

7969-323

07-28-2011

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U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505P)
Ariel Rios Building
1200 Pennsylvania Ave., NW
Washington, D.C. 20460

EPA Reg. Number:
7969-323

Date of Issuance:
JUL 28 2011

NOTICE OF PESTICIDE:
[X] Registration
[ ] Reregistration
(under FIFRA, as amended)

Term of Issuance: unconditional

Name of Pesticide Product:
Dyvel WG Herbicide

Name and Address of Registrant (include ZIP Code):
BASF Corporation
26 Davis Drive
Research Triangle Park, NC
27709

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

The basic formulation (dated 10/5/2010) is acceptable.

This product is registered in accordance with FIFRA section 3(c)(5) provided that you:

- 1. Submit and/or cite all data required for registration review/reregistration of your product when the Agency requires all registrants of similar products to submit data.
2. Make the following label revision:
a. Revise "EPA REG. NO.7969-xxx" to "EPA REG. NO. 7969-323."
b. Assure that the establishment number and net contents are also added to the final printed label.
3. Within one year of the date on this registration notice (or upon completion), the Storage Stability (830.6317) and Corrosion Characteristics (830.6320) studies must be submitted. They must be conducted in the commercial containers of this manufacturing use product and observations should be made at 0, 3, 6, 9, and 12 month intervals.
4. Submit one (1) copy of the revised final printed label for the record.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

If you have any questions regarding this notice, please contact Beth Benbow of my staff at 703-347-8072.

Signature of Approving Official:

Kathryn V. Montague
Project Manager 23
Herbicide Branch
Registration Division (7505P)

[Handwritten signature of Kathryn V. Montague]

Date:

JUL 28 2011

**BASF**

The Chemical Company

Group **4** Herbicide

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**ACCEPTED**

JUL 28 2011

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under  
EPA Reg. No. 7969-323

# Dyvel™ WG

## herbicide

**A broadleaf herbicide for use in wheat (spring, winter, durum) and fallow areas**

**Active Ingredients:**

sodium salt of dicamba: (3,6-dichloro-o-anisic acid) ..... 49.5%

**Other Ingredients:** ..... 50.5%

**Total:** ..... 100.0%

Contains 0.45 pound active ingredient 3,6-dichloro-o-anisic acid per pound formulated as water-dispersible granules.

**EPA Reg. No. 7969-xxx**

**EPA Est. No.**

**KEEP OUT OF REACH OF CHILDREN  
CAUTION/PRECAUCION**

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.)

See inside for complete **First Aid, Precautionary Statements, Directions For Use,** and **Conditions of Sale and Warranty.**

**In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).**

**Net Contents:**

BASF Corporation  
26 Davis Drive, Research Triangle Park, NC 27709

<b>FIRST AID</b>	
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes; then continue rinsing eyes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• <b>DO NOT</b> induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• <b>DO NOT</b> give anything by mouth to an unconscious person.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>HOTLINE NUMBER</b>	
<p>Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information at 1-800-832-HELP (4357).</p>	

### Precautionary Statements

#### **Hazards to Humans and Domestic Animals**

**CAUTION.** Causes moderate eye irritation. Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes or clothing.

#### **Personal Protective Equipment (PPE)**

Some materials that are chemically resistant to this product are nitrile rubber and butyl rubber. If you want more options, follow the instructions for **Category C** on an EPA chemical-resistance category selection chart.

#### **All mixers, loaders, applicators, and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves (except for applicators using groundboom equipment, pilots, and flaggers)
- Shoes plus socks

Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **Engineering Controls Statement**

When handlers use closed systems, enclosed cabs, or aircraft 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.

Pilots must use cockpits in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6).

### USER SAFETY RECOMMENDATIONS

#### **Users should:**

- Wash hands 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**

**DO NOT** apply directly to water, or 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 washwater or rinsate. Apply this product only as directed on the label.

This chemical is known to leach through soil into groundwater 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 groundwater contamination.

#### **Ground and Surface Water Protection**

##### **Point-source Contamination**

To prevent point-source contamination, **DO NOT** mix or load this pesticide product within 50 feet of wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. **DO NOT** apply pesticide product within 50 feet of wells. 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 described as follows.

Mixing, loading, rinsing, or washing operations performed within 50 feet of a well are allowed only when conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be on or move across the pad. The pad must be self-contained to prevent surface

water flow over or from the pad. The pad capacity must be maintained at 110% that of the largest pesticide container or application equipment used on the pad and have sufficient capacity to contain all product spills, equipment or container leaks, equipment washwater, and rainwater that may fall on the pad. The containment capacity does not apply to vehicles delivering pesticide shipments to the mixing and/or loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Care must be taken when using this product to prevent:

- Back-siphoning into wells
- Spills
- Improper disposal of excess pesticide, spray mixtures or rinsate

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

### Movement by Surface Runoff or Through Soil

**DO NOT** apply under conditions which favor runoff. **DO NOT** apply to impervious substrates such as paved or highly compacted surfaces in areas with high potential for groundwater contamination. Groundwater contamination may occur in areas where soils are permeable or coarse and groundwater is near the surface. **DO NOT** apply to soils classified as sand with less than 3% organic matter and where groundwater depth is shallow. To minimize the possibility of groundwater contamination, carefully follow application rate recommendations as affected by soil type in the **Product Information** section.

### Movement by Water Erosion of Treated Soil

**DO NOT** apply or incorporate this product through any type of irrigation equipment or by flood or furrow irrigation. Ensure treated areas have received at least 1/2 inch of rainfall (or irrigation) before using tailwater for subsequent irrigation of other fields.

### Endangered Species Concerns

The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is a violation of federal law.

## Directions For Use

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

Unless otherwise directed in supplemental labeling, all applicable directions, restrictions, precautions and **Conditions of Sale and Warranty** are to be followed. This labeling must be in the user's possession during application.

## 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 WPS.

**DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **24 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 worn over short-sleeved shirt and short pants
- Chemical-resistant footwear plus socks
- Chemical-resistant gloves made of any waterproof material
- Chemical-resistant headgear for overhead exposure
- Protective eyewear

## STORAGE AND DISPOSAL

**DO NOT** contaminate water, food, or feed by storage and disposal.

### Pesticide Storage

Groundwater contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material. Store in original container in a well-ventilated area separately from fertilizer, feed, and foodstuffs. Avoid cross-contamination with other pesticides.

### Pesticide Disposal

Open dumping is prohibited. This product may not be mixed, loaded, or used within 50 feet of all wells including abandoned wells, drainage wells, and sinkholes. Wastes resulting from this product may be disposed of on-site or at an approved waste disposal facility. Pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to federal, state or local procedures under **Subtitle C** of the **Resource Conservation and Recovery Act**. Improper disposal of excess pesticide, spray mix, or rinsate is a violation of federal law.

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## STORAGE AND DISPOSAL *(continued)*

### Container Handling

**Nonrefillable Container. DO NOT** reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

**Triple rinse containers small enough to shake (capacity ≤ 50 pounds) as follows:** Empty the remaining contents into application equipment or a mix tank. 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.

**Triple rinse containers too large to shake (capacity > 50 pounds) as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Repeat this procedure two more times.

**Pressure rinse as follows:** Empty the remaining contents into application equipment or mix tank. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

### In Case of Emergency

In case of large-scale spillage regarding this product, call:

- CHEMTREC 1-800-424-9300
- BASF Corporation 1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF Corporation 1-800-832-HELP (4357)

### Steps to be taken in case material is released or spilled:

- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing, and wash affected skin areas with soap and water.
- Wash clothing before reuse.
- Keep the spill out of all sewers and open bodies of water.

## Product Information

**Dyvel™ WG herbicide** is a water-dispersible granule formulation intended for control and suppression of many broadleaf weeds in wheat and between crops (postharvest and fallow). See **Table 1** for specific weeds controlled or suppressed.

**Rainfast period** - Rainfall or irrigation occurring within 4 hours after postemergence application may reduce the effectiveness of **Dyvel WG**.

**Stress** - **DO NOT** apply to crops under stress because of lack of moisture, hail damage, flooding, herbicide injury, mechanical injury, insects, or widely fluctuating temperatures or injury may result.

**Table 1. Broadleaf Weeds Controlled (C) or Suppressed (S) by Dyvel™ WG herbicide Postemergence Application**

Common Name	Scientific Name	Application Rate (ozs/A)	
		Wheat Postemergence 2.1 to 4.2	Fallow 4.2
<b>Annual Broadleaf Weeds</b> (small; < 3 inches; actively growing)			
Amaranth, Palmer	<i>Amaranthus palmeri</i>	S	C
Amaranth, Powell	<i>Amaranthus powellii</i>	S	C
Amaranth, spiny	<i>Amaranthus spinosus</i>	S	C
Bedstraw, catchweed	<i>Galium aparine</i>	S	S
Buckwheat, tartary	<i>Fagopyrum tataricum</i>	C	C
Buckwheat, wild	<i>Polygonum convolvulus</i>	C	C
Carpetweed	<i>Mollugo verticillata</i>	S	S
Chamomile, corn	<i>Anthemis arvensis</i>	S	C
Chervil, bur	<i>Anthriscus caucalis</i>	S	S
Chickweed, common	<i>Stellaria media</i>	S	S
Cockle, corn	<i>Agrostemma githago</i>	S	C
Cockle, cow	<i>Vaccaria pyramidata</i>	S	C
Cocklebur, common	<i>Xanthium strumarium</i>	C	C
Cornflower	<i>Centaurea cyanus</i>	S	C
Dragonhead, American	<i>Dracocephalum parviflorum</i>	S	S
Eveningprimrose, cutleaf	<i>Oenothera laciniata</i>	S	S
Falseflax, smallseed	<i>Camelina microcarpa</i>	S	S
Fleabane, hairy	<i>Conyza bonariensis</i>	S	C
Flixweed	<i>Descurainia sophia</i>	S	S
Fumitory	<i>Fumaria officinalis</i>	S	S
Hempnettle	<i>Galeopsis tetrahit</i>	S	S
Henbit	<i>Lamium amplexicaule</i>	S	S
Horseweed (Marestail)	<i>Conyza canadensis</i>	S	C
Jacob's ladder	<i>Polemonium caeruleum</i>	S	S
Jimsonweed	<i>Datura stramonium</i>	S	C
Knawel (German moss)	<i>Scleranthus annuus</i>	S	C
Knotweed, prostrate	<i>Polygonum aviculare</i>	C	C
Kochia	<i>Kochia scoparia</i>	S	C
Ladysthumb	<i>Polygonum persicaria</i>	S	C
Lambsquarters, common	<i>Chenopodium album</i>	S	C
Lettuce, miner's	<i>Claytonia perfoliata</i>	S	S
Lettuce, prickly	<i>Lactuca serriola</i>	S	C
Mallow, common	<i>Malva neglecta</i>	S	C
Mallow, Venice	<i>Hibiscus trionum</i>	S	C
Marestail (Horseweed)	<i>Conyza canadensis</i>	S	C
Marshelder	<i>Iva xanthifolia</i>	C	C
Mayweed	<i>Anthemis cotula</i>	S	C
Morningglory, ivyleaf	<i>Ipomoea hederacea</i>	S	C
Morningglory, tall	<i>Ipomoea purpurea</i>	S	C

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**Table 1. Broadleaf Weeds Controlled (C) or Suppressed (S) by DyveI™ WG herbicide Postemergence Application** (continued)

Common Name	Scientific Name	Application Rate (ozs/A)	
		Wheat Postemergence 2.1 to 4.2	Fallow 4.2
<b>Annual Broadleaf Weeds</b> (small; < 3 inches; actively growing) (continued)			
Mustard, black	<i>Brassica nigra</i>	S	S
Mustard, blue	<i>Chorispora tenella</i>	S	S
Mustard, tansy	<i>Descurainia pinnata</i>	S	S
Mustard, treacle	<i>Erysimum repandum</i>	S	S
Mustard, tumble	<i>Sisymbrium altissimum</i>	S	S
Mustard, wild	<i>Sinapis arvensis</i>	S	S
Nightshade, black	<i>Solanum nigrum</i>	C	C
Nightshade, cutleaf	<i>Solanum triflorum</i>	S	C
Nightshade, eastern black	<i>Solanum ptycanthum</i>	S	C
Nightshade, hairy	<i>Solanum sarrachoides</i>	S	C
Pennycress, field	<i>Thlaspi arvense</i>	S	C
Pepperweed, Virginia	<i>Lepidium virginicum</i>	S	S
Pigweed, prostrate	<i>Amaranthus blitoides</i>	S	C
Pigweed, redroot	<i>Amaranthus retroflexus</i>	S	C
Pigweed, smooth	<i>Amaranthus hybridus</i>	S	C
Pigweed, tumble	<i>Amaranthus albus</i>	S	C
Pineappleweed	<i>Matricaria matricarioides</i>	S	S
Puncturevine	<i>Tribulus terrestris</i>	S	S
Purslane, common	<i>Portulaca oleracea</i>	S	S
Radish, wild	<i>Raphanus raphanistrum</i>	S	S
Ragweed, common	<i>Ambrosia artemisiifolia</i>	C	C
Ragweed, giant	<i>Ambrosia trifida</i>	S	C
Rocket, London	<i>Sisymbrium irio</i>	S	S
Rocket, yellow	<i>Barbarea vulgaris</i>	S	S
Salsify	<i>Tragopogon porrifolius</i>	S	S
Shepherd's purse	<i>Capsella bursa-pastoris</i>	S	S
Smartweed, green	<i>Polygonum scabrum</i>	S	C
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>	S	C
Sowthistle, annual	<i>Sonchus oleraceus</i>	S	S
Sowthistle, spiny	<i>Sonchus asper</i>	S	C
Sunflower, common	<i>Helianthus annuus</i>	S	C
Thistle, Russian	<i>Salsola iberica</i>	S	C
Velvetleaf	<i>Abutilon theophrasti</i>	S	C
Waterhemp	<i>Amaranthus tuberculatus</i>	S	C
<b>Perennial Broadleaf Weeds</b> (suppression of regrowth; < 4 inches)			
Alfalfa	<i>Medicago sativa</i>	S	S
Bindweed, field	<i>Convolvulus arvensis</i>	S	S
Bindweed, hedge	<i>Calystegia sepium</i>	S	S
Ragweed, Western	<i>Ambrosia psilostachya</i>	S	S
Thistle, Canada	<i>Cirsium arvense</i>	S	S

## Mode of Action

**Dyvel™ WG herbicide** is a benzoic auxin agonist herbicide belonging to mode of action **Group 4** (WSSA) and **Group O** (HRAC). **Dyvel WG** is readily absorbed by roots and foliage, translocates throughout the plant, and accumulates in areas of active growth. **Dyvel WG** interferes with the plant growth resulting in control of susceptible broadleaf weeds.

## Resistance Management

While weed resistance to auxin agonist herbicides is relatively infrequent, populations of resistant biotypes are known to exist. Resistance management practices include:

1. Follow labeled application rate and weed growth stage recommendations.
2. Avoid repeat application of herbicides with the same mode of action.
3. Use tank mixes and sequential applications with other effective herbicides possessing different modes of action.
4. Rotate crops so crop competition, tillage, or herbicides with alternative modes of action can be used to control weed escapes.

## Wheat Tolerance

Wheat is tolerant to **Dyvel WG** when applied according to label directions under normal environmental conditions. Crop injury may occur under stressful growing conditions (e.g. seedling disease, extreme hot or cold weather, excessive moisture, high soil pH, high soil salt concentration, or drought). **Dyvel WG** application during periods of rapid wheat growth may result in crop leaning; this condition is temporary and will not reduce crop yield.

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## Application Instructions

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**Dyvel WG** can be applied to actively growing weeds as aerial, broadcast, or spot spray applications using water or sprayable fertilizer as a carrier.

### Application Rates

Application rates are 4.2 ozs/A for fallow application and 2.1 to 4.2 ozs/A for wheat postemergence application. Refer to the **Crop-specific Information** section for crop-specific application timing and other details.

### Application Methods and Equipment

**Dyvel WG** may be applied by air or ground. Thorough spray coverage is important for broadleaf weed control and can be improved with proper adjuvant, nozzle and spray volume selection.

Use and configure application equipment to provide an adequate spray volume, an accurate and uniform distribution of spray droplets over the treated area, and to avoid spray drift to nontarget areas. Adjust equipment to maintain continuous agitation during spraying with good mechanical or bypass agitation. Avoid overlaps that will

increase rates above the maximum use rates specified in this label.

To avoid uneven spray coverage, **DO NOT** apply **Dyvel WG** during periods of gusty wind or when wind is in excess of 15 mph.

**DO NOT** cultivate within 7 days after applying **Dyvel WG**.

## Aerial Application Requirements

### Water Volume

Use 2 to 10 gallons of water per acre. Use the higher spray volume when treating dense or tall vegetation.

The following spray drift management requirements must be followed by aerial applicators to reduce the potential for spray drift:

1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the fixed wingspan or 90% of rotor blade diameter.
2. Nozzles must always point backward parallel with the airstream and never be pointed downward more than 45 degrees.
3. Without compromising aircraft safety, release spray at a height of 10 feet or less above the crop canopy or tallest plants.

### Aerial Application Equipment

Select nozzles designed to produce a minimal amount of fine spray particles. Aerially apply at the lowest safe height to reduce exposing spray to evaporation and wind. The applicator must follow the most restrictive use cautions to avoid drift hazards, including those found in this labeling, as well as state and local regulations and ordinances.

**DO NOT** use aerial equipment if spray particles can be carried by wind into areas where sensitive plants are growing or when temperature inversions exist.

## Ground Application Requirements

### Water Volume

Use 3 to 50 gallons of spray solution per broadcast acre for optimal performance. Use the higher spray volume when treating dense or tall vegetation.

### Ground Application Equipment

Select nozzles designed to produce a minimal amount of fine spray particles. Spray with nozzles as close to the weeds as practical for thorough weed coverage.

### Cleaning Spray Equipment

Following application, clean application equipment thoroughly using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions, followed by triple rinsing with clean water.



## Spray Drift Management

It is the responsibility of the applicator to avoid spray drift onto nontarget areas. The interaction of many equipment-related and weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

Applicators must follow the most restrictive use precautions to avoid drift hazards, including those found in this labeling as well as applicable state and local regulations and ordinances.

### Sensitive Crop Precautions

Avoid off-target movement. Use extreme care when applying **Dyvel™ WG herbicide** to prevent injury to desirable plants.

**Dyvel WG** may cause injury to desirable broadleaf plants including beans, cotton, fruit trees, grapes, ornamentals, peas, potatoes, soybeans, sunflowers, tobacco, and tomatoes. These plants are most sensitive to **Dyvel WG** during periods of rapid growth or flowering.

The applicator must be familiar with and take into account the information covered in the following spray drift reduction advisory information.

### Information on Droplet Size

The most effective way to reduce drift potential is to apply the largest droplets that provide sufficient coverage and control. Use coarse sprays (volume median diameter of 400 microns or more) to avoid potential herbicide drift. Select nozzles designed to produce a minimal amount of fine spray particles (less than 200 microns). Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly or under unfavorable environmental conditions (see **Wind; Temperature and Humidity; and Temperature Inversions**).

#### 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 manufacturer's 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 Orientation** - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is recommended practice. For aerial application, significant deflection from the horizontal airstream will increase fine droplets and increase drift potential.
- **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. **DO NOT** use nozzles producing a mist droplet spray. For aerial application, straight-stream or

solid-stream nozzles oriented straight back produce the largest droplets and the lowest drift.

### Additives

Agriculturally approved drift-reducing additives may be used to reduce fine droplets.

### Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the upwind and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the application equipment (e.g. aircraft, ground) upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller droplets, etc.).

### Wind

Drift potential is lowest between wind speeds of 3 to 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. If applying at wind speeds less than 3 mph, the applicator must determine if conditions of temperature inversion exist or stable atmospheric conditions exist at or below nozzle height. **DO NOT** make applications into areas of temperature inversions or stable atmospheric conditions.

**NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

### Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

### Temperature Inversions

Applications should not occur during temperature inversions because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud that can move in unpredictable directions because of 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

This pesticide 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, or nontarget plants) is minimal (e.g. when wind is blowing away from sensitive areas).

## Wind Erosion

Avoid treating powdery, dry, or light sandy soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.

### Additives

To improve postemergence weed control, agriculturally approved surfactants or crop oil concentrate and sprayable fertilizers (urea ammonium nitrate [UAN] or ammonium sulfate [AMS]) may be added, particularly in dry growing conditions; refer to **Table 2**.

## Nonionic Surfactant (NIS)

The standard label recommendation for normal growing conditions is 1 quart of an 80% active NIS per 100 gallons of water.

## Crop Oil Concentrate (COC)

A crop oil concentrate must contain either a petroleum-oil or vegetable-oil base and must meet all of the following criteria:

- Nonphytotoxic
- Contain only EPA-exempt ingredients
- Provide good mixing quality in the jar test
- Successful in local experience

The exact composition of suitable products will vary; however, vegetable-oil and petroleum-oil concentrates should contain emulsifiers to provide good mixing quality. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. For additional information, see **Compatibility Test for Mix Components**.

## Nitrogen Source

- **UAN** - Use 2 to 4 quarts of UAN (28%, 30%, or 32% nitrogen solution) per acre.
- **AMS** - AMS at 2.5 pounds per acre may be substituted for UAN. Use high-quality AMS (spray grade) to avoid plugging of nozzles. Avoid use of AMS in spray volume less than 10 gallons per acre because of potential precipitation problems.

**DO NOT** use galvanized, brass, or aluminum application equipment (e.g. nozzles, tanks, pipes) that will contact spray solutions containing UAN or AMS.

Table 2. Additive Rate/Acre

Additive	Rate/A*
NIS or COC**	0.5 to 2 qts/100 gals or 1 to 2 qts
<b>PLUS</b>	<b>PLUS</b>
UAN solution or AMS	2 to 4 qts/A or 2.5 lbs/A
*See manufacturer's label for specific rate recommendations. **Adjuvants containing crop oil concentrates may be used in between-crop (postharvest, fallow) applications. <b>DO NOT</b> use crop oil concentrate for postemergence in-crop applications.	

### Tank Mixing Information

**Dyvel™ WG herbicide** may be tank mixed with one or more registered herbicide products according to the specific tank mixing instructions in this label and respective product labels. Read and follow the applicable restrictions and limitations and **Directions For Use** on all product labels involved in tank mixing. Always follow the most restrictive label use directions. Refer to the **Crop-specific Information** section for tank mixing details. **DO NOT** tank mix with **Axial® herbicide** or **Discover® herbicide** products.

Mixing **Dyvel WG** with postemergence grass (graminicide) herbicides may reduce the effectiveness of those products. Physical incompatibility, reduced weed control, or crop injury may result from mixing **Dyvel WG** with other pesticides (fungicides, herbicides, insecticides, or miticides), additives, or fertilizers. Local agricultural authorities may be a source of information when using other than BASF-recommended tank mixes.

**Dyvel WG** may be used in tank mixtures with most foliar-applied insecticides. However, **DO NOT** apply **Dyvel WG** in tank mixtures with **Lorsban® insecticide**.

### Compatibility Test for Mix Components

Before mixing components, always perform a compatibility jar test.

1. For 20 gallons per acre spray volume, use 3.3 cups (800 ml) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature.
2. Add components in the sequence indicated in the following mixing order instructions; use 2 teaspoons per pound or 1 teaspoon per pint of labeled use rate per acre.
3. Cap the jar and invert 10 cycles between component additions.
4. When the components have all been added to the jar, let the solution stand for 15 minutes.

5. Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface, or fine particles that precipitate to the bottom, or thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, **DO NOT** mix the ingredients in the same tank.

## Mixing Order

Maintain agitation throughout mixing.

1. **Water** - Fill tank 1/2 to 3/4 full with clean water and start agitation.
2. **Inductor** - If an inductor is used, rinse it thoroughly after each component has been added.
3. **Products in PVA bags** - Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
4. **Water-conditioning additives** (including dry and liquid fertilizers such as AMS or UAN)
5. **Water-dispersible products** (such as **Dyvel™ WG herbicide**, dry flowables, wettable powders, suspension concentrates or suspo-emulsions)
6. **Water-soluble products and additives**
7. **Emulsifiable concentrates** (including crop oil concentrate or methylated seed oil adjuvants)
8. **Remaining quantity of water**

Maintain agitation throughout application until spraying is completed. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to resuspend the mixture before spraying is resumed. Continue agitation while spraying.

## Use Restrictions

- **Maximum seasonal use rate** - 4.2 ozs/A for fallow or wheat postemergence application.
- **DO NOT** make more than one (1) application per crop season.
- **DO NOT** apply to winter wheat in the fall.
- **DO NOT** apply to wheat underseeded to forage.
- **Restricted-entry interval (REI)** - 24 hours
- **DO NOT** graze livestock or harvest forage for hay from treated areas for a minimum of 30 days following application.
- **Preharvest interval (PHI)** - **DO NOT** harvest grain for 60 days following application.
- **DO NOT** apply through any type of irrigation equipment.
- **DO NOT** treat irrigation ditches or water used for crop irrigation or domestic purposes.

## Crop Rotation and Emergency Replanting Intervals

Wheat may be planted anytime after a fallow application or crop failure.

Cereals (barley, oats, triticale), corn, cotton, sorghum, and soybean may be planted 30 days after application.

All other crops may be planted 120 days after application.

## Crop-specific Information

### Fallow (Between-crop Application)

#### Postharvest, Fallow, Crop Stubble, and Set-aside

**Dyvel WG** can be applied either postharvest in the fall, spring, or summer; during the fallow period; or to crop stubble/set-aside acres. Apply **Dyvel WG** as a broadcast or spot treatment to emerged and actively growing weeds after crop harvest (postharvest) and before a killing frost, or in the fallow cropland or crop stubble the following spring or summer. See **Crop Rotation and Emergency Replanting Intervals** section for the required interval between application and planting.

#### Application Rate and Timing

Apply 4.2 ozs of **Dyvel WG** per acre. For best performance, apply **Dyvel WG** when annual weeds are less than 3 inches and perennial weeds are in early regrowth stage (less than 4 inches) in late summer or fall following a mowing or tillage treatment. An adjuvant system (refer to **Additives** section for details) is required for optimum broadleaf activity. Avoid disturbing treated areas following application. Treatment may not kill weeds that develop from seed or underground plant parts such as rhizomes or bulblets after application. Use a sequential herbicide application or other cultural practice to control later emerging weeds.

#### Tank Mixtures

Broad-spectrum control of grass weeds and/or additional broadleaf weeds will usually require a tank mix with another herbicide. **Dyvel WG** may be tank mixed or applied sequentially with one or more of, but not limited to, the following herbicide products:

- **Clarity® herbicide**
- **Paramount® herbicide**
- 2,4-D
- glyphosate (e.g. **Roundup® herbicide**)

### Wheat (Fall-seeded and Spring-seeded)

Apply **Dyvel WG** to wheat postemergence only. **DO NOT** apply to winter wheat in the fall. For best performance, apply **Dyvel WG** when annual weeds are small (less than 3 inches) and actively growing. An adjuvant system (refer to **Additives** section for details) is required for optimum broadleaf activity. Application of **Dyvel WG** to wheat during

periods of rapid growth may result in crop leaning. This condition is temporary and will not reduce crop yield.

Application to wheat may be made by aerial application using 2 gallon of water or more per acre. Where dense foliage is present, use more than 2 gallons of water per acre.

### Postemergence Application

Apply **Dyvel™ WG herbicide** at 2.1 to 4.2 ozs/A between the 2-leaf stage and emergence of the fourth tiller.

**DO NOT** use crop oil concentrate for postemergence in-crop application.

### Tank Mixtures

Broad-spectrum control of broadleaf and grass weeds will usually require a tank mix with another herbicide.

**Dyvel WG** may be tank mixed or applied sequentially with one or more of, but not limited to, the following herbicide products:

- **Beyond® herbicide** (for **Clearfield®** wheat only)
- **Clearmax® herbicide** (for **Clearfield** wheat only)
- 2,4-D amine
- MCPA
- Sulfonylurea-based herbicide (e.g. **Ally® herbicide**, **Express® herbicide**, **Harmony® Extra herbicide**, **Peak® herbicide**)

**DO NOT** tank mix or use in the same season with **Axial® herbicide** or **Discover® herbicide** products.

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### Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, 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 weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

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