

acceptance stamp
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264-666

02/06/2002

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

Mr. James A. Barron
Aventis CropSciences USA LP
2 Alexander Drive
Research Triangle Park, NC 27709

FEB 6 2002

Dear Mr. Barron:

Subject: Puma 1EC Herbicide
EPA Registration No. 264-666
Application and Letter Dated January 25, 2001,
Request To Amend Registration by Amending General
Use Directions

The proposed subject amendment to the registration of Puma 1EC Herbicide under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, has been reviewed and found to be acceptable, provided that you:

1. Add to the labeling for tank mixing with other pesticide products instructions for determining compatibility before tank mixing with possible tank-mix partner claimed on the proposed labeling for Puma 1EC Herbicide, under "Compatibility Testing with Tank Mix Partners" section.
2. Add the PHI restriction: "Do not harvest winter wheat until 70 days after application." to the "Special Notes" section under "Directions for the Control of Wild Oat in Winter Wheat in Texas and Oklahoma Only".
3. Submit one (1) copy of the final printed labeling before you release the product for shipment under the subject amended labeling.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA, section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

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

Sincerely yours,

Eugene M. Wilson

- for Joanne I. Miller
Product Manager (23)
Herbicide Branch
Registration Division (7505C)

Enclosure

PUMA® 1EC HERBICIDE

FOR SELECTIVE POSTEMERGENCE CONTROL OF GREEN AND YELLOW FOXTAIL (PIGEONGRASS), VOLUNTEER AND WILD MILLET SPECIES, BARNYARDGRASS, WILD OATS IN WHEAT (including Durum Wheat) and BARLEY

ACTIVE INGREDIENT: fenoxaprop-p-ethyl: (+)-ethyl 2-[4-[(6-chloro-2-benzoxazolyl)oxy]phenoxy]propanoate*	11.53%**
INERT INGREDIENTS:***	88.47%
TOTAL	100.00%

* Protected by U.S. Patent No. 5,254,527

** Equivalent to 1.0 pound of pure fenoxaprop-p-ethyl (d isomer) per gallon

*** Contains petroleum distillates

EPA Reg No. 264-666

EPA Est. No. 45639-CAN-001

KEEP OUT OF REACH OF CHILDREN

WARNING - AVISO

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

For **MEDICAL** And **TRANSPORTATION** Emergencies **ONLY** Call 24 Hours A Day 1-800-334-7577

For **PRODUCT USE** Information Call 1-888-AVENTIS (1-888-283-6847)

FIRST AID

IF SWALLOWED:	<ul style="list-style-type: none"> • Immediately call a poison control center or doctor for treatment advice. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Have person sip a glass of water if able to swallow. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
IF IN EYES:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.

For **MEDICAL** Emergencies Call 24 Hours A Day 1-800-334-7577.

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

NOTE TO PHYSICIAN: Possible mucosal damage may contraindicate the use of gastric lavage. May pose an aspiration pneumonia hazard.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING

Causes substantial but temporary eye injury or skin irritation. Harmful if swallowed. Do not get in eyes, on skin or on clothing. Wear coveralls worn over short-sleeved shirt and short pants, socks and chemical resistant footwear, goggles or face shield and chemical resistant gloves (such as Nitrile, Butyl, Neoprene and/or Barrier Laminate). Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining Personal Protective Equipment (PPE). If no such instructions for washables use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROL STATEMENT

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

USER SAFETY RECOMMENDATIONS

Users should:

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

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates or nontarget plants. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of equipment washwaters.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. Keep container tightly closed when not in use. Avoid cross contamination with other pesticides.

Do not store over 100°F or below 32°F. Do not use or store near heat or open flame.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law and may contaminate groundwater. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: [2½ Gallon Container Only]

Empty containers should be triple rinsed (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

RETURNABLE-REFILLABLE CONTAINERS AND BULK CONTAINERS

PUMA® 1EC Herbicide may be repackaged in returnable-refillable containers by Aventis CropScience or a registered establishment in accordance with a valid Aventis CropScience Bulk Delivery and Refilling Agreement. After use, return the container to the point of purchase or designated locations. This container must only be refilled with PUMA® 1EC Herbicide. DO NOT REUSE THE CONTAINER FOR ANY OTHER PURPOSE. Prior to refilling, inspect thoroughly for damage such as cracks, punctures, abrasions and damaged or worn out threads on closure devices. Do not refill or transport damaged or leaking containers. Check for leaks after refilling and before transportation. If the container is not being refilled, return it to the point of purchase. If not refilled or returned to the authorized repackaging facility, triple rinse emptied container and offer for recycling or reconditioning, or dispose of in a manner approved by state and local authorities.

GENERAL INFORMATION

PUMA® 1EC Herbicide is a postemergence herbicide for the control of green and yellow foxtail (pigeongrass), volunteer and wild millet species, barnyardgrass and wild oats in wheat (including durum wheat) and barley.

DIRECTIONS FOR USE

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

Do not use this product until you have read the entire label. 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.

AGRICULTURAL USE REQUIREMENTS

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

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

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, wear: coveralls over long-sleeved shirt and long pants; socks and chemical resistant footwear. Wear goggles or face shield, and chemical resistant gloves (such as nitrile, butyl, neoprene, and/or barrier laminate).

APPLICATION INFORMATION

Ground Application: DO NOT apply when winds are gusty, or when conditions will favor movement of spray particles off the desired spray target. To avoid drift and ensure consistent weed control, apply PUMA® 1EC Herbicide with the spray boom as low as possible while maintaining a uniform spray pattern. Apply a minimum of 10 gallons of spray solution per acre, using a recommended spray pressure of 40 psi with flat-fan nozzle tips spaced 10 to

20 inches apart across the boom. Ground speed for application should not exceed 10 mph. To get uniform spray coverage, use nozzles to provide 200 to 350 micron size droplets. DO NOT apply with hollow cone type nozzles or other nozzles that produce a fine droplet spray. Under dense weed populations or adverse growing conditions, high spray volume (15 to 20 gpa) is required for best weed control.

Aerial Application: Calibrate the spray equipment prior to use. PUMA® 1EC Herbicide should be applied in a minimum of 5 gallons of water per broadcast acre. To get uniform spray coverage, use nozzles to provide 200 to 350 micron size droplets. 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.

INFORMATION ON HERBICIDE TOLERANT WEEDS

Repeated use of the same herbicide or related herbicides may result in rare, naturally tolerant weeds multiplying to economic infestations. In areas with consistent use of the same herbicide or herbicide mode-of-action, crop rotation and application of alternative mode of action herbicides are encouraged to prevent and/or reduce weed tolerance. For further information, contact an Aventis CropScience representative or your local or state extension service

TIMING OF APPLICATION

Wheat

Apply PUMA® 1EC Herbicide to the crop from emergence up to 60 days prior to harvesting wheat in the states of Minnesota, Montana, North Dakota, and South Dakota. DO NOT apply PUMA® 1EC Herbicide on wheat within 70 days of harvest in other states.

Barley

Apply PUMA® 1EC Herbicide to the crop from emergence up to the 5-leaf stage. Do not spray barley after jointing begins. DO NOT apply PUMA® 1EC Herbicide within 57 days of harvesting barley. Under cool, wet conditions, tank mixing MCPA Ester (at recommended rates) with PUMA® 1EC Herbicide will further improve crop safety in barley.

PUMA® 1EC Herbicide will control susceptible grass weeds in the 1-leaf (fully expanded) to 2-tiller stage of growth. Blackgrass can be controlled over a wide range of growth stages, from the 1-leaf (fully expanded) through the advanced tillering stage. Windgrass will be controlled from emergence to a height of 3 inches. Applications should be made to young, vigorously growing weeds.

PUMA® 1EC Herbicide has no effect via the soil and will only control emerged grass weeds. PUMA® 1EC Herbicide, when applied as recommended, controls the annual grass weeds listed in Table 1 below at rates indicated.

**Table 1.
RATE RECOMMENDATION CHART
for Grass Weed Control**

Grass Weed Species, Common Name	Grass Weed Species, Scientific Name	Rate, Pints per Acre (Fluid Ounces/Acre)	Tankmix Table
Green foxtail	<i>Setaria viridis</i>	0.33 (5.3)	See Table 2
Foxtail millets (volunteer), common, Siberian, Hungarian, German millet	<i>Setaria italica</i>		
Volunteer corn	<i>Zea mays</i>		
Yellow foxtail	<i>Setaria lutescens</i>	0.40 (6.4)	See Table 3
Proso millet (volunteer, wild)	<i>Panicum iliaceum</i>		
Barnyardgrass	<i>Echinochloa crus-galli</i>	0.66 (10.6)	See Table 4
Blackgrass	<i>Alopecurus myosuroides</i>		
Hooded canarygrass	<i>Phalaris paradoxa</i>		
Littleseed canarygrass	<i>Phalaris minor</i>		
Windgrass	<i>Apera interrupta</i>		
Wild oat	<i>Avena fatua</i>		
Field sandbur	<i>Cenchrus incertus</i>		
Woolly cupgrass	<i>Erichloa villosa</i>		

MOISTURE EFFECTS ON ANNUAL GRASS WEED CONTROL

The following conditions will result in optimum wild oat control:

1. Adequate soil moisture which occurs under normal rainfall in wheat or barley following a fallow year.
2. Temperatures lower than 85° F for several days prior to application.

Low soil moisture levels, low humidity, and high temperatures might slightly reduce the wild oat control provided by PUMA® 1EC Herbicide.

Foxtail (pigeongrass) can be controlled over a wide range of soil moisture conditions. Foxtail under drought stress will exhibit rolled leaves ("onion leaf") and should not be sprayed as poor control may result. Apply PUMA® 1EC Herbicide when conditions improve.

TANK MIX COMBINATIONS

When tank mixing, read and follow the precautionary statements, directions for use, weeds controlled, geographic, and other restrictions on the labeling of each tank mix partner used. Use in accordance with the most restrictive label limitations and precautions. Tank mix partners not recommended on this label may cause reduced annual grass control (antagonism) or crop injury. Aventis CropScience recommends that PUMA® 1EC should not be tank mixed with liquid fertilizers unless specifically recommended on this label.

Insecticides

PUMA® 1EC Herbicide may be tank mixed with either Furadan® 4F, Sevin® XLR PLUS, or Warrior® insecticides if timing for insect and weed control are proper. **Do not tank mix with malathion as wild oat control will be reduced.**

Fungicides

Fungicides such as mancozeb (Dithane F-45®; Manzate® 75DF; Penncozeb® 75DF), Tilt®, Benlate®, Stratego® without additional adjuvant, or Topsin® M can be tank mixed with PUMA® 1EC Herbicide when timing for application of each tank mix partner is the same for the use site.

Broadleaf Herbicides

Additional broadleaf weed control can be obtained by tank mixing PUMA® 1EC Herbicide with herbicides listed in Tables 2, 3, or 4, when timing for application of each tank mix partner is the same for the use site. Always check the tank mix partner label to determine if the addition of a surfactant is required. **Do not add a surfactant when tank mixing PUMA® 1EC with broadleaf herbicides in barley.**

Tank Mixes for Green Foxtail, Foxtail Millets and Volunteer Corn Control

The tank mix partners listed in Table 2 may be used for the control of green foxtail, foxtail millets, and volunteer corn with PUMA® 1 EC at a rate of 0.33 pt/A. If wild oat or yellow foxtail is the primary weed, see sections addressing tank mixes for these weeds.

Table 2.
Green Foxtail, Foxtail Millets, Volunteer Corn

Herbicides for Broadleaf Weed Control	Rate	Range of Dosages: *** 0.50 - 0.75 pt/A of MCPA Ester (4 lb/gal - formulation) may be added as an option
Ally® 60DF	0.10 oz/A	Yes
Amber® 75DF	0.28 oz/A	Yes
Banvel® (for use on wheat only) (4 lb/gal)	2.00 fl oz/A	Yes
Banvel® SGF (for use on wheat only) (2 lb/gal)	4.00 fl oz/A	Yes
Bronate Advanced™ Herbicide */**	0.80 pt/A	No
Bronate Advanced™ + Starane™	0.60 - 0.80 pt/A + 0.25 - 0.33 pt/A	No
Buctril® Herbicide */**	1.00 pt/A	Yes
Clarity® (for use on wheat only)	2.00 fl oz/A	Yes
Curtail™ M	1.75 pt/A	No
Curtail™ M + Clarity® (for use on wheat only)	1.75 pt/A + 2.00 oz/A	No
Curtail™ M + Starane™	1.75 pt/A + up to 0.66 pt/A	No
Express® 75DF	1/6 oz/A	Yes
Finesse	0.28 oz/A	Yes
Harmony® Extra 75DF	0.30 - 0.40 oz/A	Yes
Harmony® Extra + Starane™	0.30 oz/A + up to 0.66 pt/A	No
Harmony® GT	0.30 - 0.50 oz/A	Yes
Harmony® GT + Starane™	0.30 oz/A + up to 0.66 pt/A	No
MCPA Ester (4 lb/gal) ***	0.75 pt/A	No
Peak®	0.50 oz/A	Yes
Rave®	4.00 oz/A	No
Starane™	Up to 0.66 pt/A	Yes
Stinger™	0.25 - 0.33 pt/A	Yes
Tordon™ 22K (not for use on durum wheat or barley)	1.00 - 1.50 fl oz/A	Yes

* Equivalent bromoxynil products may be substituted in a tank mix for these products.

** Do not tankmix PUMA® 1EC with either Buctril® Herbicide or Bronate Advanced™ Herbicide on two row malting barley.

*** 4 lb/gal formulation of MCPA Ester. Other formulations of MCPA Ester may be used providing 0.25 - .375 lb ai/ A of MCPA Ester is used

Tank Mixes for Yellow and Green Foxtail, Wild and Volunteer Proso Millets Control

The tank mix partners listed in Table 3 below are approved for the control of yellow and green foxtail and/or wild and volunteer proso millets using PUMA® 1 EC at a rate of 0.4 pt/A. If wild oat is the primary weed, see the section addressing tank mixes for wild oat control.

Table 3.
Yellow and Green Foxtail, Wild & Volunteer Proso Millets

Herbicides for Broadleaf Weed Control	Rate	Range of Dosages: *** 0.50 - 0.75 pt/A of MCPA Ester (4 lb/gal – formulation) may be added as an option
Banvel® (for use on wheat only) (4 lb/gal)	2.00 fl oz/A	Yes
Banvel® SGF (for use on wheat only) (2 lb/gal)	4.00 fl oz/A	Yes
Clarity® (for use on wheat only)	2.00 fl oz/A	Yes
Curtail™ M	1.75 pt/A	No
Curtail™ M + Clarity® (for use on wheat only)	1.75 pt/A + 2.00 oz/A	No
Curtail™ M + Starane™	1.75 pt/A + up to 0.66 pt/A	No
MCPA Ester (4 lb/gal)	0.75 pt/A	No
Peak®	0.50 oz/A	Yes
Starane™	Up to 0.66 pt/A	Yes
Stinger™	0.25 – 0.33 pt/A	Yes
Tordon™ 22K (not for use on durum wheat or barley)	1.00 – 1.50 fl oz/A	Yes

*** 4 lb/gal formulation of MCPA Ester. Other formulations of MCPA Ester may be used providing 0.25 – 0.375 lb a.i./A of MCPA Ester is used.

Tank Mixes for Wild Oats, Green and Yellow Foxtail, Blackgrass and Barnyardgrass Control

The tank mix partners listed in Table 4, below are approved for the control of wild oat, green and yellow foxtail, blackgrass, and barnyardgrass using PUMA® 1 EC at a rate of 0.66 pt/A.

Table 4.
Wild Oat, Green and Yellow Foxtail, Blackgrass and Barnyardgrass

Herbicides for Broadleaf Weed Control	Rate	Range of Dosages: *** 0.50 - 0.75 pt/A of MCPA Ester (4 lb/gal - formulation) may be added as an option
Bronate Advanced™ Herbicide */**	0.80 pt/A	No
Bronate Advanced™ + Starane™	0.60 - 0.80 pt/A + 0.25 - 0.33 pt/A	No
Buctril® Herbicide */**	1.00 pt/A	Yes
Buctril® Herbicide + Starane™	1.00 pt/A + 0.25 - 0.33 pt/A	No
Curtail™ M	1.75 pt/A	No
Curtail™ M + Starane™	1.75 pt/A + up to 0.66 pt/A	No
Harmony® Extra 75DF	0.30 - 0.40 oz/A	No
Harmony® Extra 75DF + Starane™	0.30 oz/A + up to 0.66 pt/A	No
Harmony® GT	0.30 - 0.50 oz/A	Yes
Harmony® GT + Starane™	0.30 oz/A + up to 0.66 pt/A	No
MCPA Ester (4 lb/gal) ***	0.75 pt/A	No
Peak®	0.50 oz/A	Yes
Peak® + Starane™	0.50 oz/A + up to 0.66 pt/A	No
Starane™	Up to 0.66 pt/A	Yes
Stinger™	0.25 - 0.33 pt/A	Yes
Tordon™ 22K (not for use on durum wheat or barley)	1.00 - 1.50 fl oz/A	Yes

* Equivalent bromoxynil products may be substituted in a tank mix for these products.

** Do not tank mix PUMA® 1EC with either Buctril® Herbicide or Bronate Advanced™ Herbicide on two row malting barley

*** 4 lb/gal formulation of MCPA Ester. Other formulations of MCPA Ester may be used providing 0.25 - 0.375 lb a.i./A of MCPA Ester is used.

NOTE: When tank mixing PUMA® 1EC Herbicide with the recommended herbicides above, do not exceed the labeled use rate shown for each tank mix partner, as reduced annual grass control may occur.

For the Control of Wild Oats and Blackgrass in Winter Wheat in the States of Washington, Oregon and Northern Idaho

In winter wheat only, liquid nitrogen fertilizer may be tank mixed with PUMA® 1EC alone or with PUMA® 1EC and recommended broadleaf tank mixes. Only 28 - 32% liquid nitrogen fertilizer may be added. Do not exceed 5 gallons/acre of liquid nitrogen for ground applications or 50% of the total spray volume by air.

In winter wheat only, the following broadleaf herbicides may be tank mixed with PUMA® 1EC Herbicide at the 0.66 pint per acre rate when the target grass weeds are wild oat and/or blackgrass.

**Table 5.
Wild Oats and Blackgrass in Winter Wheat in the states of Montana, Oregon, Northern Idaho and Washington**

Herbicides for Broadleaf Weed Control	Rate
Ally	up to 0.10 oz /A
Bronate Advanced™ *	up to 1.20 pt/A
Bronate Advanced™ + Harmony® Extra 75 DF *	up to 0.80 pt/A + up to 0.33 oz/A
Bronate Advanced™ + Harmony® GT *	up to 0.80 pt/A + up to 0.50 oz/A
Bronate Advanced™ + Peak® *	up to 0.80 pt/A + up to 0.50 oz/A
Bronate Advanced™ + Starane™ *	up to 0.80 pt/A + up to 0.50 pt/A
Buctril® Herbicide *	up to 1.50 pt/A
Buctril® Herbicide + Ally® *	up to 1.00 pt/A + up to 0.10 oz/A
Buctril® Herbicide + Express® *	up to 1.00 pt/A + up to 1/6 oz/A
Buctril® Herbicide + Harmony® Extra 75 DF *	up to 1.00 pt/A + up to 0.40 oz/A
Buctril® Herbicide + Harmony® GT *	up to 1.00 pt/A + up to 0.50 oz/A
Buctril® Herbicide + Peak® *	up to 1.00 pt/A + up to 0.50 oz/A
Buctril® Herbicide + Starane™ *	up to 1.00 pt/A + up to 0.50 pt/A
Curtail™ M + Harmony® GT	up to 1.75 pt/A + up to 0.50 oz/A
Express® 75DF	up to 1/6 oz/A
Harmony® Extra + Starane™	up to 0.40 oz/A + up to 0.66 pt/A
Harmony® GT + Starane™	up to 0.50 oz/A + up to 0.66 pt/A
MCPA Ester + Ally® **	up to 0.75 pt/A + up to 0.10 oz/A
MCPA Ester + Express® **	up to 0.75 pt/A + up to 1/6 oz/A
MCPA Ester + Harmony® Extra 75 DF **	up to 0.75 pt/A + up to 0.40 oz/A
MCPA Ester + Harmony® GT **	up to 0.75 pt/A + up to 0.50 oz/A
MCPA Ester + Harmony® GT + Starane™ **	up to 0.75 pt/A + up to 0.50 oz/A + up to 0.50 pt/A
MCPA Ester + Peak® **	up to 0.75 pt/A + up to 0.50 oz/A
MCPA Ester + Peak® + Starane™ **	up to 0.75 pt/A + up to 0.50 oz/A + up to 0.50 pt/A

* Equivalent bromoxynil products may be substituted in a tank mix for these products.

** 4 lb/gal formulation of MCPA Ester. Other formulations of MCPA Ester may be used providing up to 0.375 lb ai/ A of MCPA Ester is used.

NOTE: When tank mixing PUMA® 1EC Herbicide with the recommended herbicides above, do not exceed the labeled use rate shown for each tank mix partner, as reduced annual grass control may occur.

Directions for the Control of Wild Oat, Littleseed Canarygrass, and Hooded Canarygrass in Wheat and Barley in California Only

PUMA® 1EC Herbicide Application Rates

Grasses (2-leaf to 2-tiller stage)	Broadcast Rate in Pints/Acre (Fluid Ounces/Acre)
Wild oat	
Hooded canarygrass	0.66
Littleseed canarygrass	(10.6)

Notes: In California, PUMA® 1EC Herbicide may be tank mixed with Buctril® Herbicide. Follow the label directions, use restrictions and precautions for use of Buctril® Herbicide, when tank mixing it with PUMA® 1EC Herbicide.

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Directions for the Control of Wild Oat in Winter Wheat in Texas and Oklahoma Only

PUMA® 1EC Herbicide Application Rates

Grasses (2-leaf to 2-tiller stage)	Broadcast Rate in Pints/Acre (Fluid Ounces/Acre)
Wild oat	0.66 (10.6)

SPECIAL NOTES

1. Rainfall within 1 hour of an application may cause a reduction in weed control.
2. DO NOT make more than 1 application in a growing season; DO NOT apply more than 0.66 pints per acre per growing season.
3. DO NOT apply this product through any irrigation system.
4. Tank mix partners not recommended on this label may cause reduced annual grass control or crop injury. It is recommended not to apply any pesticides other than those listed on this label within 5 days of a PUMA® 1EC Herbicide application (split application).
5. Due to reduced weed control, do not tank mix with other herbicides or liquid fertilizers unless specifically recommended on this label.
6. DO NOT use when there is hazard from drifting mists. Coarse sprays are less likely to drift.

IMPORTANT: READ BEFORE USE

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 should 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 Aventis CropScience. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: AVENTIS 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 Aventis CropScience is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. Aventis CropScience disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

LIMITATIONS OF LIABILITY: 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 AVENTIS CROPSCIENCE'S ELECTION, THE REPLACEMENT OF PRODUCT.

Net Contents: 2.5 gallons, 15 gallons, 60 gallons, 120 gallons and returnable and refillable containers 15 and 30 gallons, and bulk

Puma, Buctril, Bronate, and Sevin are registered trademarks and Bronate Advanced is a trademark of the Aventis Group.

Stratego is a trademark of Bayer Corp.

Ally, Express, Harmony, Benlate and Manzate are registered trademarks of E.I. du Pont de Nemours Company.

Banvel, and Clarity are registered trademarks of BASF Corporation.

Dithane F45 is a registered trademark and Stinger, Curtail, Starane and Tordon are trademarks of Dow AgroSciences L.L.C.

Furadan is a registered trademark of FMC Corporation.

Amber, Peak, Rave, Tilt and Warrior are registered trademarks of Syngenta Crop Protection, Inc.

Topsin and Penncozeb are registered trademarks of Elf Atochem North America, Inc.

Aventis CropScience USA LP

P.O. Box 12014, 2 T.W. Alexander Drive

Research Triangle Park, North Carolina 27709

PUMA 1EC Herbicide (PENDING) Submitted 1/24/02

**ACCEPTED
with COMMENTS
In EPA Letter Dated**

FEB 6 2002

**Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.**

264-666