

FEB 8 2000

John J. Jachetta, Ph.D.  
Dow AgroSciences LLC  
9330 Zionsville Road  
Indianapolis, IN 46268-1054

Dear Dr. Jachetta:

Subject: Revised Labeling  
FirstRate Herbicide  
EPA Registration No. 62719-275  
Your Submission Dated December 22, 1999

The amendment referred to above, submitted in connection with registration under section 3(c)(7)(A) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), is acceptable provided that you:

1. Submit/cite all data required for registration/reregistration of your product under FIFRA section 3(c)(5) or 4(a) when the Agency requires all registrants of similar products to submit such data.
2. Make the labeling changes listed below before you release the product for shipment bearing the amended labeling:
  - a. The Agency has recently revised its recommended First Aid statements for pesticide products and intends to issue a PR Notice announcing the changes in the near future. In the interim we are encouraging registrants to begin using the new statements. The new statements were developed as part of the Consumer Labeling Initiative in close cooperation with poison control center personnel and other medical experts. While it is not mandatory that you revise your label at this time, you are strongly encouraged to substitute the revised statements (below) for those statements currently on the label at your next label printing:

FIRST AID

If swallowed:	<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>• Do not induce vomiting unless told to by a poison control center or doctor.</li> </ul>
If in eyes:	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
If on skin:	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
If inhaled:	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>

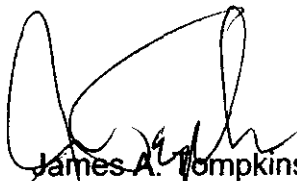
Have the product container or label with you when calling a poison control center or doctor or going for treatment.

- b. On the label booklet cover, page 3, the Agricultural Use Requirements box referring to the booklet for the Agricultural Use Requirements is not needed since this referral already appears on the base label and refers to the booklet for information on the Worker Protection Standard.
- c. On page 6 the proposed Pre-harvest Interval language is not as clear as the original text since it is not clear what is to be harvested.
- d. Please note that since the supplemental labeling is readily available to persons who have Internet access, we wonder why aerial application was not added to the basic label for this product.
- e. On page 10 for clarity the new heading should read:  
  
Soybean Application Instructions
- f. Verify that "Glyphomax Plus" is registered for use on soybeans. We could not locate this product in our computer data base.

3. Submit one (1) copy of your final printed labeling before you release the product for shipment. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Sincerely yours,



James A. Tompkins  
Product Manager (25)  
Herbicide Branch  
Registration Division (7505C)

Enclosure

4/20

(Base Label):

(Logo) Dow AgroSciences LLC

# FirstRate\*

**For broadleaf weed control in soybeans.**

**Active Ingredients:**

cloransulam-methyl: N-(2-carbomethoxy- 6-chlorophenyl)-5-ethoxy-7- fluoro(1,2,4)triazolo-[1,5-c]pyrimidine- 2-sulfonamide .....	84%
Inert Ingredients.....	16%
Total Ingredients.....	100%

**ACCEPTED  
with COMMENTS  
in EPA Letter Dated:  
FEB 8 2000**

Contains 0.84 pounds of active ingredient per pound of product.

US Patent Number: 5,163,995

*Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under EPA Reg. No.  
62719-275*

**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.)

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### Precautionary Statements

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#### Hazards to Humans and Domestic Animals

**Causes Eye Irritation • Harmful If Absorbed Through Skin**

**Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling.**

#### Personal Protective Equipment (PPE)

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

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

#### 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.

#### First Aid

**If in eyes:** Flush with plenty of water. Get medical attention if irritation persists.

**If on skin:** Wash with plenty of soap and water. Get medical attention if irritation develops.

**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 washwaters.

This chemical and its transformation products demonstrate the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination.

This chemical can contaminate surface water through spray drift.

Under some conditions, this chemical, and/or its transformation products, may have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several weeks post-application. Vulnerable conditions 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.

**Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to the label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to label booklet for Directions for Use including Storage and Disposal.

**Notice:** Read the entire label before using. Use only according to label directions. Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Remedies" elsewhere on this label.

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at [www.dowagro.com](http://www.dowagro.com).

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

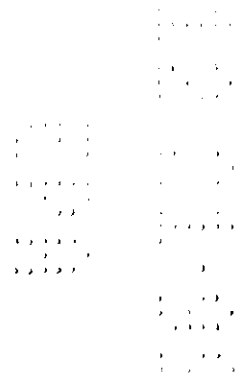
EPA Reg. No. 62719-275

EPA Est. \_\_\_\_\_

\*Trademark of Dow AgroSciences LLC  
Dow AgroSciences LLC • Indianapolis, IN 46268 U.S.A.

**Herbicide**

**Net Weight \_\_\_ Water Soluble Packets**



6/20

(Label Booklet Cover):

(Logo) Dow AgroSciences LLC

# FirstRate\*

**For broadleaf weed control in soybeans.**

**Active Ingredients:**

cloransulam-methyl: N-(2-carbomethoxy-  
 6-chlorophenyl)-5-ethoxy-7-  
 fluoro(1,2,4)triazolo-[1,5-c]pyrimidine-  
 2-sulfonamide ..... 84%

Inert Ingredients ..... 16%

Total Ingredients ..... 100%

Contains 0.84 pounds of active ingredient per pound of product.

US Patent Number: 5,163,995

**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.)

**Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to the label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

**Refer to inside of label booklet for additional precautionary information including Personal Protective Equipment (PPE) and Directions for Use including Storage and Disposal.**

**Notice:** Read the entire label before using. Use only according to label directions. **Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Remedies" elsewhere on this label.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at [www.dowagro.com](http://www.dowagro.com).

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

EPA Reg. No. 62719-275

EPA Est. \_\_\_\_\_

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 Dow AgroSciences LLC • Indianapolis, IN 46268 U.S.A.

## Herbicide

**Net Weight \_\_\_ Water Soluble Packets**

(Page 1 through end):

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## Precautionary Statements

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### Hazards to Humans and Domestic Animals

# CAUTION

**Causes Eye Irritation • Harmful If Absorbed Through Skin**

**Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling.**

### Personal Protective Equipment (PPE)

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

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

### 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.

### First Aid

**If in eyes:** Flush with plenty of water. Get medical attention if irritation persists.

**If on skin:** Wash with plenty of soap and water. Get medical attention if irritation develops.

### 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 washwaters.

This chemical and its transformation products demonstrate the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination.

This chemical can contaminate surface water through spray drift.

Under some conditions, this chemical, and/or its transformation products, may have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several weeks post-application. Vulnerable conditions 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.

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### Directions for Use

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It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

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

### Agricultural Use Requirements

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours. **Exception:** If the product is soil-injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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
- Waterproof gloves
- Shoes plus socks

### Storage and Disposal

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

**Storage:** Store in original container only. In case of leak or spill, contain material with absorbent materials and dispose as waste.

**Disposal:** Wastes resulting from the use of this product may be disposed of on site according to label use directions or at an approved waste disposal facility.

**Container Disposal:** When all packets are used, dispose of empty package in a sanitary landfill or by incineration or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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### General Information

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FirstRate\* herbicide controls many economically important broadleaf weeds in soybeans. FirstRate may be applied preplant incorporated, preplant surface, preemergence or postemergence.

### Use Precautions and Restrictions

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 involved 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 completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above 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.

Do not apply this product through any type of irrigation system.

Do not use flood irrigation to apply or incorporate this product.

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

**Handling Precautions for Water Soluble Packets:** Do not remove water soluble packet from overpack except for immediate use. Do not allow water soluble packet to come into contact with water prior to use. Do not handle water soluble packet with wet hands or wet gloves. Carefully reseal overpack containing unopened water soluble packets and protect package from moisture.

#### Use Limitations

- Do not make more than one soil application during a single growing season.
- Do not apply more than 0.75 oz per acre for FirstRate as a soil application (preplant or preemergence).
- Do not apply more than 0.6 oz per acre of FirstRate as a postemergence application during a single growing season (either as a single application or as a total of sequential postemergence applications).
- Do not apply more than 1.05 oz per acre of FirstRate during a single growing season.

Read and carefully follow all applicable directions, precautions and restrictions on labeling for other products used in combination with FirstRate.

#### Preharvest Interval:

- Do not harvest soybeans for soybean forage or hay for 14 days after application of FirstRate.
- Do not harvest for soybeans for 65 days after application of FirstRate.

**Aerial application of this product is prohibited.** Refer to Dow AgroSciences supplemental labeling for instructions for aerial application. Supplemental labeling may be obtained at the Dow AgroSciences web site at [www.dowagro.com](http://www.dowagro.com).

**Avoid all direct or indirect contact with non-target plants.** Do not apply near desirable vegetation and allow adequate distance between target area and desirable plants to minimize exposure.

**Do not apply under conditions which favor runoff or wind erosion of soil containing FirstRate to non-target areas. To prevent off-site movement due to runoff or 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.
- Do not apply to impervious substrates such as paved or highly compacted surfaces or frozen or snow covered ground.
- Do not apply to soils when saturated with water.

- Do not use tailwater from the first flood or furrow irrigation of treated fields to treat non target crops unless at least 1/2 inch of rainfall has occurred between application and the first irrigation.

**Do not apply when weather conditions favor drift to non target sites. To minimize spray drift to non target areas:**

- Use low pressure application equipment capable of producing a large droplet spray.
- Do not use nozzles that produce a fine-droplet spray.
- Minimize drift by using sufficient spray volume to ensure adequate coverage with large droplet size sprays.
- Keep ground-driven spray boom as low as possible above the target surface.
- Spray when conditions are calm or wind speed is low. Do not spray when wind is gusting or steady wind speed is greater than 10 mph.

**Iron Chlorosis:** There are isolated geographic areas where soil-induced iron chlorosis routinely occurs. In these areas, the severity of iron chlorosis symptoms or other nutrient induced crop injury may increase when FirstRate is soil-applied.

### Crop Rotation Interval for Common Crops

Follow the crop rotation restrictions on the label of each product used. Unusual climatic or environmental conditions that may increase the likelihood of rotational crop (i.e., corn, sugar beets, sunflowers) sensitivity include lower than normal rainfall and/or soil temperatures in the fall and spring; and/or soil pH extremes.

Numbers in parentheses (-) refer to "Specific Crop Rotation Information".

Crop	Rotation Interval(1) (Months)
soybeans	0
wheat	3
alfalfa, field corn, popcorn, seed corn (2), cotton, peanuts, rice, sorghum, dry beans, lima beans, peas, snap beans	9
sweet corn, popcorn	18
sugar beets, sunflowers, tobacco (3)	30 (3)

Specific Crop Rotation Information:

1. Minimum number of months that must pass before planting other crops after application of FirstRate at up to 0.75 oz/acre soil-applied and/or 0.3 oz/acre postemergence. Planting of these crops prior to the rotation interval indicated may result in serious crop injury.
2. **Hybrid Seed Production:** Corn inbred lines grown for hybrid seed production may be injured the growing season following an application of FirstRate. Inbred lines should be thoroughly tested for crop tolerance before rotating to large acreage. While growers are not prohibited from rotating to seed corn in the growing season following an application of FirstRate, **Dow AgroSciences will not accept responsibility for any crop injury on field corn grown for seed following an application of FirstRate.**
3. **Transplanted tobacco may be planted 10 months after application of 0.3 oz/acre of FirstRate.** [Ed. note: Bold text added to the preceding sentence for emphasis.] Tobacco in seedbed nurseries may be planted 18 months after application of 0.3 oz/acre of FirstRate and following a successful field bioassay. A rotation interval of 30 months and a successful field bioassay is required for all applications of FirstRate greater than 0.3 oz/acre.

**Note:** Rotation to sugar beets, sunflowers, and all other crops requires a 30-month rotation interval and a successful field bioassay.

**Field Bioassay Instructions:** Using typical tillage, seeding practices, and timings for the particular crop, plant several strips of the desired crop variety across the field previously treated with FirstRate. Plant the strips perpendicular to the direction FirstRate was applied. The strips should also be located so that different field conditions are encountered, including differences in soil texture, pH, and drainage. If the crop does not show visible symptoms of injury, stand reduction, or yield reduction, the field can be seeded with the test crop. If visible injury or stand reduction occurs, the test crop should not be seeded, and the bioassay must be repeated the next growing season.

### **— Soil and Postemergence Application Instructions**

~~Apply with ground equipment using a standard low pressure (20 to 40 psi) herbicide sprayer equipped with nozzles that provide uniform coverage. Use sufficient spray volume to provide uniform coverage. A spray volume of 10 to 40 gallons per acre is recommended for either soil or postemergence applications. Maintain sufficient agitation during mixing and spraying to ensure a uniform spray mixture. Screens in spray lines and nozzles should be no finer than 50 mesh (100 mesh is finer than 50 mesh).~~

### **Spray Preparation-Mixing Instructions**

To calculate the total number of water soluble packets required for your spray mix:

1. Determine the number of acres to be treated.
2. Divide the number of acres to be treated by the acres/packet value that corresponds to the desired rate. See rate tables for broadcast application rates and corresponding acres per packet.

**Note:** If the calculated number of packets does not equal a whole number (e.g., 13.5 packets), round up to the next whole number (i.e., 14 packets).

### **FirstRate Applied Alone**

FirstRate herbicide water dispersible granules are packaged in water soluble packets. Thorough mixing prior to and during application is required.

**Note:** The film used in water soluble packets is not soluble in liquid fertilizer. If applied in liquid fertilizer, FirstRate **must be** pre-mixed with water to form a slurry and then added to the liquid fertilizer solution. Pre-mixing may also be used if making an application in water. See pre-mixing instructions below.

### **Mixing Instructions:**

1. Fill the tank with 1/2 of the total amount of water or liquid fertilizer required for the load
2. Start agitation.
3. Add water soluble packets by opening the overpack and adding water soluble packet (product in transparent film) directly to the spray tank while agitating and allow time to disperse. Do not open water soluble packets. Water soluble packets will float on the surface until the water soluble film is dissolved and product is released. Handling packets with hands should be minimized. Do not handle if hands or gloves are wet. If liquid fertilizer is being used as the spray carrier rather than water, pre-mix the water-soluble packets as described below before adding to the spray tank.
4. After water soluble packets of FirstRate have completely dissolved (approximately 5 minutes), add non-ionic surfactants or other adjuvant materials.
5. Before spraying, make sure that water soluble packets have completely disintegrated and product is thoroughly mixed with the spray carrier. Depending on the water temperature and the degree of agitation, the packet and its contents should be completely dispersed within 5 minutes after being added to the spray tank.
6. Continue agitation while filling the spray tank to the required volume.
7. To ensure a uniform spray mixture, continuous agitation is required during application. If product is allowed to settle, thoroughly agitate to resuspend the mixture before spraying. Apply within 24 hours of mixing. Weed control with FirstRate which as has been mixed and allowed to stand for more than 24 hours may be reduced.

**Pre-mixing (Slurry) of Water Soluble Packets:** The film used in water soluble packaging for FirstRate is not soluble in liquid fertilizer solutions. **In order to add FirstRate to liquid fertilizer carrier, the product must be premixed with water to form a slurry.** Pre-mixing can also be used as an alternative mixing method for application in water. Use a minimum of 1 quart of water for up to five water soluble packets of FirstRate. The packets can be stirred immediately on addition to water or allowed to dissolve. Stir (or shake if pre-mixed in a closed container) until the packets are completely dissolved and granules are dispersed and then add to the spray tank through a 20-35 mesh screen. Rinse container used for pre-mixing and add rinsate to spray tank.

**Pre-mixing (other products):** If pre-mixing is required for other dry or flowable products applied in tank mix combination with FirstRate, follow recommendations for pre-mixing of such products provided in their respective product labels.

### FirstRate Applied in Tank Mix Combination

If a broader spectrum of weed control is needed, FirstRate may be tank-mixed with labeled rates of other herbicides provided (1) the tank mix product is labeled for the timing and method of application for the use site to be treated; and (2) tank mixing is not prohibited by the label of the tank mix product.

### Tank Mixing Precautions:

- Read carefully and follow all applicable use directions, precautions, and limitations on the respective product labels.
- Do not exceed recommended application rates for respective products or maximum allowable application rates for any active ingredient in the tank mix.
- For products packaged in water soluble packaging, do not tank mix with products containing boron or mix in equipment previously used to apply a product mixture containing boron unless the tank and spray equipment has been adequately cleaned. (See Equipment Clean-Out Procedures.)
- Always perform a (jar) test to ensure the compatibility of products to be used in tank mixture.

**Tank Mix Compatibility Testing:** A jar test is recommended prior to tank mixing to ensure compatibility of FirstRate and other pesticides. Use a clear glass quart jar with lid and mix the tank mix ingredients in their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately 1/2 hour. If the mixture balls-up, forms flakes, sludges, gels, oily films or layers, or other precipitates, it is not compatible and the tank mix combination should not be used.

Vigorous, continuous agitation during mixing, filling and throughout application is required for all tank mixes. Sparger pipe agitators generally provide the most effective agitation in spray tanks. To prevent foaming in the spray tank, avoid stirring or splashing air into the spray mixture.

### Mixing Order for Tank Mixes:

1. Fill the spray tank to 1/4 to 1/3 of the total spray volume required with water or liquid fertilizer.
2. Start agitation.
3. Add water soluble packets by opening the overpack and adding water soluble packet (product in transparent film) directly to the spray tank while agitating and allow time to disperse. Do not open water soluble packets. Water soluble packets will float on the surface until the water soluble film is dissolved and product is released. Handling packets with hands should be minimized. Do not handle if hands or gloves are wet. If liquid fertilizer is being used as the spray carrier rather than water, pre-mix the water-soluble packets as described above before adding to the spray tank.
4. After adding FirstRate, add different formulation types in the following order: (1) other formulation(s) packaged in water soluble packets; (2) any compatibility agent, if required; (3) dry flowables; (4) wettable powders; (5) aqueous suspensions, flowables and liquids. Maintain agitation and fill spray tank to 3/4 of total spray volume and add: (5) emulsifiable concentrates; (6) solutions; and (7) adjuvants. Allow time for complete mixing and dispersion after each addition.

5. Finish filling the spray tank. Maintain continuous agitation during mixing and throughout application.

If application or agitation must be stopped before the spray tank is empty, the materials may settle to the bottom. Settled materials must be resuspended before spraying is resumed. A sparger agitator is particularly useful for this purpose. Settled material may be more difficult to resuspend than when originally mixed.

#### Equipment Clean-out Procedures

1. Drain any remaining spray mixture from the application equipment.
2. Hose down the interior surfaces of the tank while filling the tank 1/2 full of water.
3. Add household ammonia at a rate of 1 gallon per 100 gallons of water. Recirculate for 5 minutes and spray out part of this mixture for 5 minutes through the boom. Drain tank.
4. Remove all spray nozzles and screens and clean separately.
5. If spray equipment will be used for pesticide application to crops sensitive to FirstRate, steps 1-3 should be repeated. Exterior surfaces of spray equipment should also be thoroughly cleaned.

**Note:** Rinsate may be disposed of on site according to label use directions or at an approved waste disposal facility.

### Application Instructions

**General:** Apply with ground equipment using a standard low pressure (20 to 40 psi) herbicide sprayer equipped with nozzles that provide uniform coverage. A spray volume of 10 or more gallons per acre is recommended for either soil or postemergence applications. Use sufficient spray volume to provide uniform coverage. Maintain sufficient agitation during mixing and spraying to ensure a uniform spray mixture. Screens in spray lines and nozzles should be no finer than 50 mesh (100 mesh is finer than 50 mesh).

#### Soybeans (Soil Application)

##### Broadleaf Weeds Controlled by Soil Applications

The following weeds are controlled by FirstRate when applied to the soil surface at recommended rates either as a preplant incorporated, preplant surface, or preemergence application (FirstRate will does not control known ALS resistant biotypes of these weeds listed below):

cocklebur, common	ragweed, common
horseweed, (marestail)	ragweed, giant
jimsonweed	smartweed, Pennsylvania
lambsquarters, common	sunflower, common
mallow, venice	velvetleaf
morningglory (annual species)	waterhemp species (1)
pigweed (annual species)	

1. FirstRate provides partial control of waterhemp. To improve control of waterhemp, apply FirstRate in tank mix combination with the appropriate labeled rate of a surface-applied acetahillide product such as Dual® herbicide or soil applied dinitroaniline product such as Treflan\* herbicide or Pendimax 3:3 (pendimethalin).

14/20

**Application Rates and Methods for Soil Applications**

**Use Rates for Soil Applications, Including (Preplant Incorporated, Preplant Surface Applied and Postemergence Applications):** See "Specific Situations" below.

**Note:** Numbers in parentheses (-) refer to footnotes following table. See instructions for "special Situations" below.

Area of Use (-1)	Soil Organic matter	FirstRate (oz/acre)	Acres per 0.6 oz Packet (1)
DE, CT, IA, KS, MD, ME, MI, MN, MO (excluding the bootheel), ND, NE, NH, OH, OK, SD, VT, WI, IL and IN (north of Interstate 64), PA, NY, and areas north of Interstate 64 in the states of IL, IN, KY, WV, VA.	3.0% or less	0.6	1.0
	Greater than 3.0% (2) (1)	0.75	0.8
South of Interstate 64 in IL and IN All areas to the south of the above mentioned geographic area.	All organic matter levels	0.75	0.8

- 1. Soil application of FirstRate in other geographic areas is not recommended.
- 2-1. Soil applications of FirstRate at 0.75 oz/acre on soils with greater than 5% organic matter may result in reduced weed control. Under these conditions, postemergence applications of FirstRate or other herbicides may be required to control specific weeds.
- 3-2. See instructions for calculating the total number of water soluble packets required in the "Spray Preparation" section.

**For Specific Special Situations:**

**Note:** Numbers in parentheses (-) refer to footnotes following table.

Situations	Soil Organic matter	FirstRate (oz/acre)	Acres per 0.6 oz Packet (2)
<ul style="list-style-type: none"> <li>• Moderate to Heavy Giant Ragweed or Morningglory Infestations</li> <li>• Applications made 15 to 30 days prior to planting</li> </ul>	3.0% or less	0.6 - 0.75	1 - 0.8
	Greater than 3.0% (1)	0.75	0.8

- 1. Soil applications of FirstRate at 0.75 oz/acre on soils with greater than 5% organic matter may result in reduced weed control. Under these conditions, postemergence applications of FirstRate or other herbicides may be required to control specific weeds.
- 2. See instructions for calculating the total number of water soluble packets required in the "Spray Preparation" section.

**Preplant Incorporated Application**

Apply FirstRate alone or in tank mix combination with other herbicides registered for preplant incorporated application to soybeans. For best results, the seedbed should be relatively free of clods. Incorporate the herbicide(s) into the top 1 to 3 inches of the final seedbed using equipment that provides thorough soil mixing. Do not apply FirstRate earlier than 4 weeks before planting. For best results, apply FirstRate within 2 weeks of planting. When FirstRate is applied in tank mix combination with other herbicide(s),

follow the incorporation directions for the tank mix partner(s). Follow applicable use instructions, including application rates, precautions and restrictions of each product used in the tank mixture.

### Preplant Surface Application

Apply FirstRate alone or in tank mix combination with other herbicides registered for preplant soil surface application to soybeans. For best results, the seedbed should be relatively free of clods. ~~Do not apply FirstRate earlier than 4 weeks before planting.~~ For best results, apply FirstRate within 2 weeks of planting. Soil surface applications are not effective until rainfall of at least 0.5 inch has moved FirstRate into surface soil where weed germination occurs. If rainfall is not anticipated, shallow incorporation (i.e., 2 inches deep) prior to planting is recommended to place FirstRate in contact with germinating weeds. FirstRate may provide suppression of annual grasses at rates greater than 0.3 oz/acre if there is sufficient rainfall to move the herbicide into the soil prior to weed germination. Timely subsequent rainfall is required for optimal herbicidal activity. If applied in tank mix combination, follow use instructions, including application rates, precautions and restrictions of each product used in the tank mixture.

**Note:** Reduced weed control in the planted row may occur if untreated soil is exposed during planting operations.

### Burndown Application

When used as a burndown treatment, FirstRate alone will provide foliar activity on those broadleaf weeds listed in the "Postemergence Application" section of this label. In addition, FirstRate will provide residual control of broadleaf weeds listed under the "Soil Application" section. FirstRate may provide suppression of annual grasses at rates greater than 0.3 oz/acre if there is sufficient rainfall to move the herbicide into the soil prior to weed germination. Timely subsequent rainfall is required for optimal herbicidal activity. FirstRate does not control or suppress emerged annual grasses. Foliar burndown applications should include crop oil concentrate (COC) plus a liquid nitrogen fertilizer (see "Adjuvant Systems for Postemergence Application" section). To broaden the spectrum of weeds controlled, FirstRate may be tank mixed with other herbicides such as glyphosate (Glyphomax\*, Glyphomax Plus or Roundup Ultra), Touchdown, Gramoxone Extra, 2,4-D, etc. If tank mixing, a jar test for compatibility is always recommended.

**Foundation Soil Herbicide in Roundup Ready Glyphosate-Tolerant Soybeans:** FirstRate can be used as a foundation soil herbicide in a planned sequential program with products such as Glyphomax, Glyphomax Plus, or Roundup Ultra or Touchdown herbicide (including any glyphosate or sulfosate product formulation labeled for use in Roundup Ready glyphosate-tolerant soybeans). Used as a foundation soil herbicide, FirstRate will control or suppress key broadleaf weeds listed in the soil applied section of this label, allowing more optimal timing of a glyphosate (Glyphomax, Glyphomax Plus, Roundup Ultra or Touchdown) postemergence treatment. In addition, residual control from FirstRate may prevent a need for subsequent postemergence applications.

### Preemergence Application

Apply after planting but prior to crop or weed emergence. For optimum results, FirstRate should be applied within 2 days after planting. FirstRate may be applied alone or in tank mix combination with other herbicides registered for preemergence application to soybeans. When applied in tank mix combination, follow applicable use instructions, including application rates, precautions and restrictions of each product used in the tank mixture.

## Soybeans (Postemergence Application)

### Postemergence Application Timing

FirstRate may be applied any time prior to the 50% flowering stage of soybeans. Application prior to full emergence of the first soybean trifoliate leaf may cause temporary yellowing or chlorosis of soybeans.

Tank-mix partners may cause other effects regardless of the application timing. Application timing restrictions of tank-mix partners should be followed. For FirstRate, optimum application timing for control of labeled weeds is provided in the table below. ~~Allow two hours after application without rainfall for optimum FirstRate effectiveness.~~

Postemergence applications of FirstRate may provide residual soil activity on broadleaf weeds, excluding sicklepod (see soil and postemergence weed lists). Length and effectiveness of residual activity from postemergence applications will vary and is dependent on application rate, rainfall following application (0.5 inches or more of rainfall within a week of application), density of the weed and crop canopy at application, and the reserve of ungerminated weed seeds in surface soil.

**Environmental Conditions and Herbicidal Activity of FirstRate:** Factors in effective weed control with FirstRate include application rate, weed size, daytime temperature, soil moisture prior to and following application, and use of adjuvants. Best weed control results are obtained when FirstRate is applied to small, actively growing weeds, when daytime temperatures are warm (70°F or more), and soil moisture is adequate to support active weed growth prior to and following application. If weeds are under drought stress, especially common ragweed, giant ragweed, and marestail, consider delaying application until more favorable conditions resume. Application when weeds are moisture stressed or taller than the recommended height for control may result in only partial control.

- FirstRate is rainfast in 2 hours.
- Applications made immediately prior to, during, or immediately following periods of large day/night temperature fluctuations or where daytime temperatures do not exceed 60°F may decrease weed control.
- Poor weed control may result from applications made to plants under stress from:
  - ▶ abnormally hot or cold weather
  - ▶ environmental conditions such as drought, water-saturated soils, hail damage, or frost
  - ▶ prior herbicide applications

#### **Broadleaf Weeds Controlled by Application Rate and Timing for Postemergence Applications**

Apply as a broadcast spray at a rate of **0.3 oz/acre** prior to the maximum leaf stage and weed height for listed weeds using one of the recommended adjuvant systems. FirstRate may be applied alone or in tank mix combination with other herbicides registered for postemergence application to soybeans.

#### **Use Rates for Postemergence Applications:**

**Note:** Numbers in parentheses (-) refer to footnotes following table.

FirstRate (oz/acre)	Acres per 0.6 oz. Packet (1)
0.3	2.0

1. See instructions for calculating the total number of water soluble packets required in the "Spray Preparation" section.

#### **Broadleaf Weeds Controlled by Postemergence Applications and Optimum Stage of Growth:**

The following weeds are controlled by FirstRate when applied postemergence at the indicated weed stage of growth. FirstRate does not control known ALS resistant biotypes of these weeds. To improve coverage and product performance in heavy weed infestations, use a minimum of 15 gallons per acre, spray volume.



- ▲ FirstRate will not control known ALS resistant biotypes of weeds listed below.
- ▲ To improve coverage and product performance in heavy weed infestations, use a minimum of 15 gallons per acre spray volume.

**Note:** Numbers in parentheses (-) refer to "Weed-Specific Use Information" following table.

Weeds Controlled	Leaf Number at Application (Optimum to Maximum)	Maximum Height (inches)
cocklebur, common	4 to 8	10
dayflower, Asiatic	2 to 6	NA
dayflower, marsh	2 to 6	NA
dayflower, spreading	2 to 6	NA
jimsonweed	2 to 4	4
mallow, venice	2 to 4	<3
horseweed (marestail)	2 to 4	6
marshelder	4 to 6	10
morningglory (annual species) (1)	2 to 4	4
mustard, wild (2)	2 to 4	2
ragweed, common	4 to 6	10-8
ragweed, giant (3)	4 to 6	10
sicklepod (4)-(3)	cotyledon to 1	<2
smartweed, Pennsylvania	2 to 4	6
sunflower, common	4 to 8	12
velvetleaf (5)-(4)	2 to 4	6
<b>Weeds Suppressed</b>		
burcucumber	2 to 4	6
Canada thistle	---	10
nutsedge, yellow	---	8

#### Weed-Specific Use Information

1. **Morningglory:** Spray before morningglory plants begin to send out runners.
2. **Wild mustard:** For optimum control, apply before wild mustard plants exceed four inches in diameter.
3. **Giant ragweed:** Herbicidal activity may be slowed or reduced if applications are made during periods when the growth of weeds are affected by unusual environmental conditions just prior to or after application. Examples of such conditions include especially cool or widely fluctuating day and night air temperatures, drought or heat stress, or waterlogged soils.
- 4-3. **Sicklepod:** Applications made to sicklepod plants later than the 1-leaf stage of growth will likely result in reduced control. Repeat application of FirstRate may be necessary 7 – 10 days after the first (do not apply more than a total of 0.6 oz/acre per season as a postemergence application). Additional treatment Application of other postemergence herbicides may be required necessary to control later germinating sicklepod plants.
- 5-4. **Velvetleaf:** When velvetleaf is a primary target weed, **always** include urea ammonium nitrate (UAN) or ammonium sulfate with nonionic surfactant, crop oil concentrate or methylated seed oil as the adjuvant system.

#### Adjuvant Systems for Postemergence Application

Use in combination with one of the following adjuvant systems approved for application to growing crops:

- Nonionic surfactant at 1 to 2 pt/100 gallons of spray mixture (0.125 - 0.25% v/v) plus urea ammonium nitrate at 2.5 gal/100 gallons solution (2.5% v/v)<sup>†</sup>. Nonionic surfactant may be used alone at 2 pt/100 gallons of spray mixture 0.25% v/v when required in certain tank mixes.
- Crop oil concentrate or methylated seed oil at 1.2 gallons/100 gallons of spray mixture (1.2% v/v)

18/20

- Crop oil concentrate or methylated seed oil at 1.2 gallons/100 gallons of spray mixture (1.2% v/v) plus urea ammonium nitrate solution at 2.5 gal/100 gallons (2.5% v/v)

**Note:** Use of crop oil concentrate or methylated seed oil plus urea ammonium nitrate is preferred when weeds are under drought stress, but may increase crop injury.

<sup>†</sup>Dry ammonium sulfate may be used at a rate of 2 lbs per acre (8.5 to 17 lb/100 gallons of spray mixture) as a substitute for urea ammonium nitrate.

Refer to "Soil and Post Application Instructions" section for mixing instructions and mixing order for tank mix products and adjuvants.

**Tank-Mix Options**

For weeds not listed for postemergence control with FirstRate, the herbicides listed below may be used per label instructions. When applied in tank mix combination with other herbicides, **follow all use instructions for all products, including application rates, precautions and restrictions for each product used in the tank mixture, including use of adjuvants.**

**Note:** Numbers in parentheses (-) refer to footnotes following table.

Broadleaf Herbicides	Grass Herbicides
Basagran	Assure II (1)
Blazer	Fusion (1)
Classic	<u>Glyphomax (1), Glyphomax Plus (1)</u>
Cobra	Poast Plus
<u>Glyphomax (1), Glyphomax Plus (1)</u>	<u>Roundup Original (1), Roundup Ultra (1)</u> (When crop is emerged, use only with Roundup Ready soybeans.)
Flexstar	Select
Pinnacle	<u>Touchdown (1)</u>
Pursuit	
Raptor	
Reflex	
Reliance	
Resource	
<u>Roundup Original (1), Roundup Ultra (1)</u> (When crop is emerged, use only with Roundup Ready soybeans.)	
<u>Touchdown (1)</u>	
<u>Status</u>	
Stellar	
Synchrony	

1. Tank mixtures of FirstRate plus glyphosate or sulfosate products such as Glyphomax, Glyphomax Plus, Roundup Original, Roundup Ultra, or Touchdown may only be used postemergence over glyphosate-tolerant soybeans (refer to paragraph below for specific use instructions for tank mixing FirstRate with these products).

4-2. Under certain conditions, tank-mixing FirstRate with these postemergence grass herbicides may reduce their activity on some grass species. However, broadleaf weed control with FirstRate will not be affected. This grass antagonism may be overcome by using full labeled rates of these grass herbicides in tank mixtures with FirstRate. Making separate applications of FirstRate and Assure II or Fusion is the most effective method for reducing the potential for antagonism.

Do not tank mix Assure II with FirstRate when the target weed is woolly cupgrass or fall panicum, as reduced control may occur.

**Other Postemergence Herbicide Applications:** Apply other postemergence herbicides at least 7 days before or 7 days after an application of FirstRate.

**Precautions for postemergence Applications of FirstRate with Foliar Insecticides:** FirstRate may be tank mixed with the foliar applied Lorsban-4E insecticide or synthetic pyrethroid products. The addition of other herbicides with FirstRate in combination with an insecticide may increase the risk for crop injury in the form of stunting or leaf burn.

**FirstRate + Glyphomax, Glyphomax Plus, Roundup Ultra or Roundup Original Tank Mix in Roundup Ready-Glyphosate-Tolerant Soybeans**

FirstRate at 0.3 oz per acre may be tank mixed with Glyphomax, Glyphomax Plus, Roundup Ultra or Roundup Original, (including any glyphosate formulation labeled for use in Roundup Ready-glyphosate-tolerant soybeans) to provide flexibility in use rates and to enhance ~~sharpen~~ control of key broadleaf weeds such as giant ragweed, maretail, morningglory, velvetleaf, and others listed under the "Postemergence Application" section of this label. Residual control from FirstRate may also reduce the potential need for subsequent postemergence applications.

As a general rule, when tank mixing FirstRate with Glyphomax, Glyphomax Plus, Roundup Original or Roundup Ultra, it is recommended to add ammonium sulfate (AMS) at 8.5 to 17 lb per 100 gallons of spray mixture. The recommended order of mixing is: (1) water; (2) FirstRate; (3) AMS; and (4) glyphosate product. Do not add a non-ionic surfactant or crop oil concentrate to tank mixes with Glyphomax Plus or Roundup Ultra.

**Note:** If Glyphomax or Roundup Original is tank mixed with FirstRate, a non-ionic surfactant is also recommended at the rate of 2 quarts per 100 gallons of spray mixture. Add the non-ionic surfactant before completing the filling process.

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It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Dow AgroSciences or the seller. All such risks shall be assumed by buyer.

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### Limitation of Remedies

The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Dow AgroSciences' election, one of the following:

- (1) Refund of purchase price paid by buyer or user for product bought, or
- (2) Replacement of amount of product used.

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