72167-13 01/26/2006 1/33

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (7505C)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

NOTICE OF PESTICIDE:
_X_ Registration
___ Reregistration
(under FIFRA, as amended)

EPA Reg. Number:	Date of Issuance:
72167-13	JAN 26 2006

Term of Issuance:
Conditional

Name of Pesticide Product:
Nations Ag II Metsulfuron Methyl DF

Name and Address of Registrant (include ZIP Code):

Nations Ag II, LLC
4680 Monticello Avenue, 18i-174
Williamsburg, VA 23188

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

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

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

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A) provided that you:

1. Submit the results of the one-year storage stability (830.6317) and corrosion characteristics (830. 6320) studies when they are available.

2. Submit and/or cite all data required for registration/reregistration of your product when the Agency requires all registrants of similar products to submit such data.

3. Make the labeling changes listed below before you release the product for shipment:

Signature of Approving Official:	Date:
Walter Kissel Jr. James A. Tompkins, Product Manager (25) Herbicide Branch, Registration Division (7505C)	1/26/06

EPA Form 8570-6

a. Add the phrase "EPA Registration No. 72167-13"

b. Revise the last sentence of your Environmental Hazards, section to read "Do not contaminate water when **cleaning of equipment or** disposing of equipment washwaters.

c. On page 25 and 26, the language within the sections Weed Resistance and Integrated Pest Management are no longer acceptable to the Agency and must be deleted. Alternately, you may replace those sections with those similar to those appearing in the label for 352-439, stamped acceptable on October 7, 2004.

d. On page 12, under Noncrop (Industrial) Sites, application information, delete the phrase "other similar areas" and replace with a list of specific use sites.

e. In your Terms of Sale, revise the third sentence to read "**To the extent permitted by law,** all such risks are assumed by the user.

f. The last sentence in your Terms of Sale is not acceptable to the Agency and must be deleted.

g. In your Limitation of Warranty, revise the second sentence to read "**To the fullest extent permitted by law,** under no circumstances shall the Company be liable..."

4. Submit one (1) copy of your final printed label 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 constitutes acceptance of these conditions.

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

Enclosure

Nations Ag II
Metsulfuron Methyl DF

ACTIVE INGREDIENT:	
Metsulfuron methyl Methyl 2-[[[(4-methoxy-6-methyl 1,3,5-triazin-2-yl)amino]-carbonyl]amino]sulfonyl]benzoate	60%
INERT INGREDIENTS:	40%
TOTAL:	100%

EPA Reg. No. 72167-RG **EPA Est. No. _____**

KEEP OUT OF REACH OF CHILDREN
CAUTION

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 eye. • Call a poison control center or doctor for treatment advice.
If on Skin or Clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
For medical emergencies involving this product, call 1-800-308-5391 day or night.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS:
CAUTION

Causes Moderate Eye Irritation. Harmful if absorbed through the skin.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers who handle this pesticide for any use covered by the Worker Protection Standard [(40 CFR Part 170)] must wear:

- Long sleeved shirt and long pants
- Shoes plus socks.

Follow manufacturers 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.

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 herbicide is injurious to plants at extremely low concentrations. Nontarget plants may be adversely affected from drift and run-off.

IMPORTANT

DO NOT USE ON FOOD OR FEED CROPS EXCEPT AS RECOMMENDED BY THIS LABEL OR SUPPLEMENTAL LABELING. Injury to or loss of desirable trees or other plants may result from failure to observe the following: Do not apply Metsulfuron Methyl DF (except as recommended), or drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend or in locations where the chemical may be washed or moved into contact with their roots. Do not use on lawns, walks, driveways, tennis courts, or similar areas. Prevent drift of spray to desirable plants. Do not contaminate any body of water, including irrigation water. Keep from contact with fertilizers, insecticides, fungicides and seeds.

Following a Metsulfuron Methyl DF application, do not use sprayer for application to food or feed crops other than as directed by EPA registered label instructions. This is extremely important, as low rates or Metsulfuron Methyl DF can kill or severely injure most crops (except small grains).

GENERAL INFORMATION

Metsulfuron Methyl DF is a dispersible granule that is mixed in water and applied as a spray. Metsulfuron Methyl DF controls many annual and perennial weeds and woody plants in noncrop areas, conifer and hardwood plantations.

Metsulfuron Methyl DF may be used for general weed and brush control, and for the control of certain noxious weeds on non-crop sites, ditch banks of dry drainage ditches, and for selective weed control in certain types of unimproved turf grass. Do not use on irrigation ditches. Metsulfuron Methyl DF can also be used for controlling and suppressing undesirable weeds and hardwoods in conifer plantations.

Metsulfuron Methyl DF controls weeds and woody plants primarily by postemergent activity. Although Metsulfuron Methyl DF has preemergence activity, best results are generally obtained when Metsulfuron Methyl DF is applied to foliage after emergence or dormancy break. Generally, for the control of annual weeds, Metsulfuron Methyl DF provides the best results when applied to young, actively growing weeds. For the control of perennial weeds, applications made at the bud/bloom stage or while the target weeds are in the fall rosette stage may provide the best results. The use rate depends upon the weed species and size at the time of application.

The degree and duration of control may depend on the following:

- Weed spectrum and infestation intensity
- Weed size at application
- Environmental conditions at and following treatment
- Soil pH, soil moisture, and soil organic matter

Metsulfuron Methyl DF may be applied on conifer and hardwood plantations, and non-crop sites that contain areas of temporary surface water caused by the collection of water between planting beds, in equipment ruts, or in other depressions created by management activities. It is permissible to apply Metsulfuron Methyl DF to marshes, swamps and bogs after water has receded as well as seasonally dry floodplains where surface water is not present, terrestrial areas of deltas and low lying areas where water is drained but may be isolated in pockets due to uneven or unlevel conditions. DO NOTAPPLY to natural or man-made bodies of water such as lakes, reservoirs, ponds, streams and canals.

Metsulfuron Methyl DF is noncorrosive, nonflammable, nonvolatile and does not freeze.

ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY

Metsulfuron Methyl DF is absorbed primarily through the foliage of plants, and by the roots to a lesser degree. Plant cell division is generally inhibited in sensitive plants within a few hours following uptake. Two to 4 weeks after application, leaf growth slows followed by discoloration and tissue death. The final effects on annual weeds are evident about 4 to 6 weeks after application. The ultimate effect on perennial weeds and woody plants occurs in the growing season following application.

Warm, moist conditions following treatment promote the activity of Metsulfuron Methyl DF, while cold, dry conditions may reduce or delay activity. Weeds and brush hardened off by cold weather or drought stress may not be controlled. The use of a surfactant is recommended to enhance the control of susceptible plants, except where noted. Apply at a minimum rate (concentration) of ¼ % volume/volume (1 qt. Per 100 gal. of spray solution), or at the manufacturer's recommended rate. Use only EPA approved surfactants containing at least 80% active ingredient. Certain types of surfactants, such as those incorporating acetic acid (i.e. LI-700), may not be compatible with Metsulfuron Methyl DF and may result in decreased performance. Certain surfactants may not be suitable for use on desirable plants, such as turf and conifers, listed on this label. Consult the surfactant manufacturer's label for appropriate uses.

Weed and brush control may be reduced if rainfall occurs soon after application.

RESISTANCE

Biotypes of certain weeds listed on this label are resistant to Metsulfuron Methyl DF and other herbicides with the same mode of action, even at exaggerated application rates. Biotypes are naturally occurring individuals of a species that are identical in appearance but have slightly different genetic composition; the mode of action of a herbicide is the chemical interaction that interrupts a biological process necessary for plant growth and development.

If weed control is unsatisfactory, it may be necessary to re-treat problem areas using a product with a different mode of action, such as postemergence broadleaf and/or grass herbicides.

If resistant weed biotypes such as kochia, prickly lettuce, and Russian thistle are suspected or known to be present, use a tank mix partner with Metsulfuron Methyl DF to help control these biotypes, or use a planned herbicide rotation program where other residual broadleaf herbicides having different modes of action are used.

INTEGRATED PEST MANAGEMENT

To better manage weed resistance when using Metsulfuron Methyl DF, use a combination of tillage and tank-mix partners or sequential herbicide applications that have a different mode of action than Metsulfuron Methyl DF, to control escaped weeds. Do not let weed escapes go to seed.

Consult your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representative for specific alternative herbicide recommendations available in your area.

It is advisable to keep accurate records of pesticides applied to treated areas to help obtain information on the spread and dispersal of resistant biotypes.

DIRECTIONS FOR USE

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

Metsulfuron Methyl DF should be used only in accordance with recommendations on this label or in separately published Nations Ag II recommendations.

Nations Ag II will not be responsible for losses or damages resulting from the use of this product in any manner not specifically recommended by Nations Ag II. User assumes all risks associated with such non-recommended use.

For tank mixes, use the most restrictive limitations from the labeling of the products being mixed. Use only those tank mix partners which are labeled for the appropriate use site. Do not apply more than 4 ounces of Metsulfuron Methyl DF per acre per year. Do not use on food or feed crops except as recommended by this label or supplemental labeling.

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

AGRICULTURAL USES

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 use 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 4 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
- Shoes plus socks

CONIFER PLANTATIONS

Application Information
Metsulfuron Methyl DF is recommended to control many species of weeds and deciduous trees on sites where conifers are growing or are to be planted. Apply by ground equipment or by air (helicopter only). Refer to the "Weeds Controlled" and "Brush Species Controlled" for a listing of susceptible species.

Application Timing
Apply Metsulfuron Methyl DF after weeds have emerged or after undesirable hardwoods have broken winter dormancy and have reached the point of full leaf expansion.

Conifer Site Preparation

Application Before Transplanting
After consulting the "Weeds Controlled" and "Brush Species Controlled" tables apply the rates of Metsulfuron Methyl DF recommended for the most difficult to control species on the site.

Southeast--Apply up to 4 oz per acre for loblolly and slash pines. Transplant the following planting season.

Northeast and Lake States--Apply up to 2 oz per acre for red pine. Transplant the following planting season. Apply up to 2 ounces per acre for black, white and Norway spruce. Transplant the following spring.

West--Apply up to 2 oz per acre prior to planting Douglas fir, Sitka Spruce, Western Red Cedar, Western Hemlock, Ponderosa Pine, and Grand Fir in the Coast Rangeland and western slope of the Cascades in Oregon and Washington. These conifer species listed can be planted any time after application. Other conifer species can be planted providing the user has prior experience indicating acceptable tolerance to soil residues of this product.

In the absence of prior experience, in order to avoid unacceptable injury, other species should be planted on a small scale to determine safety before large-scale plantings are made. Nations Ag II will not be responsible for injury to any conifers not listed on this label.

Tank Mix Combinations
For broader spectrum control the following products are recommended in combination with Metsulfuron Methyl DF.

Accord[2]
Tank mix 1 to 2 ounces of Metsulfuron Methyl DF with 2 to 10 quarts of Accord per acre. Refer to the product container for a list of species controlled.

Arsenal[1] **Applicator's Concentrate**
Tank mix 1 to 2 ounces of Metsulfuron Methyl DF with 10 to 24 fluid ounces of Arsenal Applicator's Concentrate per acre. Loblolly and slash pines may be transplanted the planting season following application. The combination controls ash, black gum, cherry, hawthorn, honeysuckle, hophorn beam, persimmon, oaks (red, white and water), sassafras, sweetgum, Vaccinium species, and suppresses blackberry, dogwood, elms, myrtle dahoon, hickories, and red maple.

Accord[2] + Arsenal[1] Applicators Concentrate
Tank mix ½ to 1 ounce of Metsulfuron Methyl DF with 16 to 64 fluid ounces of Accord and 10 to 12 fluid ounces of Arsenal Applicator's Concentrate per acre. Slash and loblolly pines may be transplanted the planting season following application. The combination controls cherry, dogwood, elms, oaks (red and water), persimmon, sassafras, sweetgum and suppresses hickory.

VELPAR[8] L or VELPAR[8] DF
Tank mix 1 to 2 ounces of Metsulfuron Methyl DF per acre with VELPAR L or VELPAR DF at the rates recommended on the container for various soil textures. Loblolly and slash pines may be transplanted the planting season following application. Refer to the product container for a list of species controlled.

OUST EXTRA[7] (or Generic Sulfometuron Methyl)
Tank mix ½ to 1 ½ ounces of Metsulfuron Methyl DF with 2 to 3 ounces of OUST EXTRA[7] (or generic equivalent) per acre for herbaceous weed control. Refer to the product container and the "Weeds Controlled" section of this label for a listing of the weeds controlled. Loblolly and slash pines may be transplanted the planting season following application.

Tank mix 2 ounces of Metsulfuron Methyl DF with 3 ounces of OUST EXTRA[7] (or generic equivalent) per acre for herbaceous weed control and early spring suppression of bull thistle and Canada thistle in the Coast Rangeland and western slope of the Cascade Mountains. Douglas fir may be transplanted at least 90 days following application.

Release

Hardwood Control and Suppression
Metsulfuron Methyl DF is recommended for application over the top of established slash and loblolly pine to control the species listed in "Weeds Controlled" and "Brush Species Controlled" section of this label. Apply 1 to 4 ounces per acre to control the species indicated, including kudzu.

Tank Mix Combinations
For broader spectrum control the following products are recommended in combination with Metsulfuron Methyl DF:

Arsenal Applicator's Concentrate
A tank mix of 1 to 2 ounces of Metsulfuron Methyl DF with 8 to 16 fluid ounces of Arsenal Applicator's Concentrate per acre may be applied to loblolly pine. Refer to the Arsenal Applicator's Concentrate label regarding the use of surfactants and the appropriate application timing with respect the age and development stage of the pines. The combination controls ash, black gum, cherry, hawthorn, honeysuckle, hophornbeam, oaks (red, white and water), sassafras, sweetgum, Vaccinium species, and suppresses blackberry, dogwood, elms, myrtle dahoon, hickories, persimmon, and red maple.

VELPAR[8] L or VELPAR[8] DF
Tank mix 1 to 2 ounces of Metsulfuron Methyl DF with VELPAR L OR VELPAR DF at the rates recommended on the container for various soil textures. The combination may be applied to loblolly and slash pines.

Release

Herbaceous Weed Control
Metsulfuron Methyl DF may be applied to transplanted loblolly and slash pine for the control of herbaceous competition. Consult the "Weeds Controlled" section for a listing of the susceptible species and recommended application rates. Best results are obtained when Metsulfuron Methyl DF is applied just before weed emergence until shortly after weed emergence.

Tank Mix Combinations
For broader spectrum control the following products are recommended in combination with Metsulfuron Methyl DF:

Arsenal Applicators Concentrate[1]
Tank mix ½ to 1 ounces of Metsulfuron Methyl DF with 4 ounces of Arsenal Applicators Concentrate per acre. The tank mix may be used on loblolly pine.

OUST XP[7]
Tank mix ½ to 1 ½ ounces of Metsulfuron Methyl DF with 2 to 3 ounces of OUST XP[7] (or generic equivalent) per acre. Best results are obtained when Metsulfuron Methyl DF is applied just before weed emergence until shortly after weed emergence. Then tank mix may be used on loblolly and slash pine.

VELPAR[8] L or VELPAR[8] DF
Tank mix ½ to 1 ounce of Metsulfuron Methyl DF with VELPAR[8] L or VELPAR[8] DF at the rates recommended on the container for various soil textures. The combination may be applied to loblolly and slash pines.

IMPORTANT PRECATIONS--CONIFER PLANTATIONS ONLY

- Applications of Metsulfuron Methyl DF made to conifers that are suffering from loss of vigor caused by insects, diseases, drought, winter damage, animal damage, excessive soil moisture, planting shock, or other stresses may injure or kill the trees.

- Applications of Metsulfuron Methyl DF made for herbaceous release should only be made after adequate rainfall has closed the planting slit and settled the soil around the roots following transplanting.

- Do not apply Metsulfuron Methyl DF to conifers grown as ornamentals.

- Metsulfuron Methyl DF applications may result in damage and mortality to other species of conifers when they are present on sites with those listed in the preceding recommendation for conifer plantations.

HARDWOOD PLANTATIONS

Application Information

Metsulfuron Methyl DF is recommended to control many species of weeds on sites where yellow poplar is growing or is to be planted, and on sites where red alder is to be planted. Apply at up to 2 ounces per acre by ground equipment or by air (helicopter only). Refer to the "Weeds Controlled" sections of this label for a listing of susceptible species.

Application Timing

This product may be applied as a site preparation treatment prior to planting red alder or yellow poplar, and may also be applied as a pre-planting site preparation treatment for red alder in tank mixes with other herbicides labeled for this use.

Metsulfuron Methyl DF may also be applied over the top of planted yellow poplar seedlings after the soil has settled around the root systems but before the seedlings have broken dormancy (prior to bud break).

Release

Herbaceous Weed Control

Metsulfuron Methyl DF may be applied to yellow poplar for the control of herbaceous competition. Consult the "Weeds Controlled" for a listing of the susceptible species and recommended application rates. Best results are obtained when Metsulfuron Methyl 60 DF is applied just before weed emergence until shortly after weed emergence.

Tank Mix Combinations

Tank mix ½ ounce of Metsulfuron Methyl DF with 4 to 6 pints of VELPAR[8] L as recommended on the package label for "RELEASE-HERBACEOUS WEED CONTROL" in pine plantations in the eastern U.S. Follow the VELPAR[8] L label recommendations regarding altering the application rate by soil texture.

IMPORTANT PRECAUTIONS--HARDWOOD PLANTATIONS ONLY

- Application of VELPAR[8] L and Metsulfuron Methyl DF made to yellow poplar that are suffering from loss of vigor caused by insects, disease, drought, winter damage, animal damage, excessive soil moisture, planting shock or other stresses may injure or kill the seedlings.

- Applications of Metsulfuron Methyl DF made for release should only be made after adequate rainfall has closed the planting slit and settled the soil around the roots following transplanting.

- The use of surfactant is not recommended for applications made over the tops of trees.

- Careful consideration must be given by an experienced and knowledgeable forester to match the requirements of yellow poplar to the conditions of the site. Treatment of yellow poplar planted on a site inadequate to meet its requirements may injure or kill the seedlings.

NON-AGRICULTURAL USES

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.
Non-crop industrial weed control and selective weed control in turf (industrial, unimproved only) are not within the scope of the Worker Protection Standard.

Keep unprotected persons out of treated area until sprays have dried.

WEEDS CONTROLLED

1/3 to ½ ounce per acre

Annual sowthistle	Goldenrod
Aster	Lambsquarters
Bahiagrass	Marestail/horseweed****
Beebalm	Maximillion sunflower
Bittercress	Miners lettuce
Bitter sneezeweed	Pennsylvania smartweed
Blackeyed-susan	Plains coreopsis
Blue mustard	Plaintain
Bur buttercup	Redroot pigweed
Chicory	Redstem filaree
Clover	Rough fleabane
Cocklebur	Shepherd's purse
Common chickweed	Silky crazyweed (locoweed)
Common groundsel	Smallseed falseflax
Common purslane	Smooth pigweed
Common yarrow	Sweet clover
Conical catchfly	Tansymustard
Corn cockle	Treacle mustard
Cow cockle	Tumble mustard
Crown vetch	Wild carrot
Dandelion	Wild garlic

Dogfennel
False chamomile
Fiddleneck tarweed
Field pennycress
Flixweed
Wild lettuce
Wild mustard
Wooly croton
Wood sorrel
Yankeweed

½ to 1 ounce per acre

Blackberry
Black henbane
Broom snakeweed*
Buckhorn plantain
Bull thistle
Common crupina
Common sunflower
Curly dock
Dewberry
Dyer's woad
Gorse
Halogeton
Henbit
Honeysuckle
Multiflora rose and other wild roses
Musk thistle***
Oxeye daisy
Plumeless thistle
Prostrate knotweed
Rosering gaillardia
Seaside arrowgrass
Sericea lespedeza
Tansy ragwort
Teasel
Wild caraway

1 to 2 ounces per acre

Common mullein
Common tansy
Field bindweed**
Greasewood
Gumweed
Houndstongue
Lupine
Old world climbing fern (Logodium)
Perennial pepperweed
Poison hemlock
Purple loosestrife
Purple scabious
Scotch thistle
Scouringrush
Salsify
Snowberry
St. Johnswort
Sulfur cinquefoil
Western salsify
Whitetop (hoary cress)
Wild Iris

1 ½ to 2 ounces per acre

Canada thistle**
Dalmation toadflax**
Duncecap larkspur
Russian knapweed**
Tall larkspur
Wild parsnip
Yellow toadflax**

3 to 4 ounces per acre

Kudzu

* Apply fall through spring
** Suppression, which is a visual reduction in weed competition (reduced population or vigor) as compared to untreated areas. Apply as a full coverage spray for best performance.
*** Certain biotypes of musk thistle are more sensitive to Metsulfuron Methyl DF and may be controlled with rates of ¼ to ½ ounce per acre. Treatments of Metsulfuron Methyl DF may be applied from rosette through bloom stages of development.
**** Certain biotypes of marestail/horsetail are less susceptable to Metsulfuron Methyl DF and may be controlled by tank mixes with herbicides with a different mode of action.

Tank Mix Combinations for Problem Weed Control
For broader spectrum control and for use on certain biotypes of broadleaf weeds which may be resistant to Metsulfuron Methyl DF and herbicides with the same mode of action, the following tank mixes are recommended.

Dicamba + 2,4-D
Combine ½ ounce of Metsulfuron Methyl DF with 8 fluid ounces of dicamba and 16 fluid ounces of 2,4-D for the **control of kochia**.
Combine ½ ounce of Metsulfuron Methyl DF with 8 ounces of dicamba and 16 fluid ounces of 2,4-D for the **control of spotted knapweed**.
Combine 1 ounce of Metsulfuron Methyl DF with 8 fluid ounces of dicamba and 16 fluid ounces of 2,4-D for the **suppression of rush skeletonweed**.

NONCROP (INDUSTRIAL) SITES

Application Information
Metsulfuron Methyl DF is recommended for use for general weed and brush control on non-crop and outdoor industrial sites such as airports, military installations, fence rows, roadsides and associated rights-of-way, petroleum tank farms, pipeline and utility rights-of-way, pumping stations, railroads, storage areas, plant sites and other similar areas including governmental and private lands. It is also recommended for the control of certain noxious and troublesome weeds.

Consult the "Weeds Controlled" and "Brush Species Controlled" tables to determine the appropriate application rate.

Metsulfuron Methyl DF may be applied in tank mixture with other herbicides labeled for use on non-crop sites. Fully read the labels and follow all directions and restrictions on each label.

Application Timing
For best results, Metsulfuron Methyl DF should be applied postemergence to young, actively growing weeds. Application may be made at any time of the year, except when the ground is frozen.

GRASS REPLANT INTERVALS

Following an application of Metsulfuron Methyl DF to non-crop areas, the treated sites may be replanted with various species of grasses at the intervals recommended below.

For soils with a pH of 7.5 or less observe the following replant intervals:

Species	Metsulfuron Methyl DF Rate oz/a	Replant Interval (months)
Brome, Meadow	½-1	2
	1-2	3
Brome, Smooth	½-1	2
	1-2	4
Fescue, Alta	½-1	2
	1-2	4
Fescue, Red	½-1	2
	1-2	4
Fescue, Sheep	½-1	1
	1-2	4
Foxtail, Meadow	½-1	2
	1-2	4
Green Needlegrass	½-2	1
Orchardgrass	½-1	2
	1-2	4
Russian wildrye	½-1	1
	1	2
	2	3
Switchgrass	½-1	1
	1-2	3
Timothy	½-1	2
	1-2	4
Wheatgrass, Western	½-1	2
	1-2	3

For soils with a pH of 7.5 or greater observe the following replant intervals:

Species	Metsulfuron Methyl DF Rate oz/a	Replace Interval (months)
Alkali Sacaton	½-1	1
	1-2	3
Bluestem, Big	½-2	3
Brome, Mountain	½-1	1
	1-2	2

Gramma, Blue	½-2	1
Gramma, Sideoats	½	2
	>1/2	>3
Switchgrass	½	2
	>1/2	>3
Wheatgrass, Thickspike	½-2	1
Wheatgrass, Western	½-1	2
	1-2	3

The recommended intervals are for applications made in the Spring to early Summer. Because Metsulfuron Methyl DF degradation is slowed by cold or frozen soils, applications made the late Summer or Fall should consider the intervals as beginning in the Spring following treatment.

Testing has indicated that there is considerable variation in response among the species of grasses when seeded into areas treated with Metsulfuron Methyl DF. If species other than those listed above are to be planted into areas treated with Metsulfuron Methyl DF a field bioassay should be performed, or previous experience may be used, to determine the feasibility of replanting treated sites.

TURF, INDUSTRIAL (UNIMPROVED ONLY)

Application Information

Metsulfuron Methyl DF is recommended for selective weed control in unimproved industrial turf where certain grasses are well established and desired as ground cover. Metsulfuron Methyl DF is also recommended for the control of certain noxious and troublesome weeds in turf.

In addition to conventional spray equipment, Metsulfuron Methyl DF may also be applied with invert emulsion equipment. When using an invert emulsion, mix the prescribed rate of Metsulfuron Methyl DF in the water phase.

Consult the "Weeds Controlled" table to determine which weeds will be controlled by the following recommendations.

Fescue and Bluegrass

Apply ¼ to ½ ounce of Metsulfuron Methyl DF per acre

Crested Wheatgrass and Smooth Brome

Apply ¼ to 1 ounce of Metsulfuron Methyl DF per acre

Bermudagrass

Apply ¼ to 2 ounces of Metsulfuron Methyl DF per acre.

Application Timing

Applications may be made at any time of the year, except when the soil is frozen.

When a spring application is made on fescue or bluegrass, a second application may be made during the summer after full seedhead maturation.

Growth Suppression and Seedhead Inhibition (Chemical Mowing)

Application Information
Metsulfuron Methyl DF is recommended for growth suppression and seedhead inhibition in well-established fescue and bluegrass turf at the use rate of ¼ to ½ ounce per acre.

Tank Mix Combination
Metsulfuron Methyl DF may be tank mixed with Embark[3] for improved performance in the regulation of growth and seedhead suppression. Tank mix ¼ to ½ ounce of Metsulfuron Methyl DF with 1/8 to ¼ pint of Embark.

Application Timing
Application may be made after at least 2 to 3 inches of new growth has emerged until the appearance of the seed stalk.

Fescue Precautions:

This product may temporarily stunt tall fescue, cause it to turn yellow, or cause seedhead suppression. To minimize these symptoms, take the following precautions:

Do not use more than 4/10 ounce of Metsulfuron Methyl DF per acre
Use a tank mix with 2,4-D
Use the lowest recommended rate for the target weeds
Use a non-ionic surfactant at ½ to 1 pint per 100 gallons of spray solution
Make application later in the spring after the new growth is 5 to 6 inches tall, or in the fall
Do not use a surfactant if liquid nitrogen is used as a carrier
Do not use a spray adjuvant unless it is a non-ionic surfactant

Yields from the first cutting may be reduced.

IMPORTANT PRECAUTIONS--INDUSTRIAL TURF ONLY

- An application of Metsulfuron Methyl DF may cause temporary discoloration (chlorosis) of the grasses. Use the lower recommended rates for minimum discoloration.

- With fescue and bluegrass, sequential applications made during the same or consecutive growth periods (i.e. spring and fall) may result in excessive injury to turf.

- Excessive injury may result when Metsulfuron Methyl DF is applied to turf that is under stress from drought, insects, disease, cold temperatures (winter injury) or poor fertility.

- Metsulfuron Methyl DF is not recommended for use on bahiagrass.

NATIVE GRASSES

Metsulfuron Methyl DF is recommended for weed control and suppression in the establishment and maintenance of native grasses. It may be used where blue grama, bluestems (big, little, plains, sand, ww spar) bromegrasses (meadow), buffalograss, green sprangletop, Indiangrass, kleingrass, lovegrasses (atherstone, sand, weeping, wilman), orchardgrass, sideoats grama, switchgrass (Blackwell), wheatgrass (bluebunch, intermediate, pubescent siberian, slender, streamband, tall, thickspike, western), and Russian wildrye are established. It may also be applied over these species in the seedling stage, except for orchardgrass and Russian wildrye.

Application Information
Apply Metsulfuron Methyl DF at the rate of 1/10 ounce per acre for the control and suppression* of bur buttercup (testiculate), common purslane, common sunflower*, cutleaf eveningprimrose*, flixweed*, lambsquarters* (common and slimleaf), marestail*, pigweed (redroot and tumble), snow speedwell, tansymustard* and tumble mustard (Jim Hill mustard).

*Suppression is a visual reduction in weed competition (reduced population or vigor) as compared to untreated areas. Degree of suppression will vary with the size of weed and environmental conditions following treatment.

Application Timing
For established grasses, apply when weeds are in the seedling stage.
For grasses in the seedling stage, apply preplant or preemergence where the soil (seed bed) has been cultivated.

IMPORTANT PRECAUTIONS – NATIVE GRASSES

Grass species or varieties may differ in their response to this herbicide. Consult with your state experiment station, university, or extension agent or other local experts as to sensitivity to this herbicide. If inadequate information is available, limit the initial use of this product to a small area. The types of grass in a grass seed mixture will vary in tolerance to this product, so the grasses in the final stand may not reflect the same ratio as in the seed mix.

Do not apply to grass that is stressed by severe weather conditions, drought, low fertility, water-saturated soils, disease or insect damage as grass injury may result. Severe winter

stress, drought, disease or insect damage before or following application also may result in grass injury.

RANGELAND

This product can be used to control broadleaf weeds in forage grasses growing in rangeland. It may also be tank-mixed with other pesticides labeled for use on rangeland. Read and follow the labels on all products used in a tank mix, and observe the most restrictive precautions on each product's label.

This product may be applied to rangeland by air or ground. Use an adequate spray volume to obtain thorough coverage of the target weeds. In Idaho, Oregon and Washington state, use at least 3 gallons of spray solution per acre.

WHEN ESTABLISHING GRASS IN RANGELAND

Metsulfuron Methyl DF can be used to control or suppress broadleaf weeds when establishing the following grasses planted in rangeland:

Blue Grama
Bluestems-
- Big
- Little
- Plains
- Sand
- WW spar

Buffalograss
Green sprangletop
Kleingrass
Lovegrasses-
- Atherstone
- Sand
- Weeping
- Wilman

Orchardgrass
Sideoats grama
Switchgrass-
- Blackwell

Wheatgrasses-
- bluebunch
- crested
- intermediate
- pubescent
- Siberian
- slender
- steambank
- tall
- thickspike
- western

Wildgrass-
- Russian

If you need more information or advice, consult with the Natural Resource and Conservation Service, other government agencies or local experts.

Newly planted grasses often cannot compete effectively with weeds, and because of the severity of weed pressure in new grass stands, Metsulfuron Methyl DF alone may not provide satisfactory results. An additional herbicide application or mowing may be necessary.

Establishing Grass in Rangeland:

Prior to Planting (Pre-Plant) or After Planting but Prior to Grass Emergence (Pre-Emergence)

Do not use more than 1/10 ounce Metsulfuron Methyl DF per acre when establishing grass in rangeland.

Use 1/10 ounce/acre Pre-Plant on all labeled grasses except orchardgrass and Russian wildrye grass.

Do not apply Pre-Plant or Pre-Emergence to orchardgrass or Russian wildrye grass as severe crop injury may result.

Early Post-Emergence to New Plantings

Use 1/10 ounce/acre, plus an ionic surfactant (at 2 to 4 pints/100 gallons of spray solution) on all labeled grasses any time after grass emergence.

Do not use a spray adjuvant other than non-ionic surfactant. Grass species will differ in time of emergence, so apply only after a majority of grasses are in the 3 to 4 leaf stage.

Postemergence to Stands With 1 to 5 Leaf Grasses Planted the Previous Season

Apply at 1/10 ounce per acre plus a non-ionic surfactant at the rate of 2 to 4 pints/100 gallons of spray solution on all labeled grasses when the majority of the grasses have one or more leaves. Do not use a spray adjuvant other than a non-ionic surfactant.

APPLICATION TO ESTABLISHED GRASSES IN RANGELAND

Rates

Use up to 1 ounce Metsulfuron Methyl DF per acre as a broadcast spray when applying to established grasses in rangeland. **For Spot Applications**, use 1 ounce per 100 gallons of water. Do not apply more than 1 2/3 ounces per acre per year.

Refer to "Weeds Controlled" for a listing of weeds controlled and appropriate rates.

Timing

Apply to established native grasses such as bluestems and grama, and on other established grasses such as bermudagrass, bluegrass, bromegrass, fescue, orchardgrass and timothy that were planted during the previous growing season or earlier and are fully

tillered, unless otherwise directed on this label. Timing information for application to several of these grass species are as follows:

Grass	Minimum Time From Grass Establishment to Application
Bermudagrass	2 months
Bluegrass, Bromegrass, Orchardgrass	6 months
Timothy	12 months
Fescue	24 months

Precautions:

Fescue:

Tall fescue that has been treated with this product may experience temporary stunting, yellowing, or seedhead suppression. To minimize these effects, observe the following:

Do not use more than 4/10 ounce/acre
Use a tank mix with 2,4-D
Use the lowest recommended rate for the target weeds
Use a non-ionic surfactant at ½ to 1 pint per 100 gallons of spray solution
Make application later in the spring after the new growth is 5 to 6 inches tall, or apply in the fall
Do not use a surfactant if liquid nitrogen is used as a carrier
Do not use a spray adjuvant unless it is a non-ionic surfactant

Yields from the first cutting may be reduced.

Timothy:

Do not apply unless timothy is at least 6 inches tall and actively growing, or crop yellowing and/or stunting may occur. To minimize these effects, observe the following:

Do not use more than 4/10 ounce/acre
Use a tank mix with 2,4-D
Use the lowest recommended rate for the target weeds
Use a non-ionic surfactant at ½ to 1 pint per 100 gallons of spray solution
Make applications in the late summer or fall
Do not use a surfactant if liquid nitrogen is used as a carrier
Do not use a spray adjuvant unless it is a non-ionic surfactant

Other Rangeland Grasses:

Application to Pensacola bahiagrass, ryegrass (Italian or perennial) and Garrison's creeping foxtail may cause severe injury to and/or loss of forage.

Forage grasses differ in their tolerance to this product. When treating a particular grass with Metsulfuron Methyl DF for the first time, use only on a small area. Larger areas may be treated the next season if no injury occurs.

Broadleaf forages such as alfalfa and clover will be severely stunted or damaged by treatment with Metsulfuron Methyl DF.

CROP ROTATION CONSIDERATIONS

To maintain flexibility in crop rotation plans, do not treat your entire pasture, rangeland or CRP acreage with this product at the same time.

Rotation Intervals

Minimum crop rotation intervals depend on breakdown rates of this product in the soil of treated areas. A number of conditions affect the breakdown rate, including soil moisture, soil temperature, soil pH, and soil microorganisms present. The rate of breakdown is faster in soils with low pH, high soil temperature and high soil moisture and is slower in soils with high pH, low soil temperature and low soil moisture. While soil pH remains relatively constant, soil temperature and soil moisture can vary from time to time and area to area, and these conditions should be monitored when making crop rotation decisions.

The minimum crop rotation interval from the last application of this product until the next planting date are shown below:

Minimum Rotation Intervals
(Pasture, Rangeland, and CRP for Overseeding and Renovation)

Location	Crop/Grass	Maximum Rate Used (oz/ac)	Minimum Rotation Interval (months)
AL. AR. FL. GA. KY. LA. MS. NC. OK. SC. TN. TX. VA. WV	Alfalfa, red clover, white clover, sweet clover, bermudagrass, bluegrass, ryegrass, tall fescue	1/10 to3/10	4
	Wheat (except durum)	1/10 to 3/10	1
	Durum, barley, oats	1/10 to 3/10	10
All Other States	Red clover, white clover,	1/10 to 2/10	12

	sweet clover		
	Bermudagrass, bluegrass, ryegrass	1/10 to 2/10	6
	Tall fescue	1/10 to 2/10	18
	Wheat (except durum)	1/10 to 2/10	1
	Durum, barley, oats	1/10 to 2/10	10
All Areas With Soil pH of 7.5 Or Less	Russian wildrye	1/10 to ½	1
	Green needlegrass, switchgrass, sheep fescue	1/10 to 1	1
	Meadow brome, smooth brome, alta fescue, red fescue, meadow foxtail, orchardgrass, Russian wildrye, timothy	1/10 to 1	2
All Areas With Soil pH of 7.9 Or Less	Alkali sacaton, mountain brome, blue grass, thickspike wheatgrass	1/10 to 1	1
	Sideoats grama, switchgrass	1/10 to ½	2
	Western wheatgrass	1/10 to 1	2
	Sideoats grama, Switchgrass, big bluestem	1/10 to 1	3

Important Soil pH Limitations

This product should not be used on soils with a pH above 7.9 because soil residues will not break down quickly and could remain in the soil for 34 months or more, injuring wheat, barley and other crops.

Before using, check soil pH by taking several soil samples at a depth of 0 to 4 inches from representative areas of the field. Analyze the samples separately for pH value. If needed, obtain additional information on soil sampling procedures from your local extension service or local experts.

BIOASSAY PROCEDURES

Conduct a field bioassay on treated soils before planting a rotated crop or grass species not listed in the Rotation Interval table above, or if the soil pH is above 7.9, or if use rates other than those listed in the Rotation Interval table above were used. Plant test strips of the crops or grasses that you plan to grow the following year in treated fields and observe crop response. Do not plant until the test strips demonstrate that the crop response is acceptable. Consult local experts for further information.

GRAZING AND HAYING RESTRICTIONS:

NONE. However, coveralls and shoes plus socks must be worn if cutting within 4 hours of treatment.

RANGELAND PRECAUTIONS:

Do not apply more than 1 2/3 ounces per acre per year.
Limit the initial use of this product to small areas unless local response to this herbicide by the grass species or variety is known.
Grass seed mixtures will vary in tolerance to this product, so final stands may not reflect the same ratio as in the seed mix.
Do not apply to grass that is stressed by severe weather conditions, drought, low fertility, disease, insect damage, or water saturated soils, as injury is likely. Stress by these factors following application may also cause injury.
This product may injure legumes that are undersown in rangeland or are found in seeding mixtures.
When applying by ground to dry, dusty fields, control in the wheel-track areas may be reduced. Tank mixtures with 2,4-D or MCPA often improve weed control in such situations.
Do not apply this product in California or on the following counties in Colorado: Alamosa, Conejos, Costilla, Rio Grande, and Saguache.

BRUSH CONTROL

Application Information

Metsulfuron Methyl DF is recommended for the control of undesirable brush growing in non-crop areas. Applications may be made by air, high volume ground application, low volume ground application and ultra-low volume ground application. Except as noted for multiflora rose, Metsulfuron Methyl DF should be applied as a spray to the foliage.
The application volume required will vary with the height and density of the brush and the application equipment used. Generally, aerial application will require 15 to 25 gallons of water per acre; high volume ground application will require 100 to 400 gallons of water per acre; low volume ground application will require 20 to 50 gallons of water

per acre; and ultra-low volume ground application will require 10 to 20 gallons of water per acre.

Regardless of the application volume and equipment used, thorough coverage of the foliage is necessary to optimize results.

BRUSH SPECIES CONTROLLED

Species	High Volume Metsulfuron Methyl DF Rate oz/100 gal	Broadcast Metsulfuron Methyl DF Rate oz/a
Ash	1-2	1-3
Aspen	1-2	1-3
Black locust	1-2	1-3
Blackberry	1-2	1-3
Camelthorn	1-2	1-3
Cherry	1-2	1-3
Cottonwood	1-2	2-3
Eastern red cedar	1-2	2-3
Elder	1-2	2-3
Elm	1-2	1-3
Firs	3	1-2
Hawthorn	1-2	1-3
Honeysuckle	1-2	½-1
Mulberry	1-2	2-3
Multiflora rose	1-2	1-3
Muscadine (wild grape)	1-2	2-3
Oaks	1-2	1-3
Ocean spray (*Holodiscus*)	1-2	2-3
Osage orange	1-2	2-3
Red maple	1-2	2-3
Salmonberry	½-1	1-3
Snowberry	½-1	1-3
Spruce (black and white)	3	2-3
Thimbleberry	½-1	1-3
Tree of Heaven (*Ailanthus*)	1-2	1-2
Tulip tree	½-1	1-3
Wild roses	½-1	1-3
Willow	½-1	1-3

For low volume and ultra-low volume ground applications, mix 4 to 8 ounces of Metsulfuron Methyl DF per 100 gallons of spray solution.

Application Timing

Make a foliar application of the recommended rate of Metsulfuron Methyl DF during the period from full leaf expansion in the spring until the development of full fall coloration

on deciduous species to be controlled. Coniferous species may be treated at anytime during the growing season.

Tank Mix Combinations

Accord[2]
After consulting the "Brush Species Controlled" table, tank mix the prescribed rate of Metsulfuron Methyl DF with the rate of Accord indicated for the various application methods on the Accord label. Refer to the Accord label for list of species controlled.

Arsenal[1] Herbicide
Combine 1 to 2 ounces of Metsulfuron Methyl DF with 1 to 4 pints of Arsenal Herbicide per acre and apply as a broadcast spray. Aerial application should use a minimum of 15 gallon per acre spray volume. In addition to species listed above controlled by Metsulfuron Methyl DF, this combination controls black gum, hophornbeam, sassafras, sweetgum, Vaccinium species, dogwood, myrtle dahoon, hickories, and persimmon.

Garlon[4] 3A or Garlon 4 (or generic equivalents)
After consulting the "Brush Species Controlled" table, tank mix the prescribed rate of Metsulfuron Methyl DF with the rate of Garlon indicated for the various application methods on the Garlon label. Refer to the Garlon label for list of species controlled.

KRENITE[9] S
After consulting the "Brush Species Controlled" table, tank mix the prescribed rate of Metsulfuron Methyl DF with the rate of KRENITE S indicated for the various application methods on the KRENITE S label. Refer to the KRENITE S label for list of species controlled.

Tordon K[5]
After consulting the "Brush Species Controlled" table, tank mix the prescribed rate of Metsulfuron Methyl DF with the rate of Tordon K indicated for the various application methods on the Tordon K label. Refer to the Tordon K label for list of species controlled.

Tordon K[5] + Arsenal[1] Herbicide
Combine 1 to 1 ½ ounce of Metsulfuron Methyl DF with 2 to 8 fluid ounces of Arsenal and 1 to 2 pints of Tordon K per 100 gallons of water. Apply as a high volume spray. The tank mix controls cherry, elms, box elder, maples, hackberry, redbud, ash, oaks (including shingle oak), black locust and sassafras.

*Tordon K is a restricted use pesticide.

Spotgun Basal Soil Treatment
For control of muliflora rose, prepare a spray suspension of Metsulfuron Methyl 60 DF by mixing 1 ounce per gallon of water. Mix vigorously until the Metsulfuron Methyl 60 DF is dispersed and agitate periodically while applying the spray suspension. Apply the

spray preparation with an exact delivery handgun applicator. Apply at the rate of 4 milliliters for each 2 feet of rose canopy diameter. Direct the treatment to the soil within 2 feet of the stem union. When treating large plants and more than one delivery is required, make applications on opposite sides of the plant. Applications should be made from early spring to summer.

IMPORTANT PRECAUTIONS--NON-CROP BRUSH ONLY

When using tank mixtures of Metsulfuron Methyl DF with companion herbicides, read and follow all use instructions, application rates, warnings and precautions appearing on the labels. Follow the most restrictive label instruction for each of the herbicides used.

SPRAY EQUIPMENT

Following a Metsulfuron Methyl DF application, do not use the sprayer or mixing equipment for application to agricultural crops, except that it may used to treat pasture, range and wheat. This is extremely important as low rates of Metsulfuron Methyl DF can kill or severely injure most agricultural crops. The selected sprayer should be equipped with an agitation system to keep Metsulfuron Methyl DF suspended in the spray tank. Use a sufficient volume of water to thoroughly cover the foliage of undesirable weeds, generally 10 to 40 gallons per acre. Select a spray volume and delivery system that will deliver a uniform spray pattern. Be sure the sprayer is calibrated before use. Avoid overlapping and shut off spray booms while starting, turning, slowing or stopping to avoid injury to desired plants.

Refer to the brush control section of this label for information unique to that particular use.

MIXING INSTRUCTIONS

1. Fill the tank ¼ to 1/3 full of water.
2. While agitating, add the required amount of Metsulfuron Methyl DF.
3. Continue agitation until the Metsulfuron Methyl DF is fully dispersed, at least 5 minutes.
4. Once the Metsulfuron Methyl DF is fully dispersed, maintain agitation and continue filling tank with water. Metsulfuron Methyl DF should be thoroughly mixed with water before adding any other material.
5. As the tank is filling, add tank mix partners (if desired) then add the necessary volume of nonionic surfactant. Always add surfactant last.
6. If the mixture is not continuously agitated, settling will occur. If settling occurs, thoroughly re-agitate before using.
7. Metsulfuron Methyl spray preparations are stable if they are pH neutral or alkaline and stored at or below 100°F.
8. If Metsulfuron Methyl DF and a tank mix partner are to be applied in multiple loads, pre-slurry the Metsulfuron Methyl DF in clean water prior to adding to the tank. This

will prevent the tank mix partner from interfering with the dissolution of the Metsulfuron Methyl DF.

SPRAYER CLEANUP

Spray equipment must be cleaned before Metsulfuron Methyl DF is sprayed. Follow the cleanup procedures specified on the labels of previously applied products. If no directions are provided, follow the six steps outlined below.

At the End of the Day

When multiple loads of Metsulfuron Methyl DF herbicide are applied, it is recommended that at the end of each day of spraying, the interior of the tank be rinsed with fresh water and then partially filled, and the boom and hoses flushed. This will prevent the buildup of dried pesticide deposits that can accumulate in the application equipment.

1. Drain tank; thoroughly rinse spray tanks, boom, and hoses with clean water. Loosen and physically remove any visible deposits.
2. Fill the tank with clean water and 1 gal of household ammonia* (contains 3% active) for every 100 gal of water. Flush the hoses, boom, and nozzles with the cleaning solution. Then add more water to completely fill the tank. Circulate the cleaning solution through the tank and hoses for at least 15 min. Flush the hoses, boom, and nozzles again with the cleaning solution, and then drain the tank.
3. Remove the nozzles and screens and clean separately in a bucket containing cleaning agent and water.
4. Repeat step 2.
5. Rinse the tank, boom, and hoses with clean water.
6. If only Ammonia is used as a cleaner, the rinsate solution may be applied back to the crop(s) recommended on this label. Do not exceed the maximum labeled use rate. If other cleaners are used, consult the cleaner label for rinsate disposal instructions. If no instructions are given, dispose of the rinsate on site or at an approved waste disposal facility.

*Equivalent amounts of an alternate-strength ammonia solution or other recommended cleaners can be used in the cleanout procedure. Carefully read and follow the individual cleaner instructions. Consult your agricultural dealer, applicator, or extension agent for a listing of approved cleaners.

Notes:

- **Attention:** Do not use chlorine bleach with ammonia, as dangerous gases will form. Do not clean equipment in an enclosed area.
- Steam-cleaning aerial spray tanks is recommended prior to performing the above cleanout procedure to facilitate the removal of any caked deposits.

- When Metsulfuron Methyl DF is tank mixed with other pesticides, all required cleanout procedures should be examined and the most rigorous procedure should be followed.
- In addition to this cleanout procedure, all pre-cleanout guidelines on subsequently applied products should be followed as per the individual labels.

SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR

IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets (>150-200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. 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** section of this label.

Controlling Droplet Size – General Techniques

Volume – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

Pressure – Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.

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.

Controlling Droplet Size – Aircraft

Number of Nozzles – Use the minimum number of nozzles with the highest flow rate that provides uniform coverage.

Nozzle Orientation – Orienting nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations.

Nozzle Type – Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.

Boom Length – The boom length should not exceed ¾ of the wing or rotor length – longer booms increase drift potential.

Application Height – Application more than 10 ft above the canopy increases the potential for spray drift.

BOOM HEIGHT

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

WIND

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. AVOID GUSTY OR WINDLESS CONDITIONS.

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

TEMPERATURE AND HUMIDITY

When making application in hot and hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SHIELDING SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

USE PRECAUTIONS

Injury to or loss of desirable trees or other plants may result from failure to observe the following.

- Do not drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- Treatment of powdery, dry soil or light, sandy soil when there is little likelihood of rainfall soon after treatment may result in off target movement and possible damage to susceptible crops when soil particles are moved by wind or water. Injury to crops may result if treated soil is washed, blown, or moved onto land used to produce crops. Exposure to Metsulfuron Methyl DF may injure or kill most crops. Injury may be more severe when the crops are irrigated.
- Applications made where runoff water flows onto agricultural land may injure crops. Applications made during periods of intense rainfall, to soils saturated with water, surfaces paved with materials such as asphalt or concrete, or soils through which rainfall will not readily penetrate may result in runoff and movement of Metsulfuron Methyl DF. Do not treat frozen soil. Treated soil should be left undisturbed to reduce the potential for Metsulfuron Methyl DF movement by soil erosion due to wind or water.
- Do not use on lawns, walks, driveways, tennis courts or similar areas.
- Do not apply through any type of irrigation system. Do not use the equipment used to mix or apply Metsulfuron Methyl DF on crops (except pasture, range and wheat). The mixing and application equipment may be used for noncrop areas and conifer plantations only.
- When used as directed, there is no grazing or haying restriction for use rates of 1 2/3 ounces per acre and less. At use rates of 1 2/3 to 3 1/3 ounce per acre, forage grasses may be cut for hay, fodder or green forage and fed to livestock, including lactating animals, 3 days after treatment.
- Do not use this product in the following counties of Colorado: Saguache, Rio Grande, Alamosa, Costilla and Conejos.
- Do not use this product in California

STORAGE AND DISPOSAL

Pesticide Storage: Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store in a cool, dry place.

Product Disposal: Do not contaminate water, food or feed by disposal or cleaning of equipment. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Triple rinse (or equivalent) the container and then offer for recycling or reconditioning, or puncture and dispose of in a sanitary land fill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

In case of chemical spill, call 800-424-9300.

IMPORTANT: Read the information below before using this product. If the terms are not acceptable, you should return the unopened product container immediately for a complete refund.

LIMITED WARRANTY, TERMS OF SALE, AND LIMITATION OF LIABILITY

Upon purchase or use of this product, purchaser and user agree to the following terms:

Warranty: Nations Ag II, LLC (the Company) warrants that this product conforms to the chemical description on the label in all material respects and is reasonably fit for the purpose referred to in the directions for use, subject to the exceptions noted below, which are beyond the Company's control. The Company makes no other representation or warranty, express or implied, concerning the product, including no implied warranty of merchantability or fitness for a particular purpose; no such warranty shall be implied by law, and no agent or representative is authorized to make any such warranty on the Company's behalf.

Terms of Sale: The Company's directions for use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, and the manner of use or application (including failure to adhere to label directions), all of which are beyond the Company's control. All such risks are assumed by the user. Any action with respect to this product shall be brought exclusively in the state or federal courts located in Tennessee.

Limitation of Liability: The exclusive remedy against the Company for any cause of action relating to the handling or use of this product is a claim for damages, and in no event shall damages or any other recovery of any kind exceed the price of the product which caused the alleged loss, damage, injury or other claim. Under no circumstances shall the Company be liable for any special, indirect, incidental or consequential damages of any kind, including loss of profits or income, and any such claims are hereby waived. Some states do not allow the exclusion or limitation of incidental or consequential damages.

The Company and the seller offer this product, and the purchaser and user accept this product, subject to the foregoing warranty, terms of sale and limitation of liability, which may be varied or modified only by an agreement in writing signed on behalf of the Company by an authorized representative.

1 Arsenal is a registered trademark of American Cyanamid Company

2 Accord is a registered trademark of Monsanto Company.

3 Embark is a registered trademark of PBI Gordon Corporation.

4 Garlon is a registered trademark of Dow Agrosciences.

5 Tordon is a registered trademark of Dow Agrosciences.

6 Escort is a registered trademark of DuPont.

7 OUST is a registered trademark of DuPont.

8 VELPAR is a registered trademark of DuPont

9 KRENITE is a registered trademark of DuPont

PRODUCT USE QUESTIONS? CALL 800-979-8994.

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