



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

January 31, 2023

Marcia K. Trostle  
Sr. Advisor, Chemistry and Adjuvant Registrations  
Loveland Products Inc.  
P.O. Box 1286  
Greeley, CO 80632-1286

Subject: Registration Review Label Amendments Incorporating Mitigation Measures from the Interim Decisions for Metolachlor and Fomesafen and the National Marine Fisheries Services' (NMFS) Biological Opinion on the Effects of Metolachlor on Pacific Salmonids  
*Product Name:* INTIMIDATOR-M  
*EPA Registration Number:* 34704-1062  
*Application Date:* 4/26/2021, 9/2/2021, and 9/29/2022  
*Decision Number:* 578360, 587872, and 588847

Dear Marcia Trostle:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Metolachlor and Fomesafen Interim Decisions. The Agency has concluded that your submission is acceptable.

This letter also addresses the label mitigation resulting from the NMFS' Biological Opinion on the effects of Metolachlor on Pacific salmonids. The Agency has concluded that your submission is also acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

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.

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 12 months from the date of this letter. After 12 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.

If you have any questions about this letter, please contact Quinn Gavin at [gavin.quinn@epa.gov](mailto:gavin.quinn@epa.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read "Linda Arrington", with a stylized flourish at the end.

Linda Arrington, Branch Chief  
Risk Management and Implementation Branch 4  
Pesticide Re-Evaluation Division  
Office of Pesticide Programs

Enclosure

Metolachlor	GROUP	15	HERBICIDE
Metribuzin	GROUP	5	HERBICIDE
Fomesafen	GROUP	14	HERBICIDE

# LPI 6364-12

Herbicide for preemergent control of certain grasses and broadleaf weeds in Soybeans

ACTIVE INGREDIENTS:	By Wt.
Metolachlor* .....	43.24%
Metribuzin** .....	6.13%
Fomesafen*** .....	5.42%
OTHER INGREDIENTS: .....	45.21%
TOTAL .....	100.00%

\*contains 4.02 lb of metolachlor per gallon.

\*\*contains 0.57 lb of metribuzin per gallon.

\*\*\*contains 0.50 lb of fomesafen acid per gallon.

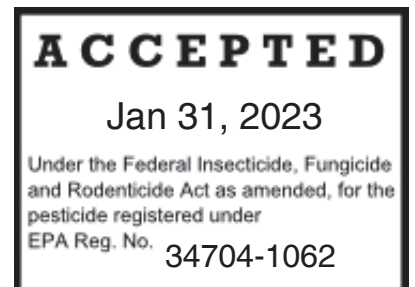
KEEP OUT OF REACH OF CHILDREN

## CAUTION

EPA REG. NO. 34704-1062

EPA EST. NO. 34704-MS-1

NET CONTENTS 2.5 gal (9.46L)



<b>FIRST AID</b>	
<b>If swallowed:</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If in eyes:</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911, or call an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>Have the product container or label with you when calling a poison control center or doctor or going for treatment.</b>	
<b>FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565</b>	

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
CAUTION**

Harmful if swallowed.

This product may cause sensitization reactions in some people.

Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Wear protective eyewear.

**Personal Protective Equipment (PPE)**

**Mixers, loaders, applicators, flaggers and other handlers must wear:**

- Protective eyewear,
- Coveralls worn over short-sleeved shirt and short pants,
- Chemical-resistant gloves made out of butyl rubber  $\geq$  14 mils or barrier laminate,
- Chemical-resistant footwear plus socks, and
- Chemical-resistant apron when cleaning equipment, mixing and loading.

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

Mixers and loaders supporting aerial applications are required to use closed systems. The closed system must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4)). When using the closed system, the mixers' and loaders' PPE requirements may be reduced or modified as specified in the WPS.

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 thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco or 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.

### ENVIRONMENTAL HAZARDS

Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high-water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

#### Reporting Ecological Incidents:

To report ecological incidents, including mortality, injury, or harm to plants and animals, call **1-866-944-8565**.

**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.

#### GROUNDWATER ADVISORY

Metribuzin is a chemical which can travel (seep or leach) through soil and can contaminate ground water 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 (ground water) is close to the surface, and where the soils are very permeable, i.e., well-drained soils such as loamy sands. Your local agricultural agencies can provide further information on the type of soil in your area and the location of ground water.

Metolachlor and fomesafen are known to leach through soil into ground water under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

### **SURFACE WATER ADVISORY**

This product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of metolachlor and fomesafen from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours. For more information, see the United States Department of Agriculture National Resources Conservation Service's manual, "*Conservation Buffers to Reduce Pesticide Losses*."

### **MIXING/LOADING INSTRUCTIONS**

Product must be used in a manner which will prevent back-siphoning in wells, spills or improper disposal of excess pesticide spray mixture.

This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes or reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times.

The above specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Observe all restrictions, precautions and limitations on this label as well as on the labels of products used in combination with this product.

### Endangered Species Protection Requirements:

It is a Federal offense to use any pesticide in a manner that results in an unauthorized “take” (e.g., kill or otherwise harm) of an endangered species and certain threatened species, under the Endangered Species Act section 9. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. You must obtain a Bulletin no earlier than six months before using this product. To obtain Bulletins, consult <http://www.epa.gov/espp/>, call 1-844-447-3813, or email ESPP@epa.gov. You must use the Bulletin valid for the month in which you will apply the product.

### AGRICULTURAL USE REQUIREMENTS

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

**Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.**

Exception: If the product is soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated. PPE required for early entry to treated areas that is permitted under the Worker Protections Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Protective eyewear,
- Coveralls over short-sleeve shirt and short pants,
- Chemical-resistant gloves, such as butyl rubber  $\geq$  14 mils or barrier laminate, and
- Chemical-resistant footwear plus socks.

**Failure to follow the directions for use and precautions on this label may result in poor weed control, crop injury, or illegal residues.**

**Note: Not for sale, use, or distribution in Nassau County or Suffolk County, New**



York.

### PRODUCT INFORMATION

LPI 6364-12 kills weeds by root and/or foliage uptake and rapid translocation to the growing points. Adequate soil moisture is important for optimum activity of this product. When adequate soil moisture is present, this product will provide residual control of susceptible germinating weeds; activity on established weeds will depend on the weed species and the location of its root system in the soil.

Use of this product in accordance with label directions is expected to result in normal growth of rotational crops in most situations; however, various environmental and agronomic factors make it impossible to eliminate all risks associated with the use of this product. Therefore, rotational crop injury is always possible.

Under some conditions (such as heavy texture soil, high organic matter, low pH or low rainfall), this product may cause injury to subsequent planted crops. Vegetable crops (particularly sugar beets) are sensitive to residues of this product in the soil.

### WEED RESISTANCE MANAGEMENT

#### MODE OF ACTION (MOA)

LPI 6364-12 herbicide is a mixture of the active ingredients metolachlor, metribuzin and fomesafen.

- Metolachlor is a biosynthesis inhibitor (Group 15 mode of action) preventing cell division in emerging weeds.
- Metribuzin is a photosystem II inhibitor (Group 5 mode of action) leading to cellular membrane disruption and plant death.
- Fomesafen is a protoporphyrinogen oxidase inhibitor (Group 14 mode of action) leading to cellular membrane disruption and plant death.

For resistance management, please note that **Intimidator-M** contains Group 5, Group 14, and Group 15 herbicides. Any weed population may contain plants naturally resistant to Group 5 and/or Group 14 and/or Group 15 herbicides. The resistant individuals may dominate the weed population if these herbicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

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

- Rotate the use of **Intimidator-M** with other Group 5, Group 14 and Group 15 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 weeds 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, biological and



other management practices.

- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include:
  - Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds.
  - A spreading patch of non-controlled plants of a particular weed species.
  - 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 this product, discontinue use of this product and switch to another management strategy or herbicide with a different mode of action, if available.

Contact your local extension agent, crop advisor, or sales representative to find out if suspected resistant weeds to these MOAs have been found in your region. Do not assume that each listed weed is being controlled by multiple 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 ingredients in this product.

A given weed population may contain or develop resistance to an herbicide or herbicide MOA after repeated use. Appropriate resistance-management strategies should be followed to mitigate or delay resistance. If levels of control provided by applications of this product is reduced, and cannot be accounted for by factors such as misapplication, abnormal levels of target species or extremes of weather, it may be the case that target species have developed a strain resistant to applications of this product.

Suspected herbicide-resistant weeds may be identified by these indicators:

- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

If resistance develops, this product may not provide sufficient control of target species. Where you suspect target species are developing resistance, contact State/local agricultural advisors. Integrated weed management guidelines promote an economically viable, environmentally sustainable, and socially acceptable weed control program regardless of the herbicide(s) used. The highlights of successful integrated weed management include:

1. Correctly identify weeds and look for trouble areas within field to identify resistance indicators.
2. Rotate crops.
3. Start the growing season with clean fields.
4. Rotate herbicide modes of action by using multiple modes of action during the growing season and apply no more than 2 applications of a single herbicide mode of action to the same field in a 2-year period. One method to accomplish this is to rotate herbicide tolerant trait systems.
5. Apply listed rates of herbicides to actively growing weeds at the correct time with the right application techniques.
6. Control any weeds that may have escaped the herbicide application.
7. Thoroughly clean field equipment between fields.
8. Scout before and after application.

Contact your local extension specialist, agronomic advisor or certified crop advisors for additional pesticide resistance management and/ or integrated weed management recommendations for specific crops and weed biotypes in your area. Users should report lack of performance to registrant or their representative. Refer to crop specific directions (below) for maximum application rates and number of applications.

For further information or to report suspected resistance contact Loveland Products, Inc. retailer, representative, or call **1-888-574-2878**.

### **MANDATORY SPRAY DRIFT MANAGEMENT**

#### **Aerial Applications:**

- Do not release spray at a height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASABE S641).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S641).
- If the wind speed is 10 miles per hour or less, applicators must use  $\frac{1}{2}$  swath displacement upwind at the downwind edge of the field. When the wind speed is between 11-15 miles per hour, applicators must use  $\frac{3}{4}$  swath displacement upwind at the downwind edge of the field.
- Do not apply when wind speeds exceed 15 mph at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Do not apply during temperature inversions

#### **Ground Boom Applications:**

- User must only apply with the release height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy unless making a turf, pasture, or rangeland application, in which case applicators may apply with a nozzle height no more than 4 feet above the ground.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASABE S572).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S572).
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

### **SPRAY DRIFT ADVISORIES**

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.  
BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

#### **IMPORTANCE OF 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 crop and have minimal bounce.

### **RELEASE HEIGHT - Aircraft**

Higher release heights increase the potential for spray drift.

### **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.

### **TEMPERATURE AND HUMIDITY**

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

### **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

### **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.

### **Sensitive Areas**

This product may only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive

areas).

### **APPLICATION WITH HERBICIDE SPRAY EQUIPMENT**

Use a standard low-pressure (20 to 40 psi) herbicide boom sprayer equipped with suitable nozzles and screens no finer than 50-mesh in nozzle and in-line strainers. Agitate thoroughly before and during application with bypass agitation.

**Low pressure and high-volume hand wand equipment is prohibited.**

#### **Ground Application**

Apply the proper rate of this product in a minimum of 10 to 40 gallons of spray mixture per acre broadcast.

#### **Aerial Application**

Where permitted, apply specified rate in a minimum of 5 gallons of spray mixture per acre. Do not apply aerially when wind speed is greater than 10 mph.

#### **For All Applications**

Sprayer must be accurately calibrated before applying this product. Check sprayer during application to be sure it is working properly and delivering a uniform spray pattern. As the volume of spray mixture decreases per acre, the importance of accurate calibration and uniform application increases.

Avoid overapplication, misapplication, and boom and spray swath overlapping that will increase spray dosage. (Crop injury may occur as a result.) Avoid spray skips and gaps which allow weeds to grow in untreated soil. Do not apply when weather conditions favor spray drift and/or when sensitive or cool season crops (such as cole crops, onions, peas, or strawberries) are present in adjacent fields or in areas where wheat is growing in coarse-textured soils.

#### **Sprayer Cleanup**

Spray equipment must be thoroughly cleaned to remove remaining traces of herbicide that might injure other crops to be sprayed. Drain any remaining spray solution of this product from the spray tank and dispose of according to label disposal instructions. Rinse the spray tank and refill with water, adding a heavy-duty detergent at the rate of one cup per 20 gallons of water. Recycle this mixture through the equipment for 5 minutes and spray out. Repeat this procedure twice. Fill the spray tank with clean water, recycle for 5 minutes, and spray out. Clean pump and nozzle screens thoroughly. Wash away any spray mixture from the outside of spray tank, nozzles or spray rig. All rinse water must be disposed of in compliance with local, state, and Federal guidelines.

### **MIXING INSTRUCTIONS**

#### **Incorporation and Combination Uses**

When this product is to be used in combination with another herbicide, follow the most restrictive directions on all product labels for combinations, rates, crops, incorporation, and special precautions.

When using this product, make sure the sprayer is completely clean, and free of rust or corrosion which occurs from winter storage. Examine strainers and screens to be sure the sprayer is clean from previously used pesticides.

Any tank mix containing this product must be kept agitated and sprayed out immediately. Do not allow tank mixes to stand for prolonged periods of time.

The proper mixing procedure for this product alone or in tank-mix combinations with other herbicides is:

1. Fill the spray tank 1/4 to 1/3 full with clean water.
2. Add specified rate of this product while recirculating and with agitator running.
3. Mix thoroughly and add clean water to fill spray tank to desired level.
4. Add the other herbicide to tank last and agitate thoroughly.
5. Continue agitation during application and until sprayer tank is empty.

### **Application of LPI 6364-12 in Fluid Fertilizers**

This product may be applied in fluid fertilizer solutions by following the appropriate mixing procedures and compatibility check. When using tank mix combinations, be sure all components are compatible.

### **Tank Mixing Guidelines for Fluid Fertilizer Mixtures**

1. Add the required amount of water and compatibility agent (if required) to the tank. Start agitation system while adding this product and follow by adding the fluid fertilizer and agitate.
2. If a second herbicide is also to be used, follow as above in Step 1, but use twice the amount of water. Start agitation, add LPI 6364-12. Follow by adding the second herbicide, then continue filling the tank with fluid fertilizer.
3. Maintain continuous agitation to assure uniform spray mixture until the tank is emptied.

Make compatibility checks of this product plus fluid fertilizers and tank-mix combinations plus fluid fertilizers which include this product for each batch because of the variability of fluid fertilizers.

### **THE FOLLOWING COMPATIBILITY CHECK SHOULD ONLY BE USED WHEN MIXING WITH FLUID FERTILIZERS.**

1. Pre-mix 8 teaspoons of water with 2 teaspoons of this product (4:1 ratio) in a quart jar by adding the water first and following with this product. Mix thoroughly. If a second herbicide is to be used, double the amount of water (8:1 ratio), mix in this product, and follow with the second herbicide.
2. Then pour 1 pint of fluid fertilizer into the quart jar and shake well.
3. Allow to stand for 5 minutes.

### **Interpretation of Results**

If the solution in the jar appears to be uniform, without signs of agglomeration, or without a separation of an oily film on top of the fertilizer, the mixture may be used. If not, repeat the compatibility check using twice the amount of water or add a compatibility agent to the water. If separation occurs, but the mixture can be resuspended by shaking, then application is possible with good agitation in the spray tank.

## SOYBEAN APPLICATION DIRECTIONS

This product may be applied

- Preplant incorporated, or
- Preplant surface or preemergent surface, or
- As a sequential preemergent application.

Refer to Tables below for specific use directions

This product may also be used as an overlay application following a preplant incorporated application of a grass herbicide registered for this same use, and in tank mix combinations for burndown weed control.

All applications may be applied with ground equipment, and some may be applied with aerial spray equipment.

### Restrictions

- Do not exceed the maximum application rate of 5.0 pints of LPI 6364-12 per acre per use season (equivalent to 0.31 lb fomesafen, 2.5 lb metolachlor, and 0.35 lb metribuzin). Do not exceed this amount in any use pattern: single application, replant or sequential application
- Do not exceed a total of 2.5 lb metolachlor or S-metolachlor per acre per year from this or any other products containing metolachlor or S-metolachlor.
- Do not exceed a total of 0.375 lb fomesafen per acre per year in Region 1 (see Regional Use Map) when using additional products containing fomesafen (ex. Top Gun, Flexstar, Prefix, or Reflex).
- Do not exceed a total of 0.375 lb fomesafen per acre in ALTERNATE years in Region 2 (see Regional Use Map) when using additional products containing fomesafen (ex. Top Gun, Flexstar, Prefix, or Reflex).
- Do not exceed a total of 0.313 lb fomesafen per acre in ALTERNATE years in Region 3 (see Regional Use Map) when using additional products containing fomesafen (ex. Top Gun, Flexstar, Prefix, or Reflex).
- Do not exceed a total of 0.25 lb fomesafen per acre in ALTERNATE years in Region 4 (see Regional Use Map) when using additional products containing fomesafen (ex. Top Gun, Flexstar, Prefix, or Reflex).
- Do not apply this product in Region 5.
- Do not harvest within 90 days of the last application of LPI 6364-12.
- Do not graze or feed treated soybean forage, hay or straw to livestock.
- Only soybeans may be planted immediately after harvest, follow instructions under CROP ROTATION INTERVALS for all other crops.
- Do not allow sprays to drift onto adjacent desirable plants.
- To assure that spray will not adversely affect adjacent sensitive non-target plants, apply LPI 6364-12 by aircraft at a minimum upwind distance of 400 ft. from sensitive plants.
- Do not apply under conditions which favor runoff or wind erosion of soil containing this product to non-target areas.
- To prevent off-site movement due to run-off or wind erosion:
  - Avoid treating powdery dry or light sand soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.
  - Do not apply to impervious substrates such as paved or highly compacted surfaces.
  - Do not use tailwater from the first flood or furrow irrigation of treated fields to treat



non-target crops unless at least 1/2 inch of rainfall has occurred between application and the first irrigation.

- Do not apply using low-pressure and high-volume hand-wand equipment.
- Do not apply this product through any type of irrigation system.
- Observe all restrictions, precautions and limitations on labeling of all products used in mixtures.

Use of this product in certain portions of California, Oregon, and Washington is subject to the January 22, 2004 Order for injunctive relief in Washington Toxics Coalition, et al.v. EPA, C01-0132C, (W.D. WA). For further information, please refer to [Endangered Species Case - Washington Toxics Coalition v. EPA | US EPA](#)

### **Soil Texture and Rate Ranges**

As used on this label,

- "Coarse soils" are loamy sand or sandy loam soils.
- "Medium soils" are loam, silt loam, silt, sandy clay, or sandy clay loam.
- "Fine soils" are silty clay, silty clay loam, clay, or clay loam.

Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S.

Where a rate range is shown, use a lower rate on soils that are coarse-textured and/or low in organic matter. Use a higher rate on soils that are relatively fine-textured and/or high in organic matter.

### **Precautions**

Injury to soybeans may occur when this product is used under the following conditions:

1. When soils have a calcareous surface area or a pH of 7.5 or higher.
2. When applied in conjunction with soil-applied organic phosphate pesticides.
3. With over-application or boom overlapping, which may result in stand loss and soil residues.
4. With uneven application or improper incorporation, which can decrease the level of weed control and/or increase the level of injury.
5. When applied to any soil with less than 0.5% organic matter.
6. When soil incorporation is deeper than recommended.
7. When sprayers are not calibrated accurately.
8. When heavy rains occur soon after application, especially in poorly drained areas where water may stand for several days.
9. When soybeans are planted less than 1.5 inches deep, particularly in preemergence application.
10. Where high soil levels of atrazine are present.
11. When using poor quality soybean seed.

Certain soybean varieties are sensitive to Metribuzin. Prior to use of this product, consult your soybean seed supplier for more information on the tolerance of soybean varieties to LPI 6364-12.



### Activation

A minimum amount of soil moisture is required to activate this product. In areas of low rainfall, preemergence applications to dry soil should be followed with light irrigation of 0.25 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.

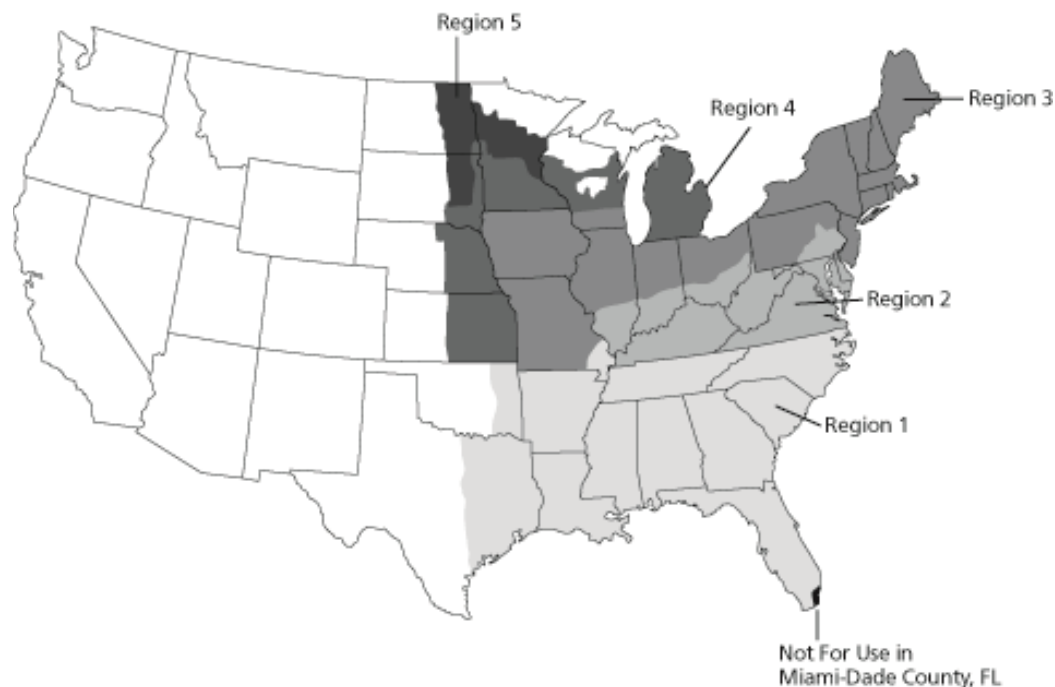
### Replanting

If replanting is necessary in fields treated with this product as directed on this label, the field may be replanted to soybeans. Rework the soil no deeper than the treated zone.

### Replanting Restrictions:

- Do not apply more than once per season except where permitted as part of a sequential application, as injury to soybeans may occur.
- Do not apply a second application of LPI 6364-12 or any product that contains metolachlor, metribuzin, fomesafen, or S-metolachlor, as crop injury or illegal residues may occur in harvested soybeans.
- Maximum application rate is 5.0 pints of LPI 6364-12 per acre per use season (equivalent to 0.31 lb fomesafen, 2.5 lb metolachlor, and 0.35 lb metribuzin). Do not exceed this amount in any use pattern: single application, replant or sequential application.

### Region Boundaries/Definitions



### REGION 1



**Region 1** - Includes the following states or portion of states where LPI 6364-12 Herbicide may be applied: Alabama, Arkansas, Florida (except Miami-Dade County), Georgia, Louisiana, Mississippi, Missouri (counties of Bollinger, Butler, Cape Girardeau, Dunklin, Madison, Mississippi, New Madrid, Pemiscot, Perry, Ripley, Scott, Stoddard and Wayne), North Carolina, Oklahoma (East of U.S. Highway 75 and East of Indian Nation Parkway), South Carolina, Tennessee, and Texas (includes area East of U.S. Highway 77 to State Road 239 including all of Calhoun County).

**Maximum application rate from all products containing fomesafen must not exceed 0.375 lb AI/A per year in Region 1.**

### REGION 2



**Region 2** - Includes the following states or portion of states where LPI 6364-12 Herbicide may be applied: Delaware, Kentucky, Maryland, Virginia, West Virginia, South of Interstate 70 in the following states: Illinois, Indiana and Ohio and all areas South of Interstate 80 to the intersection of U.S. Highway 15 and East of U.S. Highway 15 and U.S. Highway 522 in Pennsylvania.

**Maximum application rate from all products containing fomesafen must not exceed 0.375 lb AI/A in alternate years in Region 2.**

### REGION 3



**Region 3** - Includes the following states or portion of states where LPI 6364-12 Herbicide may be applied: Connecticut, Iowa, Maine, Massachusetts, Missouri (all counties except for those listed in Region 1), New Hampshire, New Jersey, New York, Pennsylvania (all areas except those listed in Region 2), Rhode Island, Vermont and Wisconsin (South of U.S. Highway 18 between Prairie Du Chien and Madison, and South of Interstate 94 between Madison and Milwaukee), and North of Interstate 70 in following states: Indiana, Illinois and Ohio.

**Maximum application rate from all products containing fomesafen must not exceed 0.313 lb AI/A in alternate years in Region 3.**

### REGION 4



**Region 4** - Includes the following states or portion of states where LPI 6364-12 Herbicide may be applied: Kansas (all counties East of or intersected by U.S. Highway 281), Michigan (Southern Peninsula), Minnesota (all areas South of Interstate 94), Nebraska (all counties East of or intersected by U.S. Highway 281), and Wisconsin (all areas, except those in Region 3, South of Interstate 94 from Minnesota state line to Eau Claire and South of U.S. Highway 29 from Eau Claire to Green Bay plus Barron, Chippewa, Clark, Door, Dunn, Eau Claire, Kewaunee, Marathon, Menominee, Oconto, Polk, Shawano, and St. Croix counties. The following counties are excluded: Adams, Marquette, Portage, Waupaca, Waushara and Wood). North Dakota (all areas East of Interstate 29 from Fargo South to the South Dakota state line). South Dakota (all areas East of Interstate 29 from the North Dakota state line to Watertown, all areas East of Highway 81 from Watertown to Madison and all areas East and South of State Road 34 and U.S. Highway 281 to the Nebraska state line).

**Maximum application rate from all products containing fomesafen must not exceed 0.25 lb AI/A in alternate years in Region 4.**

<b>TABLE 1: ANNUAL BROADLEAF WEEDS CONTROLLED BY LPI 6364-12</b>	
C = Control S = Suppression or Erratic Control P = Poor or No Control	
<b>Weed Controlled</b>	<b>Level of Control</b>
Bristly Starbur ( <i>Acanthospermum hispidum</i> )	C
Buffalobur ( <i>Solanum rostratum</i> )	C
Carpetweed ( <i>Mollugo verticillata</i> )	C
Cocklebur ( <i>Xanthium pensylvanicum</i> )	S
Common Chickweed ( <i>Stellaria media</i> )	C
Copperleaf, Hophornbeam ( <i>Acalypha ostryifolia</i> )	C
Eclipta ( <i>eclipta prostrata</i> )	C
Field Pennycress ( <i>Thlaspi arvense</i> )	C
Florida Beggarweed ( <i>Desmodium tortuosum</i> )	C
Florida Pusley ( <i>Richardia scabra</i> )	C
Galinsoga ( <i>Galinsoga</i> spp.)	C
Horseweed (Marestail) ( <i>Conyza canadensis</i> )	S
Jimsonweed ( <i>Datura stramonium</i> )	C
Knotweed ( <i>Polygonum</i> spp.)	C
Kochia ( <i>Kochia scoparia</i> )	C
Lambsquarters ( <i>Chenopodium</i> spp.)	C
Morningglory	
Entireleaf ( <i>Ipomoea hederacea</i> var. <i>integriuscula</i> )	S
Ivyleaf ( <i>Ipomoea hederacea</i> )	S
Pitted ( <i>Ipomoea lacunosa</i> )	S
Smallflower ( <i>Jacquemontia tamnifolia</i> )	C
Tall ( <i>Ipomoea purpurea</i> )	S
Nightshade	
Black ( <i>Solanum nigrum</i> )	S
Eastern Black ( <i>Solanum ptycanthum</i> )	C
Hairy ( <i>Solanum villosum</i> )	C
Pigweed ( <i>Amaranthus</i> spp)	C
Poinsettia, Wild ( <i>Euphorbia cyathophora</i> )	C
Prickly Lettuce ( <i>Lactuca serriola</i> )	C
Prickly Sida/Teaweed ( <i>Sida spinosa</i> )	C
Purslane ( <i>Portulaca oleracea</i> )	C
Ragweed	
Common ( <i>Ambrosia artemisiifolia</i> )	C
Giant ( <i>Ambrosia trifida</i> )	S
Redweed ( <i>melochia corchorifolia</i> )	C
Russian Thistle ( <i>Salsola kali</i> )	C
Sesbania ( <i>Sesbania</i> spp.)	C
Shepherd's Purse ( <i>Capsella bursa-pastoris</i> )	C
Sicklepod ( <i>Cassia obtusifolia</i> ) <sup>1</sup>	C
Smartweeds ( <i>Polygonum</i> spp.)	
Ladysthumb ( <i>Polygonum persicaria</i> )	C
Pennsylvania ( <i>Polygonum pensylvanicum</i> )	C

<b>TABLE 1: ANNUAL BROADLEAF WEEDS CONTROLLED BY LPI 6364-12</b>	
C = Control S = Suppression or Erratic Control P = Poor or No Control	
<b>Weed Controlled</b>	<b>Level of Control</b>
Spurge	
Prostrate ( <i>Euphorbia humistrata</i> )	C
Spotted ( <i>Euphorbia maculata</i> )	C
Spurred Anoda ( <i>Anoda cristata</i> )	C
Sunflower ( <i>Helianthus</i> spp.)	C
Velvetleaf ( <i>Abutilon theophrasti</i> )	C
Venice Mallow ( <i>Hibiscus trionum</i> )	C
Virginia Pepperweed ( <i>Lepidium virginicum</i> )	C
Waterhemp ( <i>Amaranthus rudis</i> )	C
Wild Mustards ( <i>Brassica</i> spp.)	C

<sup>1</sup>For maximum control of sicklepod, use a preemergence application.

<b>TABLE 2: ANNUAL GRASSES AND SEDGES CONTROLLED BY LPI 6364-12</b>	
C = Control S = Suppression or Erratic Control P = Poor or No Control	
<b>Weed Controlled</b>	<b>Level of Control</b>
Barnyardgrass ( <i>Echinochloa crus-galli</i> )	C
Bluegrass ( <i>Poa annua</i> )	C
Broadleaf Signalgrass ( <i>Brachiaria platyphylla</i> )	C
Browntop Millet ( <i>Panicum ramosa</i> )	C
Crabgrass ( <i>Digitaria</i> spp.)	C
Crowfootgrass ( <i>Dactyloctenium aegyptium</i> )	C
Cupgrass ( <i>Eriochloa</i> spp.)	C
Foxtails ( <i>Setaria</i> spp.)	C
Goosegrass ( <i>Eleusine indica</i> )	C
Johnsongrass, Seedling ( <i>Sorghum halepense</i> )	C
Junglerice ( <i>Echinochloa colona</i> )	C
Nutsedge	
Yellow ( <i>Cyperus esculentus</i> )	S
Purple ( <i>Cyperus rotundus</i> )	S
Panicum,	
Fall ( <i>Panicum dichotomiflorum</i> )	S
Texas ( <i>Panicum, texanum</i> )	S
Red Rice ( <i>Oryza sativa</i> )	S
Sandbur ( <i>Cenchrus</i> spp.)	S
Shattercane ( <i>Sorghum bicolor</i> )	S
Sorghum, Volunteer ( <i>Sorghum</i> spp.)	S
Sprangletop ( <i>Leptochloa</i> spp.)	P
Stinkgrass ( <i>Eragrostis</i> spp.)	P
Wheat, Volunteer ( <i>Triticum</i> spp.)	P
Witchgrass ( <i>Panicum capillare</i> )	C

## LPI 6364-12 USE RATES FOR CONVENTIONAL TILLAGE SYSTEMS

### LPI 6364-12 used alone in Preplant Incorporated Application

Incorporate LPI 6364-12 uniformly into the top 2 inches of soil within 14 days before planting using a disk, field cultivator, rolling cultivator or similar equipment. Use incorporated application if furrow irrigation is used or when a period of dry weather after application is expected.

### LPI 6364-12 used alone in Preemergence Application

When used alone, LPI 6364-12 can be applied as an aerial broadcast or as a ground broadcast. Application may be made during planting, or as a separate operation after planting, but must be made before crop emergence. If dry weather follows preemergence application, cultivate uniformly with shallow tilling equipment that will not damage soybeans.

#### Preemergence Application Restrictions

- Do not apply to sandy soils, or to sandy loam or loamy sand soils containing less than 2% organic matter.
- Do not incorporate into soil or apply more than once per season.

**TABLE 3: LPI 6364-12 RATES WHEN USED ALONE IN PREPLANT OR PREEMERGENCE APPLICATION**

Soil Texture		Regions	Organic Matter		
			0.5 to 2.0%	2.1 to 3.0%	Over 3.0% <sup>3</sup>
Pints of LPI 6364-12 Per Acre					
<b>Coarse Soils<sup>1</sup></b>	Sandy Loam	1,2,3,4 <sup>5</sup>	n/a <sup>1</sup>	2.0 <sup>4</sup>	2.0 to 2.4
	Loamy Sand	1,2,3,4 <sup>5</sup>	n/a <sup>1</sup>	2.0 <sup>4</sup>	2.0 to 2.4
<b>Medium Soils</b> (Loam, silt loam, silt, sandy clay, sandy clay loam)		1,2,3,4 <sup>5</sup>	2.4 to 2.7		2.7 to 3.1
<b>Fine Soils</b> (Silty clay, silty clay loam <sup>2</sup> , clay, clay loam)		1,2,3,4 <sup>5</sup>	3.1 to 3.5 <sup>6</sup>		3.5 to 3.9 <sup>6</sup>

<sup>1</sup> Do not use on sandy soils. On coarse-textured soils, do not use on sandy loam or loamy sand with less than 2% organic matter.

<sup>2</sup> Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S.

<sup>3</sup>For preplant incorporated application, use the lower rate.

<sup>4</sup>For AL, AR, FL, GA, LA, MS, MO, NC, OK, SC, TN, TX, VA, see section below **In Coarse (Light) Soils**.

<sup>5</sup>In Regions 2, 3 and 4, apply LPI 6364-12 in alternate years only. In years when LPI 6364-12 cannot be applied, a product such as Matador™ may be used. The rotation restrictions in **Table 9** must be observed.

<sup>6</sup>On soils with pH above 7.0, soybean injury caused by the metribuzin in this product may occur at rates higher than 3.3 pt/A. To avoid injury, do not use this product at rates greater than 3.3 pt/A on soils above pH 7.0.

### In Coarse (Light) Soils

(Only in AL, AR, FL, GA, LA, MS, MO, NC, OK, SC, TN, TX, VA)

This product may be used at the rates specified in **Table 4** as a preplant incorporated or preemergence application in coarse-textured, low organic matter soils in the states listed above. Refer to **Table 4** and to the appropriate sections of this label for specific directions on use and restrictions.

**TABLE 4: LPI 6364-12 RATES WHEN USED ALONE IN PREPLANT OR PREEMERGENCE APPLICATIONS ON COARSE SOILS (Only in AL, AR, FL, GA, LA, MS, MO, NC, OK, SC, TN, TX, VA)**

		Region	Organic Matter	
			0.5 to 1.0%	1.1% or above
Soil Texture			Pints of LPI 6364-12 Per Acre <sup>2,3</sup>	
Coarse Soils	Sand	1,2 <sup>4</sup>	n/a <sup>1</sup>	1.6 to 2.7
	Sandy loam, loamy sand	1,2 <sup>4</sup>	1.6 to 2.7	1.6 to 2.7

<sup>1</sup>Do not use on sand with less than 1% organic matter.

<sup>2</sup>Use the higher rate under heavy weed pressure and/or soils higher in organic matter.

<sup>3</sup> Follow regional use rate restrictions above.

<sup>4</sup>In Region 2, apply LPI 6364-12 in alternate years only. In years when LPI 6364-12 cannot be applied, a product such as Matador may be used. The rotation restrictions in **Table 9** must be observed.

### HERBICIDES THAT MAY BE APPLIED POSTEMERGENCE FOLLOWING LPI 6364-12

If required, application of this product alone or in tank mixture may be followed by an application of a postemergence herbicide to provide additional control of certain weeds. The following postemergence herbicides may be applied:

Aim <sup>®</sup>	glyphosate herbicides <sup>1</sup> (such as Makaze <sup>®</sup> or Mad Dog <sup>®</sup> )
Arrow <sup>™</sup>	Harmony <sup>®</sup> GT XP
Assure <sup>®</sup> II	Intensity <sup>®</sup>
Basagran <sup>®</sup>	Poast <sup>®</sup>
Classic <sup>®</sup>	Poast Plus <sup>®</sup>
Cobra <sup>®</sup>	Top Gun <sup>™</sup>
FirstRate <sup>®</sup>	Resource <sup>®</sup>
Flexstar <sup>®</sup>	Rezult <sup>®</sup> A&B
Fusilade <sup>®</sup> DX	Storm <sup>®</sup>
Frontrow <sup>®</sup>	Synchrony <sup>®</sup> XP <sup>2</sup>
Fusion <sup>®</sup>	Ultra Blazer <sup>®</sup>

<sup>1</sup>Use on Roundup-Ready<sup>®</sup> or glyphosate-tolerant soybean varieties only.

<sup>2</sup>Use on STSTM soybean varieties only.

Refer to the **Directions for Use** on this label and the individual product labels for use directions, use rates, and special precautions and/or restrictions.



## BURNDOWN WEED CONTROL

This product can be used as part of a burndown herbicide program for control of existing vegetation prior to soybean emergence in conservation tillage (reduced-tillage/no-till) systems. This product may be tank mixed with a 2,4-D low volatile ester (LVE) (such as Whiteout™ 2,4-D) and/or glyphosate herbicides (such as Mad Dog and Makaze brands) for control of emerged weeds prior to crop emergence. Burndown tank mixes with LPI 6364-12 can be applied before planting or prior to crop emergence.

### Application

This product may be applied up to 30 days before planting or preemergence. Apply only by ground equipment when this product is used for burndown of existing vegetation in conservation tillage systems. Use the high end of the rate range for applications of this product made 14 to 30 days before planting. Refer to **Tables 3 and 4** for rates of LPI 6364-12 alone and to **Table 5** for rates of tank mix partners.

**TABLE 5: RATES OF TANK MIX PARTNERS TO BE USED IN COMBINATION WITH LPI 6364-12 FOR BURNDOWN APPLICATIONS**

Product	Rate of Tank Mix Partner	Directions and Remarks
2,4-D LVE (Whiteout 2,4-D)	0.25 to 1.00 lb. AE <sup>1</sup> /A	Apply at least 7 days preplant when using Whiteout 2,4-D at 0.25 to 0.50 lb AE <sup>1</sup> /A and at least 30 days preplant with rates greater than 0.50 lb AE <sup>1</sup> /A. Include crop oil concentrate (COC) at the rate of 1 gal/100 gal. of spray solution (1% v/v).
Glyphosate (Mad Dog or Makaze brands)	Refer to product label for use rates	Must be applied prior to crop emergence. Use the higher rates within the specified range as weeds approach the maximum weed heights listed in <b>Table 6</b> . Apply in 10 to 20 gal. of water per acre. Refer to the Mad Dog or Makaze label for spray adjuvant instructions. Any glyphosate formulation registered and labeled for use in soybeans may be tank mixed with this product.
Glyphosate (Mad Dog or, Makaze brands) + 2,4-D LVE (Whiteout 2,4-D)	Refer to the product label for use rates + 0.25 lb AE <sup>1</sup> /A	Follow the <b>Directions and Remarks</b> section above for Whiteout 2,4-D and Mad Dog/Makaze, paying special attention to planting restrictions with Whiteout 2,4-D. Refer to the Mad Dog or Makaze label for spray adjuvant instructions. Do not use crop oil concentrate (COC).

<sup>1</sup>AE = 2,4-D acid equivalent

### Restrictions

Do not apply these treatments after crop emergence. Observe all precautions and limitations on the labeling of all products used in tank mixtures.

- Apply only 2,4-D LVE formulations (such as Whiteout 2,4-D) that are registered for preplant or burndown use.
- Do not apply tank mixtures containing 2,4-D LVE (such as Whiteout 2,4-D) if wind is blowing toward desired susceptible plants (i.e., cotton, tobacco, tomato, etc.) or when wind speeds exceed 6 mph. Observe all precautions and limitations of all products used in tank mixtures.

Follow the most restrictive preharvest interval of all products used in a tank mixture.

### Weeds Controlled

LPI 6364-12 in tank mixtures with the herbicides listed in **Table 6** will provide burndown control of the weeds listed below.

<b>TABLE 6: WEEDS CONTROLLED WITH TANK MIXES OF LPI 6364-12 IN BURNDOWN APPLICATION</b>			
<b>Weeds Controlled</b>	<b>Maximum Burndown Height (Inches)</b>		
	<b>Whiteout 2,4-D</b>	<b>Mad Dog/Makaze</b>	<b>Mad Dog/Makaze + Whiteout 2,4-D</b>
<b>Annual Grasses</b>			
Barley	Does not improve control of these species	8	
Barnyardgrass		6	
Crabgrass spp.		6	
Foxtail spp.		8	
Johnsongrass, Seedling		8	
Panicum, Fall		6	
Sandbur, Field		8	
Wheat, Volunteer		6	
Witchgrass		6	
<b>Broadleaves</b>			
Buffalobur	-	6	6
Chickweed, Common	6	6	6
Cocklebur, Common	6	6	8
Dandelion, Common	6 dia. <sup>1</sup>	2 dia. <sup>2</sup>	6 dia. <sup>1</sup>
Henbit	4	4	4
Horseweed (Marestail)	6 <sup>1</sup>	4 <sup>2</sup>	6
Jimsonweed	6	6	6
Kochia	4 <sup>1</sup>	4	4
Ladysthumb	6	6	8
Lambsquarters, Common	6	6	8
Lettuce, Prickly	6	4	6
Mallow, Venice	6	6	6
Morningglory spp.	6	2	4
Mustard spp.	6	6	8
Pennycress, Field	6	6	6
Pigweed spp. (annual)	6	6	8
Ragweed, Common	6	6 <sup>2</sup>	8
Ragweed, Giant	6 <sup>1</sup>	4 <sup>2</sup>	6
Shepherd's Purse	6	6	6
Sida, Prickly	6	4	4
Smartweed, Pennsylvania	6	6	8
Sunflower, Common	6	6	6

**TABLE 6: WEEDS CONTROLLED WITH TANK MIXES OF LPI 6364-12 IN BURNDOWN APPLICATION**

Weeds Controlled	Maximum Burndown Height (Inches)		
	Whiteout 2,4-D	Mad Dog/Makaze	Mad Dog/Makaze + Whiteout 2,4-D
Thistle, Russian	4 <sup>1</sup>	2-4 <sup>2</sup>	4
Velvetleaf	6	6	8
Waterhemp spp.	6	6	8

<sup>1</sup>Use Whiteout 2,4-D at 0.5 lb AI/A.  
<sup>2</sup>Use a minimum of 0.75 lb AI/A of Mad Dog or Makaze.

**LPI 6364-12 USE RATES FOR REDUCED- AND NO-TILL SYSTEMS**

**Preplant Surface Application**

LPI 6364-12 may also be used in reduced-till and no-till systems. Applications may be made up to 30 days before planting or after planting, but before soybean emergence. Residual herbicides such as Canopy<sup>®</sup>, FirstRate, Command<sup>®</sup>, Python<sup>®</sup>, and Stealth<sup>®</sup> may be tank mixed for additional weed control. If weeds are present at time of application, burndown herbicides may be added to the tank mixes (see **Burndown Weed Control** section). Refer to the tank mix partner product labels for specific rates and use directions.

**TABLE 7: LPI 6364-12 RATES FOR REDUCED AND NO-TILL SYSTEMS**

Soil Texture <sup>1</sup>	LPI 6364-12 (pints per acre) <sup>1, 4</sup>
COARSE <sup>2</sup> (Loamy sand, sandy loam)	1.6 to 2.7
MEDIUM (Loam, silt loam, silt, sandy clay, sandy clay loam)	2.7 to 4.0 <sup>5</sup>
FINE (Silty clay, silty clay loam <sup>3</sup> , clay, clay loam)	4.0 <sup>5</sup>

<sup>1</sup>Use low rate in specified range for low residue level or soils with less than 3% organic matter. Use the higher rate in specified range for high residue level or soils with greater than 3% organic matter.

<sup>2</sup>Do not use on sand soils. On coarse-textured soils, do not use on loamy sand soils with less than 2% organic matter.

<sup>3</sup>Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using LPI 6364-12, treat this soil as fine-textured.

<sup>4</sup> Follow regional use rate restrictions above. In Regions 2, 3 and 4, apply LPI 6364-12 in alternate years only. In years when LPI 6364-12 cannot be applied, a product such as Matador may be used. The rotation restrictions in **Table 9** must be observed.

<sup>5</sup>On soils with pH above 7.0, soybean injury caused by the metribuzin in this product may occur at rates higher than 3.3 pt/A. To avoid injury, do not use this product at rates greater than 3.3 pt/A on soils above pH 7.0.

**LPI 6364-12 SEQUENTIAL APPLICATION**

More consistent control of broadleaf and grass weeds may be obtained by an early preplant (surface-applied or shallow incorporated) application of LPI 6364-12, followed by a second preemergence application after planting but before soybean emergence. A

sequential application will decrease the need for tillage and/or burndown herbicides for the control of existing vegetation before planting, while providing residual control of weeds after planting.

### Application

An early preplant application may be made 15 to 30 days before planting soybeans. Follow this application with a preemergence overlay application of LPI 6364-12 after planting but before crop emergence. Follow directions on this label for sequential applications from 0 to 14 days before planting.

Where a rate range is recommended, use the higher rates:

- In fields with a history of severe weed pressure.
- When the time between early preplant and preemergence overlay applications approaches the maximum 30 days.
- When the organic matter content of the soil is over 3%.
- When heavy crop residues are present on the soil surface.

When weeds exceed 1.0 to 1.5 inches in height or diameter at application, use a burndown herbicide, such as Mad Dog, Makaze, Gramoxone Inteon® or Whiteout 2,4-D.

### Weeds Controlled

In addition to weeds controlled by LPI 6364-12 alone, the sequential application improves control of the following annual broadleaf weeds: buffalobur, cocklebur, common ragweed, velvetleaf, and sunflower.

**TABLE 8: LPI 6364-12 SEQUENTIAL USE RATES FOR REDUCED-TILL AND NO-TILL SYSTEMS (BROADCAST RATES)**

Soil Texture <sup>1</sup>	Early Preplant Application LPI 6364-12 (pints per acre) <sup>2</sup>	-Followed By -	Preemergence Overlay Application LPI 6364-12 (pints per acre) <sup>2</sup>
COARSE <sup>1</sup> (Sand, loamy sand, sandy loam)	1.6 to 2.4	-followed by -	0.4 to 1.2
MEDIUM (Loam, silt loam, sandy clay loam, silt, sandy clay)	2.0 to 2.7	-followed by -	0.8 to 1.6
FINE (Silty clay loam <sup>3</sup> , clay loam, silty clay, clay)	2.4 to 3.5	-followed by -	1.2 to 2.0

<sup>1</sup>On coarse-textured soils, do not use on sandy soils with less than 1% organic matter. However, on coarse-textured soils with a calcareous surface area or a pH of 7.5 or higher, do not use on sandy soils with less than 2% organic matter, or on loamy sand or sandy loam soils with less than 1% organic matter.

<sup>2</sup>Total not to exceed 4.0 pints of LPI 6364-12 per acre per use season. Follow regional use rate restrictions above. In Regions 2, 3 and 4, apply LPI 6364-12 in alternate years only. In years when LPI 6364-12 cannot be applied, a product such as Matador may be used. The rotation restrictions in **Table 9**

must be observed.

<sup>3</sup>Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using LPI 6364-12 , treat this soil as "fine-textured".

## CROP ROTATION INTERVALS

Only rotational crops harvested at maturity may be used for feed or food. Do not graze rotated small grain crops or harvest forage or straw for livestock.

**TABLE 9: CROP ROTATION INTERVALS**

CROP	Crop Rotation Intervals (Months)	CROP	Crop Rotation Intervals (Months)
Barley, Spring	8	Rice	10
Barley, Winter	4.5	Rye	12
Cotton	12	Sorghum <sup>2</sup>	18
Field Corn	10	Soybeans	0
Field Corn (Seed)	10	Sweet corn <sup>1</sup>	10
Peas	10	Wheat, Spring	8
Popcorn	12	Wheat , Winter	4.5
-	-	Other Crops not listed	18

<sup>1</sup>Use 18-month minimum rotation interval for sweet corn in the states of Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont.

<sup>2</sup>Sorghum may be planted back after 12 Months in Region 1.

### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in a cool dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area. Handle and open container in a manner as to prevent spillage. If the container is leaking or material spilled for any reason or cause, carefully dam up material to prevent runoff. Refer to **Precautionary Statements** on label for hazards associated with the handling of this material. Do not walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed below. In spill or leak incidents, keep unauthorized people away. Maintaining a spill kit and fire extinguisher on hand and having emergency phone numbers posted will allow you to be prepared for emergencies.

**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: Nonrefillable container.** Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the

container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at 1-877-952-2272 or [www.acrecycle.org](http://www.acrecycle.org). If not recycled, then puncture and dispose of in a sanitary landfill, or 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.

**For nonrefillable containers up to 5 gallons: 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  $\frac{1}{4}$  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. **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 18 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**For nonrefillable containers greater than 56 gallons:** To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

**For refillable containers from 55 to 330 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 mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Offer for recycling or puncture and dispose of in a sanitary landfill or by incineration.

**For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC – 1-800-424-9300.**

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EPA REG. NO. 34704-1062

FORMULATED FOR  
LOVELAND PRODUCTS, INC.  
P.O. BOX 1286,  
GREELEY, COLORADO 80634-1286

*[Note to Reviewer: Not to be included on graphic/commercial label. Loveland Products, Inc. version notes:*

V1 submitted 2021.viii.16 submitted in response to S-metolachlor IRRD and BiOp

V2 submitted 2022.xii.27 in response to EPA email of November 23 mocked up label with stickies for changes to be made.

V3 submitted 2023.i.21 in response to EPA email of January 4, 2023, including mocked up label with stickies of changes to be made. Additional changes made to align with Label Review Manual, IRRD for Metolachlor (Case 0001), Biological Opinion (BiOp) for Metolachlor and IRRD for Fomesafen (Case 7211).

V4 submitted. 2023.i.25

V5 submitted 2023.i.31 to align with fomesafen "For more information, see ...manual, "Conservation Buffers to Reduce Pesticide Losses."]