A17227A Herbicide is based on percent soil organic matter.

SYN-A17227A Herbicide may be used in reduced and no-till systems. The highest levels of control will be obtained when applications are made as close to planting as possible. It is recommended that a burndown herbicide such as Gramoxone Inteon®, Touchdown® brands, Roundup® brands, or 2,4-D be tank mixed with SYN-A17227A Herbicide in reduced or no-till systems if weeds are present at application and the corn has not yet emerged.

Applied according to directions and under normal growing conditions, SYN-A17227A Herbicide will not harm the treated crop. During germination and early stages of growth, extended periods of unusually cold and wet or hot and dry weather, insect or plant disease attack, carryover pesticide residues, the use of certain soil applied systemic insecticides, improperly placed fertilizers or soil insecticides, may weaken crop seedlings. SYN-A17227A Herbicide used under these conditions could result in crop injury.

### Sprinkler Irrigation

Do not apply SYN-A17227A Herbicide by sprinkler irrigation. Use a sprinkler system only to incorporate SYN-A17227A Herbicide after application. After SYN-A17227A Herbicide has been applied, a sprinkler irrigation system set to deliver ½-1 inch of water may be used to incorporate the product. Using more than 1 inch of water could result in reduced performance. On sandy soil low in organic matter, use no more than ½ inch of water. Do not use flood irrigation to apply or incorporate SYN-A17227A Herbicide.

## Cultivation

Should weeds develop a shallow cultivation or rotary hoeing will generally result in improved weed control. If SYN-A17227A Herbicide was incorporated, cultivate less than half the depth of incorporation.

If cultivation is necessary due to soil crusting, compaction, or escaped weeds, adjust equipment to run shallow and minimize soil movement. This will decrease the possibility of diluting or moving the herbicide from the weed control zone.

## Weed Resistance Management

Naturally occurring biotypes of certain broadleaf weed species with resistance to triazine or ALS inhibiting herbicides are known to exist. However, no known resistance to this product exists and there are no known instances of cross resistance between this herbicide and other classes of herbicides. If biotypes of weeds resistant to triazines or ALS inhibitors are present in the field, this herbicide should control them if they are listed in Table 1 and 2.

To reduce the risk of weeds developing resistance to HPPD inhibitors, do not apply solo postemergence HPPD inhibitor herbicides (Callisto®, Impact®, or Laudis®) in the same season or on the same field where SYN-A17227A Herbicide has been applied. A good weed resistance management strategy includes a herbicide program that contains two or more modes of action. SYN-A17227A Herbicide contains three herbicide active ingredients and three modes of action and can be an effective component of a weed resistance management strategy.

## Integrated Pest (Weed) Management

SYN-A17227A Herbicide may be integrated into an overall pest management strategy. Practices known to reduce weed development (tillage, crop competition) and herbicide use (weed scouting, proper application timing, banding, and rotations) should be followed wherever possible. Consult local agricultural and weed authorities for additional Integrated Pest Management strategies established for your area.

## Atrazine Herbicide Rate Limitations

Certain states may have established rate limitations within specific geographical areas for the use of atrazine. These more restrictive/protective requirements must be followed. Consult your state lead pesticide control agency for additional information. It is a violation of this label to deviate from state use regulations.

When tank mixing or sequentially applying atrazine or products containing atrazine with SYN-A17227A Herbicide to corn or grain sorghum, do not exceed an application rate of 2.0 pounds active ingredient of atrazine per acre for any single application and the total pounds of atrazine applied (lb a.i. per acre) must not exceed 2.5 pounds active ingredient per acre per year.

**Note:** For purposes of calculating total atrazine active ingredient applied, SYN-A17227A Herbicide contains 1.0 lb a.i. atrazine plus relateds per gallon.

## USE PRECAUTIONS

Read all label directions before using. Observe all precautions and limitations on the label of each product used in tank mixture with SYN-A17227A Herbicide.

- **Grazing Restriction:** To avoid possible illegal residues, do not graze or feed forage from treated areas for 45 days following application.
- **Preharvest Interval (PHI):** Field corn may be treated up to 12 inches tall. Do not harvest forage, grain, or stover within 60 days after application. Do not harvest sweet corn forage within 45 days after application.
- Do not apply more than 3 qt of SYN-A17227A Herbicide per acre per growing season.
- This product will not provide consistent control of emerged grass weeds.
- Do not use SYN-A17227A Herbicide in the culture of white popcorn or ornamental (Indian) corn or injury may occur.
- Do not apply SYN-A17227A Herbicide to sweet corn, yellow popcorn or grain sorghum after the crop has emerged or severe crop injury may occur.
- Do not use SYN-A17227A Herbicide on any crop other than field corn (for grain, seed, or silage), sweet corn (preemergence applications only), yellow popcorn (preemergence applications only), or grain sorghum (preemergence applications only).
- Do not apply this product through any type of irrigation system.
- Do not apply under conditions which favor runoff or wind erosion of soil containing this product to non-target areas.

To prevent off-site movement due to runoff or wind erosion:

- Avoid treating powdery dry or light sand soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.
- Do not apply to impervious substrates, such as paved or highly compacted surfaces.
- Do not use tail water from the first flood or furrow irrigation of treated fields to treat non-target crops, unless at least ½ inch of rainfall has occurred between application and the first irrigation.
- Where reference is made to weeds partially controlled, partial control can either mean erratic control from good to poor or consistent control at a level below that generally considered acceptable for commercial weed control.
- Dry weather following preemergence application of SYN-A17227A Herbicide or a SYN-A17227A Herbicide tank mixture may reduce effectiveness. Cultivate if weeds develop in conventional tillage corn.

- Thoroughly clean sprayer or other application device before using. See **Storage and Disposal** section for disposal instructions. Do not use a sprayer or applicator contaminated with other materials, or crop damage or sprayer clogging of the application device may occur.
- Do not apply other solo HPPD inhibitor postemergence herbicides (Callisto, Impact, or Laudis) to ground that has been treated with SYN-A17227A Herbicide in the same season.
- Applying SYN-A17227A Herbicide postemergence (emerged corn) to corn that has received an at-plant application of Counter® insecticide can result in severe corn injury. Temporary corn injury may occur if SYN-A17227A Herbicide is applied to emerged corn where organophosphate insecticides other than Counter were applied at planting.
- Do not make postemergence (emerged corn) applications of SYN-A17227A Herbicide in a tank mix with any organophosphate or carbamate insecticide, or severe corn injury may occur.
- Postemergence (emerged corn) applications of any organophosphate or carbamate insecticide within 7 days before or 7 days after a SYN-A17227A Herbicide application may result in severe corn injury.
- Do not contaminate irrigation water used for crops other than field corn. Do not contaminate water used for domestic purposes.
- Avoid drift onto adjacent crops.
- Avoid spray overlap, as crop injury may result.
- Do not allow SYN-A17227A Herbicide to contaminate feed or food.
- Do not store SYN-A17227A Herbicide near seeds, fertilizers, or foodstuffs.
- All containers of SYN-A17227A Herbicide must be kept tightly closed when not in use.
- Do not use aerial application to apply SYN-A17227A Herbicide.

## WEEDS CONTROLLED

SYN-A17227A Herbicide applied as directed in this label will control or suppress the weeds listed in Tables 1 and 2. Additional weeds may be controlled with tank mixes. See the **SYN-A17227A Herbicide Tank Mix Combinations** section for recommended tank mix combinations. Always consult the tank mix product labels for specific rates and use directions.

**Table 1. Weeds Controlled or Partially Controlled by Preemergence Applications of SYN-A17227A Herbicide**

| Common Name | Weed Type[1] | Scientific Name | C = Control PC = Partial Control |
|---|---|---|---|
| Amaranth, Palmer | B | *Amaranthus palmeri* | C |
| Amaranth, Powell | B | *Amaranthus powellii* | C |
| Barnyardgrass | G | *Echinochloa crus-galli* | C |
| Bedstraw, catchweed | B | *Galium aparine* | PC |
| Beggarweed, Florida | B | *Desmodium tortuosum* | C |
| Buckwheat, wild | B | *Polygonum convolvulus* | C |
| Buffalobur | B | *Solanum rostratum* | C |
| Carpetweed | B | *Mollugo verticillata* | C |
| Chickweed, common | B | *Stellaria media* | C |
| Cocklebur, common | B | *Xanthium strumarium* | PC |
| Crabgrass | G | *Digitaria* spp. | C |
| Crowfootgrass | G | *Dactyloctenium aegyptium* | C |
| Cupgrass, prairie | G | *Eriochloa contracta* | C |
| Cupgrass, Southwestern | G | *Eriochloa gracilis* | C |
| Cupgrass, woolly | G | *Eriochloa villosa* | PC |
| Deadnettle, purple | B | *Lamium purpureum* | C |
| Devil's-claw | B | *Proboscidea louisianica* | C |
| Foxtail, giant | G | *Setaria faberi* | C |
| Foxtail, green | G | *Setaria viridis* | C |
| Foxtail, robust (purple, white) | G | *Setaria* spp. | C |
| Foxtail, yellow | G | *Setaria pumila* | C |

*continued…*

**Table 1. Weeds Controlled or Partially Controlled by Preemergence Applications of SYN-A17227A Herbicide *(continued)***

| Common Name | Weed Type[1] | Scientific Name | C = Control PC = Partial Control |
|---|---|---|---|
| Galinsoga | B | *Galinsoga parviflora* | C |
| Goosegrass | G | *Eleusine indica* | C |
| Henbit | B | *Lamium amplexicaule* | C |
| Horseweed (marestail) | B | *Conyza Canadensis* | C |
| Jimsonweed | B | *Datura stramonium* | C |
| Johnsongrass, seedling | G | *Sorghum halepense* | PC |
| Kochia | B | *Kochia scoparia* | C |
| Lambsquarters, common | B | *Chenopodium album* | C |
| Mallow, Venice | B | *Hibiscus trionum* | C |
| Millet, foxtail | G | *Setaria italica* | C |
| Millet, wild proso | G | *Panicum miliaceum* | PC |
| Morningglory, ivyleaf/ entireleaf | B | *Ipomoea hederacea.* | PC |
| Mustard, wild | B | *Brassica kaber* | C |
| Nightshade, black | B | *Solanum nigrum* | C |
| Nightshade, eastern black | B | *Solanum ptycanthum* | C |
| Nightshade, hairy | B | *Solanum sarrachoides* | C |
| Panicum, Texas | G | *Panicum texanum* | PC |
| Pigweed, redroot | B | *Amaranthus retroflexus* | C |
| Pigweed, smooth | B | *Amaranthus hybridus* | C |
| Puncturevine | B | *Tribulus terrestris* | PC |
| Purslane, common | B | *Portulaca oleracea* | C |
| Pusley, Florida | B | *Richardia scabra* | C |

| Common Name | Weed Type[1] | Scientific Name | C = Control PC = Partial Control |
|---|---|---|---|
| Radish, wild | B | *Raphanus raphanistrum* | C |
| Ragweed, common | B | *Ambrosia artemisiifolia* | PC |
| Ragweed, giant | B | *Ambrosia trifida* | PC |
| Rice, red | G | *Oryza sativa* | C |
| Sandbur, field | G | *Cenchrus incertus* | PC |
| Sesbania, hemp | B | *Sesbania exaltata* | C |
| Shattercane | G | *Sorghum bicolor* | PC |
| Shepherd's-purse | B | *Capsella bursa-pastoris* | C |
| Sida, prickly | B | *Sida spinosa* | PC |
| Signalgrass, broadleaf | G | *Brachiaria platyphylla* | PC |
| Signalgrass, narrowleaf | G | *Brachiaria piligera* | C |
| Smartweed, ladysthumb | B | *Polygonum persicaria* | C |
| Smartweed, Pennsylvania | B | *Polygonum pensylvanicum* | C |
| Sprangletop, red | G | *Leptochloa filiformis* | C |
| Starbur, bristly | G | *Acanthospermum hispidum* | C |
| Sunflower, common | B | *Helianthus annus* | PC |
| Velvetleaf | B | *Abutilon theophrasti* | C |
| Waterhemp, common | B | *Amaranthus rudis* | C |
| Waterhemp, tall | B | *Amaranthus tuberculatus* | C |
| Witchgrass | G | *Panicum capillare* | C |

[1]B=Broadleaf, G=Grass, S=Sedge

Thoroughly till soil or make an application of a burndown herbicide to destroy germinating and emerged weeds. Plant crop into moist soil immediately after tillage.

If a significant rainfall does not occur within 7 days after application, weed control may be decreased. If irrigation is available, apply 1/2 to 1 inch of water. If irrigation is not available, a uniform shallow cultivation is recommended as soon as weeds emerge.

**Table 2. Weeds Controlled or Partially Controlled by Early Postemergence Applications of SYN-A17227A Herbicide**

| Common Name | Weed Type[1] | Scientific Name | C = Control PC = Partial Control |
|---|---|---|---|
| Amaranth, Palmer | B | *Amaranthus palmeri* | C |
| Amaranth, Powell | B | *Amaranthus powellii* | C |
| Bedstraw, catchweed | B | *Galium aparine* | PC |
| Beggarweed, Florida | B | *Desmodium tortuosum* | C |
| Buckwheat, wild | B | *Polygonum convolvulus* | C |
| Buffalobur | B | *Solanum rostratum* | C |
| Carpetweed | B | *Mollugo verticillata* | C |
| Chickweed, common | B | *Stellaria media* | C |
| Cocklebur, common | B | *Xanthium strumarium* | C |
| Crabgrass, large | G | *Digitaria sanguinalis* | C[2] |
| Dandelion | B | *Taraxacum officinale WEBER* | PC |
| Deadnettle, purple | B | *Lamium purpureum* | C |
| Devil's-claw | B | *Proboscidea louisianica* | C |
| Galinsoga | B | *Galinsoga parviflora* | C |
| Hemp | B | *Cannabis sativa* | C |
| Henbit | B | *Lamium amplexicaule* | C |
| Horsenettle | B | *Solanum carolinense* | C |
| Horseweed (marestail) | B | *Conyza canadensis* | C |
| Jimsonweed | B | *Datura stramonium* | C |
| Kochia | B | *Kochia scoparia* | C |

| Common Name | Weed Type[1] | Scientific Name | C = Control PC = Partial Control |
|---|---|---|---|
| Lambsquarters, common | B | *Chenopodium album* | C |
| Mallow, Venice | B | *Hibiscus trionum* | C |
| Marestail | B | *Hippuris vulgaris* | C |
| Morningglory, ivyleaf/ entireleaf | B | *Ipomoea hederacea.* | C |
| Mustard, wild | B | *Brassica kaber* | C |
| Nightshade, black | B | *Solanum nigrum* | C |
| Nightshade, eastern black | B | *Solanum ptycanthum* | C |
| Nightshade, hairy | B | *Solanum sarachoides* | C |
| Nutsedge, yellow | S | *Cyperus esculentus* | PC |
| Pigweed, redroot | B | *Amaranthus retroflexus* | C |
| Pigweed, smooth | B | *Amaranthus hybridus* | C |
| Pokeweed | B | *Phytolacca americana* | C |
| Potatoes, volunteer | B | *Solanum* spp. | C |
| Purslane, common | B | *Portulaca oleracea* | C |
| Pusley, Florida | B | *Richardia scabra* | C |
| Radish, wild | B | *Raphanus raphanistrum* | C |
| Ragweed, common | B | *Ambrosia artemisiifolia* | C |
| Ragweed, giant | B | *Ambrosia trifida* | C |
| Sesbania, hemp | B | *Sesbania exaltata* | C |
| Shepherd's-purse | B | *Capsella bursa-pastoris* | C |
| Sida, prickly | B | *Sida spinosa* | C |
| Signalgrass, broadleaf | G | *Brachiaria platyphylla* | C[2] |
| Smartweed, ladysthumb | B | *Polygonum persicaria* | C |
| Smartweed, Pennsylvania | B | *Polygonum pensylvanicum* | C |

*continued…*

**Table 2. Weeds Controlled or Partially Controlled by Early Postemergence Applications of SYN-A17227A Herbicide *(continued)***

| Common Name | Weed Type[1] | Scientific Name | C = Control PC = Partial Control |
|---|---|---|---|
| Sunflower, common | B | *Helianthus annus* | C |
| Thistle, Canada | B | *Cirsium arvense* | C |
| Velvetleaf | B | *Abutilon theophrasti* | C |
| Waterhemp, common | B | *Amaranthus rudis* | C |
| Waterhemp, tall | B | *Amaranthus tuberculatus* | C |

[1]B=Broadleaf, G=Grass, S=Sedge

[2]Apply before the weed exceeds 2 inches in height.

SYN-A17227A Herbicide will not provide consistent control of emerged grass weeds.

A tank mix of AAtrex® with SYN-A17227A Herbicide can provide control of certain emerged annual grass weeds. Refer to the AAtrex label for weeds controlled and other restrictions.

## ROTATIONAL CROPS

When rotating crops following an application of SYN-A17227A Herbicide.

- Field corn, field seed corn, field silage corn, sweet corn, yellow popcorn, and grain sorghum (treated with a seed protectant that is effective for safening *S*-metolachlor to sorghum) may be replanted immediately if crop is lost. Do not reapply SYN-A17227A Herbicide.
- Wheat, barley, or rye may be planted 4½ months following application.
- If SYN-A17227A Herbicide is applied after June 1, rotating to crops other than corn (all types) or grain sorghum the next spring may result in crop injury.
- The following rotational interval applies only to areas west of highway 83 in the state of Nebraska: If SYN-A17227A Herbicide was applied to ground that was under center pivot irrigation and the soil pH is greater than 6.5, dry beans can be planted 10 months following application.
- Do not rotate to crops other than corn (all types), cotton, small grain cereals, soybeans, sorghum or peanuts the spring following application of SYN-A17227A Herbicide.

- Injury may occur to soybeans planted the year following application on soils having a calcareous surface layer if additional atrazine or atrazine-containing products are used.
- In eastern parts of the Dakotas, KS, western MN, and NE, do not rotate to soybeans for 18 months following application if the combined atrazine rate applied was more than 2.0 lb a.i./A, or equivalent band application rate, or soybean injury may occur.
- In the High Plains and Intermountain areas of the West, where rainfall is sparse and erratic or where irrigation is required, use only when corn (all types) or sorghum is to follow field corn, or a crop of untreated corn (all types) or sorghum is to precede other rotational crops.
- For all other crops, wait 18 months.

## APPLICATION PROCEDURES

### Adjuvants

When an adjuvant is to be used with this product, the use of an adjuvant that meets the standards of the Chemical Producers and Distributors Association (CPDA) adjuvant certification program is recommended.

Where SYN-A17227A Herbicide is applied after the field corn has emerged, a non-ionic surfactant at 0.25% v/v (1 qt/100 gallons) may be used. A crop oil concentrate (COC) may also be used at a rate not to exceed 1% v/v (1 gal/100 gallons) or not more than the equivalent of 1 qt/A. The use of crop oil concentrate (COC) may result in temporary crop injury.

Do not use nitrogen based adjuvants (AMS or UAN) or methylated seed oil (MSO) with SYN-A17227A Herbicide when applied alone to emerged field corn, or when SYN-A17227A Herbicide is applied as a postemergence tank mixture with other products, unless directed for a specific tank mix on this label or as part of a supplemental SYN-A17227A Herbicide label.

Any of these adjuvants may be used at a preemergence or preplant timing, i.e. where the corn crop has not yet emerged to increase burndown activity on existing weeds. Do not apply SYN-A17227A Herbicide to emerged sweet corn, yellow popcorn or grain sorghum or severe crop injury may occur.

For SYN-A17227A Herbicide tank mixtures with Liberty® Herbicide or Ignite® applied to emerged field corn (LibertyLink® hybrids only), AMS may be added as directed on the Liberty or Ignite label. However, AMS should be the only adjuvant added to this tank mixture, or severe crop injury may occur.

### Ground Application

The spray tank must be clean, thoroughly rinsed and decontaminated before adding either SYN-A17227A Herbicide alone or with tank mix partners. If water is used as the carrier, use clean water.

Spray nozzles should be uniformly spaced, the same size and type, and should provide accurate and uniform application. Use spray nozzles that provide medium to coarse droplet size to avoid drift yet provide good coverage. Ensure that all in-line strainer and nozzle screens in the sprayer are 50-mesh or coarser. Use a pump that can maintain a pressure of at least 35-40 psi at the nozzles and provide proper agitation within the tank to keep the product dispersed. Lower pressures may be used with extended range or drift reduction nozzles as long as adequate coverage is maintained. Always ensure that agitation is maintained until spraying is completed, even if stopped for brief periods of time. If the agitation is stopped for more than 5 minutes, re-suspend the spray solution by running on full agitation prior to spraying.

Apply SYN-A17227A Herbicide preemergence in a spray volume of 10-80 gallons/A.

For postemergence applications of SYN-A17227A Herbicide, apply in a spray volume of 10-30 gallons/A. Good spray coverage is essential for optimum postemergence weed control. Spray boom height for broadcast over-the-top applications should be based on the height of the crop – at least 15 inches above the crop canopy, but only high enough to give uniform coverage. When weed foliage is dense, apply SYN-A17227A Herbicide in a minimum spray volume of 20 gallons/A. Flat fan nozzles of 80° or 110° are recommended for optimum postemergence coverage. Do not use floodjet nozzles or controlled droplet application equipment for postemergence applications. Nozzles may be angled forward 45° to enhance penetration of the crop and provide better coverage.

## Cleaning Equipment after Application

Special attention must be given to cleaning equipment before spraying a crop other than field corn. Mix only as much spray solution as needed.

1. Flush tank, hoses, boom, and nozzles with clean water.
2. Prepare a cleaning solution of 1 gallon of household ammonia per 25 gallons of water. Many commercial spray tank cleaners may be used.
3. Use a pressure washer to clean the inside of the spray tank with this solution. Take care to wash all parts of the tank, including the inside top surface. If a pressure washer is not available, completely fill the sprayer with the cleaning solution to ensure contact of the cleaning solution with all internal surfaces of the tank and plumbing. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system.
4. Flush hoses, spray lines, and nozzles for at least 1 minute with the cleaning solution.
5. Dispose of rinsate from steps 1-3 in an appropriate manner.
6. Repeat steps 2-5.
7. Remove nozzles, screens, and strainers and clean separately in the ammonia solution after completing the above procedures.
8. Rinse the complete spraying system with clean water.

# SPRAY DRIFT MANAGEMENT

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of equipment and weather related factors determine the potential for drift. The applicator is responsible for considering these factors when making an application decision.

Do not apply when weather conditions may cause drift to non-target areas. Drift may result in injury to adjacent crops and vegetation. To avoid spray drift, DO NOT apply when the wind speed is greater than 10 mph or during periods of temperature inversions.

## Information on Droplet Size

The most effective way to reduce spray drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions.

## Controlling Droplet Size

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturers recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles.

## Application Height

Applications should be made at the lowest height above the target area that still provides uniform coverage of the target. Making applications at the lowest yet effective height reduces exposure of droplets to wind.

## Wind

Drift potential is lowest between wind speeds 10 mph or less. However, many factors, including droplet size, pressure, and equipment type determine drift potential at any given wind speed. **Note:** Local terrain can influence wind patterns.

Leave a sufficient buffer downwind of the application to avoid drift to sensitive crops. This buffer may be untreated corn rows or field border species maintained for this purpose. The width of the buffer needed for a specific application will depend on the wind speed, distance to sensitive crops, and application equipment parameters.

### Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates, indicates good vertical air mixing.

### Sensitive Areas

SYN-A17227A Herbicide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

## MIXING PROCEDURES

The spray tank must be clean, thoroughly rinsed and decontaminated before adding either SYN-A17227A Herbicide alone or with tank mix partners. If water is used as the carrier, use clean water.

### Carrier for Preemergence Applications

Either clean water or liquid fertilizers, excluding suspension fertilizers, may be used as carriers for preemergence applications. If fluid fertilizers are used, a compatibility test must be done. See Compatibility Test section for compatibility testing. Even if SYN-A17227A Herbicide is physically compatible with a fluid fertilizer, constant agitation is necessary to maintain a uniform mixture during application.

### Carrier for Postemergence Applications

Use only clean water as the carrier when applying SYN-A17227A Herbicide after field corn emergence. Do not apply SYN-A17227A Herbicide to emerged sweet corn or yellow popcorn or grain sorghum.

### SYN-A17227A Herbicide Applied Alone

When SYN-A17227A Herbicide is used alone, add the recommended amount of SYN-A17227A Herbicide to the spray tank when the tank is half full of the carrier, then add the rest of the water or fluid fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform mixture.

### SYN-A17227A Herbicide Applied in Tank Mixtures

Refer to the sections on this label for recommended tank mixes. Always refer to labels of the tank mix partners for mixing directions and precautions. Do not exceed label dosage rates, nor combined maximum seasonal doses for mesotrione, *S*-metolachlor, or atrazine. This product cannot be mixed with any product bearing a label prohibition against such mixing. If a tank mixture is used, a compatibility test must be done. See Compatibility Test section for details on the procedure for such a test.

If the tank mix partner is compatible, fill the tank half full of the carrier. Start and continue agitation throughout mixing and spraying. All return lines to the spray tank must discharge below the liquid level. Prepare the components and add in the following order:

1. If a wettable powder or dry flowable formulation is used, make a slurry with water and add it slowly through the screen into the tank. Agitate during the procedure.
2. If a flowable formulation is used, add slowly through screen into the tank. Mixing and compatibility may be improved when a dry flowable is diluted with water before adding to the tank.
3. Add SYN-A17227A Herbicide.
4. Add any other tank mix products next with emulsifiable concentrates added last.
5. Add an adjuvant last, if needed.
6. Complete filling the sprayer tank and continue agitation. Apply as soon as possible after spray mixture is prepared. Do not leave mixture in spray tank overnight without agitation or unattended.

## TANK MIX COMPATIBILITY TEST

A compatibility test is recommended before tank mixing to ensure compatibility of SYN-A17227A Herbicide with other pesticides. The following test assumes a spray volume of 25 gallons/A. For other spray volumes, make appropriate changes in the ingredients.

**Note:** Nitrogen solutions or complete liquid fertilizers, excluding suspension fertilizers, may replace all or part of the water in the spray. Because liquid fertilizers vary, even within the same analysis, **always check compatibility with pesticide(s) before use.** Incompatibility of tank mixtures is more common with mixtures of fertilizer and pesticides.

### Test Procedure

1. Add 1.0 pt of carrier (fertilizer or water) to each of two 1 qt jars with tight lids. **Note:** Use the same source of water that will be used for the tank mix and conduct the test at the temperature the tank mix will be applied.

2. To one of the jars, add 1/4 tsp or 1.2 milliliters of a compatibility agent approved for this use, such as Compex or Unite (1/4 tsp. is equivalent to 2.0 pt/100 gallons spray). Shake or stir gently to mix.
3. To both jars, add the appropriate amount of pesticide(s) in their relative proportions based on recommended label rates. If more than one pesticide is used, add them separately with dry pesticides first, flowables next, and emulsifiable concentrates last. After each addition, shake or stir gently to thoroughly mix.
4. After adding all ingredients, put lids on and tighten, and invert each jar ten times to mix. Let the mixtures stand 15-30 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the two jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (a) slurry the dry pesticide(s) in water before addition, or (b) add 1/2 the compatibility agent to the fertilizer or water and the other 1/2 to the emulsifiable concentrate or flowable pesticide before addition to the mixture. If incompatibility is still observed, do not use the mixture.
5. After compatibility testing is complete, dispose of any pesticide wastes in accordance with the **Storage and Disposal** section in this label.

## CORN USE DIRECTIONS

SYN-A17227A Herbicide is recommended for preemergence use for control of most annual grass and broadleaf weeds in field corn, field corn seed corn, field corn silage, sweet corn and yellow popcorn. SYN-A17227A Herbicide may also be applied early postemergence for the control of broadleaf weeds in field corn, field corn seed corn and field corn silage. Do not apply SYN-A17227A Herbicide to emerged sweet corn or yellow popcorn or severe crop injury will occur.

See Table 1 and 2 for a list of weeds controlled. SYN-A17227A Herbicide will not consistently control grasses that are emerged at the time of application.

**SYN-A17227A Herbicide Use Rate:** If soil organic matter content is less than 3%, use 2.5 qt of SYN-A17227A Herbicide per acre. If soil organic matter content is 3% or greater, use 3 qt of SYN-A17227A Herbicide per acre. Do not apply more than 14 days prior to planting or to field corn higher than 12 inches tall. SYN-A17227A Herbicide is not recommended on soils with greater than 10% organic matter, or poor weed control may result.

### SYN-A17227A HERBICIDE APPLIED ALONE

**Early Preplant:** SYN-A17227A Herbicide may be applied up to 14 days prior to planting.

**Preemergence Surface:** SYN-A17227A Herbicide may be applied to the soil surface as a broadcast or banded application.

**Banding Preemergence:** SYN-A17227A Herbicide may be applied in a 10-15 inch band after corn planting but prior to corn emergence.

**Band Applications:** For band applications, using row and band width measurements in inches, calculate the amount to be applied per acre as follows:

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Rate per acre for a broadcast treatment} = \text{Amount needed per acre}$$

**Early Postemergence:** SYN-A17227A Herbicide may be applied after field corn emergence. See the **"Adjuvants"** section of this label for adjuvant recommendations. Do not apply early postemergence to field corn in liquid fertilizer or severe crop injury may occur. Apply this treatment to small broadleaf weeds (less than 3 inches tall). Occasional field corn leaf burn may result, but this will not affect later growth or corn yield. Do not apply SYN-A17227A Herbicide to emerged sweet corn or yellow popcorn or severe crop injury may occur. Postemergence applications to field corn must be made before crop reaches 12 inches in height.

This product will not provide consistent control of emerged grass weeds. For control of emerged grass weeds a grass herbicide tank mix may be required (see tank mix section of this label). Tank mixes of AAtrex can improve control of emerged annual grass and broadleaf weeds Refer to the AAtrex label for weeds controlled and use restrictions.

If Bicep II Magnum®, Bicep Lite II Magnum®, AAtrex (atrazine), Dual Magnum®, or Dual II Magnum® alone or in tank mixtures have been applied early preplant, preplant surface, preplant incorporated, or preemergence, limit the SYN-A17227A Herbicide early post application to not exceed a total of 2.5 lb of active ingredient of atrazine or 3.75 lb of *S*-metolachlor active per acre, or illegal residues may result.

**Split Application:** SYN-A17227A Herbicide may be applied as a split application in field corn, field corn seed corn, and field corn silage. For a split application program, apply 1. 5–2.0 qt/A of SYN-A17227A Herbicide prior to crop emergence followed by a second SYN-A17227A Herbicide application at a rate of 1.0–1.5 qt/A as a post application after corn emergence. The total amount of SYN-A17227A Herbicide applied in the split application program cannot exceed 2.5 qt/A in soils with <3% OM and cannot exceed 3.0 qt/A in soils with ≥3% OM. Refer to the **Early Postemergence** section above for instructions on post emergence applications.

## SYN-A17227A HERBICIDE TANK MIX COMBINATIONS

### Use of Spray Adjuvants with Tank Mixtures

When SYN-A17227A Herbicide is used as a preemergence herbicide, and before weeds have emerged, spray adjuvants have little or no influence on performance. However, in burndown situations where the weeds have emerged and the corn has not, an adjuvant may be used with SYN-A17227A Herbicide applied alone or when applied in tank mixture with a burndown herbicide as allowed on the individual product labels. Use only those adjuvants approved for agricultural crop use. See the **"Adjuvants"** section under **"Application Procedures"** for further instructions.

### Burndown Tank Mixtures for Reduced Tillage Situations

In reduced or no-till corn and before the crop has emerged, SYN-A17227A Herbicide tank mixes with Gramoxone Inteon or Touchdown brands (or other glyphosate products such as Roundup brands) will burndown emerged weeds. For best results, tank mixes of SYN-A17227A Herbicide plus Gramoxone Inteon should be applied to emerged weeds that are 1-6 inches in height. Consult the Gramoxone Inteon, Touchdown brand, or glyphosate product label for further information on weeds controlled and application timings.

### Preemergence Tank Mixtures Applied Before Corn Emergence

The tank mix partners listed in Table 3 may be used in either conventional, reduced, or no-till systems and be applied by the same methods and at the same timings as SYN-A17227A Herbicide unless otherwise specified in the tank mix product label. Follow all tank mix product labels for use rates and restrictions. Perform a compatibility test prior to spraying the tank mix application. Tank mixtures with 2,4-D are allowed, but should only be done with extreme care with regard to ensuring compatibility before mixing a load. 2,4-D products, and even batches, vary greatly with regard to compatibility and should be checked each time a water or carrier source, water or carrier temperature, product source, or tank mixture recipe is changed.

### Table 3: Tank Mixtures for Preemergence Applications with SYN-A17227A Herbicide

| Tank Mix | Rate (Max.) | Objective |
|---|---|---|
| AAtrex or other solo Atrazine products | 0.5-1.25 lb a.i./A | Improved broadleaf and grass weed control |
| Princep® | 0.5-1.3 lb a.i./A | Improved broadleaf and grass weed control |
| Gramoxone Inteon | Refer to product label | Burndown existing weeds |
| Touchdown brands | Refer to product label | Burndown existing weeds |
| Roundup or other glyphosate brands | Refer to product label | Burndown existing weeds |
| Warrior® | Refer to product label | To control insects, such as cutworm |

## Early Postemergence Tank Mixtures Applied After Corn Emergence

The tank mix partners listed in Table 4 may be used in conventional, reduced or no-till systems and can be applied by the same methods and at the same timings as SYN-A17227A Herbicide unless otherwise specified in the tank mix product label. Follow all tank mix product labels for use rates and restrictions. Perform a compatibility test prior to spraying the tank mix application. Do not apply SYN-A17227A Herbicide tank mixtures to emerged sweet corn or yellow popcorn.

### Table 4: Tank Mixtures for Early Postemergence Weed Control with SYN-A17227A Herbicide

| Tank Mix[1] | Rate (Max.) | Objective |
|---|---|---|
| AAtrex or other solo Atrazine products | 0.5-1.25 lb a.i./A | Improved broadleaf and annual grass weed control |
| Warrior | Refer to product label | To control insects, such as cutworm |
| Accent® | Refer to product label | Emerged grass control |
| Basis® | Refer to product label | Emerged grass control |
| Steadfast® | Refer to product label | Emerged grass control |
| Steadfast ATZ® | Refer to product label | Emerged grass control |

[1] Consult the **"Adjuvant"** section of this label for recommendations when applying SYN-A17227A Herbicide alone or in tank mixture to emerged field corn.

## SYN-A17227A Herbicide Programs with Glyphosate in Glyphosate Tolerant Corn

SYN-A17227A Herbicide may be applied early postemergence at a rate down to 2 qt/A in tank mixture with a solo glyphosate product (e.g. Touchdown or Roundup brands) that is registered for use over-the-top in glyphosate tolerant field corn (e.g. Roundup Ready or Agrisure™ GT Corn). To minimize weed competition with the crop, target the application of this mixture to weeds in the 1 to 2 inch range. Do not apply this mixture to corn that is greater than 12 inches tall. If the glyphosate product has a built-in adjuvant system (i.e. the product label does not ask for additional adjuvant), only spray-grade ammonium sulfate (AMS) at 8.5 lb/100 gallons should be added to this mixture. If the glyphosate product label calls for an adjuvant in addition to AMS, add a non-ionic surfactant (NIS) at 0.25% v/v and AMS to this spray mixture. Do not add urea ammonium nitrate (UAN), crop oil concentrate (COC), or methylated seed oil (MSO) type adjuvants to these mixtures, or crop injury may occur. Follow all directions for use and restrictions on the glyphosate product label.

Alternatively, SYN-A17227A Herbicide may be applied preemergence at a rate down to 2 qt/A as part of a two-pass weed control system when followed by a postemergence application of a glyphosate based product in glyphosate tolerant corn (e.g. Roundup Ready or Agrisure GT Corn). When used in this way, SYN-A17227A Herbicide will provide reduced competition of the weeds listed in Table 1 for a period of 30 or more days, thus improving the timing flexibility and effectiveness of the glyphosate based product application. Follow all directions for use and restrictions on the glyphosate product label.

## SYN-A17227A Herbicide Programs for LibertyLink Corn

SYN-A17227A Herbicide may be applied early postemergence at a rate down to 2 qt/A in tank mixture with Liberty or Ignite and applied over-the-top in field corn designated as LibertyLink. To minimize weed competition with the crop, target the application of this mixture to weeds in the 1 to 2 inch range. Do not apply this mixture to corn that is greater than 12 inches tall. Ammonium sulfate (AMS) may be added as a spray adjuvant as directed on the Liberty or Ignite label. However, AMS should be the only adjuvant added to this tank mixture. Do not add urea ammonium nitrate (UAN), crop oil concentrate (COC), non-ionic surfactants (NIS), or methylated seed oil (MSO) type adjuvants to these mixtures, or crop injury may occur. Follow all directions for use and restrictions on the Liberty or Ignite product label.

Alternatively, SYN-A17227A Herbicide may be applied preemergence at a rate down to 2 qt/A as part of a two-pass weed control system when followed by a postemergence application of Liberty or Ignite in field corn designated as LibertyLink. When used in this way, SYN-A17227A Herbicide will provide reduced competition of the weeds listed in Table 1 for a period of 30 or more days, thus improving the timing flexibility and effectiveness of the Liberty application. Follow all directions for use and restrictions on the Liberty or Ignite product label.

## GRAIN SORGHUM USE DIRECTIONS

SYN-A17227A Herbicide can be applied preplant non-incorporated (up to 21 days before planting) up through preemergence for weed control in sorghum. The seed must be treated with a protectant that is effective for safening *S*-metolachlor to sorghum. Applying SYN-A17227A Herbicide to sorghum that is not seed protected for applications to *S*-metolachlor will result in crop death. For a listing of weeds controlled or partially controlled, see Table 1.

Apply SYN-A17227A Herbicide at a rate of 2.5 qt/A as a broadcast non-incorporated spray beginning at 21 days before planting and up through planting but prior to sorghum emergence. Applying SYN-A17227A Herbicide less than 7 days before sorghum planting will increase the risk of crop injury, especially if irrigation or rainfall is received following the application. Injury symptoms include temporary bleaching of newly emerging sorghum leaves or in extreme conditions, stunting or partial stand loss. Applying SYN-A17227A Herbicide more than 7 days (but not more than 21) prior to sorghum planting will reduce the risk of crop injury.

If SYN-A17227A Herbicide is applied prior to planting, minimize disturbance of the herbicide treated soil barrier during the planting process in order to lessen the potential for poor weed control in the disturbed soil zone.

SYN-A17227A Herbicide may also be applied as a split application to grain sorghum. For a split application program, apply 1.25–1.5 qt/A of SYN-A17227A Herbicide as a non-incorporated early preplant (7-21 days before planting) followed by a second SYN-A17227A Herbicide application at a rate of 1.0–1.25 qt/A as a preemergence application prior to sorghum emergence. The total amount of SYN-A17227A Herbicide applied in the split application program cannot exceed 2.5 qt/A.

If weeds are present at the time of application, it is recommended that a nonionic surfactant (NIS) type adjuvant at a rate of 0.25% v/v **or** a crop oil concentrate at a rate of 1% v/v be added to the spray solution. In addition to COC or NIS, a spray grade UAN at a rate of 2.5% v/v **or** AMS at a rate of 8.5 lb/100 gallons of spray may be added to the solution for improved control of emerged weeds. If weeds are not emerged at the time of application, no additives are recommended.

### Restrictions:

1. Do not apply more than 2.5 quarts of SYN-A17227A Herbicide per growing season.
2. Do not apply SYN-A17227A Herbicide to sorghum grown on sandy soils (sand, sandy loam or loamy sand).
3. Do not apply SYN-A17227A Herbicide to emerged grain sorghum or severe injury will occur.
4. Do not use SYN-A17227A Herbicide in the production of forage sorghum, sweet sorghum (sorgo), sudangrass, sorghum-sudangrass hybrids, or dual purpose sorghum.
5. Sorghum seed must be treated with Concep® III herbicide safener prior to planting, or severe crop injury may occur.
6. In the state of Texas, do not apply SYN-A17227A Herbicide to sorghum grown South of Interstate 20 (I-20) or East of Highway 277.

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

### Pesticide Storage

Keep container tightly closed when not in use. Do not store near seeds, fertilizers, or foodstuffs. SYN-A17227A Herbicide can be stored at temperatures as low as -10°F. Keep away from heat and flame.

Ground water contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

### Pesticide Disposal

Open dumping is prohibited. Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Rinse spray equipment. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of as described above, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

### Container Handling [less than 5 gallons]

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities by burning. If burned, stay out of smoke.

For minor spills, leaks, etc. follow all precautions on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night. If the container is damaged and leaking or material has been spilled follow these procedures:

1. Cover spill with absorbent material.
2. Sweep into disposal container.
3. Wash area with detergent and water and follow with clean water rinse.
4. Do not allow to contaminate water supplies.
5. Dispose of according to instructions.

## Container Handling [greater than 5 gallons]

Refillable container. Refill this container with SYN-A17227A Herbicide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

For minor spills, leaks, etc. follow all precautions on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night. If the container is damaged and leaking or material has been spilled follow these procedures:

1. Cover spill with absorbent material.
2. Sweep into disposal container.
3. Wash area with detergent and water and follow with clean water rinse.
4. Do not allow to contaminate water supplies.
5. Dispose of according to instructions.

**CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!**

This product is protected by U.S. Patent Nos. 5,006,158 and 5,698,493. Other patents pending. No license granted to prepare any tank mixtures other than those expressly provided herein.

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For non-emergency information (e.g., current product information), call Syngenta Crop Protection at 1-800-334-9481

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