



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D C 20460

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

October 13, 2006

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

SUBJECT:

Application for Pesticide Notification to Add NY Restrictions/DAS Trademark

ForeFront™ R&P

EPA Reg. No. 62719-524

Application Dated September 8, 2006

Dear Dr. Jachetta:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above product. The Registration Division (RD) has conducted a preliminary screen of this request for its applicability under PRN 98-10 and finds that the actions requested fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" received but not reviewed and will be placed in our records.

If you have any questions, please me directly at 703-305-6249 or Terri Stowe of my staff at 703-305-6117.

Sincerely,

Linda Arrington

Notifications & Minor Formulations Team Leader

Registration Division (7505P)

Office of Pesticide Programs

<u>Please read instructions on reverse before completing form.</u> Form Approved. QMB No. 2070-0060, **OPP Identifier Number** Registration **United States Environmental Protection Agency Amendment** Washington, DC 20460 Other Application for Pesticide - Section I 1. Company/Product Number 2. EPA Product Manager 3, Proposed Classification Dow AgroSciences/62719-524 Joanne I. Miller Restricted 4. Company/Product (Name) PM# Dow AgroSciences/ForeFront™ R&P 23 5. Name and Address of Applicant (Include ZIP Code) 6. Expedited Reveiw. In accordance with FIFRA Section 3(c)(3). NOTIFICATION (b)(i), my product is similar or identical in composition and labeling Dow AgroSciences LLC 9330 Zionsville Road OCT 13 2006 EPA Reg. No. Indianapolis, IN 46268 Check if this is a new address **Product Name** Section - II Final printed labels in repsonse to Amendment - Explain below. Agency letter dated 'Me Too" Application. Resubmission in response to Agency letter dated ______ Notification - Explain below. Other - Explain below. Explanation: Use additional page(s) if necessary. (For section I and Section II.) The following changes have been made by notification, at the request of the state of New York: 1 At the request of the state of New York, added restriction prohibiting use in Nassau and Suffolk counties. 2 Added DAS trademark line to cover, base label and booklet. Section - III 1. Material This Product Will Be Packaged In: Child-Resistant Packaging Unit Packaging Water Soluble Packaging 2. Type of Container Metai Yes Yes Yes Plastic Nσ No Glass Paper If "Yes" If "Yes" No. per No. per * Certification must Unit Packaging wgt. Other (Specify) container container Package wgt be submitted 3. Location of Net Contents Information 4. Size(s) Retail Container 5. Location of Label Directions 6. Manner in Which Lebel is Affixed to Product Other Lithograph Paper glued Stenciled Section - IV 1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.) Title Telephone No. (Include Area Code) John J. Jachetta, Ph.D. (317) 337-4686 Regulatory Manager 6. Date Application Certification **Received** I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowlingly false or misleading statement may be punishable by fine or imprisonment or (Stamped) both under applicable law. Uny shiosn / for Regulatory Manager 5. Date John J. Jachetta, Ph.D. September 8, 2006

™Trademark of Dow AgroSciences LLC

308/2E September 8, 2006



Document Processing Desk (NOTIF)
Office of Pesticide Programs (7504P)
U. S. Environmental Protection Agency
One Potomac Yard
2777 S. Crystal Drive
Arlington, VA 22202

FOREFRONT R&P (AI: AMINOPYRALID) EPA REGISTRATION NUMBER: 62719-524 NOTIFICATION OF MINOR LABEL CHANGE PER PR NOTICE 98-10

Enclosed please find labeling for the notification action of ForeFrontTM R&P specialty herbicide based on EPA-accepted label dated November 22, 2005. The following changes have been made by notification, at the request of the state of New York:

- 1. Under Directions for Use, added restriction prohibiting use in Nassau and Suffolk counties.
- 2. Added DAS trademark line to cover, base label and booklet.

This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Contents of Submission

Transmittal document (this letter)

any busson / for

- Application for Pesticide, EPA Form 8570-1
- Label entitled ForeFront R&P (S5E / ForeFront R&P MTR Notif / 08-16-06)
 (18 Pages plus Registration Notes) (5 Copies)

If you require further information, please contact Amy Hudson, Regulatory Specialist at 317-337-3967 or Joyce Carroll, Registration Assistant for this product, at 317-337-4631.

Sincerely,

John J. Jachetta, Ph. D. Regulatory Leader

Regulatory Success - Americas

317-337-4686

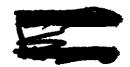
317-337-4649 (FAX)

JJJ/akh Enclosures

Trademark of Dow AgroSciences LLC

\$5E / ForeFront R&P / MTR Notif / 08-16-06

file: ForeFront R&P-524 16Aug06N.doc



ForeFront™ R&P

EPA Reg. No. 62719-524

This master label contains use sites denoted in pink text to be removed from commercial package Jabel.

Registration Notes:

Source Section 3 label text based on EPA-accepted label dated November 22, 2005.

Changes by Notification:

- 1. At the request of the state of New York, added restriction prohibiting use in Nassau and Suffolk counties.
- 2. Added DAS trademark line to cover, base label and booklet.

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(Base label):

(Logo) Dow AgroSciences

NOTIFICATION

OCT 13 2005

ForeFront™ R&P

Specialty Herbicide

For control of annual, biennial, and perennial broadleaf weeds, including invasive and noxious weeds, on rangeland, permanent grass pastures, and Conservation Reserve Program (CRP) acres., non-cropland areas such as rights-of-way, roadsides, non-irrigation ditch banks, and natural areas such as wildlife management areas, natural recreation areas, campgrounds, trailheads and trails, and grazed areas in and around non-crop sites

Group	4	HERBICIDE
}	L	

Active Ingredient:

Acid Equivalents:

aminopyralid (2-pyridine carboxylic acid, 4-amino-3,6-dichloro-) - 3.4% - 0.33 lb/gal (40 g/L) 2,4-D [(2,4-dichlorophenoxy) acetic acid] - 27.2% - 2.67 lb/gal (320 g/L)

Keep Out of Reach of Children

DANGER

PELIGRO

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

Corrosive • Causes Irreversible Eye Damage • Harmful if Swallowed

Do not get in eyes or on clothing.

Personal Protective Equipment (PPE)

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

Applicators and other handlers must wear:

- · Long-sleeved shirt and long pants
- · Protective eyewear
- Chemical-resistant gloves made of any waterproof material such as natural rubber
- Shoes plus socks

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, 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.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

First Aid

If in eyes: 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. Call a poison control center or doctor for treatment advice.

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

Environmental Hazards

This product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and nontarget plants. 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 washwater or rinsate.

Mixing and Loading: Most cases of groundwater contamination involving phenoxy herbicides such as 2,4-D have been associated with mixing/loading and disposal sites. Care should be exercised when handling 2,4-D pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

'Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to 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. Use only according to label directions. Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.

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:	no not snip or	store with food, fee	eds, arugs or clot	hing.

EPA Reg. No. 62719-524	EPA Est

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Net Contents ___



(cover):

NOTIFICATION

(Logo) Dow AgroSciences

OCT 13 2005

ForeFront™ R&P

Specialty Herbicide

For control of annual, biennial, and perennial broadleaf weeds, including invasive and noxious weeds, on rangeland, permanent grass pastures, and Conservation Reserve Program (CRP) acres., non-cropland areas such as rights-of-way, roadsides, non-irrigation ditch banks, and natural areas such as wildlife management areas, natural recreation areas, campgrounds, trailheads and trails, and grazed areas in and around non-crop sites

Group	4	HERBICIDE
		

Active Ingredient:

Triisopropanolammonium salt of 2-pyridine

carboxylic acid, 4-amino-3,6-dichloro-........... 6.58%

Triisopropanolammonium salt of

(2,4-dichlorophenoxy) acetic acid51.06%

Acid Equivalents:

aminopyralid (2-pyridine carboxylic acid, 4-amino-3,6-dichloro-) – 3.4% - 0.33 lb/gal (40 g/L) 2,4-D [(2,4-dichlorophenoxy) acetic acid] – 27.2% - 2.67 lb/gal (320 g/L)

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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 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), User Safety Recommendations and Directions for Use including Storage and Disposal.

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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.

	Net Contents
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EPA Reg. No. 62719-524	EPA Est.

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Precautionary Statements

Hazard to Humans and Domestic Animals

DANGER

Corrosive • Causes Irreversible Eye Damage • Harmful if Swallowed

Do not get in eyes or on clothing.

Personal Protective Equipment (PPE)

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

Applicators and other handlers must wear:

- · Long-sleeved shirt and long pants
- · Protective eyewear
- · Chemical-resistant gloves made of any waterproof material such as natural rubber
- · Shoes plus socks

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, 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.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing.
 As soon as possible, wash thoroughly and change into clean clothing.

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If in eyes: 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. Call a poison control center or doctor for treatment advice.

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Mixing and Loading: Most cases of groundwater contamination involving phenoxy herbicides such as 2,4-D have been associated with mixing/loading and disposal sites. Care should be exercised when handling 2,4-D pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the



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

Directions for Use

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.

This product is not registered in Nassau and Suffolk Counties of New York State. State law prohibits distribution sale or use of the product in these counties.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE) and restricted-entry 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 48 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- · Chemical-resistant gloves made of any waterproof material such as natural rubber.
- Protective eyewear
- Shoes plus socks

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for Agricultural Pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Entry Restrictions for Non-WPS Uses: For applications on rangeland and permanent grass pastures, and non-cropland areas, do not enter or allow worker entry into treated areas until sprays have dried.

Storage and Disposal

Do not contaminate water, food, feed or fertilizer by storage or disposal. Open dumping is prohibited. **Pesticide Storage**: If this product is exposed to subfreezing temperatures, the active ingredient may crystallize and settle out of solution. Under these conditions the product should be warmed to at least 40°F and agitated well to dissolve any crystallized material prior to use.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal (Metal): Do not reuse container. Triple rinse (or equivalent). Puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. Container Disposal (Plastic): Do not reuse container. Triple rinse (or equivalent). Puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

General: Consult federal, state or local disposal authorities for approved alternative procedures.

General Information

ForeFront™ R&P specialty herbicide controls annual, biennial, and perennial broadleaf weeds, including invasive and noxious weeds, on rangeland, permanent grass pastures, and Conservation Reserve Program (CRP) acres., non-cropland areas such as rights-of-way, roadsides, non-irrigation ditch banks. and natural areas such as wildlife management areas, natural recreation areas, campgrounds, trailheads and trails, and grazed areas in and around non-crop sites.

Resistance Management Guidelines

- Development of plant populations resistant to this herbicide mode of action is usually not a problem on rangeland, permanent grass pastures, or CRP, non-cropland sites since these sites receive infrequent pesticide applications.
- In croplands, use an effective integrated pest management (IPM) program, integrating tillage or other mechanical methods, crop rotation or other cultural control methods into weed control programs
- Similar looking biotypes of a given weed species occurring in a treated area may vary in their susceptibility to a herbicide. Application of a herbicide below its recommended rate may allow more tolerant weeds to survive and a shift to more tolerant biotypes within the treated area.
- Where identified, spreading of resistant weeds to other fields may be prevented by cleaning harvesting and tillage equipment before moving to other areas and by planting weed-free seed.
- Contact your extension specialist, certified crop consultant, or Dow AgroSciences representative for the latest resistance management information.

Use Precautions and Restrictions

- Avoiding Injury to Non-Target Plants: Do not aerially apply ForeFront R&P within 50 feet of a border downwind (in the direction of wind movement), or allow spray drift to come in contact with, any broadleaf crop or other desirable broadleaf plants, including, but not limited to, alfalfa, cotton, dry beans, flowers, grapes, lettuce, potatoes, radishes, soybeans, sugar beets, sunflowers, tobacco, tomatoes or other broadleaf or vegetable crop, fruit trees, ornamental plants, or soil where sensitive crops are growing or will be planted. Avoid application under conditions that may allow spray drift since very small quantities of spray may seriously injure crops. Follow Precautions for Avoiding Spray Drift and Spray Drift Advisory under General Mixing and Application Instructions to minimize the potential for spray drift.
- ForeFront R&P is highly active against many broadleaf plants. Do not use this product on areas where loss of desirable broadleaf forage plants, including legumes, cannot be tolerated.
- Chemigation: Do not apply this product through any type of irrigation system.
- Do not contaminate water intended for irrigation or domestic purposes. Do not treat inside banks or bottoms of irrigation ditches, either dry or containing water, or other channels that carry water that may be used for irrigation or domestic purposes.
- Crop Rotation: Do not rotate non-cropland to cropland for one year following an application of ForeFront R&P. Do not plant a broadleaf crop until an adequately sensitive field bioassay shows that the level of aminopyralid present in the soil will not adversely affect that broadleaf crop.
- Seeding Legumes: Do not plant forage legumes until a soil bioassay has been conducted to determine if aminopyralid residues remaining in the soil will adversely affect the legume establishment.
- Field Bioassay Instructions: In a representative section of an area previously treated with this product, plant short test rows of the intended species across the original direction of application in a manner to sample variability in field conditions such as soil texture, soil organic matter, soil pH, or drainage. The field bioassay can be initiated at any time between harvest of the treated crop and the planting of the intended species. Observe the test crop for symptoms of 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 herbicidal activity is observed, do not plant the field to the intended species; plant only to a labeled
- Aminopyralid in Plant Residues or Manure:

- Do not use aminopyralid-treated plant residues, including hay or straw from treated areas, or manure from animals that have grazed forage or eaten hay harvested from treated areas within the previous 3 days, in compost or mulch that will be spread to areas where broadleaf plants may be grown.
- Do not spread manure from animals that have grazed or consumed forage or hay from treated areas within the previous 3 days on land used for growing broadleaf crops.
- ♦ Manure from animals that have grazed forage or hay harvested from aminopyralid-treated areas within the previous 3 days may only be used on pasture grasses, grass grown for seed, and wheat.
- Do not plant a broadleaf crop in fields treated in the previous year with manure from animals that have grazed forage or hay harvested from aminopyralid-treated areas until an adequately sensitive field bioassay is conducted to determine that the aminopyralid residues in the soil is at level that is not injurious to the crop to be planted.
- To promote herbicide decomposition, plant residues should be evenly incorporated in the surface soil or burned. Breakdown of aminopyralid in plant residues or manure is more rapid under warm, moist soil conditions and may be accelerated by supplemental irrigation.
- **Grazing and Haying Restrictions**: Do not harvest forage for hay within 7 days of ForeFront R&P application. Do not reapply ForeFront R&P within 30 days of a previous application. Do not transfer grazing animals (including horses) from areas treated with ForeFront R&P to areas where sensitive broadleaf crop occur without first allowing 3 days of grazing on an untreated pasture. Otherwise, urine and manure may contain enough aminopyralid to cause injury to sensitive broadleaf plants.
- Maximum Application Rate: Do not apply more than 42 fl oz (2.6 pints) per acre of ForeFront R&P
 per growing season. The total amount of ForeFront R&P applied broadcast, as a re-treatment, and/or
 spot treatment per year must not exceed 42 fl oz (2.6 pints) per acre. If products containing the same
 active ingredient are mixed, do not exceed the maximum allowable active ingredient use rate.

Precautions for Avoiding Spray Drift

Avoid application under conditions that may allow spray drift because very small quantities of spray, which may not be visible, may seriously injure crops. This product should be applied only when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops and other plants) is minimal (e.g., when wind is blowing away from the sensitive areas. A drift control aid may be added to the spray solution to further reduce the potential for drift. If a drift control aid is used, follow the use directions and precautions on the manufacturer's label. Do not use a thickening agent with Microfoil, Thru-Valve booms, or other spray delivery systems that cannot accommodate thickened spray solutions.

Ground Equipment: With ground equipment, spray drift can be lessened by keeping the spray boom as low as possible; by applying 10 gallons or more of spray per acre; by keeping the operating spray pressures at the manufacturer's recommended minimum pressures for the specific nozzle type used (low pressure nozzles are available from spray equipment manufacturers); and by spraying when the wind velocity is low (follow state regulations). Avoid calm conditions which may be conducive to thermal inversions. Direct sprays no higher than the tops of target vegetation and keep spray pressures low enough to provide coarse spray droplets to minimize drift.

Aerial Application: Avoid spray drift at the application site. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. Users are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications:

- 1. The distance of the outer most operating nozzles on the boom must not exceed 75% of wingspan or 90% of rotor diameter.
- 2. Nozzles should be pointed backward parallel with the air stream or not pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the following **Aerial Drift Reduction Advisory**. This information is advisory in nature and does not supersede mandatory label requirements.

Aerial Drift Reduction Advisory

Information on Droplet Size: The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

Controlling Droplet Size:

- Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of Nozzles Use the minimum number of nozzles that will provide uniform coverage.
- Nozzle Orientation Orienting nozzles so that the spray is released parallel to the airstream produced larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length: For some use patterns, reducing the effective boom length to less than 90% of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height: Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

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

Wind: Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

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

Temperature Inversions: Applications should not occur during a local, low level temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be



indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of the smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Mixing Instructions

Mixing with Water

To prepare the spray, add about half the required amount of water in the spray tank. Then, with agitation, add the recommended amount of ForeFront R&P and other registered tank mix herbicides. Finally, with continued agitation, add the rest of the water and additives such as surfactants or drift control and deposition aids.

Tank Mixing with Other Herbicides

ForeFront R&P at rates of up to 42 fl oz (2.6 pints) per acre may be mixed with labeled rates of other labeled herbicides to broaden the spectrum of weeds controlled or to improve control of certain weeds. ForeFront R&P may be applied in tank mix combination 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) mixing is not prohibited by the label of the registered tank mixed products. Use as directed in the Directions for Use section of the tank mix partner.

Tank Mixing Precautions:

- 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 Sprayer Clean-Out instructions.)
- 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 mixing in a spray tank to ensure compatibility of ForeFront R&P and other pesticides or carriers. Use a clear glass jar with lid and mix ingredients in the same order and proportions as will be used in the spray tank. The mixture is compatible if the materials mix readily when the jar is inverted several times. The mixture should remain stable after standing for 1/2 hour or, if separation occurs, should readily mix if agitated. An incompatible mixture is indicated by separation into distinct layers that do not readily remix when agitated and/or the presence of flakes, precipitates, gels, or heavy oily film in the jar. Use of an appropriate compatibility agent may resolve mix incompatibility.

Use with Surfactants: The addition of a high quality non-ionic surfactant at 0.25 to 0.5 % volume per volume (1 to 2 quarts per 100 gallons of spray) is recommended to enhance herbicide activity under adverse environmental conditions (such as, high temperature, low relative humidity, drought conditions, dusty situations) or when weeds are heavily pubescent or more mature.

Mixing with Sprayable Liquid Fertilizer Solutions

ForeFront R&P is usually compatible with liquid fertilizer solutions. It is anticipated that ForeFront R&P will not require a compatibility agent for mixing with fertilizers; however, a compatibility test (jar test) should be made prior to mixing. Jar tests are particularly important when a new batch of fertilizer or pesticide is used, when water sources change, or when tank mixture ingredients or concentrations are changed. Compatibility may be determined by mixing the spray components in the desired order and proportions in a clear glass jar before large scale mixing of spray components in the spray tank. Use of a compatibility agent is recommended to help obtain and maintain a uniform spray solution during mixing and application. Note: The lower the temperature of the liquid fertilizer, the greater the likelihood of mixing problems. Mixing ForeFront R&P in N-P or N-P-K liquid fertilizer solutions is more difficult than mixing with straight nitrogen fertilizer and should not be attempted without first conducting a successful compatibility jar test. Agitation in the spray tank must be vigorous to be comparable with jar test agitation. Apply the spray mixture the same day it is prepared while maintaining continuous agitation. Rinse the spray tank thoroughly after use.



Note: Foliar-applied liquid fertilizers used as carrier for ForeFront R&P can cause yellowing of the foliage of forage grasses and other vegetation.

Sprayer Clean-Out Instructions

Do not use spray equipment used to apply ForeFront R&P for other applications to land planted to, or to be planted to, crops or desirable sensitive plants, unless it has been determined that all residues of this herbicide has been removed by thorough cleaning of equipment.

Equipment used to apply ForeFront R&P should be thoroughly cleaned before reusing to apply any other chemicals as follows.

- 1. Rinse and flush application equipment thoroughly after use. Dispose of rinse water in non-cropland areas away from water supplies.
- 2. Rinse a second time, adding 1 quart of household ammonia or tank cleaning agent for every 25 gallons of water. Circulate the solution through the entire system so that all internal surfaces are contacted (15 to 20 minutes). Let the solution stand for several hours, preferably overnight.
- 3. Flush the solution out of the spray tank through the boom.
- 4. Rinse the system twice with clean water, recirculating and draining each time.
- 5. Spray nozzles and screens should be removed and cleaned separately.

Application Methods

(Broadcast Equipment)

Ground Broadcast Application: Apply the recommended rate of ForeFront R&P as a coarse low-pressure spray. Spray volume should be sufficient to uniformly cover foliage. Increase spray volume to ensure thorough and uniform coverage when target vegetation is tall and/or dense. Higher volumes (greater than 10 gallons per acre) generally provide better coverage and better control, particularly in dense and/or tall foliage canopies situations. To enhance foliage wetting and coverage, an approved non-ionic agricultural surfactant may be added to the spray mixture as recommended by the surfactant manufacturer.

Do not apply this product with mist blower systems that deliver very fine spray droplets. Use of mist blower equipment can reduce weed control and increase spray drift potential.

Aerial Broadcast Application: Apply the recommended rate of ForeFront R&P as a coarse low-pressure spray. Spray volume should be sufficient to uniformly cover foliage. Increase spray volume to ensure thorough and uniform coverage when target vegetation is tall and/or dense. Spray volumes greater than 2 gallons per acre generally provide better coverage and better control, particularly when the foliage canopy is dense and/or tall. To enhance foliage wetting and coverage, an approved non-ionic agricultural surfactant may be added to the spray mixture as recommended by the surfactant manufacturer.

(Hand-Held Equipment)

High-Volume Foliar Application: High volume foliar treatments may be applied at rates equivalent to broadcast up to a maximum of 42 fl oz (2.6 pints) per acre per annual growing season. Use sufficient spray volume to thoroughly and uniformly wet foliage and stems. To ensure thorough foliage wetting of high volume treatments, a high quality non-ionic agricultural surfactant may be added to the spray mixture as recommended by the surfactant manufacturer. Repeat treatments may be made, but the total amount of ForeFront R&P applied must not exceed 42 fl oz (2.6 pints) per acre per year.

Spot Application: Spot treatments may be applied at rates equivalent to broadcast-applied rate of up to a maximum of 84 fl oz (5.2 pints) on 50% of the treated field. Spray volume should be sufficient to thoroughly and uniformly wet weed foliage. Use of a high quality non-ionic agricultural surfactant may be added to the spray mixture as recommended by the surfactant manufacturer. Repeat treatments may be made, but the total amount of ForeFront R&P applied must not exceed 42 fl oz (2.6 pints) per acre per



year. To prevent misapplication, spot treatments should be applied with a calibrated boom, boomless spray system, hand-held, or backpack sprayers.

Spot treatments may be applied at an equivalent broadcast rate of up to 84 fl oz of ForeFront R&P per acre per annual growing season; however, not more than 50% of an acre may be treated. Do not apply more than a total of 42 fl oz (2.6 pints) per acre of ForeFront R&P per annual growing season as the result of broadcast, spot or repeat applications.

Application rates in the table below are based on treating an area of 1000 sq ft. An area of 1000 sq ft is about 10.5 by 10.5 yards in size. Mix the amount of ForeFront R&P (fl oz or milliliters) corresponding to the desired broadcast rate in 0.5 to 2.5 gallons of water, depending upon the spray volume required to treat 1000 sq ft. A delivery volume of 0.5 gallons per 1000 sq ft is equivalent to 22 gallons per acre and 2.5 gallons per 1000 sq ft is equivalent to 109 gallons per acre.

Amount of ForeFront R&P per 1000 sq ft to Equal Broadcast Rate			
Broadcast Rate		Amount of ForeFront R&P pe	
(fl oz/acre)	(pt/acre)	(fl oz)	(Milliliters)
24	1.5	0.55	16.3
32	2	0.74	21.7
42	2.6	0.96	28.5

Note: 1 fluid ounce (fl oz) = 29.6 milliliters (ml) = 2 tablespoons = 6 teaspoons

To calculate the amount of ForeFront R&P for areas larger than 1000 sq ft: Multiply the table value (fl oz or milliliters) by the area to be treated in "thousands" of square feet. For example, if the area to be treated is 3500 sq ft, multiply the table value by 3.5 (3500 sq ft divided by 1000 sq ft = 3.5).

Broadleaf Weed Control

Do not use ForeFront R&P if loss of legumes species or other broadleaf species cannot be tolerated.

Broadleaf Weed Management Practices

ForeFront R&P may be applied postemergence as a broadcast spray or as a spot application to control broadleaf weeds listed on this label; weeds other than those listed may also be controlled by this herbicide. Postemergence applications should be made before bud stage or early flowering unless otherwise specified. When a rate range is given, use a higher rate in the range to control weeds at advanced growth stages or under less-than-favorable growing conditions (e.g., drought stress). Best weed control results are obtained when spray volume is sufficient to provide uniform coverage of treated plants. For optimum uptake and translocation of the herbicide, avoid mowing, haying, shredding, burning or soil disturbance in treated areas for at least 7 days following application.

ForeFront R&P also provides preemergence control of germinating seeds or emerging seedlings of broadleaf weeds following application. Weed establishment following ForeFront R&P application will depend upon application rate, season of application, and growing condition.

ForeFront R&P can provide long-term control of weeds. The length of control is dependent upon the application rate, condition and growth stage of target weeds, environmental conditions at and following application, and the density and vigor of competing desirable vegetation. Long-term broadleaf weed control is most effective where forage grasses are allowed to recover from overgrazing, drought, etc., and compete with broadleaf weeds.

ForeFront R&P can be an important component of integrated vegetation management programs designed to renovate or restore desired non-cropland plant communities. To maximize and extend the benefits of



weed control provided by ForeFront R&P, it is important that vegetation management practices, including grazing management, fertilization, prescribed fire, reseeding with desirable plants, etc., be used to increase the competitiveness of desired forages. Used as part of an integrated management program, ForeFront R&P can serve as a catalyst for rapid improvement of rangeland, permanent grass pasture, and CRP, and non-cropland sites by alleviating the adverse competitive effect of weeds on the yield and quality of forages and other desirable plant species. Agricultural and natural resources specialists with federal and state government agencies can provide guidance on best management practices and development of integrated vegetation management systems.

Broadleaf Weeds Controlled

The following weeds will be controlled at 1.5 to 2.6 pint/acre. For best results, apply when weeds are actively growing and conditions favorable for plant growth. Use a higher rate in the rate range when growing conditions are less than favorable, when weeds are mature, or when weed foliage is tall and dense. ForeFront R&P also provides preemergence control of germinating seeds or emerged seedlings of broadleaf weeds following application.

Weed Species			
Common Name	Scientific Name	Life Cycle***	Plant Family
	Rate Range: 1.5 to 2 pint	ts/acre	
carrot, wild*	Daucus carota	biennial	Apiaceae
cinquefoil, sulfur*,**	Potentilla recta	perennial	Rosaceae
clover, sweet	Melilotus officinalis	biennial	Fabaceae
clover, white	Trifolium repens	perennial	Fabaceae
crownvetch*	Coronilla varia	perennial	Fabaceae
daisy, oxeye*,**	Leucanthemum vulgare	perennial	Asteraceae
falsedandelion, Carolina*	Pyrrhopappus carolinianus	annual/biennial	Asteraceae
horsenettle, Carolina*.**	Solanum carolinense	perennial	Solanaceae
pokeweed, common	Phytolacca americana	perennial	Phytolaccaceae
ragweed, common*,**	Ambrosia artemisiifolia	annual	Asteraceae
ragweed, western	Ambrosia psilostachya	perennial	Asteraceae
ragwort, tansy*,***	Senecio jacobaea	perennial	Asteraceae
starthistle, yellow*,***	Centaurea solstitialis	annual	Asteraceae
thistie, bull*,**	Cirsium vulgare	biennial	Asteraceae
thistle, musk*,**	Carduus nutans	biennial	Asteraceae
thistle, plumeless*,**	Carduus acanthoides	biennial	Asteraceae
vicia, common*	Vicia sativa	annual	Fabaceae
woodsorrel, yellow*	Oxalis stricta	perennial	Oxalidaceae
wormwood, absinth*,**	Artemisia absinthium	perennial	Asteraceae
	Rate Range: 2 to 2.6 pint	s/acre	
actinomeris, wingstem	Verbesina alternifolia	perennial	Asteraceae
amaranth, spiny*	Amaranthus spinosus	annual	Amaranthaceae
broomweed, annual*	Amphiachyris dracunculoides	annual	Asteraceae
burdock, common*,**	Arctium minus	biennial	Asteraceae
buttercup, hairy*	Ranunculus sardous	perennial	Ranunculaceae
buttercup, tall*.**	Ranunculus acris	perennial	Ranunculaceae
camphorweed*	Heterotheca subaxillaris	annual	Asteraceae
chickweed, common*	Stellaria media	annual	Caryophyllaceae
chicory*	Cichorium ıntybus	perennial	Asteraceae
cocklebur*	Xanthium strumarium	annual	Asteraceae
croton, woolly*,**	Croton capitatus	annual	Euphorbiaceae

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cudweed, purple	Gnaphalium purpureum	annual	Asteraceae
dandelion, common*	Taraxacum officinale	perennial	Asteraceae
dock, broadleaf*	Rumex obtusifolius	perennial	Polygonaceae
dock, curly*	Rumex crispus	perennial	Polygonaceae
evening primrose, cutleaf*	Oenothera laciniata	annual	Asteraceae
false dandelion, Carolina*	Tragopogon dubius	biennial	Asteraceae
fiddleneck, common	Amsinckia intermedia	annual	Boraginaceae
fleabane, annual*	Erigeron annus	annual	Asteraceae
goldenrod, Canada*	Solidago canadensis	perennial	Asteraceae
goldenrod, Missouri*	Solidago missouriensis	perennial	Asteraceae
goldenrod, rigid	Solidago rigida	perennial	Asteraceae
hawkweed, orange*,**	Hieracium aurantiacum	perennial	Asteraceae
hawkweed, yellow*,**	Hieracium pratense	perennial	Asteraceae
henbit*	Lamium amplexicaule	annual/biennial	Lamiaceae
horseweed*	Conyza canadensis	annual	Asteraceae
ironweed, tall	Vernonia gigantea	perennial	Asteraceae
ironweed, western	Vernonia baldwinii	perennial	Asteraceae
knapweed, diffuse*,**	Centaurea diffusa	biennial	Asteraceae
knapweed, Russian*,**	Acroptilon repens	perennial	Asteraceae
knapweed, spotted* **	Centaurea stoebe	biennial	Asteraceae
kudzu*,**	Pueraria montana	perennial	Fabaceae
lambsquarters, common*	Chenopodium album	annual	Chenopodiaceae
lettuce, prickly*	Lactuca serriola	annual	Asteraceae
marshelder, annual*	Iva annua	annual	Asteraceae
mayweed, scentless*	Tripleurospermum perforata	annual	Asteraceae
mayweed, stinking*,**	Anthemis cotula	annuai	Asteraceae
medic, black*	Medicago lupulina	perennial	Fabaceae
mexicantea	Dysphania ambrosioides	annual/perennial	Chenopodiaceae
partridgepea*	Chamaecrista fasciculata	annual	Fabaceae
plantain, broadleaf*	Plantago major	perennial	Plantaginaceae
plantain, buckhorn*	Plantago lanceolata	perennial	Plantaginaceae
sicklepod*	Senna obtusifolia	annual	Fabaceae
sneezeweed, bitter*	Helenium amarum	annual	Asteraceae
soda apple, tropical*,**	Solanum viarum	perennial	Solanaceae
sowthistle, perennial*,**	Sonchus arvensis	perennial	Asteraceae
sowthistle, prickly*	Sonchus asper	annual	Asteraceae
starthistle, yellow*,**	Centaurea solstitialis	annual	Asteraceae
sunflower, common*	Helianthus annua	annual	Asteraceae
teasel, fuller's*	Dipsacus sativus	biennial	Dipsacaceae
thistle, Canada*,**	Cirsium arvense	perennial	Asteraceae
vervain, blue*	Verbena hastata	perennial	Asteraceae
vervain, hoary*	Verbena stricta	perennial	Asteraceae
yarrow, common*	Achillea millefolium	perennial	Asteraceae

^{*}Invasive plants are introduced species that are indicated to be invasive in the USDA-NRCS, PLANTS Database (http://plants.usda.gov/index.html).

^{**}Plants designated as noxious weeds in at least one state (PLANTS Database, USDA-NRCS,

http://plants.usda.gov/index.html).

***Spot treatment at rates up to 84 fl oz (5.2 pints) of ForeFront R&P may be particularly effective against dense patches of perennial broadleaf plants.

Site Specific Use Directions

Rangeland, Permanent Grass Pastures and CRP Acres

ForeFront R&P may be applied alone or in tank mix combination to rangeland, permanent pasture or CRP acres seeded to permanent grasses as an aerial or ground broadcast treatment, as a spot application, or as a high volume foliar application. (See Application Methods section.) Refer to the Broadleaf Weeds Controlled section for application rates and timing recommendations for specific broadleaf weeds.

Do not use ForeFront R&P if loss of legumes species or other broadleaf species cannot be tolerated.

During the season of establishment, ForeFront R&P should be applied only after perennial grasses are well established (have developed a good secondary root system and show good vigor). Most perennial grasses are tolerant to ForeFront R&P at this stage of development.

ForeFront R&P may suppress certain established grasses, such as smooth bromegrass (*Bromus inermis*) and buffalograss (*Buchloe dactyloides*), especially when plants are stressed by adverse environmental conditions. Plants should recover from this transient suppression with the onset of environmental conditions favorable to grass growth and upon release from weed competition.

Restriction: Do not apply more than a total of 42 fl oz (2.6 pints) per acre of ForeFront R&P per annual growing season as a result of broadcast, spot or repeat applications.

Non-Cropland Areas

ForeFront R&P may be applied alone or in tank mix combination to non-cropland areas, such as non-irrigation ditch banks, industrial and storage areas, airports, roadsides, railroad and utility rights-of-way, including grazed areas on these sites as an aerial or ground broadcast treatment, as a spot application, or as a high volume foliar application (see Application Methods section). Refer to the Broadleaf Weeds Controlled section for application rates recommended for specific broadleaf weeds.

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