UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

March 1, 2021

Laura Phelps
Regulatory Manager
Nufarm Inc.
11901 S. Austin Ave.
Alsip, IL 60803

Subject: Label Amendment – Rotational Crop section & State sections and ID Mitigation
Product Name: NUP-17070 Herbicide
EPA Registration Number: 71368-125
Application Date: 9/4/2020
Decision Number: 566034

Dear Ms Phelps:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance

with FIFRA section 6. If you have any questions, please contact David Drawbaugh by phone at 703-731-8818, or via email at Drawbaugh.David@epa.gov.

Sincerely,

Kable Bo Davis
Senior Regulatory Specialist
Registration Division (7505P)
Office of Pesticide Programs

Enclosure

METRIBUZIN	GROUP	5	HERBICIDE
FLUMIOXAZIN	GROUP	14	HERBICIDE

NUP-17070

HERBICIDE

[ABNs: Panther MTZ & Panther MTZ Herbicide & Tuscany MTZ & Tuscany MTZ Herbicide & Lock Down MTZ & Lock Down MTZ Herbicide]

FOR CONTROL AND/OR SUPPRESSION OF CERTAIN WEEDS IN BURNDOWN APPLICATIONS, FALLOW LAND, ALFALFA, ASPARAGUS, GARBANZO BEANS, PEAS, POTATOES, SOYBEANS, SUGARCANE, TOMATOES, NON-CROP AND INDUSTRIAL VEGETATIVE MANAGEMENT (IVM)

ACTIVE INGREDIENTS:	
Metribuzin[(1)]	32.77%
Flumioxazin[(2)]	7.32%
OTHER INGREDIENTS:	59.91%
TOTAL:	100.00%

[(1)] 1,2,4-Triazin-5(4H)-one, 4-amino-6-(1,1-dimethylethyl)-3-(methylthio)

NUP-17070 Herbicide contains 3.0 pounds metribuzin per gallon.

[(2)] 2-[7-fluoro-3,4-dihydro-3-oxo-4-(2-propynyl)-2H-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1H-isoindole-1,3(2H)-dione

NUP-17070 Herbicide contains 0.67 pounds flumioxazin per gallon.

[For ≤ 5 Gallon Containers:] [Shake Well Before Use]
[For > 5 Gallon Containers:] [Shake Well, Agitate or Recirculate Before Use]

KEEP OUT OF REACH OF CHILDREN

CAUTION / PRECAUCIÓN

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

SEE [BACK PANEL] [NEXT PAGE] [INSIDE LABEL] [INSIDE BOOKLET] [BELOW] FOR FIRST AID [,] [AND] ADDITIONAL PRECAUTIONARY STATEMENTS [AND] [DIRECTIONS FOR USE]

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300
For Medical Emergencies Only, Call (877) 325-1840

EPA REG. NO. 71368-125
EPA EST. NO.

ACCEPTED
03/01/2021
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 71368-125

MANUFACTURED FOR
NUFARM INC.
11901 S. AUSTIN AVE.
ALSIP, IL 60803

Nufarm

NET CONTENTS:

[Designation as "NONREFILLABLE" or "REFILLABLE" for containers >5]
071368-00125.20181115.MASTER

FIRST AID	
IF ON SKIN OR CLOTHING	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • 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 by a poison control center or doctor. • Do not give anything to an unconscious person.
HOT LINE NUMBER Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-877-325-1840 for emergency medical treatment information.	

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION / PRECAUCIÓN

Harmful if absorbed through skin or if swallowed. Avoid contact with skin, eyes and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Applicators and other handlers must wear:

- long-sleeved shirt and long pants,
- -Chemical-resistant gloves made of barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, or Viton, and
- shoes and socks.

For aerial application to sugarcane, mixer/loaders must also wear:

- coveralls,
- chemical resistant apron and
- chemical resistant boots.

For aerial application to field peas, mixer/loaders must also wear:

- filtering face piece respirator (N95, R95 or P95).

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

Engineering Controls
When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users Should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.
- Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic invertebrates and non-target plants. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high watermark. Drift and runoff may be hazardous to terrestrial and aquatic plants in neighboring areas. Do not apply where run-off is likely to occur. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

NON-TARGET ORGANISM ADVISORY: This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

Under some conditions, this product may have a potential to run-off to surface water or adjacent land. Where possible, use methods which reduce soil erosion, such as no till, limited till and contour plowing; these methods also reduce pesticide run-off. Use of vegetation filter strips along rivers, creeks, streams, wetlands or on the downhill side of fields where run-off could occur will minimize water run-off and is recommended.

GROUNDWATER ADVISORY
An ingredient in this pesticide product (metribuzin) is a chemical which can travel (seep or leach) through soil and can contaminate groundwater which may be used as drinking water. Metribuzin has been found in ground water as a result of agricultural use. Users are advised not to apply metribuzin where the water table (groundwater) is close to the surface, and where the soils are very permeable, i.e., well drained soils such as loamy sands. Contact your local agricultural agencies for further information on the type of soil in your area and the location of groundwater.

PHYSICAL AND CHEMICAL HAZARDS

Do not mix or allow product to come in contact with oxidizing agent. Hazardous chemical reaction may occur.

DIRECTIONS FOR USE

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

Read the entire label before using this product. Use strictly in accordance with label precautionary statements and directions, and with applicable state and federal regulations.

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.

Observe all restrictions, precautions and limitations on this label and on the labels of products used in combination with NUP-17070 Herbicide. Do not use this product other than in accordance with the instructions set forth on this label. The use of NUP-17070 Herbicide not consistent with this label may result in injury to crops. Keep containers closed to avoid spills and contamination.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 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 statement of this label about personal protective equipment (PPE) and restricted-entry interval (REI). The requirements in this box only apply to users of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is: coveralls, chemical resistant gloves made of barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, natural rubber ≥14 mils, polyethylene, polyvinyl chloride (PVC) ≥14 mils, or Viton® ≥14 mils, and 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 WPS for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural crops on farms, forests, nurseries, or greenhouses.

Keep all unprotected persons out of operating areas, or vicinity where there may be drift.

Do not enter or allow others to enter the treated area until sprays have dried.

PRODUCT INFORMATION

NUP-17070 Herbicide is a liquid selective herbicide for preemergence control or suppression of susceptible broadleaf weeds and certain annual grass weeds and sedges in specified crops. NUP-17070 Herbicide also offers control of certain emerged broadleaf weeds when applied as part of a burndown treatment or for use to maintain bare ground on non-crop areas of farms or non-crop areas. NUP-17070 Herbicide has two modes of action and rapidly inhibits the growth of susceptible weed species.

Preemergence applications of NUP-17070 Herbicide require rainfall or irrigation to activate the herbicide. The amount of rainfall or irrigation required for activation following application depends on existing soil moisture, organic matter content and soil texture. NUP-17070 Herbicide must be activated by 1/2 to 1 inch of rainfall or irrigation water or erratic weed control will result. If adequate moisture (1/2 to 1 inch) is not received within 7 to 10 days after the treatment, a shallow cultivation may be needed to aid in activation to obtain desired weed control. When sufficient moisture is received after dry conditions, NUP-17070 Herbicide will provide control of susceptible germinating weeds. Activity on established weeds is dependent on the weed species and the depth of the root system in the soil. In use on label crops, soil applications of NUP-17070 Herbicide must be made before the crop emerges. Following application, susceptible weed species may germinate and emerge. Seedling weeds will then either turn brown or die shortly after being exposed to light, or will cease growing, turn yellow and then turn brown from the growing point out. Susceptible species usually do not grow past the cotyledon stage before they die from either mode of action.

PRODUCT RESTRICTIONS

- Do not apply NUP-17070 Herbicide when weather conditions favor spray drift from treated areas.
- Do not apply during low-level inversion conditions, including fog.
- Do not apply to frozen or snow covered soil.
- Low-pressure high volume hand wand equipment and high-volume hand-wand equipment are prohibited.
- Do not apply this product through any type of irrigation system except only to potatoes through center pivot irrigation system.
- Spray equipment used to apply NUP-17070 Herbicide must not be used for other foliar applications until proper clean out procedures have been followed. See **MIXING PROCEDURES** section for sprayer cleanup instructions.
- Do not apply within 300 yards of non-dormant pears.
- Do not allow sprays to drift on to adjacent desirable plants.
- When applying by air, observe drift management restrictions and precautions listed under the **SPRAY DRIFT MANAGEMENT** section.

- When the active ingredients in NUP-17070 Herbicide (Flumioxazin and Metribuzin) are used in the same year and on the same acre previously applied, user must follow restrictions on maximum active ingredient usage per acre for that active ingredient and not exceed the annual maximum amount of a given active ingredient.
  Spray equipment used to apply NUP-17070 Herbicide must not be used to apply other materials to any crop foliage, unless the proper cleanout procedures are followed. See SPRAYER CLEANUP for more information.

GEOGRAPHICALLY SPECIFIC RESTRICTIONS

- In New York State - Not for Sale or Use on Long Island.
- In California - Fertilizer solutions may not be used.

USE PRECAUTIONS

- Uneven application or improper incorporation can decrease the level of weed control and/or increase the level of injury.
- Use post directed and layby applications of NUP-17070 Herbicide only to healthy growing crops.

WEED RESISTANCE MANAGEMENT

NUP-17070 Herbicide contains both a Group 14 herbicide (flumioxazin: a protoporphyrinogen oxidase (PPO) inhibitor) and a Group 5 herbicide (metribuzin: a photosynthetic inhibitor). Any weed population may contain plants naturally resistant to Group 14 and/or Group 5 herbicides. The resistant individuals may eventually dominate the weed population if Group 14 and/or Group 5 herbicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

When herbicides that affect the same biological site of action are used repeatedly over several years to control the same weed species in the same field, naturally occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in the field. Adequate control to these resistant weed biotypes cannot be expected. If weed control is unsatisfactory, it may be necessary to retreat the problem area using a product affecting a different site of action.

To delay herbicide resistance, take one or more of the following steps:

• Rotate the use of NUP-17070 Herbicide or other Group 5 and Group 14 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.

• Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.

• Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.

• Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.

• If a weed pest population continues to progress after treatment with NUP-17070 Herbicide, discontinue use of NUP-17070 Herbicide, and switch to another management strategy or herbicide with a different mode of action, if available.

• Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.

• [For further information or to report suspected resistance, contact [Nufarm contact] at [one of] [any of] the following] [[[X]-XXX-XXX-XXXX] [[,][or]] 1-800-345-3330 [[,][or]] [Nufarm e-mail address] [][,][or]] [Nufarm website] [[,][or]][XXXX]].]

It is advisable to keep accurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes. Contact your local sales representative, crop advisor, or extension agent to find out if suspected resistant weeds to this MOA have been found in your region. Do not assume that each listed weed is being controlled by this mechanisms of action. Co-formulated active ingredients are intended to broaden the spectrum of weeds that are controlled. Some weeds may be controlled by only one of the active ingredient in NUP-17070 Herbicide.

INTEGRATED PEST MANAGEMENT

To better control pests, Nufarm recommends the use of Integrated Pest Management (IPM). NUP-17070 Herbicide may be used as part of an Integrated Pest Management program, which can include biological, cultural, and genetic practices, aimed at preventing economic pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representative for treating specific pest/crop or site systems in your area.

ENVIRONMENTAL CONDITIONS AND BIOLOGICAL PERFORMANCE

Preemergence Application

Important: Crop injury may occur from applications made to poorly drained soils and/or applications made under cool, wet conditions. Risk of crop injury can be minimized by using on well drained soils, planting at least 1.5 inches deep, using high quality seed and completely covering seeds with soil prior to preemergence applications. Treated soil that is splashed onto newly emerged crops may result in temporary crop injury.

Moisture is necessary to activate NUP-17070 Herbicide in soil for residual weed control. Dry weather following applications of NUP-17070 Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, NUP-17070 Herbicide will control susceptible germinating weeds. NUP-17070 Herbicide may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

A minimum amount of moisture is required to activate NUP-17070 Herbicide In areas of low rainfall, pre-emergence applications to dry soil should be-followed with light irrigation of 1/4 acre inch of water. Do not apply heavy irrigation immediately after application. As with many surface-applied herbicides, weed control and crop tolerance may vary with rainfall and/or soil texture.

Burndown Application

For best results, apply NUP-17070 Herbicide as part of a burndown program to actively growing weeds. Applying NUP-17070 Herbicide under conditions that do not promote active weed growth will reduce herbicide effectiveness. Do not apply NUP-17070 Herbicide when weeds are under stress due to drought, excessive water, extremes in temperature, disease or low humidity. Weeds under stress tend to become less susceptible to herbicidal action. NUP-17070 Herbicide is most effective when applied under warm sunny conditions.

Reduced residual weed control may occur when burndown applications are made to fields where heavy crop and/or weed residue exist.

Rainfast

NUP-17070 Herbicide is rainfast one hour after application. Postemergence efficacy may be reduced if rain is expected within one hour of application.

Soil Characteristics

Application of NUP-17070 Herbicide to soils with high organic matter and/or high clay content may require higher dosages than soils with low organic matter and/or low clay content. Application to cloddy seedbeds can result in reduced weed control.

Soil Types:

Fine: clay, clay loam, silty clay, silty clay loam
Medium: silt, silty loam, loam, sandy clay, sandy clay loam
Coarse: sandy loam, loamy sand, sand

Spray Drift Management

The following spray drift management precautions should be followed to avoid off-target movement of NUP-17070 during applications. Avoid making applications when spray particles can be carried by wind to sensitive off-site areas. Avoid making applications in gusty wind conditions or if wind is moving in the direction of sensitive crops. The potential for injury increases with higher wind speed.
A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.
Consult your local or state authorities for possible application restrictions and advice concerning these and other special local use situations.
Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement.

Importance Droplet Size

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size – Ground Boom

• Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
•Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
•Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size – Aircraft

• Adjust Nozzles - Follow nozzle manufacturers' recommendations for setting up nozzles.. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

Boom Height – Ground Boom For ground equipment, the boom should remain level with the ground or crop canopy crop and have minimal bounce.
Release Height-Aircraft- Higher release heights increase the potential for spray drift.

Swath Adjustment-When applications are made with a crosswind toward sensitive areas, the application should leave a buffer to avoid off-site movement**.**

Shielded Sprayers- Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

Wind-Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift

Temperature and Humidity

When making applications in hot and diy conditions, use larger droplets to reduce effects of evaporation.

Temperature Inversions
When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

SPRAY DRIFT ADVISORIES
Boomless Ground Applications:
• Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.
Handheld Technology Applications:
• Take precautions to minimize spray drift.

APPLICATION PROCEDURES

HERBICIDE RATE

NUP-17070 Herbicide application rate for preemergence application, as well as when used as part of a burndown residual program, is based upon soil characteristics and the most difficult-to-control weed species being targeted for preemergence control.

ADDITIVES

Burndown Application (Prior to Crop Emergence)

Postemergence control of weeds from tank mixes of NUP-17070 Herbicide will require the addition of an agronomically approved adjuvant to the spray mixture. Either a crop oil concentrate or methylated seed oil which contains at least 15% emulsifiers and 80% oil or a non-ionic surfactant at 0.25%v/v, may be used when applying NUP-17070 Herbicide as part of a burndown program. Some tank mix partners, such as Roundup Power Max® and Credit® Xtreme are formulated with sufficient adjuvants and do not require the addition of a crop oil concentrate, methylated seed oil or non-ionic surfactant when tank mixed with NUP-17070 Herbicide. The addition of a crop oil concentrate or methylated seed oil may increase the burndown activity on certain weeds such as cutleaf eveningprimrose and Carolina geranium. Mixing compatibility qualities should be verified by a jar test.

A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 pounds per acre or a 28 to 32% nitrogen solution at 1 to 2 quarts per acre) may be added to the spray mixture along with either a crop oil concentrate, methylated seed oil or non-ionic surfactant to enhance weed control. The addition of a nitrogen source does not replace the need for a crop oil concentrate, a methylated seed oil or a non-ionic surfactant.

APPLICATION EQUIPMENT

Application equipment should be clean and in good repair. Space nozzles uniformly on boom and frequently checked for accuracy.

BROADCAST APPLICATION

Apply NUP-17070 Herbicide and tank mixes of NUP-17070 Herbicide, with ground equipment using standard commercial sprayers equipped with flat fan or flood nozzles (preemergence applications only) designed to deliver a minimum of 10 to 40 gallons of spray mixture per acre broadcast.

GROUND APPLICATION

- **Preemergence Application (Conventional Tillage):** To ensure uniform coverage, use 10 to 30 gallons of a medium or coarse spray solution per acre for conventional tillage applications. Nozzle selection must meet manufacturer's gallonage and pressure specifications for preemergence herbicide application.
- **Burndown Application (Prior to Crop Emergence):** To ensure thorough coverage in burndown applications, use 15 to 40 gallons spray solution per acre. Use 20 to 40 gallons per acre if dense vegetation or heavy crop residue is present. Nozzle selection must meet manufacturer's gallonage and pressure specifications for postemergence herbicide application. Use nozzles that provide a medium spray solution.

BAND APPLICATION

When banding, use proportionately less water and NUP-17070 Herbicide per acre. The rate of NUP-17070 Herbicide required per acre, when applied as a banded application, can be calculated with the following formula:

$$\frac{\text{Amount Needed per Acre for Banded Application}}{} = \frac{\text{Band Width in Inches}}{\text{Row Width in Inches}} \times \text{Rate per Broadcast Acre}$$

HANDGUN APPLICATION

Applications may also be made using a handgun sprayer. Use a spray volume of at least 40 gallons per acre to insure uniform coverage.

AERIAL APPLICATION

Spray drift away from the site of application may cause damage to non-target vegetation. To minimize drift, apply the largest droplet size consistent with uniform coverage and satisfactory weed control. To obtain satisfactory application and avoid drift, the following directions must be observed:

- Do not apply during low-level inversion conditions (including fog), when winds are gusty or under other conditions that favor drift. Do not spray when wind velocity is less than 2 mph or more than 10 mph.
- Apply only as a medium or coarser spray (ASABE standard 572.1) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.
- Do not apply NUP-17070 Herbicide by air within 40 feet of non-target plants including non-target crops.
- Do not apply NUP-17070 Herbicide by air within 100 feet of emerged cotton crops.
- Do not apply NUP-17070 Herbicide by air within 40 feet of streams, wetlands, marshes, ponds, lakes and reservoirs.
- Do not apply by air to asparagus.

Carrier Volume and Spray Pressure: When used as part of a burndown weed control program, apply NUP-17070 Herbicide in 7 to 10 gallons of water per acre. Application at less than 7 gallons per acre may provide inadequate control. When used for preemergence

weed control, apply NUP-17070 Herbicide in 5 to 10 gallons of water per acre. The higher gallonage applications generally afford more consistent weed control. Do not exceed the nozzle manufacturer's specified 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.

Nozzle Selection and Orientation: Formation of very small drops may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible and by avoiding excessive spray pressure. Use nozzles that produce flat or hollow cone spray patterns. Use non-drip type nozzles, such as diaphragm type nozzles, to avoid unwanted discharge of spray solution. The nozzles must be directed toward the rear of the aircraft, at an angle between 0 and 15° downward. Do not place nozzles on the outer 25% of the wings or rotors.

Adjuvants and Drift Control Additives: Refer to tank mix partner's label for adjuvant recommendation. Drift control additives maybe used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

APPLICATION WITH DRY BULK FERTILIZERS

Dry bulk fertilizer may be impregnated or coated with NUP-17070 Herbicide for application to established alfalfa and to soybeans. Application of dry bulk fertilizer with NUP-17070 Herbicide provides weed control equal to, or slightly below, the same rate of NUP-17070 Herbicide applied in liquid carriers, due to better coverage with application via spray equipment. Follow label instructions for NUP-17070 Herbicide regarding rates, special instructions, cautions and special precautions. Apply 400 to 700 pounds of the fertilizer/herbicide mixture per acre to obtain adequate soil coverage. Apply the mixture to the soil with properly calibrated equipment immediately after blending. Uniform application of the herbicide/fertilizer mixture is essential to prevent possible crop injury and to obtain uniform weed control.

Ammonium nitrate and/or limestone should not be used as the sole source of fertilizer, as NUP-17070 Herbicide may not adhere to these materials.

Compliance with all Federal and State regulations relating to blending pesticide mixtures with dry bulk fertilizer, registrations, labeling and application are the responsibility of the individual and/or company offering the fertilizer and mixtures of NUP-17070 Herbicide for sale.

NUP-17070 Herbicide must be premixed with water to form a slurry prior to impregnation on dry bulk fertilizer. For best results, use a minimum of 1 pint of water for each 2 fluid ounces of NUP-17070 Herbicide. A minimum of 6 pints of slurry of NUP-17070 Herbicide should be used to impregnate 2000 pounds of the fertilizer for uniform coverage of the fertilizer. Closed drum, belt, ribbon or other commonly used dry bulk blenders may be used. The amount of NUP-17070 Herbicide required can be calculated with the following formula:

$$\frac{\text{Fluid Ounces of NUP-17070}}{\text{Per Ton of Fertilizer}} = \frac{\text{Fluid Ounces of NUP-17070}}{\text{Per Acre}} \times 2{,}000 \div \text{Pounds of Fertilizer Per Acre}$$

Thoroughly clean dry fertilizer blending equipment after NUP-17070 Herbicide has been placed in the system to avoid injury to sensitive crops that may be treated with fertilizers blended after the equipment has been used for NUP-17070 Herbicide. Rinse the sides of the blender and the herbicide tank with water. Then impregnate the rinsate onto a load of dry fertilizer intended for an approved crop. Use a maximum rate of 1 gallon of rinsate per ton of fertilizer. Follow with 1 to 2 loads of unimpregnated fertilizer in the blender before switching herbicides.

NOTE: Fertilizer solutions may not be used in California.

TANK MIXES

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

NUP-17070 Herbicide may be mixed with glufosinate or glyphosate formulations labeled for burndown programs (preplant or preemergent to crop) in accordance with the most restrictive label restrictions, limitations and precautions. Labeled application rates must not be exceeded. Do not mix NUP-17070 Herbicide with any product containing a label prohibition against such mixing.

Uses:

- NUP-17070 Herbicide provides residual control of susceptible weeds.
- NUP-17070 Herbicide provides burndown activity.
- NUP-17070 Herbicide can be applied alone, or as part of a burndown program for control of susceptible winter annuals and other listed weeds.
- NUP-17070 Herbicide can be used on farms for non-selective vegetation control to maintain bare ground non-crop areas that must be kept weed free.

Read tank mix product label for rates and weeds controlled. Always read and follow label directions for all tank mix products before using. The most restrictive labeling of any tank mix product must be followed. When NUP-17070 Herbicide is applied according to label use directions, will control the weeds claimed in crop specific use directions. This label makes no claims concerning control of other weed species.

JAR TEST TO DETERMINE COMPATIBILITY OF ADJUVANTS AND NUP-17070 HERBICIDE

When using NUP-17070 Herbicide and an adjuvant, such as in stale seed bed, layby, hooded/shielded or reduced tillage situations, a jar test should be performed before mixing commercial quantities of NUP-17070 Herbicide, when using NUP-17070 Herbicide for the first time, when using new adjuvants or when a new water source is being used.

1. Add 1 pint of the water to a quart jar. The water should be from the same source and temperature as which will be used in the spray tank mixing operation.

2. Add 1 milliliter of NUP-17070 Herbicide to the quart jar for every 3 fluid ounces of NUP-17070 Herbicide per acre being applied (4 milliliters if 12 fluid ounces per acre is the desired rate of NUP-17070 Herbicide), gently mix until product goes into suspension.

3. Add 60 milliliters (4 Tablespoons or 2 fluid ounces) of the crop oil or methylated seed oil to the quart jar or 1 milliliter of non-ionic surfactant if it is being used in place of oil, gently mix.

4. If nitrogen is being used, add 16 milliliters (1 Tablespoon. or 0.5 ounce) of the 28 to 32% nitrogen source to the quart jar. If ammonium sulfate is being used, add 19 g AMS to the quart jar in place of the 28 to 32% nitrogen.

5. Place cap on jar, invert 10 times, let stand for 15 minutes, evaluate.

6. An ideal tank mix combination will be uniform. If any of the following conditions are observed the choice of adjuvant should be questioned:

a) Layer of oil or globules on the mixture's surface.

b) Flocculation: fine particles in suspension or as a layer on the bottom of the jar.

c) Clabbering: Thickening texture (coagulated) like gelatin.

SPRAYER PREPARATION

Before application of NUP-17070 Herbicide, start with clean, well maintained application equipment. The spray tank, as well as all hoses and booms, must be cleaned to ensure no residue from the previous spraying operation remains in the sprayer. Some pesticides, including but not limited to, the sulfonylurea and phenoxy herbicides, (i.e., Classic® and 2,4-D respectively) are active at very small amounts and can cause crop injury when applied to susceptible crops. The spray equipment must be cleaned according to the manufacturer's directions for the last product used before the equipment is used to apply NUP-17070 Herbicide. If two or more products were tank mixed prior to application of NUP-17070 Herbicide, the most restrictive cleanup procedure must be followed.

MIXING INSTRUCTIONS

1. Fill clean spray tank 1/2 to 2/3 of desired level with clean water.
2. If a drift retardant is to be used, add 10 pounds of spray grade ammonium sulfate per 100 gallons of spray solution.
3. Agitate solution. Agitation should create a rippling or rolling action on the water surface.
4. If tank mixing NUP-17070 Herbicide with other labeled herbicides, add water soluble bags first, followed by dry formulations, flowables, emulsifiable concentrates and then solutions. Prepare no more spray mixture than is required for the immediate spray operation.
5. Add any required adjuvants.
6. Fill spray tank to desired level with water. **Agitation should continue until all spray solution has been applied.**
7. Mix only the amount of spray solution that can be applied the day of mixing. NUP-17070 Herbicide should be applied within 6 hours of mixing.

SPRAYER CLEANUP

Spray equipment, including mixing vessels and nurse tanks, must be cleaned each day following application of NUP-17070 Herbicide. After NUP-17070 Herbicide is applied, the following steps must be used to clean the spray equipment:

1. Completely drain the spray tank, rinse the sprayer thoroughly, including the inside and outside of the tank and all in-line screens.
2. Fill the spray tank with clean water and flush all hoses, booms, screens and nozzles.
3. Top off tank, add 1 gallon of 3% household ammonia (or equivalent) for every 100 gallons of water, circulate through sprayer for 5 minutes, and then flush all hoses, booms, screens and nozzles for a minimum of 15 minutes. If diaphragms are being used on the spray boom, loosen diaphragms before flushing the spray system, allowing cleaning solution to spray through the open diaphragm. If spray lines have any end caps, they must be loosened before flushing the system, allowing cleaning solution to spray through the loosened caps. To enhance removal of NUP-17070 Herbicide from the spray system, add a tank cleaner such as **Valent Tank Cleaner** from Valent U.S.A. Corporation, in place of ammonia and allow the cleaning solution to remain in the pressurized spray system (spray tank, hoses and boom) overnight before flushing the system for a minimum of 15 minutes.
4. Drain tank completely.
5. Add enough clean water to the spray tank to allow all hoses, booms, screens and nozzles to be flushed for 2 minutes.
6. Remove all nozzles and screens and rinse them in clean water.
7. Spray equipment, including all tanks, hoses, booms, screens and nozzles, must be thoroughly cleaned before it is used to apply postemergence pesticides. Equipment with residue of NUP-17070 Herbicide remaining in the system may result in crop injury to the subsequently treated crop.

ROTATIONAL RESTRICTIONS

If the crop treated with NUP-17070 Herbicide is lost due to a catastrophe, such as hail or other forms of inclement weather, soybeans can be replanted immediately provided no additional treatment with NUP-17070 Herbicide is made. Do not replant treated fields with any crop at intervals that are inconsistent with the crop rotation intervals listed in the **CROP ROTATION RESTRICTIONS** section. Where a tank mix is used, refer to the tank mix product's label(s) for any additional replant instructions.

CROP ROTATIONAL RESTRICTIONS

User must follow the rotation intervals in table below after applying NUP-17070 Herbicide. Planting earlier than the specified rotational interval may result in crop injury.

The following table lists rotational crop restrictions for an application of the maximum use rate on the label. Some crops in the table have specific use directions for lower rate that may be applied closer to planting. Refer to the DIRECTIONS FOR USE section for each crop to obtain the appropriate interval between application and planting for the rate of product applied.

Minimum Rotation Interval (Months After Last NUP-17070 Application)	Crops to be Planted[1]
4 Months	Barley[2], Corn (Field and Sweet), Sugarcane, Soybean[3] and Wheat[4]
5 Months	Alfalfa (tilled) (for rates up to and including18 fl oz/A)
8 Months	Lentils, Peas, Barley[5]
9 Months	Wheat[6]
12 Months	Potatoes, Rice[7] and Alfalfa (tilled) (greater than 18 fl oz/A)
18 Months	Sugar Beets, Onions, Alfalfa (not tilled), other root crops not listed and all other crops not listed

[1] Cover crops for soil building or erosion control may be planted any time, but do not graze or harvest for food or feed. Stand reductions may occur in some areas.
[2] Following peas or soybeans.
[3] Greater than 18 fl oz/A NUP-17070 Herbicide
[4] Following peas or soybeans or other labeled crops at up to 24 fl oz/A NUP-17070 Herbicide.
[5] Not following peas or soybeans.
[6] At 24 fl oz/A or higher labeled rate
[7] Do not rotate to rice after any application to a primary crop greater than a total of 42 fl oz of NUP-17070 Herbicide (1 lb metribuzin) per acre per season.

WEEDS CONTROLLED

PREEMERGENCE WEED TABLE

Table - Weeds Controlled or Suppressed by a Preemergence Application of NUP-17070

Broadleaf Weeds Controlled or Suppressed by a Preemergence Application of NUP-17070	
BROADLEAF WEEDS	**RATE (fl oz/A)**
Bristly Starbur	12* – 24 (24 fl oz for control)
Buffalobur	18
Carpetweed	12
Chickweeds,	
Common	12
Mouseear	12
Cocklebur	18*
Coffee Senna	15
Common Ragweed	15
Copperleaf, Hophornbeam	12* – 24 (24 fl oz for control)
Dandelion	12
Dodder [1] ¤	24*
Eclipta	12
Eveningprimrose, Cutleaf	12
Fiddleneck, Coast [1]	24
Field Pennycress [1]	12
False Chamomile / Mayweed	12
Filarees,	
Redstem	36
Whitestem	36
Fleabane, Hairy	24
Flixweed	24
Florida Beggarweed	15
Florida Pusley	12
Galinsoga	18
Giant Ragweed	18*
Golden Crownbeard	15
Groundsel, Common	24
Hairy Indigo	15
Hemp Sesbania	15
Henbit	12
Jimsonweed	15
Knotweed	18
Kochia	15
Lambsquarters, Common	12
Little Mallow	12
London Rocket	15
Mallows,	
Common (Cheeseweed)	24
Little	12

Marestail/Horseweed	12
Morninglories,	
Entireleaf	15
Ivyleaf	15
Red/Scarlet	15
Smallflower	12
Tall	15
Mustards,	
Tansy	24
Tumble	24
Wild	15
Nettle, Burning	24
Nightshades,	
Black	12
Eastern Black	12
Hairy	12
Pigweeds,	
Palmer Amaranth	15
Prostate	18
Redroot	12
Smooth	12
Spiny Amaranth	12
Tumble (Hill)	12
Waterhemps (Common and Tall)	15
Prickly Lettuce (China Lettuce)	12
Prickly Sida (Teaweed)	12
Puncturevine	12
Purslanes,	
Common	12
Horse	24
Redmaids	12
Redweed	18
Russian Thistle	12* - 18 (18 fl oz for control)
Shepherd's-purse	12
Smartweeds,	
Ladysthumb	12* – 24 (24 fl oz for control)
Pennsylvania	12* – 24 (24 fl oz for control)
Smellmelon [1]	12* – 24 (24 fl oz for control)
Sowthisles,	
Annual [1]	36
Prickly [1]	12
Spotted Spurge	12
Spurred Anoda	15
Sunflower, Common	18
Tropic Croton	15
Velvetleaf	12* - 18 (18 fl oz for control)
Venice Mallow	12
White Cockle	24
Wild Buckwheat	18*
Wild Poinsettia	15
Wild Radish	12
Wormwood, Biennial	12* – 24 (24 fl oz for control)
Yellow Rocket	15

Note: that PPO or Triazine/Photosystem 2 resistant biotype weeds may not be controlled with NUP-17070 Herbicide.
* - Suppression
[1] - Not for use in California.]
¤ - NUP-17070 Herbicide at 24 fluid ounces per acre will provide postemergence dodder suppression when applied in combination with Pursuit Herbicide or Raptor Herbicide at labeled rates. The use of Pursuit Herbicide and Raptor Herbicide require the use of a NIS, which will result in burn and stunting of crop. Growers should expect and accept this prior to using this tank mix.

¥ - Tank mixes of NUP-17070 Herbicide will only control the above ground portion of field bindweed. Repeated applications will be needed to control regrowth.

Grass Weeds Controlled or Suppressed by a Preemergence Application of NUP-17070

GRASS WEEDS	RATE (fl oz/A)
Barnyardgrass	12* – 24 (24 fl oz for control)
Bluegrass, Annual	12* – 24 (24 fl oz for control)
Broadleaf Signalgrass	12* - 18 (18 fl oz for control)
Browntop millet	18
Cheat	18*
Crabgrass spp.	
Large	12* – 18 (18 fl oz for control)
Smooth	18
Crowfootgrass	12
Downy Brome [1]	18*
Foxtail spp.	
Bristly	18* - 36 (36 fl oz for control)
Giant	12* - 24 (24 fl oz for control)
Green	18* - 36 (36 fl oz for control)
Yellow	18* - 36 (36 fl oz for control)
Goosegrass	12* – 24 (24 fl oz for control)
Guineagrass	36
Johnsongrass, Seedling	18
Junglerice	18
Lovegrass, California	12* – 24 (24 fl oz for control)
Panciums,	
Fall	12* – 24 (24 fl oz for control)
Texas	12* – 24 (24 fl oz for control)
Ryegrasses, Italian	12* – 24 (24 fl oz for control)

Note: Grasses may not be controlled season long and should be managed as part of an intergraded control program.
* - Suppression
[[1] - Not for use in California.]

POSTEMERGENCE WEED TABLE (Postemergent to Weeds)

Table - Weeds Controlled or Suppressed by Postemergence Application of NUP-17070

Broadleaf Weeds Controlled or Suppressed by a Postemergence Application of NUP-17070

BROADLEAF WEEDS (1 – 3 inches)		RATE (fl oz/A)
COMMON NAME	SCIENTIFIC NAME	
Carpetweed	*Mollugo verticillata*	12
Cocklebur	*Xanthium pensylvanicum*	12
Dayflower	*Commelina* spp.	12
Florida Beggarweed	*Desmodium tortuosum*	12
Jimsonweed	*Datura stramonium*	18
Lambsquarters, common	*Chenopodium album*	18
Mallow, Venice	*Hibiscus trionum*	18
Mexicanweed	*Caperonia castanaefolia*	12
Morningglories,		
Entireleaf	*Ipomoea hederacea var. integriuscula*	24
Ivyleaf	*Ipomoea hederacea*	18
Pitted	*Ipomoea lacunosa*	18
Red	*Ipomoea coccinea*	24
Tall	*Ipomoea purpurea*	18
Mustard, Wild	*Brassica kaber*	18
Pigweeds,		

Prostate	*Amaranthus graecizans*	12
Redroot	*Amaranthus retroflexus*	12
Smooth	*Amaranthus hybridus*	12
Plantain, Broadleaf	*Plantago major*	18
Purslane, Common	*Portulaca oleracea*	12
Ragweeds,		
Common	*Ambrosia artemisiifolia*	18
Giant	*Ambrosia trifida*	18
Rice, Flatsedge	*Cyperus iria*	18
Sesbania	*Sesbania* spp.	15
Sicklepod	*Cassia obtusifolia*	12
Sida, prickly	*Sida spinose*	15
Smartweeds,		
Ladysthumb	*Polygonum persicaria*	18
Pennsylvania	*Polygonum pensylvanicum*	18
Pale	*Persicaria lapathifolia*	18
Spotted Spurge	*Euphorbia maculata*	18
Velvetleaf	*Abutilon theophrasti*	12
Waterhemps,		
Common	*Amaranthus rudis*	18
Tall	*Amaranthus tuberculatus*	18
Grass Weeds Controlled by a Postemergence Application of NUP-17070		
GRASS WEEDS (less than 1 inch)		
COMMON NAME	**SCIENTIFIC NAME**	**NUP-17070 HERBICIDE RATE**
		RATE (fl oz/A)
Crabgrass spp.	*Digitaria spp.*	12

DIRECTIONS FOR USE IN FALLOW LAND AND PREPLANT BURNDOWN

(If not specified in the Crop Specific Burndown Sections Below)

NUP-17070 Herbicide at 12 to 24 fluid ounces-per acre can be used alone or in combination with labeled burndown herbicides to control emerged weeds and provide residual weed control.

RESTRICTIONS

- Do not apply more than 24 fluid ounces (1.5 pints) of NUP-17070 Herbicide per acre per application.
- Do not apply more than 24 fluid ounces (1.5 pints) of NUP-17070 Herbicide per acre per year.
- Do not make more than 2 applications per year.
- Do not apply to frozen or snow covered soil.
- Do not perform any tillage operation after application or residual weed control will be reduced.
- A minimum of 4 months must pass between application of NUP-17070 Herbicide and planting of wheat.
- Observe all rotational intervals prior to planting as listed in the **ROTATION RESTRICTIONS** table, or in the preplant instructions in the DIRECTIONS FOR USE for crops listed on this label.

RATE EQUIVALENCE

- 24 fluid ounces of NUP-17070 Herbicide is equivalent to 0.125 lb flumioxazin and 0.56 lb of metribuzin.
- 12 fluid ounces of NUP-17070 Herbicide is equivalent to 0.063 lb flumioxazin and 0.28 lb of metribuzin.

BURNDOWN AND FALLOW LAND USE INSTRUCTIONS:

- NUP-17070 Herbicide may be used:
- In the fall to provide residual and preemergent weed control in fallow fields,
- In a fall burndown or fallow seedbed program (however the length of residual control may be variable), and
- In a spring burndown program for the postemergence burndown of emerged weeds.

No-till planters that incorporate the soil during planting may result in decreased weed control in the row. Abnormally warm or wet winters will reduce the length of weed control observed in the spring.

Table – Tank Mix Combinations for Preplant Burndown and Fallow land

Credit Xtreme (Glyphosate)	2,4-D	Cheetah (Glufosinate)	Paraquat

CROP SPECIFIC - PREPLANT BURNDOWN

DIRECTIONS FOR USE IN FALL AND SPRING PREPLANT BURNDOWN AND FALLOW SEEDBED PROGRAMS IN SOYBEAN

(Preplant to Crop)

RESTRICTIONS AND LIMITATIONS

- Do not apply more than 24 fluid ounces (1.5 pints) of NUP-17070 Herbicide per acre per growing season.
- Do not apply more than 24 fluid ounces (1.5 pint) of NUP-17070 Herbicide per acre during a single application.
- Do not make more than 2 applications per year.
- Do not apply to frozen or snow covered soil.
- Do not perform any tillage operation after application or residual weed control will be reduced.
- Observe all rotational intervals prior to planting as listed in the **ROTATIONAL RESTRICTIONS** table, or in the preplant instructions in the DIRECTIONS FOR USE for soybeans.
- Soybean vines or hay treated with this product may be grazed or fed to livestock 40 days after application.

RATE EQUIVALENCE

- 24 fluid ounces of NUP-17070 Herbicide is equivalent to 0.125 lb flumioxazin and 0.56 lb of metribuzin.
- 18 fluid ounces of NUP-17070 Herbicide is equivalent to 0.094 lb flumioxazin and 0.42 lb of metribuzin.
- 12 fluid ounces of NUP-17070 Herbicide is equivalent to 0.063 lb flumioxazin and 0.28 lb of metribuzin.

FALL BURNDOWN AND FALLOW SEEDBED PROGRAMS

NUP-17070 Herbicide, at 12 to 24 fluid ounces per acre can be used in the fall to provide residual weed control in fields that will be planted the following spring with soybeans (refer to **ROTATION RESTRICTIONS** table, or in the preplant instructions in the DIRECTIONS FOR USE for soybeans for rates and rotational intervals prior to planting). Weeds controlled by residual activity are listed in **Table - Weeds Controlled by a Preemergence Application of NUP-17070** and **Table - Weeds Controlled by Fall and Spring Preplant Burndown Programs**. If weeds have emerged at the time of application, use NUP-17070 Herbicide in combination with a labeled burndown herbicide. [Application must be made no earlier than October 15 in Region 2 or November 15 in Region 1 or when soil temperature falls below 50°F at a 2-inch depth to maintain residual weed control into the spring (April 1 in Region 1 and May 1 in Region 2) or up until planting, whichever comes first.] NUP-17070 Herbicide can be used in a fall burndown or fallow seedbed program [outside of Regions 1 and 2], however the length of residual control may be variable.

Abnormally warm or wet winters will reduce the length of weed control observed in the spring.

Fall Application Regions:

Region 1: Alabama, Arkansas, Florida, Georgia, Kentucky, Missouri (Bootheel), Mississippi, Oklahoma, Tennessee, Louisiana, North Carolina, South Carolina, Texas and Virginia

Region 2: Colorado, Delaware, Kansas, Illinois, Indiana, Iowa, Maryland, Michigan, Minnesota, Missouri (except Bootheel), Montana, Nebraska, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, West Virginia and Wisconsin

Weeds controlled by postemergence or residual activity are listed in Table - **Weeds Controlled by Fall and Spring Preplant Burndown Programs**. Preplant burndown treatment tank mixes and rates are:

Herbicide	**Rate**
Program 1[1]	
NUP-17070 **Plus**	12 to 18 fl oz/A
Glyphosate **Plus**	0.5 to 1.0 lb ai/A (equivalent to 1 to 2 pt/A of Credit® 41 Extra or Roundup Original®)
2,4-D LVE (2,4-D for use on preplant soybeans only) **Plus**	0.5 to 1.0 lb ai/A (equivalent to 1 to 2 pt/A of 2,4-D 4 LVE)
NIS + AMS	0.5% v/v + 17 lbs/100 gals of water

or

Program 2[1]	
NUP-17070 **Plus**	12 to 18 fl oz/A
Glyphosate **Plus**	0.5 to 1.0 lb ai/A (equivalent to 1 to 2 pt/A of Credit® 41 Extra or Roundup Original)
COC[2] **or** NIS + AMS	1pt/A or 0.5% v/v + 17 lbs/100 gals of water

or

Program 3[1]	
NUP-17070 **Plus**	12 to 18 fl oz/A
2,4-D LVE (2,4-D for use on preplant soybeans only) **Plus**	0.5 to 1.0 lb ai/A (equivalent to 1 to 2 pt/A of 2,4-D 4 LVE)
COC	1 pt/A

[1] Dicamba (Clash®, Banvel® or Diablo®), at 0.188 pounds AI per acre (6 fluid ounces per acre of Clash, Banvel 4 or Diablo) can be added to Programs 1, 2 & 3 to assist in the control of emerged broadleaves. Refer to dicamba label for rotational restrictions.
[2] Crop oil concentrate has been found to increase glyphosate burndown of emerged cutleaf eveningprimrose and Carolina geranium.

Table - Weeds Controlled by Fall and Spring Preplant Burndown Programs

WEEDS CONTROLLED[1]		POSTEMERGENCE			RESIDUAL
		Program 1	Program 2	Program 3	
COMMON NAME	**SCIENTIFIC NAME**	**Weeds 3 inches or less**			
Chamomile, False	*Matricaria maritime*	Yes	Yes	No	Yes
Cheatgrass	*Bromus tectorum*	Yes	Yes	No	Yes
Chickweed, Common	*Stellaria media*	Yes	Yes	No	Yes
Chickweed, Mouseear	*Cerastium vulgatum*	Yes	Yes	No	Yes
Cockle, White[5]	*Silene latifolie*	No	Yes	Yes	Yes
Dandelion	*Taraxacum officinale*	Yes	No	Yes[2]	Yes
Deadnettle, Purple	*Lamium purpureum*	Yes	Yes	Yes	Yes
Groundsel, Cressleaf	*Senecio glabellus*	Yes	Yes	-	Yes
Henbit	*Lamium amplexicaule*	Yes	Yes	Yes	Yes
Marestail/Horseweed	*Conyza canadensis*	Yes	Yes[3]	Yes	Yes
Mallow, Common	*Malva Neglecta*	Yes	Yes	No	Yes
Prickly Lettuce	*Lactuca serriola*	Yes	Yes	Yes	Yes
Wormwood, Biennial	*Artemisia biennis*	Yes	Yes	Yes	Yes
Weeds 12 inches or less					
Canola, Volunteer	*Brassica napus*	Yes	Yes	Yes	Yes
Carolina Geranium	*Geranium carolinianum*	Yes	Yes	Yes	-
Eveningprimrose, Cutleaf[4]	*Oenothera laciniata*	Yes	Yes	Yes	Yes
Flixweed	*Descurainia sophia*	Yes	Yes	Yes	Yes
Mustard, Tansy	*Descurainia pinnata*	Yes	Yes	Yes	Yes
Mustard, Wild	*Brassica kaber*	Yes	Yes	Yes	Yes
Shepherd's-purse	*Capsella bursa-pastoris*	Yes	Yes	Yes	Yes

[1] Refer to glyphosate and/or 2,4-D labels for additional weeds controlled and rotational restrictions.
[2] Use 1 pound AI per acre of 2,4-D LVE (equivalent to 2 pints per acre of 2,4-D 4 LVE) for control of emerged dandelion.
[3] Program 2 will not control emerged glyphosate resistant marestail/horseweed.
[4] Use Program 1 to control cutleaf eveningprimrose that are nearing 12 inches in height or are past the rosette stage. Use Programs 2 or 3 to control cutleaf eveningprimrose that are 12 inches or less and in the rosette stage.
[5] [Not for use in California.]

SPRING BURNDOWN PROGRAMS

This product may be used in combination with labeled preplant burndown herbicides to assist in the postemergence burndown of emerged weeds and provide residual weed control prior to crop emergence. Weeds controlled by residual activity are listed in in **Table - Weeds Controlled by a Preemergence Application of NUP-17070**.

No-till planters that incorporate the soil during planting may result in decreased weed control in the row. Apply this product after planting soybeans when these types of planters are used (within 3 days after planting soybeans and before the crop emerges).

This product can be used at 12 to 18 fluid ounces per acre with labeled preplant burndown herbicides to enhance the speed of burndown and increase weed spectrum.

This product can be used at 12 to 18 fluid ounces per acre in soybean burndown programs. See **DIRECTIONS FOR USE IN SOYBEAN** for more information.

DIRECTIONS FOR USE IN FALL AND SPRING BURNDOWN PROGRAMS IN WINTER WHEAT

(Preplant to Crop)

RESTRICTIONS AND LIMITATIONS

- Do not apply more than 24 fluid ounces (1.5 pints) of NUP-17070 Herbicide per acre per application.
- Do not apply more than 24 fluid ounces (1.5 pints) of NUP-17070 Herbicide per acre per growing season.
- Do not make more than 2 applications per year.

- Do not apply to frozen or snow covered soil.
- Do not perform any tillage operation after application or residual weed control will be reduced.
- NUP-17070 Herbicide can be used [at 6 to 12 fluid ounces per acre] with labeled burndown herbicides to enhance the speed of burndown and increase weed spectrum. A minimum of 30 days must pass, and 1 inch of rainfall/irrigation must occur, between application of NUP-17070 Herbicide and planting of winter wheat. Refer to most restrictive label for minimum interval between application and planting.
- Observe all rotational intervals prior to planting as listed in the **ROTATIONAL RESTRICTIONS** table.

RATE EQUIVALENCE

- 24 fluid ounces (1.5 pints) of NUP-17070 Herbicide is equivalent to 0.125 lb flumioxazin and 0.56 lb of metribuzin
- 22 fluid ounces of NUP-17070 Herbicide is equivalent to 0.114 lb flumioxazin and 0.51 lb of metribuzin
- 16 fluid ounces of NUP-17070 Herbicide is equivalent to 0.084 lb flumioxazin and 0.37 lb of metribuzin.

FOR WEED CONTROL IN A WHEAT / FALLOW / WHEAT ROTATION

Directions For Use in the States of Idaho, Oregon, Utah and Washington

NUP-17070 Herbicide may be applied to provide weed control during the fallow period after wheat harvest or in the Spring before winter wheat is planted. Winter wheat can be seeded 4 months (120 days) after Spring application. Mechanical tillage or the application of a contact herbicide may be required to control weeds germinating prior to seeding of winter wheat. Best results will be obtained where straw and chaff are evenly distributed across the field.

For specific information see the **PRODUCT INFORMATION** section in the front of this label.

Where weed growth is present at application time, NUP-17070 Herbicide should be applied with Gramoxone or other contact herbicide. Refer to the other product label registered for additional directions, rates, and weed species controlled.

WEEDS CONTROLLED		
Broad leaves		**Grasses**
Chickweed, Common (*Stellaria media*)	Mustard, Treacle (*Eyrsimum repandum*)	Cheatgrass (*Bromus secalinus*)
Henbit (*Lamium amplexicaule*)	Mustard, Wild (*Brassica kaber*)	Downy Brome (*Bromus !ectorum*)
Kochia (*Kochia scoparia*)*	Pennycress,Field (Fanweed) (*Thlasvi arvense*)	Wheat, Volunteer (*Triticum* spp.)*
Lambsquarters (*Chenopodium album*)	Pigweeds (*Amaranthus* spp.)	
Mustard, Blue or Purple (*Chorispora tenella*)	Russian Thistle (*Salsola iberica*)*	
Mustard, Jim Hill (*Sisymbrium altissimum*)	Wild Sunflower (*Helianthus* spp.)*	
Mustard, Tansy (*Descurainia pinnala*)		
* Note: Since control of these weeds may be variable depending on moisture following application, the higher labeled rate is recommended.		

After Harvest Application (Fall Fallow): NUP-17070 Herbicide may be applied to wheat stubble after harvest in the Fall. Apply 22 - 24 fl. oz. per acre broadcast before weeds emerge. Use higher rate for longer weed control or for weeds designated as requiring the higher rate for control. Rainfall (1/2 inch or more) is necessary for herbicide activation.

Do not plant crops in treated areas for at least 10 months following Fall applications. Do not rotate any crop not listed on this label for 18 months following application.

NUP-17070 Herbicide may be applied at 22 - 24 fl. oz. per acre as directed above for a Fall application. If other vegetation is present at the time of application use a contact herbicide.

Spring Application (Summer Fallow): NUP-17070 Herbicide may be applied to wheat stubble in the Spring. Apply 16 to 22 fl. oz per acre broadcast before weeds emerge in the Spring. Use higher rate for longer weed control or weeds designated as requiring higher rate for control. Rainfall (1/2 inch or more) is necessary for herbicide activation.

RESTRICTIONS: Do not graze treated fields. Do not plant Spring seeded cereals following Fall fallow applications of NUP-17070 Herbicide. Where NUP-17070 Herbicide was applied in the Fall, do not apply NUP-17070 Herbicide in the Spring,

FOR WEED CONTROL IN A FALLOW ROTATION WITH WHEAT

Directions For Use in States of Colorado, Kansas, Montana, Nebraska, and Wyoming

NUP-17070 Herbicide may be applied to provide weed control during the fallow period after wheat harvest or in the Spring before planting of Winter wheat. Mechanical tillage or the application of a contact herbicide may be required to control weeds germinating prior to seeding of Winter wheat.

For specific application information see the **PRODUCT INFORMATION** section in the front of this label.

Where weed growth is present at application time, NUP-17070 Herbicide should be applied with Gramoxone, glyphosate, or other contact herbicide. Refer to the other product label registered for additional directions, rates, and weed species controlled. Do not plant crops in treated areas earlier than 10 months following Fall applications.

WEEDS CONTROLLED		
Broad leaves		**Grasses**
Chickweed, Common (*Stellaria media*)	Mustard, Tansy (*Descurainia pinnala*)	Cheatgrass (*Bromus secalinus*)
Cowcockle (*Vaccaria pyramidata*)	Mustard, Treacle (*Eyrsimum repandum*)	Downy Brome (*Bromus !ectorum*)
Henbit (*Lamium amplexicaule*)	Mustard, Wild (*Brassica kaber*)	Foxtail, Green (*Setaria viridis*)*
Kochia (*Kochia scoparia*)*	Pennycress,Field (Fanweed) (*Thlasvi arvense*)	Wheat, Volunteer (*Triticum* spp.)*
Lambsquarters (*Chenopodium album*)	Pigweeds (*Amaranthus* spp.)	Wild Oats *(Avena fatua*)*
Mustard, Blue or Purple (*Chorispora tenella*)	Russian Thistle (*Salsola iberica*)*	
Mustard, Jim Hill (*Sisymbrium altissimum*)	Sunflower (*Helianthus* spp.)*	
* Note: Since control of these weeds may be variable depending on moisture following application, the higher labeled rate is recommended.		

AFTER HARVEST APPLICATION (Fall Fallow): NUP-17070 Herbicide may be applied to the stubble after harvest in the Fall. Apply 24 fl. oz. per acre broadcast before weeds emerge. Use the higher rate for longer weed control or for weeds designated as requiring the higher rate for control. Rainfall (1/2 inch or more) is necessary for herbicide activation.

SPRING APPLICATION (Summer Fallow): NUP-17070 Herbicide may be applied to the stubble in the Spring. Apply 16 to 22 fl. oz. per acre broadcast before weeds emerge in the Spring. Use the higher rate for longer weed control or weeds designated as requiring the higher rate for control. Rainfall (1/2 inch or more) is necessary for herbicide activation. Wheat can be seeded 120 days after Spring application.

RESTRICTIONS: Do not graze treated field. Do not plant Spring seeded cereals following Fall applications for fallow. Where NUP-17070 Herbicide was applied in the Fall, do not apply NUP-17070 Herbicide in the Spring. Do not rotate any crop not listed on this label for 18 months following application.

DIRECTIONS FOR USE IN ESTABLISHED ALFALFA

RESTRICTIONS

- Do not apply more than 24 fluid ounces (1.5 pints) of NUP-17070 Herbicide per acre during a single application.
- Do not apply more than 42 fluid ounces (2.6 pints) of NUP-17070 Herbicide per acre during a single growing season.
- Do not make a sequential application of NUP-17070 Herbicide within 60 days of the first application of NUP-17070 Herbicide.
- Do not apply to alfalfa with greater than 6 inches of growth. Application will result in burning of treated leaves and stems. Users should understand and accept this risk before using NUP-17070 Herbicide on alfalfa.
- Do not use on alfalfa grown for seed.
- Only apply with an adjuvant or tank mix with products formulated as an emulsifiable concentrate "EC" when targeting control of emerged weeds (crop burn and/or stunting should be expected and accepted if NUP-17070 Herbicide is used with an adjuvant, a tank mix partner formulated as an emulsifiable concentrate (EC) or a tank mix partner formulated with an adjuvant.)
- Do not use on intended mixed alfalfa-grass stands.
- **Preharvest Interval (PHI):** Do not feed, graze or harvest alfalfa within 28 days after application of NUP-17070 Herbicide.
- Do not apply NUP-17070 Herbicide to alfalfa via chemigation.

Replanting: Refer to the **ROTATIONAL CROP RESTRICTIONS** section on this label for plant-back interval of alfalfa and various crops.

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PRECAUTIONS

- Application to alfalfa with greater than 3 inches of growth may result in unacceptable crop injury.
- Crop injury may occur crop is under stress conditions such as diseases, insect infestations, poorly drained soils, drought or winter injury at time of application.
- Crop injury may occur when crop is treated within 12 months after seeding.
- Crop injury may occur when there is excessive irrigation or rainfall immediately after application. Do not apply more than 1/2 inch of water in the first irrigation after product is applied.

RATE EQUIVALENCE

- 42 fluid ounces (2.6 pints) of NUP-17070 Herbicide is equivalent to 0.22 lb flumioxazin and 0.99 lb of metribuzin.
- 24 fluid ounces (1.5 pints) of NUP-17070 Herbicide is equivalent to 0.125 lb flumioxazin and 0.56 lb of metribuzin.

The maximum annual rate of metribuzin from all combined sources is 1.0 lb of metribuzin per acre.

TIMING TO ALFALFA

NUP-17070 Herbicide may be applied to established alfalfa in the fall, in the spring to dormant or semi-dormant alfalfa (less than 3 inches of regrowth), or between cuttings via ground application or aerial application. Make any application before significant alfalfa growth or regrowth (3 inches) to allow NUP-17070 Herbicide to reach the target weeds- listed in **WEEDS CONTROLLED** section. Established alfalfa is defined as alfalfa planted in the fall or spring which has gone through a first cutting/mowing. For control of winter annual weeds: the best timing for preemergence control is in the fall immediately after the last cutting or sheeping-off has occurred.

Apply only to established alfalfa. Do not apply this product after alfalfa growth begins in the spring or before growth ceases in the fall.

For control of summer annual weeds: the best timing for preemergence control is in the spring prior to alfalfa growth and before 3 inches of growth.

Application with paraquat can be used to burndown winter annuals prior to winter dormant period.

TIMING TO WEEDS

Preemergence – Preemergence To Weeds

Apply NUP-17070 Herbicide before alfalfa growth exceeds 3 inches in height for the preemergence control of weeds listed in **WEEDS CONTROLLED** section. Applications should be made as soon as possible after cutting and removing alfalfa to minimize injury to alfalfa growth.

Postemergence Dodder[1] Suppression

Apply NUP-17070 Herbicide at 24 fluid ounces per acre with an adjuvant for postemergence suppression of dodder[1].

[[1] Not for use in California.]

DIRECTIONS FOR USE IN ESTABLISHED ASPARAGUS

RESTRICTIONS AND LIMITATIONS

- Do not apply more than 36 fluid ounces (2.25 pints) of NUP-17070 Herbicide per acre during a single application.
- Do not apply more than 36 fluid ounces (2.25 pints) of NUP-17070 Herbicide per acre during a single year.
- Do not make more than 1 application of NUP-17070 Herbicide per acre per year.
- Apply only to dormant asparagus no less than 14 days before spears emerge. Application to non-dormant asparagus may result in unacceptable crop injury.
- Do not work soil within 60 days prior to application in the spring. Soil can be worked after spear harvest in preparation for applications of NUP-17070 Herbicide prior to fern emergence. Treated soil that is splashed onto the ferns may result in spotting.
- Do not apply with 14 days of harvest.
- Do not use on newly seeded asparagus or on young plants during the first growing season after setting crowns.
- DO NOT APPLY POST HARVEST APPLICATIONS UNTIL AFTER THE LAST HARVEST OF SPEARS.
- Aerial application is prohibited.
- Do not apply NUP-17070 Herbicide to asparagus via chemigation

RATE EQUIVALENCE

- 36 fluid ounces (2.25 pints) of NUP-17070 Herbicide is equivalent to 0.188 lb flumioxazin and 0.84 lb of metribuzin.

The maximum annual rate of metribuzin from all combined sources is 2.0 lb of metribuzin per acre.

TIMING TO ASPARAGUS – Dormant

NUP-17070 Herbicide may be applied to dormant asparagus for preemergence control of the weeds listed in **Table - Weeds Controlled by a Preemergence Application of NUP-17070**. Application to non-dormant asparagus will result in unacceptable crop injury. Applications should be made no less than two weeks prior to spear emergence and must be sprinkler or rainfall incorporated with 0.5 to 0.75 inches of water or some scoring may result.

TIMING TO ASPARAGUS - Post Harvest

Apply NUP-17070 Herbicide after the final harvest of the season, but prior to fern emergence, for preemergence control of the weeds listed in **Table - Weeds Controlled by a Preemergence Application of NUP-17070**. Application after fern emergence will result in unacceptable crop injury. Apply no less than two weeks prior to fern emergence and must be sprinkler or rainfall incorporated with 0.5 to 0.75 inches of water. Add a burndown tank mix partner for the control of emerged weeds labeled for asparagus in accordance with the most restrictive labeled limitations and precautions.

TIMING TO WEEDS

Burndown - Dormant Asparagus, Postemergence to Weeds

NUP-17070 Herbicide may be used for residual weed control, as well as to assist in postemergence burndown of many annual and perennial weeds where asparagus is dormant. For control of emerged weeds, tank mix NUP-17070 Herbicide with paraquat. Refer to paraquat label for specified rate and application parameters. To ensure thorough coverage, use a minimum of 15 gallons of spray solution per acre. Tank mixes of NUP-17070 Herbicide applied to assist in the control of emerged weeds must be applied with a non-ionic surfactant at 0.25% v/v. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 pounds per acre or 28 to 32% nitrogen solution at 1 to 2 quarts per acre) may be added to increase herbicidal activity.

Burndown - After Last Harvest of Season, Postemergence to Weeds

Use NUP-17070 Herbicide for residual weed control and to assist in postemergence burndown for many annual and perennial weeds where asparagus harvest has been completed for the year. For control of emerged weeds, use a labeled tank mix partner with activity on the emerged weeds.

Preemergence - Dormant Asparagus or After Last Harvest of Season, Preemergence to Weeds

Apply NUP-17070 Herbicide to dormant asparagus for the preemergence control of weeds listed in **Table - Weeds Controlled by a Preemergence Application of NUP-17070**.]

DIRECTIONS FOR USE FOR CHICKPEA (GARBANZO BEAN)

For use in CA, ID, OR, and WA only *(Cicer* spp.)

RESTRICTIONS

- Do not apply more than 12 fluid ounces of NUP-17070 Herbicide per acre during a single growing season.
- Do not apply NUP-17070 Herbicide postemergence to chickpeas.
- Do not make more than one application per acre per year.
- Do not incorporate deeper than 3 inches.
- Do not use on clay knobs or poorly covered subsoils.
- Do not apply pre-emergence on shallow seedings less than 2 inches deep.
- Do not graze or feed treated vines to livestock within 40 days after application.

PRECAUTIONS

- This treatment may cause some chlorosis or minor necrosis. Because garbanzo bean varieties may vary in the susceptibility to NUP-17070 Herbicide, determine crop tolerance prior to adoption as a field scale practice to prevent possible injury.
- Avoid application of more than 1/2 of irrigation within one month after application of NUP-17070 Herbicide, or crop injury may occur.
- Use on coarse-textured soils, sandy soils or any soil with less than 1.5% organic matter will likely cause crop injury.

RATE EQUIVALENCE

- 12 fluid ounces of NUP-17070 Herbicide is equivalent to 0.063 lb flumioxazin and 0.28 lb of metribuzin.

The maximum annual rate of metribuzin from all combined sources is 0.375 lb of metribuzin per acre.

APPLICATION TIMING

Preemergence Applications. Apply NUP-17070 Herbicide at the broadcast rate of up to 12 fluid ounces per acre immediately after or up to 2 days after planting. NUP-17070 Herbicide may be applied in a tank mix with a registered grass herbicide (including pendimethalin) or applied preemergence following a preplant incorporated application of a registered grass herbicide.
Application after the chickpea (garbanzo bean) have emerged, will result in severe crop injury.
See **WEEDS CONTROLLED** section of label for information on weeds controlled or suppressed by these rates of NUP-17070 Herbicide.

Many weather related factors, including high wind, splashing or heavy rains or cool conditions at or near crop emergence, may result in dry bean injury in fields treated with NUP-17070 Herbicide. On occasion this has resulted in a delay in maturity.

In no-till and minimum tillage systems, NUP-17070 Herbicide may be applied in the fall prior to spring planting. Rainfall is required for incorporation and activation. Unpredictable weed control can be expected because factors such as length of time between application and planting as well as uncontrollable weather factors will determine herbicide activity and longevity. Apply NUP-17070 Herbicide in the fall when soil temperature at the 4-inch depth is less than 55° F and before the ground is frozen.

DIRECTIONS FOR USE IN FIELD PEAS

For use in ID, OR and WA only

WEED CONTROL

RESTRICTIONS AND LIMITATIONS

- Do not apply more than 12 fluid ounces of NUP-17070 Herbicide per acre during a single application.
- Do not apply more than 12 fluid ounces of NUP-17070 Herbicide acre per crop year.
- Do not make more than 1 application of NUP-17070 Herbicide per acre per year.
- Do not use on coarse-textured soils, sandy soils, or soils with less than 1.5% organic matter.
- Do not apply on shallow seedings less than 2 inches deep.

- Do not harvest within 50 days of application.
- Do not apply over very moist soils or wet crop foliage.
- Do not graze or feed treated vine to livestock within 40 days of application.

RATE EQUIVALENCE

- 12 fluid ounces of NUP-17070 Herbicide is equivalent to 0.063 lb flumioxazin and 0.28 lb of metribuzin.

The maximum annual rate of metribuzin from all combined sources is 0.5 lb of metribuzin per acre.

Many weather related factors, including high wind, splashing or heavy rains or cool conditions at or near crop emergence, may result in pea injury in fields treated with NUP-17070 Herbicide. On occasion this has resulted in a delay in maturity.

TIMING TO FIELD PEAS

NUP-17070 Herbicide may be applied to field peas within 2 days after planting for the preemergence control of the weeds listed in **Table - Weeds Controlled by a Preemergence Application of NUP-17070.** Tank mix NUP-17070 Herbicide with other labeled herbicides for broadspectrum weed control, including pendimethalin for additional grass control.

TIMING TO WEEDS

NUP-17070 Herbicide may be applied to field peas prior to planting or preemergence (after planting). Preemergence application of NUP-17070 Herbicide must be made within 2 days after planting and prior to field pea emergence. To avoid severe crop injury, do not

apply to field peas after peas begin to crack or have emerged. Preplant incorporation (PPI) applications may result in reduced weed control.

DIRECTIONS FOR USE IN POTATO

[For use in AZ, CA, CO, DC, DE, FL, HI, ID, MD, MN, MT, NE, NV, NJ, NM, NC, ND, OR, SC, SD, TX, UT, VA, WA, WA and WY only]

For chemigation applications on potato follow **CHEMIGATION – POTATO** section below.

RESTRICTIONS AND LIMITATIONS

- Do not apply more than 9 fluid ounces of NUP-17070 Herbicide per acre during a single application.
- Do not apply more than 9 fluid ounces of NUP-17070 Herbicide per acre per crop year.
- Do not make more than one application of NUP-17070 Herbicide per acre per crop year.
- Do not apply in Kern County, CA.
- Do not mechanically incorporate into soil.
- Do not apply within 60 days of harvest.
- Do not use air blast sprayers.
- Do not apply to sweet potatoes or yams.
- Do not apply to Rill (Furrow) irrigated potatoes.
- Use of low pressure and high volume wand equipment is prohibited.
- Do not use on sandy soils which have less than 1% organic matter.
- Do not make application after potato emergence from the soil.
- Do not plant sensitive crops such as onions, lettuce, cole crops and cucurbits during the next growing season (following NUP-17070 Herbicide application.
- Certain cereal varieties are sensitive to NUP-17070 Herbicide (see cereal section of this label for sensitive varieties) and should not be planted during the next growing season unless the following cultural practices occur:
    - 1. Potato vines left in rows as a result of harvest must be uniformly distributed over the soil surface prior to plowing and,
    - 2. Plow with a moldboard plow to a depth sufficient to mix the upper 8 inches of soil.

Many weather related factors, including high wind, splashing or heavy rains or cool conditions at or near potato emergence, may result in potato injury in fields treated with NUP-17070 Herbicide. On occasion this has resulted in a delay in maturity.

PRECAUTION

Because potato varieties may vary in the susceptibility to NUP-17070 Herbicide, determine crop tolerance prior to adoption as a field scale practice to prevent possible injury. Some potato varieties including Sange, Shepody and Snowden have shown sensitivity to application of NUP-17070 Herbicide. Caution should be used if planting these varieties on marginal coarse soils.

RATES IN POTATOES

Preemergence			
Soil Texture	**< 1.5 Organic Matter (fl oz/A)**	**1.5 - 3.0% Organic Matter (fl oz/A)**	**> 3.0% Organic Matter (fl oz/A)**
Coarse	**6 - 9**	**6 – 9**	**9**
Medium	**6 - 9**	**8 – 9**	**9**
Fine	**8 – 9**	**9**	**9**
See **Soil Types** chart in the **PRODUCT INFORMATION** section of this label for information on soil texture. Soils with pH < 7.0: Use higher rates. Soils with pH > 7.0: Use lower rates.			

RATE EQUIVALENCE

- 9 fluid ounces of NUP-17070 Herbicide is equivalent to 0.047 lb flumioxazin and 0.21 lb of metribuzin.
- 8 fluid ounces of NUP-17070 Herbicide is equivalent to 0.041 lb flumioxazin and 0.19 lb of metribuzin.
- 6 fluid ounces of NUP-17070 Herbicide is equivalent to 0.031 lb flumioxazin and 0.14 lb of metribuzin.

The maximum annual rate of metribuzin from all combined sources is 1.0 lb of metribuzin per acre.

TIMING TO POTATOES

NUP-17070 Herbicide may be applied to potatoes after hilling for the preemergence suppression of the weeds listed in **Table - Weeds Controlled by a Preemergence Application of NUP-17070** at the 9 fluid ounce per acre rate**.** NUP-17070 Herbicide should be tank mixed with other labeled herbicides for broad spectrum weed control. A minimum of 2 inches of settled soil must cover the vegetative portion of the potato plant at the time of application of NUP-17070 Herbicide. Application to potatoes with less than 2 inches of soil covering the vegetative portion of the potato may result in crop injury. In areas with historically higher amounts of rainfall during the time of preemergence herbicide applications, such as the Red River Valley, Minnesota and North Dakota, the requirement for 2 inches of settled soil is critical to avoid crop injury. In areas with sprinkler irrigation, NUP-17070 Herbicide should be incorporated with 0.5 to 0.75 inches of irrigation, after application and before any sprouts are within 2 inches of the settled soil surface if a rainfall event has not yet occurred.

TIMING TO WEEDS

Preemergence - Soil Covered Potatoes, Preemergence to Weeds

Apply NUP-17070 Herbicide to soil covered potatoes for the preemergence suppression of the weeds listed in **Table - Weeds Controlled by a Preemergence Application of NUP-17070** at the 9 fluid ounce per acre rate. Harrowing, cultivation or corrugating after NUP-17070 Herbicide application will reduce weed control.

CHEMIGATION - POTATO

NUP-17070 Herbicide may be applied through sprinkler system in potatoes. Follow all label directions for crop regarding rates, timing of application, special instructions and precautions.

Apply NUP-17070 Herbicide only through center pivot systems. End guns must be turned off due to uneven application. Do not apply NUP-17070 Herbicide through any other type of irrigation system.

Crop injury, lack of efficacy or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

The system must be properly calibrated (with water only) to ensure that the amount of NUP-17070 Herbicide applied or responds to the specified rate.

Apply NUP-17070 Herbicide in 1/2 to 3/4 inches of water during the first sprinkler set. Allow time for all lines to flush the herbicide through all nozzles before turning off irrigation water. To ensure the lines are flushed and free of remaining herbicide, a dye indicator may be injected into the lines to mark the end of the application period. Once chemigation has begun, the run must be completed to ensure no product is left in the system.

If you have any questions about calibration, you should contact your State Extension Service Specialist, equipment manufacturers or other experts.

Special Precautions for Chemigation

1. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

2. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

3. The system must be free of leaks and clogged nozzles.

4. The pesticide must be supplied continuously for the duration of the aqueous application. An uneven application may cause injury to the crop or poor weed control.

5. Agitation must be maintained in the nurse tank.

6. The sprinkler chemigation system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow.

7. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.

8. The pesticide injection pipeline must contain a functional, normally closed, solenoid operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

9. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in the case where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

10. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

11. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with the pesticides and capable of being fitted with a system interlock.

12. Do not apply when wind speed favors drift beyond the area intended for treatment.

Chemigation Systems Connected to Public Water Systems

1. Public water system means a system for the provision to the public of piped water for human consumption, if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

2. Chemigation systems connected to the public water system must contain a functional, reduced pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

3. All Chemigation systems connected to the public water system must also follow restrictions listed in the preceding section titled **Special Precautions for Chemigation**.]]

DIRECTIONS FOR USE IN SOYBEAN

NUP-17070 Herbicide may be applied to soybeans prior to planting or preemergence (after planting) and can be used for preemergence surface applications and burndown applications. NUP-17070 Herbicide can also be used as an overlay application following fall applications of certain products registered for fall application. All these applications can be applied with ground equipment, and with aerial spray equipment.

NUP-17070 Herbicide can be applied broadcast or banded. This application may be made during planting or as a separate operation for up to three days after planting. See the **PRODUCT INFORMATION** section in the front of this label for further information.

RESTRICTIONS

- [Not for use in California.]
- Do not apply more than 18 fluid ounces of NUP-17070 Herbicide (0.094 lb flumioxazin and 0.42 lb of metribuzin) per acre during a single growing season.
- Do not make more than one application per year.
- Do not irrigate when soybeans are cracking if applications of NUP-17070 Herbicide have been made.
- Do not graze treated fields or feed treated forage or hay to livestock.
- Do not incorporate into soil or apply more than once per season.
- Do not apply NUP-17070 Herbicide after soybeans have emerged from the soil.
- Do not tank mix NUP-17070 Herbicide with chloroacetamide products such as those containing the active ingredients: flufenacet, s-metolachlor, metolachlor, dimethenamid-P, acetochlor or alachlor within 14 days of planting soybeans, unless soybeans are planted under no-till or minimum tillage conditions on wheat stubble or no-till field corn stubble.
- Preemergence application of NUP-17070 Herbicide must be made within 3 days after planting and prior to soybean emergence. Application after the soybeans have begun to crack, or are emerged, will result in severe crop injury. Do not make applications when soybeans have begun to crack.

PRECAUTIONS

Injury to soybeans may occur when NUP-17070 Herbicide is used under the following conditions:

- When soils have a calcareous surface area or a pH of 7.5 or higher.
- Due to the sensitivity of certain soybean varieties, NUP-17070 Herbicide is not recommended for use on Altona, AP 55, AP71, Asgrow 6520, Burlison, Coker 102, Coker 156, Dassel, GL 3202, Govan, Maple Amber, MB 3665, NKS 1884,Paloma 350, Portage, Regal, Semmes, Terra-Vig 505, Terra-Vig 606, Tracy, Vansoy, and Vinton 81. Consult your Nufarm Representative or your seed supplier for information on the tolerance to NUP-17070 Herbicide of newly released soybean varieties, prior to use of NUP-17070 Herbicide.
- When applied in conjunction with soil-applied organic phosphate pesticides.
- Over application or boom overlapping may result in stand loss and soil residues.
- Application to sandy soils, or sandy loam, or loamy sandy soils containing less than 2% organic matter may result in stand loss and soil residues.
- Uneven application or improper incorporation can decrease the level of weed control and/or increase the level of injury.
- When applied to any soil with less than 1% organic matter.
- When sprayers are not calibrated accurately.
- When heavy rains occur soon after application, especially in poorly drained areas where water may stand for several days.
- When soybeans are planted less than 1-1/2 inches deep, particularly in pre-emergence application.
- Application when soybeans have begun to crack or emerge.

RATE EQUIVALENCE

- 18 fluid ounces of NUP-17070 Herbicide is equivalent to 0.094 lb flumioxazin and 0.42 lb of metribuzin.
- 15 fluid ounces of NUP-17070 Herbicide is equivalent to 0.079 lb flumioxazin and 0.35 lb of metribuzin.
- 12 fluid ounces of NUP-17070 Herbicide is equivalent to 0.063 lb flumioxazin and 0.28 lb of metribuzin.

The maximum annual rate of metribuzin from all combined sources is 1.0 lb of metribuzin per acre.

NUP-17070 APPLICATION RATES

Table - Rate Program; Fall, Early Preplant, Preemergence in Conservation or Conventional Tillage

FLUID OUNCES NUP-17070 PER ACRE		
SOIL TEXTURE	**ORGANIC MATTER[3]**	
	Less than 2%	**2 to 4%**
COARSE SOILS (sandy loam, loamy sand)	DO NOT USE	12 fluid ounces
MEDIUM SOILS[1] (loam, silt loam, silt, sandy clay, sandy clay loam)	15 fluid ounces	15 - 18 fluid ounces
FINE SOILS[1] (silty clay, silty clay loam[2], clay, clay loam)	18 fluid ounces	18 fluid ounces

[1] For control of weeds listed on this label use NUP-17070 Herbicide at rates indicated in the table above, but note that crop injury may occur on soils having a calcareous surface area or a pH of 7.5. Use a maximum of 12 fl oz of NUP-17070 Herbicide on these soils.
[2] Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.
[3] Do not apply to soils with less than 1% Organic Matter.

TIMING TO SOYBEANS

NUP-17070 Herbicide may be applied to soybeans prior to planting or preemergence (after planting). Preemergence application of NUP-17070 Herbicide must be made within 3 days after planting and prior to soybean emergence. Application after the soybeans have begun to crack, or are emerged, will result in severe crop injury. Application should not be made when soybeans have begun to crack. Select rate of NUP-17070 Herbicide from **Table - Rate Program; Fall, Early Preplant, Preemergence in Conservation or Conventional Tillage.**

APPLICATION METHOD

NUP-17070 Herbicide may be applied in the fall after previous year's crop, or in the spring as an early preplant, burndown or preemergence application.

Fall Application: Apply NUP-17070 Herbicide for burndown and residual weed control after the prior crop is harvested.

Spring Application: Apply NUP-17070 Herbicide early preplant through preemergence for burndown and residual weed control before the crop emerges.

For burndown soybean use see **DIRECTIONS FOR USE IN FALL AND SPRING PREPLANT BURNDOWN AND FALLOW SEEDBED PROGRAMS IN FIELD CORN AND SOYBEAN** section.

TIMING TO WEEDS

Burndown – Preplant, Preemergence to Soybeans

NUP-17070 Herbicide may be applied as a burndown application to weeds, as a preplant application or as a preemergence application to Soybeans.

NUP-17070 Herbicide, applied as part of a burndown program, may be used for residual weed control, as well as to assist in postemergence burndown of many annual and perennial weeds where soybeans will be planted directly into a stale seedbed, cover crop or in previous crop residues. Apply NUP-17070 Herbicide with ground equipment before planting, during planting or within 3 days after planting, **but before the crop emerges.** To ensure thorough coverage, use a minimum of 15 gallons of spray solution per acre. Refer to tank mix partner's label for specified application pressure. All tank mixes of NUP-17070 Herbicide applied to assist in the control of emerged weeds must be applied with crop oil concentrate or methylated seed oil at 1 to 2 pints per acre or a non-ionic surfactant at 0.25% v/v.

ADDITIONAL RESIDUAL GRASS CONTROL

NUP-17070 Herbicide can be tank mixed with pendimethalin for additional grass control. Tank mixes with flufenacet (Axiom®), metolachlor (Dual® products or Boundary®), dimethenamid (Outlook®) or alachlor (IntRRo®), may result in severe injury to soybeans when application is followed by prolonged periods of cool wet weather.

ROUNDUP READY SOYBEAN PROGRAM

NUP-17070 Herbicide may be applied as part of a burndown program or preemergence in conventional tillage programs, at 12 to 18 fluid ounces per acre to reduce early season weed competition from waterhemp, velvetleaf, nightshade and morninglories as well as other weeds listed in **WEEDS CONTROLLED** section. A sequential post emergence application of glyphosate will be required to control weeds not controlled by NUP-17070 Herbicide.

LIBERTY LINK SOYBEAN PROGRAM

NUP-17070 Herbicide may be applied as part of a burndown program or preemergence in conventional tillage programs, at 12 to 18 fluid ounces per acre to reduce early season weed competition from waterhemp, velvetleaf, nightshade and morninglories as well as other weeds listed in **WEEDS CONTROLLED** section. A sequential post emergence application of glufosinate will be required to control weeds not controlled by NUP-17070 Herbicide.

DIRECTIONS FOR USE IN SUGARCANE

RESTRICTIONS AND LIMITATIONS

- Do not apply more than 48 fluid ounces (3 pints) of NUP-17070 Herbicide per acre per application.
- Do not apply more than 72 fluid ounces (4.5 pints) of NUP-17070 Herbicide per acre per single year.
- Do not make a sequential application within 14 days of the first application.
- Do not apply within 90 days of harvest.
- Do not use treated crop for feed or forage.

RATE EQUIVALENCE

- 72 fluid ounces (4.5 pints) of NUP-17070 Herbicide is equivalent to 0.38 lb flumioxazin and 1.69 lb of metribuzin
- 48 fluid ounces (3 pints) of NUP-17070 Herbicide is equivalent to 0.25 lb flumioxazin and 1.13 lb of metribuzin.

The maximum annual rate of metribuzin from all combined sources is 2.0 lb of metribuzin per acre.

TIMING TO SUGARCANE

NUP-17070 Herbicide may be applied from 2 weeks prior to planting to before the sugarcane emerges, post directed or at layby. Select the proper rate of NUP-17070 Herbicide from **Table - Weeds Controlled by a Preemergence Application of NUP-17070** according to anticipated weed spectrum and soil organic matter content for preemergence applications. Select rate of NUP-17070 Herbicide from **Table - Broadleaf Weeds Controlled by Post-Directed or Layby Application of NUP-17070 in Sugarcane** according to emerged weed spectrum and weed heights for post-directed and layby applications.

APPLICATION METHOD

NUP-17070 Herbicide may be applied to sugarcane via ground application or via aerial applications.
For aerial applications: To assure that spray will not adversely affect adjacent sensitive non-target plants, apply this product by aircraft at a minimum upwind distance of 400 ft from sensitive plants.

TIMING TO WEEDS

Burndown — Preemergence to Sugarcane, Postemergence to Weeds

NUP-17070 Herbicide may be used for preemergence control, and to assist in postemergence burndown, of many annual broadleaf weeds in sugarcane. For control of emerged weeds, choose the most appropriate tank mix partner from **Table - Tank Mixes with NUP-17070 for Post-Directed or Layby Use in Sugarcane**. Apply NUP-17070 Herbicide **before the crop emerges.** To ensure thorough coverage, use a minimum of 15 gallons of spray solution per acre. All tank mixes of NUP-17070 Herbicide applied to assist in the control of emerged weeds must be applied with crop oil concentrate or methylated seed oil at 1 quart per acre or a non-ionic surfactant

at 0.25% v/v. Some tank mix products, such as Roundup Original Max (glyphosate), may be formulated with a suitable adjuvant and do not require additional adjuvant.

Preemergence — Preemergence to Sugarcane, Preemergence to Weeds
NUP-17070 Herbicide may be used for preemergence control of many annual broadleaf and grassy weeds in sugarcane. Select rate based on anticipated weed spectrum and soil organic matter content from **Table - Weeds Controlled by a Preemergence Application of NUP-17070**. Apply NUP-17070 Herbicide **before the crop emerges.**

Post-Directed — Postemergence to Sugarcane, Postemergence to Weeds
Post-directed applications should only be made to upright sugarcane varieties after the sugarcane has exceeded 24 inches in height and has begun to joint. Post-directed applications should not be made to "PINEAPPLE" varieties. Post-directed applications to "PINEAPPLE" varieties or to upright varieties that have not exceeded 24 inches in height and have not begun to joint, may result in unacceptable crop injury. To ensure thorough coverage, use a minimum of 15 gallons of spray solution per acre. Post-directed applications of NUP-17070 Herbicide must include a crop oil concentrate or methylated seed oil at 1 quart per acre or a non-ionic surfactant at 0.25% v/v. Select the proper rate of NUP-17070 Herbicide based on weed spectrum and weed height from **Table - Broadleaf Weeds Controlled by Post-Directed or Layby Application of NUP-17070**.

Layby — Postemergence to Sugarcane, Postemergence to Weeds
Layby applications can be made to upright and "PINEAPPLE" varieties after the sugarcane has exceeded 30 inches in height and the spray solution will not contact foliage above 6 inches from the base of the sugarcane. To ensure thorough coverage, use a minimum of 15 gallons of spray solution per acre. Layby applications of NUP-17070 Herbicide must be applied with crop oil concentrate or methylated seed oil at 1 quart per acre or a non-ionic surfactant at 0.25% v/v. Select the proper rate of NUP-17070 Herbicide based on weed spectrum and weed height from **Table - Broadleaf Weeds Controlled by Post-Directed or Layby Application of NUP-17070**.

Table - Broadleaf Weeds Controlled by Post-Directed or Layby Application of NUP-17070 in Sugarcane

BROADLEAF WEED SPECIES		WEED HEIGHT (inches)	
COMMON NAME	SCIENTIFIC NAME	18 fl oz/A	24 fl oz/A
Bindweed, Field[1]	*Convolvulus arvensis*	4	8
Carpetweed	*Mollugo verticillate*	3	3
Florida Beggarweed	*Desmodium tortuosum*	2	2
Hemp Sesbania	*Sesbania exaltata*	3	3
Jimsonweed	*Datura stramonium*	3	3
Lambsquarters, Common	*Chenopodium album*	3	3
Mustard, Wild	*Brassica kaber*	3	3
Pigweeds,			
Redroot	*Amaranthus retroflexus*	8	8
Smooth	*Amaranthus hybridus*	8	8
Prickly Sida	*Sida spinose*	3	3
Purslanes,			
Common	*Portulaca oleracea*	2	4
Rock	*Calandrinia* spp.	-	2
Ragweed, Common	*Ambrosia artemisiifolia*	2	2
Sicklepod	*Senna obtusifolia*	3	3
Smartweeds,			
Ladysthumb	*Polygonum persicaria*	3	3
Pennsylvania	*Polygonum pensylvanicum*	3	3
Spotted Spurge	*Euphorbia maculate*	3	3
Velvetleaf	*Abutilon theophrasti*	3	3
Venice Mallow	*Hibiscus trionum*	2	2
Waterhemps,			
Common	*Amaranthus rudis*	2	2
Tall	*Amaranthus tuberculatus*	2	2

[1] Tank mixes of NUP-17070 Herbicide will only control the above ground portion of field bindweed. Repeated applications will be needed to control regrowth.

TANK MIXES

NUP-17070 Herbicide may be tank mixed with the herbicides listed in **Table Tank Mixes with NUP-17070 for Post-Directed or Layby Use in Sugarcane** for additional weed control in burndown, preemergence, post-directed and layby applications. Refer to tank mix partner's label for adjuvant directions.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Table - Tank Mixes with NUP-17070 for Post-Directed or Layby Use in Sugarcane

TANK MIX PARTNER[1]	TARGET WEEDS	BURNDOWN	POST-DIRECTED[2]	LAYBY
2,4-D amine	Annual and Perennial Broadleaf Weeds	X		
atrazine	Pigweeds Cocklebur	X	X	X
Asulox®[3] (Asulam)	Annual Grasses		X	X
Evik®[4] (Ametryn)	Annual Grasses		X	X
glyphosate[5]	Annual and Perennial Weeds	X		X
Sempra® (Halosulfuron)	Purple Nutsedge Yellow Nutsedge	X	X	X
Weedmaster® (Dicamba and 2,4-D)	Annual and Perennial Broadleaf Weeds	X		

[1] Refer to tank mix product labels for specific directions for control of emerged weeds present not listed in **Table - Broadleaf Weeds Controlled by Post-Directed or Layby Application of NUP-17070**

[2] Post-directed applications should only be made to upright sugarcane varieties after the sugarcane has exceeded 24 inches in height. Post-directed applications should not be made to "PINEAPPLE" varieties. Post-directed applications to "PINEAPPLE" varieties or to upright varieties that have not exceeded 24 inches in height may result in unacceptable crop injury.

[3] Apply to sugarcane at least 24 inches tall.

[4] Apply before weeds are greater than 6 inches tall.

[5] Glyphosate applications must be made with a hooded sprayer. Sugarcane must be at least 3 ft. tall. Contact with the sugarcane foliage by either the spray mixture or the treated weed foliage will result in sugarcane injury.

ADDITIONAL PREEMERGENCE BROADLEAF CONTROL

NUP-17070 Herbicide can be tank mixed with atrazine or diuron for additional preemergence broadleaf control.

ADDITIONAL PREEMERGENCE GRASS CONTROL

NUP-17070 Herbicide can be tank mixed with PROWL (or other pendimethalin products) for additional preemergence grass control provided sugarcane has not emerged.

DIRECTIONS FOR USE IN TOMATOES [1]

[1 - Not for use in California.]

Many weather related factors, including high wind or heavy rains or cool conditions at or near crop transplanting, may result in crop injury in fields treated with NUP-17070 Herbicide. On occasion this has resulted in a delay in maturity.

RESTRICTIONS AND LIMITATIONS

- Do not apply more than 24 fluid ounces (1.5 pints) of NUP-17070 Herbicide per acre during a single application.
- Do not apply more than 44 fluid ounces (2.75 pints) of NUP-17070 Herbicide per acre per crop year.
- Do not make more than 2 applications of NUP-17070 Herbicide per acre per year.
- Allow at least 14 days between applications.
- Do not apply within 7 days of harvest.
- Aerial application is prohibited.
- Do not use hot caps on tomatoes within 7 days before or at any time after application.

RATE EQUIVALENCE

- 44 fluid ounces (2.75 pints) of NUP-17070 Herbicide is equivalent to 0.23 lb flumioxazin and 1.0 lb of metribuzin.
- 24 fluid ounces (3 pints) of NUP-17070 Herbicide is equivalent to 0.125 lb flumioxazin and 0.56 lb of metribuzin.

The maximum annual rate of flumioxazin from all combined sources is 0.25 lb of flumioxazin per acre.

ROW MIDDLES

PRECAUTIONS

- Plants should be grown on raised or plastic mulched beds that are higher than the treated row middle.
- Spray must be directed to the row middle, away from the crop bed and with minimal contact with plastic, including the sides of the bed. If top of mulch beds (where plants are to be transplanted) is contacted, severe injury can occur due to foliage contact with treated plastic. In this scenario, a rainfall event of 1/2 inch (natural or irrigation) must occur prior to transplanting to reduce residues of NUP-17070 Herbicide.
- Injury can occur if soil particles treated with NUP-17070 Herbicide contact the crop.
- Irrigate treated field after application and prior to transplanting with minimum of 1/4 inch of water if rainfall does not occur between application and transplanting.
- All applications must be made with hooded or shielded equipment.
- Applications within 3 days after periods of cool, wet or cloudy weather, may cause crop injury to occur.

TIMING TO TOMATOES

Apply NUP-17070 Herbicide at 24 fl oz per acre as a hooded or shielded application to row middles up to 14 days prior to transplanting for preemergence control of the weeds listed in **Table - Weeds Controlled by a Preemergence Application of NUP-17070**, as well as to assist in the postemergence control of emerged weeds. A second application of NUP-17070 Herbicide at 24 fl oz per acre may be applied up to 21 days after transplanting or emergence if needed. Do not apply during or after bloom.

TIMING TO WEEDS

NUP-17070 Herbicide may be used for residual weed control, as well as to assist in postemergence burndown of many annual and perennial weeds in row middles. A registered preemergence grass herbicide may be added for control of additional grassy weeds. For assisting in the control of emerged weeds, tank mix NUP-17070 Herbicide with paraquat, Aim™ or other registered burndown herbicide. Do not tank mix with glyphosate after transplanting or crop emergence. Refer to tank mix partner's label for specified rate and application parameters.

FALLOWBED USE ON TRANSPLANTED TOMATO BEDS

[For use in Arizona, California and Hawaii only]

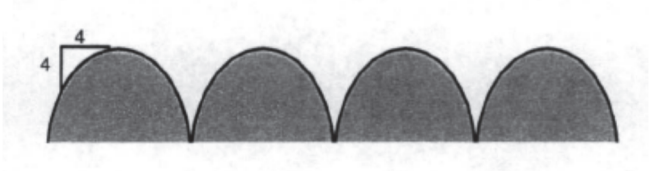
NUP-17070 HERBICIDE RATES	ADJUVANT	GPA	TRANSPLANTING INTERVAL
24 fl oz/A	Required by burndown tank mix partner	Ground – 20 to 40	2 Months
Application Method: Apply with a burndown herbicide labeled for the control of emerged weeds. When NUP-17070 Herbicide is used alone it will not provide satisfactory control of emerged weeds.			

USE RESTRICTIONS FOR PREEMERGENCE FALLOWBED WEED CONTROL PRIOR TO TRANSPLANTING

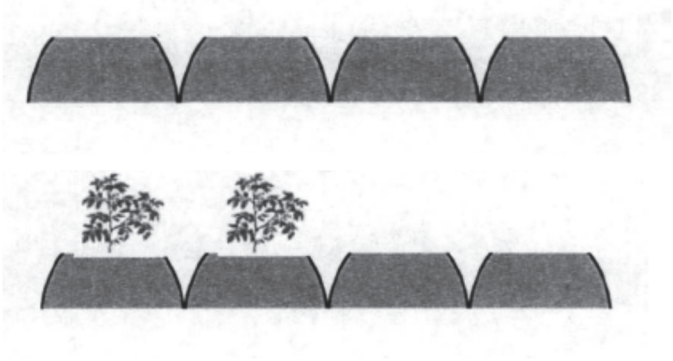
- Do not apply more than 24 fluid ounces of NUP-17070 Herbicide per acre during a single application.
- Do not apply more than 24 fluid ounces of NUP-17070 Herbicide per acre per crop year.
- Always read and follow all label directions when using any pesticide alone or in tank mix combinations.
- Irrigate treated field after application and prior to transplanting with minimum of 1/4 inch of water if rainfall does not occur between application and transplanting.
- The top 4 inches of the bed, from a horizontal and vertical perspective, where the crop will be transplanted, must be removed prior to transplanting.
- Use only healthy transplants. Do not use on direct seeded crops.
- [On flat beds (tomato only), the soil must be incorporated to a depth of at least 4 inches, twice, prior to transplanting. Failure to incorporate may result in stand reduction and/or crop injury.]
- This use pattern makes no claim for in-season weed control after the beds have been disturbed.
- Do not apply when weather conditions favor spray drift.

PRECAUTIONS

- Many weather related factors, including high wind or heavy rains or cool conditions at or near crop transplanting, may result in crop injury in fields treated with NUP-17070 Herbicide. On occasion this has resulted in a delay in maturity.



Beds are formed and NUP-17070 Herbicide is applied with a burndown herbicide.



A minimum of 2 months after application of NUP-17070 Herbicide, the tops of the beds are removed and the soil from the tops of the beds is placed in the area between the beds.

Crops are transplanted into beds.

DIRECTIONS FOR USE TO MAINTAIN BARE GROUND ON NON-CROP AREAS OF FARMS

RESTRICTIONS

- Do not apply more than 22 fluid ounces of NUP-17070 Herbicide per acre during a single application.
- Do not apply more than 22 fluid ounces of NUP-17070 Herbicide per acre during a single growing season.
- Do not apply to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- Do not apply to ditch banks.
- Do not make more than one application per year.
- Do not apply by air.

RATE EQUIVALENCE

- 22 fluid ounces of NUP-17070 Herbicide is equivalent to 0.114 lb flumioxazin and 0.5 lb of metribuzin.

The maximum annual rate of metribuzin from all combined sources is 0.5 lb of metribuzin per acre.

NUP-17070 Herbicide, when used as directed, can be used on farms for non-selective vegetation control to maintain bare ground on non-crop areas that must be kept weed free.

NUP-17070 Herbicide offers residual and postemergence control of susceptible broadleaf and grass weeds as well as an additional mode of action to assist in the control of ALS (acetolactate synthase) resistant weeds. NUP-17070 Herbicide can be tank mixed with the herbicides listed in **Table - Tank Mix Combinations to Maintain Bare Ground on Non-Crop Areas** for increased residual or postemergence control. The length of residual control is dependent on the rate applied as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase. Rates of NUP-17070 Herbicide at 22 fluid ounces per acre are required to provide residual control of the weeds listed in **WEEDS CONTROLLED** section.

APPLICATIONS PRIOR TO WEED EMERGENCE

Apply 22 fluid ounces per acre of NUP-17070 Herbicide per broadcast acre as a preemergence application. Make preemergence (to weed emergence) applications of NUP-17070 Herbicide to a weed-free soil surface. Preemergence applications of NUP-17070 Herbicide must be completed prior to weed emergence. Moisture is necessary to activate NUP-17070 Herbicide on soil for residual weed control. Dry weather following application of NUP-17070 Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, NUP-17070 Herbicide will control susceptible germinating weeds.

APPLICATIONS TO EMERGED WEEDS

Apply 22 fluid ounces of NUP-17070 Herbicide per broadcast acre plus an adjuvant (0.25% v/v non-ionic surfactant or 1 quart per acre crop oil concentrate). The addition of an adjuvant enhances activity of NUP-17070 Herbicide on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of NUP-17070 Herbicide. Emerged weeds are controlled postemergence with NUP-17070 Herbicide, however, translocation of NUP-17070 Herbicide within a weed is limited, and control is affected by spray coverage and by the addition of an adjuvant. The most effective postemergence weed control with NUP-17070 Herbicide occurs when applied in combination with a surfactant to weeds less than 2 inches in height. A tank mix partner should be used in combination with NUP-17070 Herbicide for the postemergence control of weeds larger than 2 inches. Recommended tank mix partners are listed in **Table - Tank Mix Combinations to Maintain Bare Ground on Non-Crop Areas**.

IMPORTANT: It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Table – Tank Mix Combinations to Maintain Bare Ground on Non-Crop Areas

Credit Xtreme (Glyphosate)	2,4-D	Cheetah (Glufosinate)	Paraquat

DIRECTIONS FOR USE TO MAINTAIN BARE GROUND ON NON-CROP AREAS

RESTRICTIONS

- Do not apply more than 22 fluid ounces per acre per application.

- Do not apply more than 22 fluid ounces of NUP-17070 Herbicide per acre per year.
- Do not make more than one application per year.
- Do not apply by air.

RATE EQUIVALENCE

- 22 fluid ounces of NUP-17070 Herbicide is equivalent to 0.114 lb flumioxazin and 0.5 lb of metribuzin.

The maximum annual rate of flumioxazin from all combined sources is 0.5 lb of flumioxazin per acre.

NUP-17070 Herbicide, when used as directed, can be used for non-selective vegetation control to maintain bare ground non-crop areas that must be kept weed-free. Apply NUP-17070 Herbicide only to maintain bare ground In, around, under, or on:

- guard rails, above-ground pipelines, and railroad beds, railroad yards and surrounding areas
- parking and storage areas, plant sites, substations, pumping stations, and tank farms
- areas of airports, brick yards, industrial plant sites, lumber yards, military installations, and storage areas, and along ungrazed fence rows, wind breaks and shelter belts
- road surfaces, improved roadside areas and gravel shoulders
- highway, roadside, pipeline and utilities rights-of-way,
- road shoulders, electric utility substations, pipeline pumping stations, areas around electric transmission towers, areas around distribution line poles [and]

NUP-17070 Herbicide offers residual and postemergence control of susceptible broadleaf and grass weeds as well as additional mode of action to assist in the control of ALS (acetolactate synthase) resistant weeds. The length of residual control is dependent on the rate applied as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase.

PREEMERGENCE APPLICATION

Apply 22 fluid ounces of NUP-17070 Herbicide per broadcast acre as a preemergence application. Make preemergence (to weed emergence) applications of NUP-17070 Herbicide to a weed free soil surface. Preemergence applications of NUP-17070 Herbicide must be completed prior to weed emergence. Moisture is necessary to activate NUP-17070 Herbicide on soil for residual weed control. Dry weather following application of NUP-17070 Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, NUP-17070 Herbicide will control susceptible germinating weeds.

POSTEMERGENCE APPLICATION

Apply 22 fl oz of NUP-17070 Herbicide per broadcast acre plus an adjuvant (0.25% v/v non-ionic surfactant or 1 quart per acre crop oil concentrate). The addition of an adjuvant enhances NUP-17070 Herbicide activity on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of NUP-17070 Herbicide. Emerged weeds are controlled postemergence with NUP-17070 Herbicide, however, translocation of NUP-17070 Herbicide within a weed is limited, and control is affected by spray coverage and by the addition of an adjuvant. The most effective postemergence weed control with NUP-17070 Herbicide occurs when applied in combination with a surfactant to weeds less than 2 inches in height.

SOIL CHARACTERISTICS

Application of NUP-17070 Herbicide to soils with high organic matter and/or high clay content may require higher dosages than with soils with low organic matter and/or low clay content. Application to cloddy seedbeds can result in reduced weed control.

CARRIER VOLUME AND SPRAY PRESSURE

PREEMERGENCE APPLICATION

To ensure uniform coverage, use 10 to 30 gallons of spray solution per acre. Nozzle selection must meet manufacturer's gallonage and pressure directions for preemergence herbicide application.

POSTEMERGENCE APPLICATION

To ensure thorough coverage, use 15 to 30 gallons of spray solution per acre. Use 20 to 30 gallons per acre if dense vegetation or heavy residue is present on the soil surface. Nozzle selection must meet manufacturer's gallonage and pressure directions for postemergence herbicide application.

ADDITIVES

POSTEMERGENCE APPLICATION

When applying NUP-17070 Herbicide after weed emergence, mix with an agronomically approved adjuvant. Use a crop oil concentrate which contains at least 15% emulsifiers and 80% oil or a non-ionic surfactant containing at least 80% active ingredient when applying NUP-17070 Herbicide as part of a postemergence weed control program. Verify mixing compatibility by a jar test before using.

A spray grade nitrogen source (either ammonium sulfate at 2.0 to 2.5 pounds per acre or a 28 to 32% nitrogen solution at 1 to 2 quarts per acre) may be added to the spray mixture along with a crop oil concentrate or non-ionic surfactant to enhance weed control. The addition of a nitrogen source does not replace the need for crop oil concentrate or non-ionic surfactant.

TANK MIX APPLICATION

In addition to weeds controlled by NUP-17070 Herbicide used alone, tank mixtures with other preemergence and postemergence herbicides registered for use in non-crop areas provide a broader spectrum of weed control. NUP-17070 Herbicide must be tank mixed with other non-crop herbicides including, but not limited to those products listed below.

IMPORTANT: It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

TANK MIX COMBINATIONS FOR NON-SELECTIVE VEGETATION CONTROL

2,4-D	flumioxazin	norflurazon	pyroxasulfone
bromacil	glyphosate	oryzalin	simazine
chlorsulfuron	hexazinone	pendimethalin	sulfometuron-methyl
dicamba	imazapic	picloram	tebuthiuron
diuron	imazapyr	pramitol	triclopyr
clopyralid	metsulfuron-methyl	prodiamine	

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE

Keep pesticide in original container. Store in a cool, dry, secure place. Do not store in temperatures > 100ºF. Do not put formulation or dilute spray solution into food or drink containers. Do not contaminate food or foodstuffs. Do not store or transport near feed or food. Not for use or storage in or around the home. For help with any spill, leak, fire or exposure involving this material, call day or night **CHEMTREC (800) 424-9300.**

PESTICIDE DISPOSAL

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

CONTAINER HANDLING

[**Note to Reviewer:** The following statement will be included on all Final Printed Labels bearing multiple Container Disposal (Container Handling) statements] "**NOTE:** This product is available in multiple containers. Refer to the Net Contents section of this products labeling for the applicable "Nonrefillable" or "Refillable" designation. Follow the container handling instructions below that apply to your container type / size."

[**Note to Reviewer:** The bracketed section headers will be included when multiple container types / sizes are listed on the label.]

[Nonrefillable Containers 5 gallons or less:] Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:**
Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

[Nonrefillable Containers larger than 5 gallons:] Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. If recycling or reconditioning not available, puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

[Refillable Containers larger than 5 gallons:] Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

WARRANTY DISCLAIMER

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER, MANUFACTURER AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS.

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If you do not agree with or do not accept any of the directions for use, the warranty disclaimers, or limitations on liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.

[X] [is][are] [a] [registered] trademark[s] of Nufarm Americas Inc.

(RV111518)

All other trademarks are the property of their respective owners.

[Optional Marketing Claims:]
[Nufarm Grow a better tomorrow.]
[Grow a better tomorrow.]
[Patent Pending]
[[This product is] [P][p]atented under [US] Patent [Number] [#][:](#####)]

[NOTES TO REVIEWER:
[Note to reviewer: Any text found in brackets "[" "]" is optional on container label.]
[State restrictions will not be found on the container label if the product is not registered in that associated state.]
[Making the product more restrictive then Federally accepted by incorporating the optional statement "Not for use in California." may be undertaken on the container label for any use, weed or crop as determined to be necessary to procure CADPR registration.]

LABEL HISTORY

File Name	Revision Mark	Comments
071368-00XXX.20180404.New	RV040418	NUP-17070 New Label
071368-00XXX.20180426.New	RV042618	NUP-17070 New Label
071368-00125.20180919.New	RV091918	US EPA Review
071368-00125.20181002.New	RV100218	US EPA Review
071368-00125.20181008.New	RV100818	US EPA Review
071368-00125.20181114.New	RV111418	US EPA Review
071368-00125.20181115.MASTER	RV111518	US EPA SAL

NOT TO BE PART OF THE PRINTED LABEL
FOR INTERAL REGULATORY USE ONLY

04/04/2018	DRAFT Label. Labels used in reference: • Panther SC Ag (71368-113) • Panther SC Non-crop (71368-114) • Tricor 4F Herbicide (70506-68) • F6482 Turf and IVM (279-3350) [Non-crop Metribuzin] • Sulfentrazone MTZ DF (87290-70) [IVM Metribuzin and Preplant Annual Max on Corn] • Winfield AGH16001 (1381-260) • MANA 31304 (66222-260) • Tricor DF (70506-103)
04/26/2018	Slight change to the AI% for Flumi and Metribuzin per Brian P. per Density issue.
09/19/2018	US EPA Label Review.
10/02/2018	US EPA Review and per Bob's review
10/08/2018	US EPA Label Review.
11/14/2018	US EPA Communication per Dan Kenny and Bethany Benbow.
11/15/2018	US EPA SAL