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Systems Integration Group, Inc.

P4D / Frontrow / Amend With Edits / 05-05-99

5/11/99

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Page 1

(Base Label)

(Logo) Dow AgroSciences LLC

# Frontrow\*

A Co-pack Product For Postemergence Broadleaf Weed Control In Soybeans Containing FirstRate and Flumetsulam 80 WDG Herbicides.

# FirstRate\*

# Active Ingredient: 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 100% Contains 0.84 pounds of active ingredient per pound of product.

US Patent Number: 5,163,995

EPA Reg. No. 62719-275

Net Wt - 1, 1.5 oz Water Soluble Packet

# Flumetsulam 80 WDG

Active Ingredient:	
flumetsulam: N-(2,6-difluoropheny	l)-
5-methyl-1,2,4-triazolo-[1,5a]-	
pyrimidine-2-sulfonamide	80.0%
Inert ingredients	20.0%
Total	
Contains 0.8 pounds of active ingredie pound of product.	ent per

US Patent Numbers: 4,954,163 and 4,818,273

EPA Reg. No. 62719 277

Net Wt - 1, 0.6 oz Water Soluble Packet



MAY 1 1 1999

Under the Federal Insecticide. Fungicide. and Rodenticide Act. as amended, for the pesticide registered under EPA Rec. No. 1000 2004

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2 4 16

### 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.)

### **Precautionary Statements**

### 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, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. Flumetsulam has been identified in groundwater sampling from a field research site under vulnerable conditions. There is the possibility that flumetsulam may leach through soil to groundwater, especially, where soils are coarse and groundwater is near the surface.

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 infield 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.

Agricultural Chemical: Do Not Ship or Store with Food, Feeds, Drugs, or Clothing.

EPA Reg. No. 62719-299

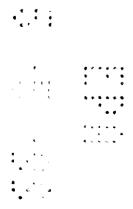
EPA Est. \_\_\_\_

\*Trademark of Dow AgroSciences LLC

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

# Herbicide

Net	Weight	



(Label Booklet cover)

(Logo) Dow AgroSciences LLC

# Frontrow\*

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# FirstRate\*

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cloransulam-methyl: N-(2-carbomethoxy-	
6-chlorophenyl)-5-ethoxy-7-	
fluoro(1,2,4)triazolo-[1,5-c]pyrimidine-	
2-sulfonamide849	%
inert Ingredients <u>16</u> °	%
Total100	%
Contains 0.84 pounds of active ingredient per	
pound of product.	

US Patent Number: 5,163,995

EPA Reg. No. 62719-275

Net Wt - 1, 1.5 oz Water Soluble Packet

# Flumetsulam 80 WDG

Active Ingredient:	
flumetsulam: N-(2,6-difluorophenyl)-	
5-methyl-1,2,4-triazolo-[1,5a]-	
pyrimidine-2-sulfonamide	80.0%
Inert ingredients	20.0%
Total	
Contains 0.8 pounds of active ingredient pound of product.	per

US Patent Numbers: 4,954,163 and 4,818,273

EPA Reg. No. 62719-277

Net Wt - 1, 0.6 oz Water Soluble Packet

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### 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 tabel.

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Agricultural Chemical: Do Not Ship or Store with Food, Feeds, Drugs, or Clothing.

EPA Reg. No. 62719-299

EPA Est. \_\_\_\_

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Herbicide

Net Weight \_\_\_\_\_



(Page one through end)

### **Precautionary Statements**

### 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, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. Flumetsulam has been identified in groundwater sampling from a field research site under vulnerable conditions. There is the possibility that flumetsulam may leach through soil to groundwater, especially, where soils are coarse and groundwater is near the surface.

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 infield 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.

### **Directions for Use**

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

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:

- Coveralis
- 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:** Dispose of empty package or overpacks in a sanitary landfill or by incineration or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

### General Information

Frontrow\* herbicide is a co-pack product, for postemergence broadleaf weed control in soybeans. Each co-pack of Frontrow contains 1.5 oz of FirstRate\* herbicide and 0.6 oz of Flumetsulam 80 WDG herbicide in separate water soluble packets. Both packets are packaged together in a single overpack. Frontrow is formulated as water dispersible granules. The individual components of the Frontrow overpack must be used together or a reduction in weed control will result. Do not mix and apply separately.

When applications are made under adverse (dry or cold) conditions or when large weeds or less susceptible species are treated, less than acceptable control or weed suppression may be observed. Weed suppression is a visual reduction in weed competition (reduced population, size, and/or vigor) as compared to an untreated area. Degree of control can be increased by applying Frontrow under good growing conditions (i.e., adequate moisture and temperature).

### Safe Pesticide Handling Procedures

Handling Precautions for Product Packaged in 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.

- · Calibrate sprayers only with clean water away from the well site.
- · Make scheduled checks of spray equipment.
- Assure accurate measurement of pesticides by all operation employees.
- · Mix only enough product for the job at hand.
- · Avoid over filling the spray tank.
- · Do not discharge excess material on soil at a single spot in the field or mixing/loading station.
- Dilute and agitate excess spray solution and apply on approved crop site.

### Sprayer Cleanup:

To avoid injury or exposure to nontarget crops, thoroughly clean all mixing and spray equipment on approved rinse pads or on the field site where an approved crop is to be grown. Do this immediately after application and prior to use on crops other than those registered for use on this label. Spray equipment should be cleaned at the end of each day by the following procedure:

- Drain any remaining Frontrow from the spray tank and dispose of according to label disposal instructions.
- 2. Hose down the interior surfaces of the tank and fill the tank 1/2 full with water. Recirculate for 5 minutes. Spray part of the mixture through the hoses, boom and nozzles and drain the tank. All rinsate material should be collected in a suitable container and disposed of according to label directions (applied to cropland to be planted to crops recommended in this label) or in a locally approved manner (see "Storage and Disposal" section).
- 3. Remove the nozzles and screens and clean separately.
- 4. If the spray equipment will be used on crops other than those registered for use on this label, repeat steps 1 and 2 again and thoroughly wash the spray mixture from the outside of spray tank and the

Placement of mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

### General 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 unrooofed 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 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 which will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.
- · Make only one application per crop growing season.
- Do not apply more than 0.42 0.84 oz per acre of Frontrow (0.3 0.6 oz FirstRate + 0.12 0.24 oz Flumetsulam 80 WDG) per crop growing season. Following an initial application of 0.42 oz per acre, a second postemergence application of up to 0.42 oz per acre may be made to control late germinating weeds. If required, the second application should occur at least 14 days after the first.
- Do not graze or feed treated soybean forage, hay or straw to livestock.
- Do not apply when air temperature is near freezing or when freezing conditions are expected for several days following application.
- Do not aerially apply Frontrow. Apply using ground equipment only.
- 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.
- 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.
- Follow all applicable directions, precautions and restrictions on labeling for other products used in combination with Frontrow.
- Preharvest Interval: Do not harvest soybeans for 70 days after application of Frontrow.

### Rotational Crop Restrictions:

When tank mixing with other herbicides, follow crop rotation guidelines on the label of each product used. The following rotational crops may be planted at the indicated interval following application of Frontrow.

<u>Unusual climatic or environmental conditions that may increase the likelihood of rotational crop injury include lower than normal rainfall and/or soil temperatures in the fall and spring; and/or soil pH extremes.</u>

Crop	Rotation Interval <sup>†</sup> (1) (Months)
small grains wheat	3
corn, sorghum, cotton, peanuts, rice	9
tobacco (2)	<u>30</u>
sugar beets, sunflowers <del>, tobacco</del>	26 <sup>#</sup> 30

\*1. Minimum number of months that must pass before planting-other these crops after application of Frontrow at up to 0.84 oz/acre postemergence.

- 2. Transplanted tobacco may be planted 10 months after application of 0.42 oz/acre of Frontrow and following a successful field bioassay. Tobacco in seedbed nurseries may be planted 18 months after application of 0.42 oz/acre of Frontrow and following a successful field bioassay. A rotation interval of 30 months and a successful field bioassay is required for all applications of Frontrow greater than 0.42 oz/acre.
- \*\*3. **Note:** Rotation to sugar beets, sunflowers<del>, tobacco, canola</del> and all other crops requires a <u>26\_30</u> 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 Frontrow. Plant the strips perpendicular to the direction Frontrow 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 in the growing season following the bioassay. If visible injury, stand reduction, or yield reduction occurs, the test crop should not be seeded, and the bioassay must be repeated the next growing season.

In fields previously treated with this product, plant short test rows of the intended rotational crop across the original direction of application in a manner to sample field conditions such as soil texture, soil pH, drainage, and any other variable that could affect the seed bed of the new crop. Field bioassay at any time between harvest of the treated crop and the planting of the rotational crop. Observe the test crop for herbicidal activity, such as poor stand (effect on seed germination) chlorosis (yellowing), and necrosis (dead leaves or shoots), or stunting (reduced growth). If herbicidal symptoms do not occur, the test crop can be grown. If there is apparent herbicidal activity, do not plant the field to the test rotational crop; plant only a labeled crop or crop listed in the table above for which the rotational interval has clearly been met.

### Mixing and Application

### Spray Volume and Application:

- Apply in a total spray volume of 10 to-20 40 gallons per acre. Use sufficient spray volume to provide uniform coverage, for example for heavy weed pressure situations, use a minimum of 15-20 gallons per acre spray volume to improve coverage and product performance.
- Sufficient agitation should be maintained during mixing and spraying to ensure a uniform spray mixture.
- To ensure a uniform spray mixture, continuous agitation is required during mixing and application.
   Apply within 48 hours after mixing. If product is allowed to settle, thoroughly agitate to resuspend the mixture before spraying.
- Apply with ground equipment using a standard low-pressure (20 to 40 pounds per square inch) herbicide sprayers sprayer equipped with flat fan nozzles that provide uniform coverage.
- Screens in spray tank lines should be no finer than 50 mesh (100 mesh is finer than 50 mesh).
- Do not apply using liquid fertilizer as a carrier.

### Mixing Instructions - Frontrow Alone

**Water Soluble Packaging:** Each Frontrow overpack contains two water soluble packets which must be removed from the overpack and added to the spray tank at the same time. Refer to Application Rates below to determine the number of overpack units that must be added to the spray tank for the acreage to be treated. Thorough mixing is required.

### Mixing-Instructions Order:

- 1. Fill the tank with 1/2 of the total amount of water or liquid fertilizer required.
- 2. Start agitation system.
- Unless otherwise instructed on the adjuvant label, add any adjuvant materials, after adding Add the
  required number of overpack units (each containing two water soluble packets product in transparent
  film) to the spray tank.
  - **Note:** Handling water soluble packets with hands should be minimized. Do not handle if hands or gloves are wet. Water soluble packets must be removed from the overpack before adding to the spray tank. This can be done by opening the overpack and adding the two water soluble packets (product in transparent film) directly to the spray tank. Do not open water soluble packets. Water soluble packets will float on the surface until the soluble film dissolves and the product is released. Overpacks are not water soluble and should not be placed in spray tank.
- 4. Continue agitation and complete filling the tank while the packets dissolve.

- 5. After water soluble packets of Frontrow have completely dissolved (approximately 5 minutes), add non-ionic surfactants or other adjuvant materials.
- 66. Before spraying, make sure packets have completely disintegrated and product is thoroughly mixed with water. Depending on the water temperature and the degree of agitation, the packet and its contents should be completely dispersed within 5 minutes from the time they were added to the spray tank.

Screens in spray tank lines should be no finer than 50 mesh (100 mesh is finer than 50 mesh).

To insure a uniform spray mixture continuous agitation is required during mixing and spraying. Apply within 24 hours after mixing. If product is allowed to settle, thoroughly agitate to resuspend the mixture before spraying.

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

### Mixing Instructions - Frontrow in Tank Mix Combination

If a broader spectrum of weed control is needed, Frontrow 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 procedures for "Sprayer Cleanup" under "Safe Pesticide Handling Procedures", above.)
- 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 Frontrow 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, jels, 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. To prevent foaming during filling, keep end of fill pipe below the surface of the liquid in the spray tank.

Compatibility Testing: When tank mixing Frontrow with other products; a compatibility test (jar test) using relative proportions of tank mix ingredients should be conducted prior to mixing ingredients in the spray tank. Use a compatibility agent if the need for one is indicated by the jar test (ingredients separate readily and are not easily redispersed).

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

### Mixing Order for Tank Mixes:

- 1. Fill the spray tank to 1/4 to 1/3 of the total spray volume required with water.
- Start agitation system.
- Add different formulation types in the following order: (1) Compatibility agent, if required; (2) Frontrow
  and other dry flowables; (3) wettable powders; (4) 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
  addition of each product.
- 4. Finish filling the spray tank. Maintain continuous agitation during mixing, final filling and throughout application.
- 5. Weed control may be reduced when Frontrow has been mixed and allowed to stand for more than 48 hours prior to application.

If spraying and 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.

### **Application Rates**

Each co-pack of Frontrow contains 1.5 oz of FirstRate and 0.6 oz of Flumetsulam 80 WDG, packaged together-as in a single overpack. Each overpack will treat 5 acres. [Bold added for emphasis.] The following table provides per acre rates of Frontrow when applied according to label directions. Note: Open the overpack and add both of the water soluble packets directly to the spray tank. The overpack is NOT water soluble.

Application Rates Per Acre Determining the Number of Overpacks Required:

One overpack of Frontrow	Per Acre Ap	plication Rate
contains a 1.5 oz packet of FirstRate and a 0.6 oz packet of Flumetsulam 80 WDG	FirstRate (oz/acre)	Flumetsulam 80 WDG (oz/acre)
One overpack treats 5 acres	0.3	0.12

Rate Formula: Acres to be treated + Number of acres per overpack = Number of overpacks

One overpack will treat 5 acres

**Sample Calculation:** Acres to be treated = 27 30

27-30 acres + 5 acres per overpack =  $6.4_6$  overpacks

When the number of overpacks calculated does not equal a whole number, round to the nearest whole number of overpacks. [Bold added for emphasis.]

# Approved Uses

### **SOYBEANS**

### Postemergence Application

Frontrow 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. Allow two hours after application without rainfall for optimum Frontrow effectiveness

Postemergence applications of Frontrow may provide residual soil activity on broadleaf weeds, excluding sicklepod (see postemergence weed list). Length and effectiveness of residual activity from postemergence applications will vary and is dependent on 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

**Note:** 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.

Apply Frontrow at a rate of 1 overpack (containing 1.5 oz of FirstRate and 0.6 oz of Flumetsulam 80 WDG) per 5 acres (0.42 oz/acre). Following an initial application of 0.42 oz per acre, a second postemergence application of up to 0.42 oz per acre may be made to control late germinating weeds. If required, the second application should occur at least 14 days after the first. Apply as a broadcast spray when weeds are actively growing and before weeds exceed the growth stages (number of true leaves per plant) indicated in the table below. Applications made to larger weeds or to weeds under stress may result in unsatisfactory control. Application timing generally corresponds to soybean growth stages of unifoliate to three to four expanded trifoliate leaves. Applications made to soybeans prior to the first fully expanded trifoliate may result in temporary chlorosis or yellowing of the leaves. Frontrow may be applied alone or in tank mix combination with other postemergence herbicides. Applications of Frontrow must include either a crop oil concentrate, a nonionic surfactant or a nonionic surfactant plus urea ammonium nitrate or ammonium sulfate.

### When applied as directed Frontrow will control the following weeds:

Numbers is parentheses (-) refer to "Use Directions for Specific Weeds" below.

Weeds Controlled	Application Stage of Growth (Number of true leaves per plant) Leaf Number at Application (Optimum to	Maximum Height (inches)
cocklebur (1)	Maximum) 2 to 8	6
horseweed (marestail)	2 to 4	<u>6</u>
iimsonweed	2 to 4	4
prickly sida	1 to 2	<u></u>
morningglory (annual) (2), including: entireleaf, ivyleaf, palmleaf, pitted, red, smallflower, tall	2 to 4	6
ragweed <u>, including:</u> common giant	2-4 to 8 2-4 to 6	<u>10</u> <u>10</u>
sicklepod* <u>(3)</u>	cotyledon - to 1 (< 2 inches)	<u>&lt;2</u>
smartweed, Pennsylvania	<u>2 to 4</u>	<u>6</u>
sunflower, common	<u>4 to 8</u>	12
teaweed (prickly sida)	<u>1 to 2</u>	<u>12</u> <u>2</u> 6
velvetleaf	2 to 4	<del></del>
venice mallow	2 to 4	<u> </u>

announce out floring	04.0	
common sunflower	1 210.8	
( comment cultiliones	2.00-0	

When applied as directed Frontrow will suppress the following weeds:

Weeds Controlled	Application Stage of Growth (Number of true leaves per plant)	
Weeds Suppressed		
copperleaf, hophornbeam	1 to 2	4
hemp sesbania	Cotyledon to 1	<u>&lt;1</u>
nutsedge, yellow	=	<u>8</u>
pigweed species, including: redroot, smooth, spiny	1 to 2	<u>&lt;1</u>

### **Use Directions for Specific Weeds:**

- 1. Frontrow will not control ALS resistant biotypes of this weed.
- Spray before morningglory begins to send out runners.
- †3. Reduced control will result if applications are made to sicklepod at 2 leaf stage or larger plants that are beyond the 1-leaf stage of growth. Additional herbicide treatment may be required to control sicklepod which germinates after application.

### Spray Adjuvants

Either a crop oil concentrate, a nonionic surfactant or a nonionic surfactant plus ammonium nitrate solution must be included in the spray solution. Ammonium sulfate may be used as a substitute for ammonium nitrate.

Note: When tank mixing with other products that already contain adjuvants (as indicated by the label of the tank mix product, e.g., Roundup Ultra), it is not necessary to add additional adjuvants to the tank mix.

### **Crop Oil Concentrate**

Under hot, dry conditions, a crop oil concentrate may be used in place of the nonionic surfactant plus ammonium nitrate solution to enhance weed control. Grop oil concentrate is especially helpful in controlling sickleped and prickly sida. Apply the crop oil concentrate at 1.2% v/v (volume/volume) (4.3/4 qt per 100 gal of spray solution). Note: Crop oil concentrate may increase the potential for crop injury in coybeans.

# Nonionic Surfactant or Nonionic Surfactant Plus Ammonium Nitrate Solution or Ammonium Sulfate

Use the nonionic surfactant in the spray solution at a rate (concentration) of 0.25% v/v (volume/volume) (1 qt per 100 gal of spray solution). Use only products that contain at least 80% nonionic surfactant as the active ingredient. When used in combination with a urea ammonium nitrate solution use the nonionic surfactant in the spray solution at a rate (concentration) of 0.125% v/v (1 pt per 100 gal of spray solution) and the urea ammonium nitrate solution at a concentration of 2.5% v/v. Dry ammonium sulfate may be used at 2 lbs. per acre s a substitute for urea ammonium nitrate.

### Adjuvant Systems for Postemergence Application

<u>Use Frontrow in combination with one of the following adjuvant systems approved for application to growing crops:</u>

 Crop oil concentrate (1.2% v/v). Note: Crop oil concentrate may increase the potential for crop injury in soybeans.

- Nonionic surfactant (0.125 0.25% v/v) plus urea ammonium nitrate solution (2.5% v/v). Dry ammonium sulfate may be used at a rate of 2 lb per acre as a substitute for urea ammonium nitrate.
- Nonionic surfactant (0.25% v/v).

### **Tank Mix Options**

For weeds not listed for postemergence control with Frontrow, 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.

For broader spectrum weed control, Frontrow may be tank-mixed with another registered herbicide. When applied in tank-mix combination with other herbicides, follow all applicable label instructions for each product used in the tank mixture.

Potential tank-mix partners include, but are not limited to, the following products:

Broadleaf Herbicides	Grass Herbicides
Basagran	Select
Blazer	Poast Plus
Cobra	Assure lí <sup>†</sup>
Pinnacle	Fusion <sup>†</sup>
Flexstar	Roundup Ultra (When
Reflex	crop is emerged, use
Pursuit	only with Roundup
Roundup Ultra (When	Ready soybeans
crop is emerged, use	
only with Roundup	
Ready soybeans	

<sup>1</sup> Under certain conditions, tank-mixing Frontrow with these postemergence grass herbicides will may reduce the their activity of the tank mix partner. However, the centrel of broadleaf weeds weed control with Frontrow will not be affected. Higher labeled rates of the postemergence grass herbicides in a tank mixture with Frontrow may overcome this antagonism. Sequential applications of Frontrow and Assure II or Fusion is the most effective method for reducing the opportunity potential for antagonism. Do not tank mix Assure II with Frontrow 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 Frontrow.

### Warranty Disclaimer

Dow AgroSciences warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. Dow AgroSciences MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

### Inherent Risks of Use

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.

### 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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