

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

December 19, 2018

Negela Moaddeb Federal Regulatory Affairs Manager Bayer CropScience 2 T.W. Alexander Dr. Research Triagle Park, NC 27709

Subject: Notification per PRN 98-10 – Revising Primary Brand Name

Product Name: Osprey Xtra Herbicide EPA Registration Number: 264-1195 Application Date: September 30, 2018

Decision Number: 547202

## Dear Negela:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped "Notification" and will be placed in our records. The primary brand name Osprey Xtra Herbicide has been added to the product record.

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.

If you have any questions, you may contact me at 703-305-1243 or via email at montague.kathryn@epa.gov.

Sincerely,

Kathryn Montague, Product Manager 23

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Herbicide Branch

Registration Division (7505P) Office of Pesticide Programs

#### NOTIFICATION

264-1195

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

MESOSULFURON-METHYL	GROUP	2	HERBICIDE
THIENCARBAZONE-METHYL	GROUP	2	HERBICIDE

12/19/2018

# OSPREY® Xtra Herbicide

For: The Control of Annual Grass and Broadleaf Weeds in Fall-Sown or Winter Wheat and Fall-Sown Triticale.

**ACTIVE INGREDIENT:** 

Mesosulfuron-Methyl	4.50%
Thiencarbazone-Methyl	1.50%
OTHER INGREDIENTS:	94.00%
TOTAL:	100.00%

This product is a water dispersible granule containing 4.5% of active ingredient, mesosulfuron-methyl and 1.5% of active ingredient thiencarbazone-methyl by weight.

EPA Reg. No. 264-1195

**EPA Est.** 

## CAUTION

For MEDICAL and TRANSPORTATION Emergencies ONLY Call 24 Hours a Day 1-800-334-7577 For PRODUCT USE Information Call 1-866-99BAYER (1-866-992-2937)

Please refer to [back panel] [booklet] for additional precautionary statements and directions for use. [Note to reviewer: Location of additional precautionary statements and directions for use will vary between those listed, depending on container type/size.]

**Net Contents:** 

## PRODUCED FOR



Bayer CropScience LP P.O. Box 12014, 2 T.W. Alexander Drive Research Triangle Park, North Carolina 27709 1-866-99BAYER (1-866-992-2937)

FIRST AID			
If Swallowed:	<ul> <li>Immediately call a poison control center or doctor for treatment advice.</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> <li>Have person sip a glass of water if able to swallow.</li> </ul>		
If in Eyes:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, and then continue rinsing.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>		
In case of emergency, call the toll-free Bayer CropScience Emergency Response telephone number: 1-800-334-7577.  Have a product container or label with you when calling a poison control center or doctor, or going for treatment.			

## PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

- Harmful if swallowed.
- Causes moderate eye injury.
- · Avoid contact with eyes or 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.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

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.

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants, socks, shoes
- Waterproof gloves
- Protective eyewear (safety glasses)

## **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.
- Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Users should 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**

For terrestrial uses: 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 washwater or rinsate.

**Groundwater:** This chemical has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

**Surface Water:** This product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow groundwater. 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 mesosulfuron-methyl from runoff water and sediment. Runoff of this product will be greatly reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours

## **Endangered Species Advisory/Protection Requirements**

This product may have effects on federally listed threatened or endangered species or their critical habitat in some locations. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the county or parish in which you are applying the pesticide. To determine whether your county or parish has a Bulletin, and to obtain that Bulletin, consult http://www.epa.gov/espp/, or call 1-800-447-3813 no more than 6 months before using this product. Applicators must use Bulletins that are in effect in the month in which the pesticide will be applied. New Bulletins will generally be available from the above sources 6 months prior to their effective dates.

To avoid adverse effects on endangered dicot species, the following mitigation measures will be required where endangered species occur in Counties listed in the table below.

For ground applications, the applicator must:

- Apply when there is sustained wind away from native plant communities, OR
- Use low-pressure nozzles according to manufacturer's specifications that produce only coarse or very coarse droplets, OR
- Leave 50 foot untreated buffer between treatment area and native plant communities.

For aerial applications, the applicator must:

- Apply only when there is sustained wind away from native plant communities, OR
- Leave 350 foot untreated buffer between treatment area and native plants.

State	County	State	County	State	County
Idaho	Idaho Lewis Nez Perce	Oregon	Benton Clackamas Lane Linn Marion Polk Union	Washington	Asotin Chelan Cowlitz Lewis Lincoln Spokane Whitman
Montana	Flathead Lake		Wallowa Washington Yamhill	Wyoming	Laramie

## CONDITIONS OF SALE AND LIMITATIONS OF WARRANTY AND LIABILITY

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

**LIMITATIONS OF LIABILITY:** TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROP SCIENCE'S ELECTION, THE REPLACEMENT OF PRODUCT.

## **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.

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.

For Important crop safety information, refer to the Use Directions section under the specific crop.

OSPREY® Xtra Herbicide is not registered for use in Minnesota.

## AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), notification to workers, and restrictedentry 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 4 hours.

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

- Coveralls.
- Socks, shoes
- Waterproof gloves
- Protective evewear

#### PRODUCT INFORMATION

OSPREY Xtra Herbicide:

- Is intended for application as a foliar spray in fall-sown or winter wheat or fall-sown triticale for the control of annual grass and broadleaf weeds. Best weed control is obtained when OSPREY Xtra Herbicide is applied to young actively growing weeds in vigorously growing fall sown or winter wheat that will shade competitive weeds.
- Is absorbed through the foliage of plants, rapidly inhibiting growth of susceptible weeds. Visual symptoms progress from
  yellowing to necrosis of the growing point and eventual plant death. Abnormal environmental conditions (excess soil moisture or
  drought, extreme cold weather) can influence crop tolerance and herbicidal activity and may cause temporary damage to the
  crop or reduce levels of weed control. This may result in weed stunting, rather than weed death. However, weed competition
  will be greatly reduced, and should permit normal crop development. Crop response may occur when frost occurs shortly after
  application to actively growing wheat.
- Is rainfast 4 hours after application to most weed species. Rainfall within 4 hours may result in reduced weed control.

## **USE RESTRICTIONS**

- Do not apply OSPREY Xtra Herbicide to crops under sown with grass and legume species.
- Do not apply when wind causes drift to off-site vegetation as injury may occur. Small amounts of OSPREY Xtra Herbicide via drift or tank contamination can cause severe damage to crops other than wheat. Careful management of spray drift and tank cleanout is required.
- Buffer restrictions: A 25 foot buffer for ground applications, or a 200 foot buffer for aerial applications, must be maintained between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (including grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrub lands), sensitive freshwater habitats (including lakes, rivers, sloughs, ponds, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.
- Do not apply in combination with Dicamba containing products as grass control will be reduced.
- Do not apply OSPREY Xtra Herbicide through any type of irrigation system.
- Do not drain or rinse equipment near desirable vegetation.
- Do not harvest wheat for grain or straw within 60 days after application in Montana, North Dakota, or South Dakota; and within 70 days in all other states.
- Do not apply OSPREY Xtra Herbicide within 30 days of harvesting or grazing wheat or triticale forage, and 60 days for hay, grain, and straw.
- Do not apply OSPREY Xtra Herbicide in tank mixture with malathion, mancozeb, Di-Syston or methyl parathion as unacceptable crop phytotoxicity may occur.
- Only make applications of OSPREY Xtra Herbicide in California from emergence to 2-tiller wheat (Feekes 5).

- Do not apply more than 0.053 pounds of mefenpyr-diethyl per acre per year.
- Do not make more than one application of OSPREY Xtra Herbicide per year.
- Do not apply more than 4.75 oz/acre of OSPREY Xtra Herbicide in one fall sown or winter wheat or fall sown triticale growing season.

Refer to the specific use directions and restrictions in each Crop Subgroup table.

## **USE PRECAUTIONS**

- Applications should be made to actively growing weeds. Weed control may be reduced when weeds are under stress due to severe weather conditions, drought, very cold temperatures, etc. Weed control may be reduced if the herbicide application is made under dry, dusty conditions – especially in the wheel track areas.
- Applications of ammonium nitrogen fertilizer independent of those made with herbicides are commonly known as top-dress applications. Top-dress applications of ammonium nitrogen have been shown on occasion to result in transient leaf burn or stunting when applied within 14 days of an OSPREY Xtra Herbicide application.
- Avoid spray drift from treated areas. Refer to the Spray Drift section of this label for additional information.
- Non-target plants may be adversely affected if the pesticide is allowed to drift from areas of application. To prevent damage to crops and other desirable plants, read and follow all directions and precautions on this label before using.
- Environmental conditions which support vigorous growth of crop and weeds also result in highest herbicidal activity. Following
  application, symptoms of herbicidal activity may develop within several days. Speed of action depends on environmental
  conditions and increases with increasing temperature and moisture.
- Use adjuvants as specified on this label.

#### APPLICATION INSTRUCTIONS

Uniform, thorough spray coverage is important to achieve consistent weed control. The use of nozzles and spray pressure that deliver **MEDIUM** spray droplets as indicated in the nozzle manufacturer's catalogs and in accordance with ASAE Standard S-572.1 are highly recommended for optimum spray coverage and canopy penetration. Do not use flood-jet nozzles, controlled droplet application equipment, or cone nozzles. Use of certain nozzle types, as described in the **Spray Drift** section of this label, may result in reduced coverage and weed control.

## **Ground Application**

OSPREY Xtra Herbicide can be applied broadcast in 10 or more gallons of water per acre. For weed control in dense weed canopies, use 15 or more gallons of water per acre. Weed infestations should be treated before they become competitive with the crop.

The use of 80-degree or 110-degree flat-fan nozzles is highly recommended for optimum spray coverage and canopy penetration. Use a spray pressure of 35 to 40 pounds per square inch (measured at the nozzle). Use screens that are 50 mesh or larger.

Do not apply this product through any type of irrigation system.

## **Aerial Application**

Calibrate the spray equipment prior to use. OSPREY Xtra Herbicide should be applied in a minimum of 5 gallons of water per broadcast acre. The use of nozzles and spray pressure that deliver **MEDIUM** spray droplets as indicated in the nozzle manufacturer's catalogs and in accordance with ASAE Standard S-572 are highly recommended for optimum spray coverage and canopy penetration. DO NOT use raindrop nozzles. Aerial applications with this product should be made at a maximum height of 10 feet above the crop with low drift nozzles at a maximum pressure of 40 psi. Avoid application under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur.

Flagmen and loaders should avoid inhalation of spray mist and prolonged contact with skin.

See the Spray Drift section of this label for additional information on proper application of OSPREY Xtra Herbicide.

#### HERBICIDE RESISTANCE MANAGEMENT

For resistance management, OSPREY Xtra Herbicide is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to OSPREY Xtra Herbicide and other Group 2 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance management strategies should be followed.

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

- Rotate the use of OSPREY Xtra Herbicide or other Group 2 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 (weedcompetitive 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 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 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 Bayer CropScience at 1-866-99BAYER (1-866-992-2937). You can also contact your pesticide distributor or university extension specialist to report resistance.

## **SPRAY DRIFT**

#### **Ground Applications**

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the vegetative canopy.
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.
- Buffer restrictions: A 25 foot buffer for ground applications, or a 200 foot buffer for aerial applications, must be maintained between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (including grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrub lands), sensitive freshwater habitats (including lakes, rivers, sloughs, ponds, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

#### **Aerial Applications**

- Do not release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 10 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.

## **Ground Boom**

#### **Controlling Droplet Size**

- 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.

#### **Boom Height**

• Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

## **Aircraft**

#### **Controlling Droplet Size**

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

#### Release Height

 Higher release heights increase the potential for spray drift. When applying aerially to crops, do not release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.

## **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. Avoid applications during temperature inversions.

#### 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.

## Non-target Organism Advisory Statement

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 area. Protect the forage and habitat of non-target organisms by minimizing spray drift. For further guidance and instructions on how to minimize spray drift, refer to the Spray Drift section of this label.

## Windblown Soil Particles

OSPREY Xtra Herbicide has the potential to move off-site due to wind erosion. Soils that are subject to wind erosion usually have a high silt and/or fine to very fine sand fractions and low organic matter content. Other factors which can affects the movement of windblown soil include the intensity and direction of prevailing winds, vegetative cover, site slope, rainfall, and drainage patterns. Avoid applying OSPREY Xtra Herbicide if prevailing local conditions may be expected to result in off-site movement.

## MIXING, COMPATIBILITY TESTING AND TANK MIX PARTNERS

OSPREY Xtra Herbicide must be applied with clean and properly calibrated equipment. Prior to adding OSPREY Xtra Herbicide to the spray tank, ensure that the spray tank, filters, and nozzles have been thoroughly cleaned.

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.

## Compatibility

OSPREY Xtra Herbicide is physically and biologically compatible with many registered pesticides and fertilizers or micronutrients. However, there is potential for adverse chemical reactions. It is impossible to determine physical, biological, and plant compatibility for all scenarios that may be encountered; therefore, it is recommended that users determine the chemical, physical, biological and plant compatibility of such mixes prior to making applications on a broad commercial scale.

If OSPREY Xtra Herbicide is to be tank mixed with other products, compatibility should be tested prior to mixing. To test for compatibility, use a small container and mix a small amount (0.5 to 1 qt) of spray solution, combining all ingredients in the same ratio as the anticipated use. If any indications of physical incompatibility develop, do not use this mixture for spraying. Indications of incompatibility usually occur within 5-15 minutes after mixing. Read and follow the label of each tank mix product used for precautionary statements, directions for use, geographic and other restrictions.

### Order of Mixing

OSPREY Xtra Herbicide may be used with other recommended pesticides, fertilizers, and micronutrients. The proper mixing procedure for OSPREY Xtra Herbicide alone or in tank mix combinations with other pesticides is as follows:

- 1. Fill the tank 1/4 to 1/3 full of water.
- While agitating, add the required amount of OSPREY Xtra Herbicide.
- 3. Continue agitation until the OSPREY Xtra Herbicide is fully dispersed, at least 5 minutes.
- Once OSPREY Xtra Herbicide is fully dispersed, maintain agitation and continue filling tank with water. OSPREY Xtra Herbicide should be fully mixed with water before adding any other material
- 5. As the tank is filling, add the required amount of spray adjuvant and ammonium nitrogen fertilizer. Add additional pesticide tank mix partners, if desired.
- 6. Continue agitation during herbicide application to ensure uniform spray coverage. If the mixture is not continuously agitated, settling may occur. If settling occurs, thoroughly re-agitate spray solution for at least 10 minutes before application. Use spray solution within 24 hours after mixing.

**NOTE**: Do not use PVA packets in a tank mix with products that contain boron or release free chlorine. The resultant reaction of PVA and boron or free chlorine is a plastic that is not soluble in water or solvents.

#### **RE-SUSPENDING WG PRODUCTS IN SPRAY SOLUTION**

Like other Water Dispersible Granules or suspension concentrates (SCs), OSPREY Xtra Herbicide will settle if left standing without agitation. If the spray solution is allowed to settle for one hour or more, re-agitate the spray solution for a minimum of 15 minutes before application.

#### **Equipment Cleanup Procedures**

- 1. Drain the tank completely, and then wash out tank, boom and hoses with clean water. Drain again.
- 2. Half fill the tank with clean water and add ammonia (i.e., 3% domestic ammonia solution) at a dilution rate of 1% (i.e., 1 gallon of domestic ammonia for every 100 gallons of rinsate). Complete filling of the tank with water. Agitate/recirculate and flush through boom and hoses. Leave agitation on for 10 minutes. Drain tank completely.
- 3. Repeat step 2.
- 4. Remove nozzles and screens and soak them in a 1% ammonia solution. Inspect nozzles and screens and remove visible residues.
- 5. Flush tank, boom, and hoses with clean water.
- 6. Inspect tank for visible residues. If present, repeat step 2.

## **ROTATIONAL CROP RESTRICTIONS**

If a crop is not specified in the following table, conduct a field bioassay as described in the FIELD BIOASSAY section.

Crop	Rotational Interval
Wheat	3 Months
Triticale	
Soybean	
Rice	Bioassay and no less than 3 months
Cotton	Bioassay and no less than 4
Peanuts	months
Barley	9 Months
Sunflower	
Dry Beans	
Lentils	
Chickpea	
Peas	
Corn	
Sorghum	
Sugar Beets	10 Months
Alfalfa	
Flax	
Mustard	
Canary seed	
Oats, Spring	
Safflower	
Timothy	
Canola	
Leafy Vegetables	Bioassay and no less than 10 months
Potatoes	18 Months
All Other Crops	Bioassay

## Field Bioassay / Small Scale Bioassay

A field bioassay must be completed before rotating to a crop other than those specified in the "Rotational Crop Restrictions" section of this label. To conduct an effective field bioassay, grow strips of the crop(s) you intend to grow the following season in a field previously treated with Osprey Xtra Herbicide. The test strips should be placed in a controlled area and should include low areas and knolls, and include variations in soil such as type and pH. Crop response to the bioassay will determine if the crop(s) grown in the test strips can be grown safely in the areas previously treated with Osprey Xtra Herbicide.

## **WEEDS CONTROLLED & SUPPRESSED**

OSPREY Xtra Herbicide is a post-emergent herbicide with best results being obtained when applications are made to young actively growing weeds. See weed tables for appropriate application timing and weed size. Treat heavy weed infestations before they become competitive with the crop.

## **Rate Tables for Weed Control & Suppression**

Apply OSPREY Xtra Herbicide at a rate of 4.75 ounces per acre in fall sown or winter wheat or fall sown triticale. Weed control at selected weed heights and stages is shown in the following tables.

GRASS WEEDS				
Controlled		Suppressed		
	Growth Stage/Height	Common Name (Genus/Species)	Growth Stage/Height	
Common Name (Genus/Species)	4.75 oz/Acre OSPREY Xtra <mark>Herbicide</mark>		4.75 oz/Acre OSPREY Xtra <mark>Herbicide</mark>	
Blackgrass (Alopecurus myosuroides)	1-leaf to 2-tiller	Bluegrass, bulbous (Poa bulbosa)	1-leaf to prior to boot-stage	
Bluegrass, annual (Poa annua)	1-leaf to 2-tiller	Brome, soft (Bromus hordeaceus)	1-leaf to 2-tiller	
Bluegrass, roughstalk (Poa trivialis)	1-leaf to 2-tiller	Brome, ripgut (Bromus rigidus)	1-leaf to 2-tiller	
Bluegrass, Kentucky (Poa pratensis)	1-leaf to 2-tiller	Brome, downy (Bromus tectorum)	1-leaf to 2-tiller	
Canarygrass, hood,* (Phalaris paradoxa)	1-leaf to 2-tiller	Brome, Japanese (Bromus japonicus)	1-leaf to 2-tiller	
Canarygrass, littleseed,* (Phalaris minor)	1-leaf to 2-tiller	Cheat (Bromus secalinus)	1-leaf to 2-tiller	
Darnel, Persian,* (Lolium persicum)	1-leaf to 2-tiller	Hairy chess (Bromus commutatus)	1-leaf to 2-tiller	
Ryegrass, annual/Italian, (Lolium multiflorum)	1-leaf to 2-tiller	Fescue, Rattail (Vulpia myuros)	1-leaf to 2-tiller	
Wild oat,* (Avena fatua)	1-leaf to 2-tiller	Goatgrass, jointed (Aegilops cylindrica)	1-leaf to 2-tiller	
Windgrass,* (Apera spica-venti & Apera interrupta)	Up to 3 inches	Quackgrass (Elytrigia repens)	1-leaf to 2-tiller	
		Ventenata (Ventenata dubia)	1-leaf to 2-tiller	
*For fields with infestations of wild oat, windgrass, Persian darnel, or canarygrass only, 3.2 oz/A of OSPREY Xtra  Herbicide may be used.		Suppressed weeds will be stunted in growth and/or be reduced in number as compared to non-treated areas but performance may not be commercially acceptable.		

BROADLEAF WEEDS			
Controlled		Suppressed	
Common Name (Genus/Species)	Height	Common Name (Genus/Species)	Height
	4.75 oz/Acre OSPREY Xtra <mark>Herbicide</mark>		4.75 oz/Acre OSPREY Xtra <mark>Herbicide</mark>
Mustard, tumble (Sisymbrium altissimum)	1 - 4 inches	Chickweed, common (Stellaria media)	1 - 2 inches
Mustard, wild (Brassica kaber)	1 - 2 inches	Henbit (Lamium amplexicaule)	1 - 2 inches
Pennycress, field (Thlaspi arvense)	1 - 4 inches	Pigweed, redroot (Amaranthus retroflexus)	1 - 2 inches
Radish, wild (Raphanus raphanistrum)	1 - 2 inches	Suppressed weeds will be stunted in growth and/or be reduced in number as compared to non-treated areas bu performance may not be commercially acceptable.	
Volunteer Canola (Brassica napus & Brassica rapa)	1 - 2 inches		

## **SPECIFIC USE DIRECTIONS**

## **FALL-SOWN OR WINTER WHEAT & FALL-SOWN TRITICALE**

#### **Application Rate and Timing**

Apply OSPREY Xtra Herbicide to fall-sown or winter wheat or fall-sown triticale from emergence up to the jointing stage of growth.

#### Specific Regional Directions:

- In California, apply OSPREY Xtra Herbicide from emergence to 2-tiller wheat (Feekes 5).
- In Idaho, Oregon, Washington, and Montana, OSPREY Xtra Herbicide may be applied from emergence up to the 2-node stage
  of wheat and fall sown triticale.

## **Tank Mix Recommendations**

- OSPREY Xtra Herbicide may be tank mixed with the herbicides listed below to provide broad-spectrum weed control.
- When using OSPREY Xtra Herbicide in tank mix combinations, follow the precautions and directions of the most restrictive label.
- OSPREY Xtra Herbicide contains 0.091 pounds of mefenpyr-diethyl per pound of product.
- Applying the maximum-labeled rate of OSPREY Xtra Herbicide delivers 0.027 lbs of mefenpyr-diethyl per acre.
- It is recommended that herbicides not specifically listed on this label for tank mixing with OSPREY Xtra Herbicide be applied sequentially, 5 days prior to or 5 days after an OSPREY Xtra Herbicide treatment.
- Abnormally large temperature fluctuations between daytime highs and nighttime lows at the time of application may influence crop tolerance. Frost occurrence the night before or within two days after application may increase crop response. These effects can be quite marked when OSPREY Xtra Herbicide is tank mixed with EC (Emulsifiable Concentrate) partners. Consult with your Bayer CropScience representative for further guidance concerning tank mixes under these conditions.
- In Washington, Oregon and Idaho: When tank mixing OSPREY Xtra Herbicide with an EC broadleaf herbicide, reduce the NIS rate from 0.5% to 0.25%.
- Refer to the appropriate label of each tank mix partner for instructions regarding application rates required to control weeds not listed on this label.

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.

#### Possible Tank Mix Partners for Additional Weed Control

Affinity™/Affinity Broadspec	Express®	Olympus
Ally®/Ally® EXtra Herbicide	Finesse	Peak®
Amber®	Harmony®/Harmony® EXtra Herbicide XP	Starane™/Starane NXT/Starane Flex
Buctril® Herbicide <sup>1</sup>	Huskie <sup>®</sup>	Stinger™
Bronate Advanced® Herbicide1	MCP ester/MCP amine <sup>2</sup>	WideMatch
Curtail M <sup>3</sup>	Sentrallas™	

Consult appropriate label of each tank mix partner for exact application rates required to control weeds not listed on this label.

Tank mixes must be used in accordance with the most restrictive label limitations and precautions.

Follow label restrictions for MCPA application and wheat stage of growth. Increased crop response or reduced grass control may occur when adding MCP amine to OSPREY Xtra Herbicide.

#### **Tank Mixtures for Disease Control**

OSPREY Xtra Herbicide may be applied in combination with Stratego®, Tilt®, Priaxor™, Trivapro®, or Topsin® M 70WP fungicides for weed and disease control. Refer to the specific fungicide label for use directions, application rates, restrictions and a list of diseases controlled.

#### **Tank Mixtures for Insect Control**

OSPREY Xtra Herbicide may be applied with Baythroid XL, Warrior® Insecticide with Zeon Technology or Z-Cype 0.8 EC Insecticide. Refer to the specific insecticide label for use directions, application rates, restrictions and a list of insects controlled.

#### **Tank Mix Precautions**

Always follow the label instructions of the tank mix partner as well as OSPREY Xtra Herbicide. Check the compatibility of OSPREY Xtra Herbicide and the tank mix partner by mixing all components in the order specified in the *Order of Mixing* section, including adjuvants and water, into a small separate container in order to evaluate compatibility prior to adding them to the tank.

#### **Spray Additives**

OSPREY Xtra Herbicide is a water dispersible granule that does not include an adjuvant. A recommended adjuvant must be tank mixed with OSPREY Xtra Herbicide according to the guidelines as described in the *Order of Mixing* section.

Do not use additives that alter the spray solution below 6.0 pH. Best results are obtained at spray solution pH of 6.0 - 8.0.

Organosilicone-based surfactants or crop oil concentrate surfactants are not recommended for use with OSPREY Xtra Herbicide.

## Non-ionic Surfactant (NIS) + Ammonium Nitrogen Fertilizer (in water carrier solutions)

Use a non-ionic surfactant at a concentration of 0.5% v/v (2 qt per 100 gallons of spray solution) with ammonium nitrogen fertilizer. At least 80% of the surfactant product must be active non-ionic surfactant. Avoid products that do not accurately define their ingredients. Products must contain only EPA-exempt ingredients (40 CFR 1001).

Use a spray grade quality urea ammonium nitrogen fertilizer (20-0-0 to 32-0-0 at 1-2 qt/acre) or ammonium sulfate fertilizer (21-0-0-24 at 1.5-3 lbs/acre).

#### Fluid Fertilizer Carrier Solution Applications

OSPREY Xtra Herbicide provides consistent performance when applied with water as the spray carrier and a non-ionic surfactant is added to the spray solution. However, OSPREY Xtra Herbicide may be applied using a liquid nitrogen solution (28-0-0 or 30-0-0 or 32-0-0) as the spray carrier. The fertilizer spray solution should not exceed 15% liquid nitrogen (1.5 gallons of liquid nitrogen in 10 gallons of spray solution per acre). A non-ionic surfactant at a maximum concentration of 0.25% v/v (1 quart per 100 gallons of spray solution) is required in spray solutions containing liquid nitrogen carrier.

Due to the activity of fertilizer on the crop, temporary injury may result when liquid nitrogen is used as a spray carrier. Crop response symptoms due to the use of liquid nitrogen as a spray carrier may include discoloration, and leaf burn.

#### Fluid Fertilizer Carrier Solution Applications: Washington, Oregon and Idaho Only

Apply OSPREY Xtra Herbicide by ground only from emergence up to the second node of crop development in spray solutions containing liquid nitrogen carrier.

<sup>&</sup>lt;sup>1</sup> Equivalent bromoxynil products may be substituted in a tank mix for these products.

<sup>&</sup>lt;sup>2</sup> Various formulations of MCP Ester/Amine may be tank mixed at manufacturers labeled rates.

<sup>&</sup>lt;sup>3</sup> Curtail M may be tank mixed at manufacturers labels rates.

Use 3.2 – 4.75 ounces OSPREY Xtra Herbicide /acre by ground in tank mixture with 0.25% v/v non-ionic surfactant up to 3 gallons of liquid nitrogen (20-0-0 to 32-0-0) in a minimum 10-gallon mix per acre.

## STORAGE AND DISPOSAL

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

#### Pesticide storage

Store in a cool, dry place.

#### 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**

#### [Non-Seed Treatment Products in Non-Refillable Containers]

## Rigid, Non-refillable containers (equal to or less than 5 gallons)

Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. 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 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.

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.

Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill.

Rigid Non-refillable Containers that are too large to shake (i.e., with capacities greater than 5 gallons or 50 lbs)

Non-refillable container. Do not reuse or refill this container. Refer to Bottom Discharge IBC or Top Discharge IBC, Drums, Kegs information as follows.

#### Bottom Discharge IBC (e.g. - Schuetz Caged IBC or Snyder Square Stackable)

Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. To pressure rinse the container before final disposal, empty the remaining contents from the IBC into application equipment or mix tank. Raise the bottom of the IBC by 1.5 inches on the side which is opposite of the bottom discharge valve to promote more complete product removal. Completely remove the top lid of the IBC. Use water pressurized to at least 40 PSI to rinse all interior portions. Continuously pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve.

## Top Discharge IBC, Drums, Kegs (e.g.- Snyder 120 Next Gen, Bonar B120, Drums, Kegs)

Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. To triple rinse the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container at least 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this procedure two more times.

Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration.

## Non-Seed Treatment Products in Non-Refillable Fiber Drums with Liners

Non-refillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment, then offer for recycling if available or dispose of in a sanitary landfill or by incineration. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner.

#### Non-Seed Treatment Products in Non-Rigid, Non-refillable Containers

Non-refillable container. Do not reuse or refill this container. Completely empty container into application equipment. Then offer for recycling if available or dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

## [Non-Seed Treatment Products in Refillable Containers]

Refillable container. Refer to Bottom Discharge IBC or Top Discharge IBC, Drums, Kegs information as follows. Refill this container with pesticide only. Do not reuse this container for any other purpose. Contact your Ag retailer or Bayer CropScience for container return, disposal and recycling information.

### Bottom Discharge IBC (e.g. - Schuetz Caged IBC or Snyder Square Stackable)

Pressure rinsing 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 pressure rinse the container before final disposal, empty the remaining contents from the IBC into application equipment or mix tank. Raise the bottom of the IBC by 1.5 inches on the side which is opposite of the bottom discharge valve to promote more complete product removal. Completely remove the top lid of the IBC. Use water pressurized to at least 40 PSI to rinse all interior portions. Continuously pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve.

#### Top Discharge IBC, Drums, Kegs (e.g.- Snyder 120 Next Gen, Bonar B120, Drums, Kegs)

Triple rinsing 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 triple rinse the containers before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container at least 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this procedure two more times.

Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration.

End users are authorized to remove tamper evident cables as required to remove the product from the container unless the container is equipped with one way valves and refilling or returning is planned. If this is the case, end users are not authorized to remove tamper evident cables, one way valves or clean container.

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