

# **ATRAZINE + GLYPHOSATE TANK MIXTURE FOR EARLY POSTEMERGENT USE IN CORN TO CONTROL OF BROADLEAF AND GLYPHOSATE-RESISTANT WEEDS - ARKANSAS, ILLINOIS, INDIANA, IOWA, KANSAS, KENTUCKY, MICHIGAN, MISSOURI, OHIO, SOUTH DAKOTA AND TENNESSEE**

## General Information

### PRODUCT INFORMATION

#### CORVUS Herbicide:

- is a selective herbicide for the control of important broadleaf and grass weeds in field corn, seed corn, corn grown for silage.
- is formulated as a suspension concentrate containing 2.63 pounds of active ingredients per gallon [0.75 lbs Thiencarbazone-methyl a.i., 1.88 lbs Isoxaflutole a.i.].
- has multiple modes of actions: the first, inhibiting of enzymes that are essential to the protection of chlorophyll in plant leaves, and a second blocking the plant's synthesis of certain amino acids/protein synthesis.
- is effective in controlling glyphosate-, triazine-, PPO-, ALS- and auxin- herbicide resistant populations of weed species.

### APPLICATION INSTRUCTIONS

#### CORVUS Herbicide:

- may be used in either conventional, conservation tillage, or no-till crop management systems.
- may be applied preplant [surface-applied or incorporated (less than 2" deep)], preemergence or early postemergence.
- will provide its most effective weed control when applied and subsequently moved into the soil by rainfall, sprinkler irrigation or mechanical tillage prior to weed

emergence.

- may be tank mixed or applied in sequential applications with other herbicides to control additional weeds
- may be applied using either water or sprayable grade fluid fertilizer as a liquid carrier.
- may be applied by ground application only. Aerial application is not permitted.
- may be applied as either a broadcast spray or as a band application.

Refer to the 'Specific Use Directions' section of the label for application timing information specific from each registered use of CORVUS Herbicide.

#### Ground Application (Banding)

Banding application equipment must be carefully calibrated to prevent crop exposure to concentrations of CORVUS Herbicide that exceed the labeled rate for the soil type. It is critical to insure that the calibrated band width equates to actual band width realized in field applications. Bands actually delivered at a width narrower than targeted will concentrate the product and increase the risk for crop response.

Even flat spray tip nozzles and a band width of no less than 12" must be used. Apply a broadcast equivalent rate and volume per acre.

## Ground Application (Broadcast)

Apply CORVUS Herbicide either alone or in tank mixtures in a minimum of 10 gallons of spray mixture per acre. Uniform, thorough spray coverage is important to achieve consistent weed control. Keep the spray boom at the lowest possible spray height above the target surface. Refer to the nozzle manufacturer's recommendations for proper nozzle, pressure setting and sprayer speed for optimum product performance and minimal spray drift. Uneven application, sprayers not properly calibrated, or improper incorporation may decrease the level of weed control and/or increase the level of adverse crop response. Maintain a constant ground speed while applying this product to ensure proper distribution. Do not overlap spray patterns beyond equipment manufacturers recommendations as excessive rates may result in adverse crop responses and potential stand loss. Maintain adequate agitation at all times, including momentary stops.

## USE RESTRICTIONS

- Use on coarse textured soils with a shallow water table – All Registered Uses:
- In the states of AL, AR, CO, DE, GA, KS, KY, LA, MD, MO, MS, NC, NM, OK, SC TN, TX, VA, and WV if the water table (i.e, level of saturation) is less than 25 feet below the ground surface, do not use on soils meeting all three of the following criteria. If the water table depth is unknown, do not use on any of the soils meeting all three of the following criteria. If less than three criteria are met or the water table is greater than 25 feet below the ground surface, there is no restriction against application:
  - The surface soil texture is loamy sand or sand
  - The subsoil texture is loamy sand or sand
  - The average organic matter (in the upper 12 inches) is less than 2% by weight
- In the states of IA, IL, IN, MI, MT, ND, NE, NJ, OH, PA, SD, and WY, if the water table (i.e, level of saturation) is less than 25 feet below the ground surface, do not use on soils meeting all three of the following criteria. If the water table depth is unknown, do not use on any of the soils meeting all three of the following criteria. If less than three criteria are met or the water table is greater than 25 feet below the ground surface, there is no restriction against application:

- The surface soil texture is sandy loam, loamy sand or sand
- The subsoil texture is loamy sand or sand
- The average organic matter (in the upper 12 inches) is less than 2% by weight
- Do not apply more than 5.6 fluid oz of CORVUS Herbicide per 365 day period or exceed the maximum labeled rate for any given soil type.
- Do not apply this product using aerial application equipment.
- Do not apply this product through any type of irrigation system.
- Do not use flood or furrow irrigation to apply, activate or incorporate this product.
- Do not allow cover crops in fields treated with CORVUS Herbicide to be grazed by livestock or harvested for food.
- To prevent off-site movement of soil containing this product to non-target areas, do not apply CORVUS Herbicide to areas receiving less than 15 inches of average annual precipitation unless supplemented to at least the equivalent of 15 inches of annual precipitation with irrigation water.
- In Minnesota, this product must only be used in accordance with the Minnesota Product Bulletin. The Minnesota Product Bulletin, which accompanies the sale and packaging of the product, must be in possession of the user at the time of pesticide application.
- In Wisconsin, this product must only be used in accordance with the Wisconsin Product Bulletin. The Wisconsin Product Bulletin, which accompanies the sale and packaging of the product, must be in possession of the user at the time of pesticide application.

Refer to the specific use directions and restrictions in each specific crop section.

#### USE PRECAUTIONS

- Application of CORVUS Herbicide at less than specified rates for the appropriate soil will only provide suppression of sensitive weeds.

#### RESISTANCE MANAGEMENT

Corvus Herbicide contains Group 27 & 2 Herbicides, i.e., an HPPD inhibitor (Group

27) and ALS/AHAS enzyme inhibitor (Group 2). A given weed population may contain or develop resistance to a herbicide after repeated use. Appropriate resistance-management strategies should be followed to mitigate or delay resistance. The following Integrated Weed Management Techniques are effective in reducing problems with herbicide resistant weed biotypes. It is best to use multiple practices to manage or delay resistance, as no single strategy is likely to be totally effective.

- Rotate crops. Crop rotation diversifies weed management.
- Rotate herbicide-tolerant traits. Alternate herbicide-tolerant (HT) traits and/or use HT trait stacks for more efficient rotation.
- Use multiple herbicide sites of action. Use tankmix partners and multiple SOAs during both the growing season and from year to year to reduce the selection pressure of a single SOA.
- Know your weeds, know your fields. Closely monitor problematic areas with difficult-to-control weeds or dense weed populations.
- Start with clean fields. Effective tillage or the use of a burndown herbicide program can control emerged weeds prior to planting.
- Stay clean – use residual herbicides. Regardless of tillage system, preemergence or early post-emergence soil-applied residual herbicides should be used when possible.
- Apply herbicides correctly. Ensure proper application, including timing, full use-rates and appropriate spray volumes.
- Control weed escapes. Consider spot herbicide applications, row wicking, cultivation or hand removal of weeds or other techniques to stop weed seed production and improve weed management.
- Zero tolerance – reduce the seed bank. Do not allow surviving weeds to set seed, which will help decrease weed populations from year to year and prevent major weed shifts.
- Clean equipment. Prevent the spread of herbicide-resistant weeds and their seeds.

Contact your local extension specialist, certified crop advisory and /or Bayer CropScience representative for additional resistance management or IPM recommendation. Also for more information on Weed Resistance Management, visit the Herbicide Resistance Action Committee (HRAC) on the web at <http://www.hracglobal.com>.

## COMPATIBILITY TESTING AND TANK MIX PARTNERS

### Compatibility

If CORVUS Herbicide is to be tank mixed with liquid fertilizers or other pesticides, compatibility should be tested prior to mixing. To test for compatibility, use a small container and mix a small amount (0.5 to 1 qt) of spray, combining all ingredients in the same ratio as the anticipated use. If any indications of physical incompatibility develop, do not use this mixture for spraying. Indications of incompatibility usually will appear within 5-15 minutes after mixing. Read and follow all parts of the label of each tank-mix product.

### Order of Mixing

CORVUS Herbicide may be used with other recommended pesticides, fertilizers, and micronutrients.

The proper mixing procedure for CORVUS Herbicide application with water or liquid fertilizer as a carrier:

1. Fill the spray tank 1/4 to 1/2 of the required volume of water or liquid fertilizer prior to the addition of CORVUS Herbicide.
2. Add the proper amount of CORVUS Herbicide, then add the rest of the water or liquid fertilizer to the desired level.
3. Maintain sufficient agitation to ensure a uniform spray mixture during application.
4. If CORVUS Herbicide is applied in a tank mixture with other pesticides, add CORVUS Herbicide to the spray tank first and ensure it is thoroughly dispersed before adding other pesticides.
5. Continue to fill the tank with carrier to the desired volume while agitating. Continue agitation during application to ensure a uniform spray mixture.

## RE-SUSPENDING SC PRODUCTS IN SPRAY SOLUTION

Like other suspension concentrates (SC's), CORVUS Herbicide will settle if left standing without agitation. If the spray solution is allowed to settle for one hour or more, reagitrate the spray solution for a minimum of 10 minutes before application.

## ROTATIONAL CROPS

Rotational crops vary in their response to low concentrations of CORVUS Herbicide remaining in the soil. The amount of CORVUS Herbicide that may be present in the soil depends on soil moisture, soil temperature, application rate, elapsed time since application and other environmental factors. When CORVUS Herbicide is used in combination with other products, always follow the most restrictive rotational crop requirements. The following rotational crops may be planted after applying CORVUS Herbicide.

In the event of crop failure: If the corn crop treated with CORVUS Herbicide is lost, only field corn and corn grown for silage may be replanted immediately. Do not make an additional application of CORVUS Herbicide.

## Cover Crops

Use of cover crops as a means of soil improvement, erosion control, weed and/or insect suppression, etc., following harvest of corn in the Fall is increasing. Planting of cover crops in fields treated with CORVUS Herbicide is allowed as long as these cover crops are not grazed by livestock nor harvested for food. Cover crops are to be tilled under or chemically controlled with burndown herbicides in the spring. Many cover crops can be planted within 90-120 days after application of CORVUS Herbicide. However, all potential cover crops have not been evaluated for tolerance to CORVUS Herbicide and significant injury may occur. Prior to seeding a cover crop, complete a successful field/small scale bioassay to provide an indication of the level of tolerance to the prior CORVUS Herbicide application. Refer to the "Field/Small Scale Bioassay" section. If used in tank mixtures with other herbicides, always follow the most restrictive label.

## Field/Small Scale Bioassay

A field/small scale bioassay must be completed before rotating to a cover crop other than those specified in the "Rotational Crop Restrictions" section of this label. To conduct an effective field bioassay, grow strips of the crop(s) you intend to grow the following season in a field previously treated with CORVUS Herbicide. The test strip

should be placed in a controlled area and should include low areas and knolls, and include variations in soil such as type and pH. Crop response to the bioassay will determine if the crop(s) grown in the test strips can be grown safely in the areas previously treated with CORVUS Herbicide.

For an effective small scale bioassay, collect uniform samples of all soil types from the CORVUS Herbicide-treated field (see example above for types of soil in the sample) and place the soil into a sturdy container. Plant the desired cover crop into the soil, apply water and place the container in a warm sunny area to allow germination and growth of the crop. Monitor growth of the cover crop over a three to four week period. If the crop emerges and grows normally, the risk to establish and grow the cover crop in the CORVUS Herbicide-treated field should be tolerable.

#### WEEDS CONTROLLED

CORVUS Herbicide applied as directed in this label will control or suppress the weeds listed below. Additional weeds may be controlled with tank mixtures or sequential applications (refer to the Tank Mix Instructions and Sequential Application Instructions sections of this label). Always refer to the tank mix partner labels for specific use rates and additional directions.

#### Limitations, Restrictions, and Exceptions

CORVUS Herbicide + Atrazine + Glyphosate tank for Early Postemergent use in corn to control of broadleaf and glyphosate-resistant weeds.

DISTRIBUTION AND USE ONLY IN THE STATES OF ARKANSAS, ILLINOIS, INDIANA, IOWA, KANSAS, KENTUCKY, MICHIGAN, MISSOURI, OHIO, SOUTH DAKOTA AND TENNESSEE

CORVUS Herbicide can be applied to corn in tank mixture with atrazine and glyphosate from spiking through the 2-leaf collar growth stage.

#### Product

CORVUS Herbicide + atrazine + glyphosate

#### Rate

3.33 to 4.5 fl oz/acre<sup>1</sup> + 0.5 lb ai/acre + 8-12 fl oz/acre of glyphosate

## Crop

Apply tank mixture to field corn from spike up to 2-leaf collar growth stage

## Weeds

For enhanced control of broadleaf and glyphosateresistant weeds

1 Refer to the Specific Use Directions table of the CORVUS Herbicide label for use rates by soil texture.

### Notes and Restrictions:

- For use only on glyphosate-tolerant corn.
- Early season crop response may be observed under certain environmental conditions.
- Do not use COC or MSO with CORVUS Herbicide applied to emerged field corn.
- Tank-mixtures with other herbicides or adjuvants are not recommended for early postemergence applications of CORVUS Herbicide.

## Method

[N.A.](#)

## Restricted Entry Interval

12 hours

## Timings

[N.A.](#)