# 264-1066



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY Washington, D.C. 20460

> OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

> > JAN 1 4 2013

Karen S. Cain Bayer CropScience LP 2 T. W. Alexander Drive, RTP, NC 27709

> Subject: Label Amendments removing the states of Minnesota and Wisconsin from labels Product name: Corvus Herbicide, Balance Flexx, Balance Pro EPA Reg. No: 264-1066, 264-1067, 264-600 Application Dated: January 11, 2013

Dear: Ms.Cain

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable.

Stamped copies of each of your labels are enclosed for your records. These labels supersede all previously accepted labels. You must submit one (1) copy of each of the final printed labels before you release the products for shipment. Products released for shipping after eighteen (18) months or the next printing from the date of this letter (which ever comes first) must bear the new revised label. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA §6(e). Your release for shipment of the product constitutes acceptance of these conditions.

If you have any questions, please contact Grant Rowland at 703-347-0254 or at Rowland.Grant@epa.gov.

Sincerely,

Kathryn Montague

Product Manager 23 Herbicide Branch Registration Division (7505P)

**RESTRICTED USE PESTICIDE** 

May injure (phytotoxic) susceptible non-target plants.

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. Commercial and certified applicators must ensure that all persons involved in these activities are informed of the precautionary statements.



# **CORVUS<sup>®</sup> Herbicide**

For weed control in field corn in the states of: Arkansas, Alabama, Colorado, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Missouri, Mississippi, Montana, Nebraska, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Virginia, Wyoming.

#### ACTIVE INGREDIENT:

Thiencarbazone-methyl: (Methyl 4-[[[(4,5-dihydro-3-methoxy-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amir thiophenecarboxylate)	
Isoxaflutole [5-cyclopropyl-4-(2-methylsulfonyl-4-trifluoromethylbenzoyl) isoxazole]	
OTHER INGREDIENTS:	
TOTAL:	100.0%

Thiencarbazone-methyl & Isoxaflutole Herbicide is formulated as a suspension concentrate that contains the following active ingredients per gallon: 0.75 pounds Thiencarbazone-methyl and 1.88 pounds Isoxaflutole

# E.P.A. Reg. No. 264-1066

E.P.A. Est. No.

# **KEEP OUT OF REACH OF CHILDREN** CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

For MEDICAL And TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577 For PRODUCT USE Information Call 1-866-99BAYER (1-866-992-2937).

#### **FIRST AID** Immediately call a poison control center or doctor for treatment advice. **IF SWALLOWED:** . Do not induce vomiting unless told to do so by a poison control center or doctor. . Have person sip a glass of water if able to swallow. . Do not give anything by mouth to an unconscious person. Hold eye open and rinse slowly and gently with water for 15-20 minutes. IF IN EYES: . Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. . Call a physician if irritation persists. . IF ON SKIN OR Take off contaminated clothing. . **CLOTHING:** Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice NOTE TO PHYSICIAN: No specific antidote is available. All treatments should be based on observed signs and symptoms of distress in the patient. Overexposure to materials other than this product may have occurred. Have the product container or label with you when calling a poison control center or doctor or going for treatment. DILL JAN 1 4 2013

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# PRECAUTIONARY STATEMENTS

# CAUTION HAZARD TO HUMANS AND DOMESTIC ANIMALS

Harmful if swallowed or absorbed through the skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. **PERSONAL PROTECTIVE EQUIPMENT (PPE)** 

Some of the materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

Applicators and other handlers must wear: Long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride, shoes plus socks and protective eye wear. When mixing/loading or cleaning equipment, wear a chemical resistant apron in addition to the other required PPE. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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.

# ENGINEERING CONTROL STATEMENT

When handlers use closed systems, enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

# USER SAFETY RECOMMENDATIONS

**Users should:** Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove Clothing/Personal Protective Equipment 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

Drift or runoff may adversely affect non-target plants. Drift and runoff may be hazardous to aquatic organism in neighboring areas. 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 washwaters or rinsate.

Do not apply when weather conditions favor drift from treated areas. Do not use the same spray equipment for other purposes unless thoroughly cleaned. Do not contaminate water used for irrigation or domestic purposes.

CORVUS Herbicide contains isoxaflutole which is known to leach through soil into shallow ground water under certain conditions as a result of agricultural use. Use of CORVUS Herbicide in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

This product can contaminate surface water through spray drift. Under some conditions, product residues may also have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas over-laying 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 over-laying 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 loading of these chemicals from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

In fields having sands, loamy sands and sandy loam soils, special care should be taken not to over-irrigate since substantial overirrigation promotes the leaching of chemicals.

This pesticide is toxic to some plants at very low concentrations. Non-target plants may be adversely affected if the pesticide is allowed to drift from areas of application. Exposure to isoxaflutole residues may injure or kill susceptible plants. Symptoms of phytotoxicity as a result of exposure to isoxaflutole include whitening or chlorosis of the foliage of affected plants. Cotton is particularly susceptible to isoxaflutole; therefore, exposure of cotton to isoxaflutole residues may affect cotton yield. To prevent damage to crops and other desirable plants, read and follow all directions and precautions on this label before using.

The chemicals in this product have properties and characteristics associated with chemicals detected in ground water. These chemicals may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow. This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff, according to the pesticide's mean soil partition coefficient (Kd) for several days after application.

This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing or washing of 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 washwater and rainwater 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 exclude completely precipitation from contact shall be of sufficient capacity to contain at a minimum 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 specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Product must be used in a manner which will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

#### ENDANGERED SPECIES PROTECTION REQUIREMENTS:

This product may have effects on federally listed threatened or endangered species or their critical habitat in some locations. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the county or parish in which you are applying the pesticide. To determine whether your county or parish has a Bulletin, and to obtain that Bulletin, consult http://www.epa.gov/espp/, or call 1-800-447-3813 no more than 6 months before using this product. Applicators must use Bulletins that are in effect in the month in which the pesticide will be applied. New Bulletins will generally be available from the above sources 6 months prior to their effective dates.

#### PHYSICAL AND CHEMICAL HAZARDS

Do not use or store near heat or open flame.

# DIRECTIONS FOR USE

#### It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read entire label before using 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 same area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticides.

# 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 intervals. 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 12 hours.

PPE required 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 or water, is coveralls over long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material, socks plus chemical resistant footwear and protective eye wear.

### PRODUCT INFORMATION

CORVUS<sup>®</sup> Herbicide 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.].

CORVUS Herbicide also contains 1.25 pounds per gallon of the new corn safener Cyprosulfamide.

CORVUS Herbicide is a selective herbicide for control of important broadleaf and grass weeds infesting field corn, seed corn, and corn grown for silage.

CORVUS Herbicide may be used in either conventional, conservation or no-tillage crop management systems and may be applied by ground preplant (surface-applied or incorporated), preemergence, or early postemergence herbicide.

CORVUS Herbicide 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.

CORVUS Herbicide 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. CORVUS Herbicide is effective in controlling glyphosate, triazine and plant growth regulant herbicide resistant populations of weed species which are listed in the "Weed Species Control" tables below on this label, and/or ALS-inhibitor resistant populations of weed species on which isoxaflutole is effective and are listed in the "Weed Species Control" tables below on this label. CORVUS Herbicide may be applied using either water or sprayable grade fluid fertilizer as a liquid carrier.

CORVUS Herbicide may be applied either alone or in tank mix combination with additional herbicides. When tank mixing, always observe all precautionary statements and limitations on labeling of all products. Refer to "Tank Mix Combination" section for rate directions and other restrictions.

#### PRODUCT USE RESTRICTIONS

For weed control in field corn and corn grown for silage.

In the Southern States of AL, CO, GA, KS, KY, LA, MO, MS, NC, NM, SC and TN, 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 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 Northern States of IA, IL, IN, MT, ND, NE, 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 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

Corn hybrids and certain male pollenators within blended corn varieties vary in their response to CORVUS Herbicide. Not all hybrids or male pollenators within blended corn varieties have been tested for sensitivity to CORVUS Herbicide. You should consult with your seed provider, your local Bayer CropScience representative and/or other knowledgeable agricultural professionals for advice on tolerance of hybrids or varieties containing male pollinator lines before applying CORVUS Herbicide. If the tolerance of a hybrid or variety containing male pollinator lines is not known, you should apply CORVUS Herbicide to a small area to first determine if the hybrid is tolerant prior to spraying large acreages of that hybrid.

Planting depth: Corn seed should be planted a minimum of 1-1/2 inches deep and must be completely covered with soil and furrow firmed or reduced crop stand or injury may occur.

Application: Do not exceed maximum labeled rate for soil type. Spray overlaps produce areas of over application which increase the potential for crop damage.

Effect of adverse weather: Following an application of CORVUS Herbicide, extended periods of cool/cold, wet conditions (cool/cold daytime/nighttime temperatures, saturated soil conditions, recurring rainfall events, etc.) during corn seed germination and/or early crop development period may result in temporary crop injury. Injury symptoms may appear as leaf tissue bleaching (whitening) and/or crop stunting. Corn plants usually recover from this injury without affecting yield.

#### USE RESTRICTIONS AND PRECAUTIONS

- 1. Do not apply more than 5.6 fluid ounces of CORVUS Herbicide per 365 day period or exceed the maximum labeled rate for any given soil type.
- 2. In field corn, for the following Corvus components do not exceed per acre per 365 day period from all sources: 0.04 pounds Thiencarbazone-methyl, 0.094 pounds Isoxaflutole, or 0.20 pounds Cyprosulfamide.
- Application of CORVUS Herbicide at less than specified rates for the appropriate soil will only provide suppression of sensitive weeds.
- 4. Do not use on popcorn, or sweet corn.
- 5. Do not apply this product using aerial application equipment.
- 6. Do not apply this product through any type of irrigation system.
- 7. Do not use flood or furrow irrigation to apply, activate or incorporate this product.
- 8. Do not irrigate CORVUS Herbicide into coarse soils at planting time when soils are saturated.
- 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.
- 10. Do not harvest field corn forage within 45 days of application of CORVUS Herbicide.
- 11. Do not apply more than 1 application per 365 day period.
- 12. Do not apply solo HPPD inhibitor postmergence herbicides (Laudis®, Armezon™, Impact®, Callisto®) to corn that has been treated with CORVUS Herbicide in the same growing season.

### ROTATIONAL CROP RESTRICTIONS

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 Corn:

#### Minimum plant back intervals for various crops following CORVUS Herbicide.

Rotational Interval (elapsed time)	Сгор	Minimum precipitation requirement <sup>1</sup>
0 Months <sup>2</sup>	Field corn	None
4 Months <sup>2</sup>	(Wheat, triticale)	None
9 Months <sup>2</sup>	Barley, Soybean, Sweet corn <sup>3</sup> , Popcorn <sup>3</sup>	15 inches of cumulative precipitation from application to planting of rotational crop
10 Months	Rice, Cotton	15 inches of cumulative precipitation from application to planting of rotational crop
11 Months	Peanuts	15 inches of cumulative precipitation from application to planting of rotational crop
17 Months <sup>3</sup>	Alfalfa, Green and Dry Beans, Oats, Sorghum <sup>4</sup> , Sunflower, Canola, Potato, Sugar beet and All other crops	30 inches of cumulative precipitation from application to planting of rotational crop

<sup>1.</sup> The amount of cumulative precipitation required before planting a rotational crop is in addition to the required rotational interval given in months. Furrow or flood irrigation should not to be included in total. No more than 7 inches of overhead irrigation should be included in total.

<sup>2</sup> Crop varieties planted back at intervals of one year or less should not have known acute sensitivity to ALS-inhibiting and/or SU herbicides.

When soil pH is 7.5 or above crop plant back should be delayed to the next interval, and to 24 months for crops listed in the 17 month interval above.
 For CORVUS Herbicide used at 2.25 fl. oz. per acre or less and the total of Thiencarbazone-methyl from all sources is 0.014 pounds active ingredient per acre or less, sorghum can be planted at the 9 month or longer interval.

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

#### RESISTANCE MANAGEMENT

CORVUS Herbicide contains two modes of action, an HPPD inhibitor (Group 27) and ALS/AHAS enzyme inhititor (Group 2). Naturally occurring biotypes of certain weed species with resistance to a variety of herbicide modes of actions (triazine, ALS, PPO, glyphosate, auxin, HPPD, etc.) are known to exist. Repeated use of herbicides having similar modes of action allow resistant weed species to be selected for and spread. To manage the selection and spread of resistant weed populations, it is important to use herbicides with different modes of action in tank mixture, rotation or in conjunction with alternate cultural practices. Performance of CORVUS Herbicide is not affected by the presence of weed biotypes resistant to glyphosate-, triazine-, PPO-, or growth-regulant herbicide modes of action.

To help prevent the development of resistance to CORVUS Herbicide, always use the full labeled rates as shown on the label. If applying another solo postemergence HPPD herbicide (such as Laudis®, Armezon<sup>TM</sup>, Impact® or Callisto®) in a two pass program, always include an additional effective mode of action herbicide(s) as a tank mix partner.

#### Integrated Pest (Weed) Management

CORVUS Herbicide may be integrated into an overall weed and pest management strategy whenever the use of a herbicide is required. Practices known to reduce weed development (tillage, crop competition) and herbicide use (weed scouting, proper application timing) should be followed wherever possible. Consult local agricultural and weed authorities for additional IPM strategies established for your area.

#### Insecticide Interaction Information

#### Seed or soil applied insecticide interaction information

CORVUS Herbicide can be used in conjunction with Aztec<sup>®</sup> soil-applied insecticide and Poncho<sup>®</sup> seed treatments with a variety of seed and soil-applied insecticides. Use of CORVUS Herbicide with soil and seed-applied insecticides on all corn hybrids should follow the recommendations in the table below. DO NOT USE CORVUS Herbicide in the same season as Counter<sup>®</sup> 15G, Counter<sup>®</sup> 20G, or any other organophosphate or carbamate soil-applied insecticides not specifically recommended.

For all corn hybrids, the following soil applied insecticides may be used prior to an application of CORVUS Herbicide:

Seed or Soil-Applied Insecticide	Use Pattern	Use of CORVUS Herbicide in the Same Season
Poncho®, Poncho®/Votivo®, Aztec®, Regent®, Force®, Chlorpyrifos (e.g. Lorsban®), Phorate (e.g. Thimet®), and Fonophos (e.g. Dyfonate®, Chlorethoxyfos (e.g. Fortress®), Bifenthrin (e.g. Capture®)	All	No use precautions
Terbufos (e.g. Counter <sup>®</sup> 15G, Counter <sup>®</sup> 20CR,) and other organophosphate or carbamate insecticides.	All	DO NOT USE

#### Foliar Insecticide Interaction Information

DO NOT apply to emerged corn tank mixes of CORVUS Herbicide with organophosphate or carbamate insecticides. Foliar applications of an organophosphate or carbamate insecticides should not be made within 7 days of an application of CORVUS Herbicide or crop injury may result.

# MIXING INSTRUCTIONS

Application with water or liquid fertilizer as a carrier: 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. Add the proper amount of CORVUS Herbicide, then add the rest of the water or liquid fertilizer to the desired level. Maintain sufficient agitation to ensure a uniform spray mixture during application. 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. 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, reagitate the spray solution for a minimum of 10 minutes before application.

#### TANK CLEANUP PROCEDURE

To avoid injury or exposure to non-target crops, thoroughly clean all mixing and spray equipment, including pumps, nozzles, lines and screens with a good quality tank cleaner, on approved rinse pad or on the field site where an approved crop is to be grown.

#### **Cleaning Equipment After CORVUS Herbicide Application**

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

- 1. Flush tank, hoses, boom and nozzles with clean water.
- 2. Use a pressure washer with a high quality commercial spray tank cleaner in water to clean the inside of the spray tank. 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.
- 3. Flush hoses, spray lines, and nozzles for at least 1 minute with the cleaning solution.
- 4. Dispose of rinsate from steps 1-3 in an appropriate manner.
- 5. Repeat steps 2-4.
- 6. Remove nozzles, screens and strainers and clean separately in the cleaning solution after completing the above procedures.
- 7. Rinse the complete spraying system with clean water.
- 8. Cleanup should be conducted on an approved rinse pad or the field site where an approved crop is to be grown.

# 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.

# APPLICATION PROCEDURES

#### **APPLICATION TIMING**

CORVUS Herbicide may be used in either conventional, conservation tillage, or no-till crop management systems and may be applied either preplant, preplant incorporated (less than 2" deep), preemergence or early postemergence for use in field (dent) corn production and corn grown for silage.

CORVUS Herbicide treatments are most effective in controlling weeds when adequate rainfall is received within 14 days after application. If cultivation is necessary because of soil crusting, soil compaction or weed germination before rain occurs, use shallow tillage such as rotary hoe to lightly incorporate CORVUS Herbicide and make certain corn seeds are below the tilled area. If treated soil is moved during tillage practices in such a way that the herbicide barrier is no longer intact, weeds may emerge from areas where treated soil has been removed. Do not incorporate with a drag harrow after planting.

**Preplant Surface-Applied:** CORVUS Herbicide may be applied up to 21 days before planting corn. CORVUS Herbicide may be applied up to 30 days prior to planting when used in a planned sequential application program such as CORVUS Herbicide followed by Liberty<sup>®</sup> 280 Herbicide, Buctril<sup>®</sup> Herbicide, or other postemergence applied herbicides appropriate for control of the target weeds. Refer to all parts of the label of the respective sequential partner for specific use directions and restrictions. Moving treated soil out of the row or moving untreated soil to the surface during planting may result in reduced weed control.

**Preplant Incorporated**: CORVUS Herbicide may be applied up to 21 days before planting corn. CORVUS Herbicide may be applied up to 30 days prior to planting when used in a planned sequential application program such as CORVUS Herbicide followed by Liberty<sup>®</sup> 280 Herbicide, Buctril<sup>®</sup> Herbicide, or other postemergence applied herbicides appropriate for control of the target weeds. Refer to all parts of the label of the respective sequential partner for specific use directions and restrictions. Apply to the soil and uniformly incorporate in the top two inches of soil before planting using a finishing disc, field cultivator or similar implement capable of providing uniform two inch incorporation. Do not incorporate CORVUS Herbicide deeper than 2" or weed control may be reduced.

**Preplant/Preemergence Burndown:** When weeds are present at the time of treatment and prior to corn emergence, a tank mixture of CORVUS Herbicide with COC or MSO is recommended for burndown of labeled weeds 6" or less in height. When weeds are greater than 6" in height or weeds not controlled by CORVUS Herbicide are present, the addition of a burndown herbicide (e.g., paraquat, glyphosate, or 2, 4-D) is recommended. If giant ragweed, common cocklebur, henbit, Pennsylvania smartweed or purple deadnettle are present at the time of application, the addition of atrazine will improve control. Observe directions for use, precautions and restrictions, and adjuvants on the label of the burndown tank-mixed herbicide. When mixing with liquid nitrogen fertilizer or certain glyphosate formulations, substitute a non-ionic surfactant for oil concentrates.

**Preemergence:** Apply CORVUS Herbicide during planting (behind the planter after furrow closure) or after planting, but before weeds emerge. Failure to thoroughly close and firm the seed furrow may allow herbicide to directly contact the seed which can cause injury.

Early Postemergence tank mixtures, adjuvants and carrier solutions: CORVUS Herbicide can be applied to corn in tank mixture with atrazine from spiking through the 2-leaf collar growth stage.

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 as crop response symptoms including bleaching, leaf edge necrosis and stunting may result.

DO NOT apply tank-mixes of CORVUS Herbicide with organophosphate or carbamate insecticides to emerged corn. Foliar applications of an organophosphate or carbamate insecticides should not be made within 7 days of an application of CORVUS Herbicide or crop injury may result.

Early postemergence applications of CORVUS Herbicide should be made in water as the carrier. Sprayable fluid fertilizer as an herbicide carrier for early postemergence applications in corn can typically cause corn injury up to and including tissue burn (necrosis). Sprayable fluid fertilizer as a carrier is not recommended for use with CORVUS Herbicide after crop emergence unless typical fertilizer burn symptoms on the crop are acceptable.

Harvest of corn forage is permitted at 45 days or more after an early postemergence treatment of CORVUS Herbicide.

#### **GROUND APPLICATION**

- 1. Apply with ground equipment only. DO NOT APPLY BY AIR.
- 2. DO NOT OVERLAP SPRAY PATTERNS BEYOND EQUIPMENT MANUFACTURERS RECOMMENDATIONS AS EXCESSIVE RATES MAY RESULT IN ADVERSE CROP RESPONSES.
- 3. Apply CORVUS Herbicide 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.
- 5. 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. Over application or boom overlapping may result in stand loss. Maintain a constant ground speed while applying this product to ensure proper distribution. MAINTAIN ADEQUATE AGITATION AT ALL TIMES, INCLUDING MOMENTARY STOPS.
- 6. SPRAY DRIFT MANAGEMENT
  - a. To reduce the potential of spray drift to non-target areas, apply this product using nozzles which deliver a **coarse or larger spray droplet** as defined by ASAE standard S-572 and as shown in nozzle manufacturer's catalogs.
  - b. Only apply this product when the potential for drift to adjacent non-target areas is minimal (e.g., when the wind is **10 MPH or less** and is blowing away from sensitive areas).
  - c. To avoid potential adverse effects to non-target areas, maintain a 25 foot buffer between the point of direct application and the **closest downwind edge** of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrub lands), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

### **BANDED APPLICATION**

Banding herbicide application equipment must be carefully calibrated to prevent crop exposure to concentrations of CORVUS 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.

Band Treatment: Apply a broadcast equivalent rate and volume per acre. The following equations may be used to make the required calculations as follows:

Band width in inches	x Broadcast RATE per acre	= Amount product needed per acre.
Row width in inches		
Band width in inches	x Broadcast spray VOLUME per acre	<ul> <li>Amount Band spray VOLUME needed per acre</li> </ul>
Row width in inches		

# SPECIFIC USE DIRECTIONS

	Fluid ounces of CORVUS Herbicide per Acre <sup>1</sup> Soil Texture	
Application Timing		
	• Coarse Soils 2.0% O.M. <sup>2</sup> or less (Sand, Loamy sand, Sandy loam)	<ul> <li>Coarse Soils greater than 2.0% O.M.<sup>2</sup> (Sand, Loamy sand, Sandy loam)</li> <li>Medium Soils (Loam, Silt loam, Silt, Sandy clay loam) And</li> <li>Fine Soils (Silty clay loam, Clay loam Sandy clay, Silty clay, Clay)</li> </ul>
Preplant <sup>3</sup> (Surface Applied or Incorporated) Preemergence Early postemergence	3.33	5.64

<sup>1 If</sup> soils are 2.0% or less in O.M. and have a pH of 7.5 or greater, the rate selected from the table above can be reduced by 0.5 fl oz.

<sup>2</sup> O.M. = Organic Matter by weight.

<sup>3</sup> CORVUS Herbicide may be applied alone or in recommended tank-mixes up to 21 days prior to planting. CORVUS Herbicide may be applied up to 30 days prior to planting when used in a planned sequential application program such as CORVUS followed by Liberty<sup>®</sup> 280 Herbicide, Buctril<sup>®</sup> Herbicide, Laudis<sup>®</sup> Herbicide, or other postemergence applied herbicides appropriate for control of the target weeds.

<sup>4</sup> For coarse textured soils with greater than 2.0% O.M. or medium textured soils with 2.0% O.M. or less, and where densities of weeds controlled by CORVUS Herbicide are light to moderate, an appropriate rate down to 4.5 fluid ounces per acre may be selected.

Effect of variable soils on use rate: The proper use rate of CORVUS Herbicide is affected by several soil factors, including soil texture, organic matter, and soil pH. Soils which contain variations in one or more of these factors in a given area are termed variable soils and may be more likely to incur localized corn injury symptoms from an application of CORVUS Herbicide, especially in those localized areas containing a more coarse soil texture, a lower organic matter and/or a higher pH (alkaline/calcareous soil) than other areas of the same field. The user is responsible for selecting the appropriate rate of CORVUS Herbicide as specified in the table above that corresponds to all soils in the area of application.

# TANK MIX COMBINATIONS

# CORVUS HERBICIDE MAY BE USED IN TANK MIXTURES WITH OTHER HERBICIDES FOR CONTROL OF CERTAIN BROADLEAF AND GRASS WEEDS IN CORN.

Tank-mixes with CORVUS Herbicide are not limited to the listed tank-mix partners for use on field corn. Refer to and follow all parts of the label of each tank-mix partner.

Tank-mix combinations may be used in either conventional, conservation tillage or no-till cropping systems and may be applied at the same timings as CORVUS Herbicide unless otherwise specified on this label or on the tank-mix partner's label. See instructions for early postemergence tank mixtures, adjuvants and carrier solutions for directions on the use of tank mixtures with CORVUS Herbicide after crop emergence.

Multiple tank mixtures are allowed unless otherwise specified by the respective product labels. Check all tank-mix product labels for proper rates and compatibilities for multiple tank-mixes.

CORVUS Herbicide may to be used in tank-mixture with atrazine to improve spectrum and consistency of weed control wherever atrazine use is permitted and appropriate.

#### TANK-MIX PARTNERS:

See instructions for early postemergence tank mixtures, adjuvants and carrier solutions for directions on the use of tank mixtures with CORVUS Herbicide after crop emergence.

Atrazine (including Aatrex® branded products)

BUCTRIL® Herbicide

AUTUMN™ Herbicide

AUTUMN SUPER 51 WDG™

LAUDIS<sup>®</sup> Herbicide

Liberty<sup>®</sup> 280 Herbicide

Sharpen<sup>™</sup> Herbicide

SIMAZINE/PRINCEP

Glyphosate (including Roundup® and Touchdown® branded products)

Paraquat (including Gramoxone® branded products)

2, 4-D

# SEQUENTIAL APPLICATIONS

CORVUS Herbicide may be applied as the first herbicide in an Integrated weed control program that includes sequential postemergence herbicide applications with products such as Laudis<sup>®</sup> Herbicide, dicamba-containing herbicides(Status, Banvel, etc), Liberty<sup>®</sup> 280 Herbicide or glyphosate in transgenic field corn. If applying solo HPPD products such as Laudis<sup>®</sup> Herbicide, Impact<sup>®</sup>, Armezon<sup>TM</sup>, or Callisto<sup>®</sup>, always add another effective mode of action herbicide as a tank-mix partner.

Sequential herbicide applications either before or following CORVUS Herbicide treatments may be used to control additional weeds. Refer to all parts of the individual product labels of herbicides used in sequence with CORVUS Herbicide.

#### WEEDS CONTROLLED

	ANNUAL GRASS WEEDS	States and the second second second second
Barnyardgrass Crabgrass, large Crabgrass, smooth Cupgrass, woolly <sup>1</sup> Foxtail, bristly Foxtail, giant	Foxtail, green Foxtail, robust white Foxtail, robust purple Foxtail, yellow Goosegrass Johnsongrass, seedling	Millet, wild proso <sup>2</sup> Panicum, fall Panicum, Texas <sup>2</sup> Sandbur, field <sup>2</sup> Shattercane <sup>1</sup> Signalgrass, broadleaf Witchgrass <sup>1</sup>
	ANNUAL BROADLEAF WEEL	DS
Amaranth, palmer Buffalobur Burcucumber <sup>2</sup> Buttercup, small flower Carpetweed Chamomile spp. Chickweed, common Cocklebur <sup>2, 3, 4</sup> Copperleaf, Hophornbeam Dandelion, (seedling) Deadnettle, purple Galinsoga Henbit Jimsonweed Kochia Lambsguarters, common	Mallow, Venice Marestail Morningglory, annual <sup>2, 3, 4</sup> Mustard, wild Nightshade, black Nightshade, eastern black Pennycress, field Pepperweed, Virginia Pigweed, prostrate Pigweed, redroot Pigweed, smooth Plantain, broadleaf	Purslane, common Radish, wild Ragweed, common Ragweed, giant <sup>2, 3, 4</sup> Russian thistle Shepherd's-purse Smartweed, Penn. Spurge, toothed Sunflower, wild <sup>2, 3, 4</sup> Velvetleaf Waterhemp, tall Waterhemp, common

<sup>1</sup> These weeds may require an appropriate sequential postemergence herbicide treatment for control of late season escapes.
<sup>2</sup> These weeds will be partially controlled. Partially controlled weeds will be reduced competition by stunted growth and/or reduced populations as compared to non-treated areas. Commercially acceptable control may require the application of an appropriate preemergence tank mixture or

sequential postemergence herbicide treatment.

<sup>3</sup>. Control of these weeds can be gained with the addition of an approved label rate of atrazine.

<sup>4</sup> These weeds may require a postemergence application of Buctril<sup>®</sup> Herbicide or other appropriate postemergence herbicides.

# STORAGE AND DISPOSAL

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

Store in a cool, dry secured storage area.

#### PESTICIDE DISPOSAL

Dispose of wastes resulting from the use of this product on site or at an approved waste disposal facility.

#### CONTAINER DISPOSAL

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 1/4 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 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.

# IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

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# **NET CONTENTS: 2.5 gallons**

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Produced for

**Bayer** CropScience

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