# **ATRAZINE 90W**

# **AGRICULTURAL HERBICIDE**

Wettable Powder for Selective Weed Control in Corn and Triazine-tolerant Canola

<b>GUARANTEE:</b>	atrazine	88.15%
	related triazines	1.85%

# READ THE LABEL BEFORE USING

REGISTRATION NO.: 14616 PEST CONTROL PRODUCTS ACT

#### NET CONTENTS: 2.27 kg

Makhteshim-Agan of North America Inc. 551 Fifth Avenue, Suite 1100 New York, NY 10176 GROUP 5 HERBICIDE

#### **PRECAUTIONS:**

**KEEP OUT OF REACH OF CHILDREN.** Harmful if swallowed. Avoid contact with eyes or prolonged contact with skin. Avoid inhalation of vapors or spray mist. When applying the product wear a coverall over a long-sleeved shirt and pants and chemical resistant boots. Additionally, wear chemical resistant gloves, when servicing the sprayer and during cleanup. Persons involved in mixing/loading operations should wear the previously mentioned clothing, chemical resistant gloves and a face shield.

Do not eat drink or smoke when using product. Wear freshly laundered clothes daily. Wash hands and face before eating, drinking, smoking or using the toilet.. Store and wash all protective clothing separately from household laundry. Wash in detergent and hot water before reuse. This product should not be mixed/loaded within 30 meters of all wells, lakes, streams, ponds or sink holes in order to avoid the potential of well or surface water contamination. Do not use this product within 10 meters of the above mentioned water sources. Avoid contamination of food and feed, domestic or irrigation water supplies, lakes, streams and ponds. Do not apply this product through any type of irrigation system. Do not reuse container; destroy when empty. Use only on labeled crops. Do not apply at rates greater than 1.7 kg/ha, except for weed control in low bush blueberries.

If this pest control product is to be used on a commodity that may be exported to the U. S. and you require information on acceptable residue levels in the U. S. contact 1 866 375-4648 or <u>www.cropro.org</u>.

# STORE IN A DRY PLACE

CAUTION: Do not graze, or cut for fodder, treated immature crops. (In the case of corn, immature means before ear emergence). there are not sufficient data to support such use. DO NOT APPLY BY AIR

# FIRST AID:

If swallowed, IMMEDIATELY give large quantities of water and INDUCE VOMITING. Never give anything by mouth to an unconscious person. Obtain medical attention IMMEDIATELY, or contact a Poison Control Centre IMMEDIATELY. If in eyes, splash repeatedly with large amounts of clean water. Obtain medical attention IMMEDIATELY. If on skin, remove contaminated clothing immediately. Wash skin thoroughly with soap and water. If irritation occurs, obtain medical attention or contact a poison control centre IMMEDIATELY. Take container, label or product name and Pest Control Product Registration Number with you, when seeking medical attention.

#### TOXICOLOGICAL INFORMATION: Treat symptomatically.

#### **DISPOSAL:**

- 1. Empty bag thoroughly into spray tank.
- 2. Follow provincial instructions for any required additional cleaning of the container prior to its disposal.
- 3. Make the empty bag unsuitable for further use.
- 4. Dispose of the bag in accordance with provincial requirements.
- 5. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

# **GENERAL INFORMATION:**

#### **RESISTANCE-MANAGEMENT RECOMMENDATIONS**

For resistance management, Atrazine 90 W is a Group 5 herbicide. Any weed population may contain or develop plants naturally resistant to Atrazine 90 W and other Group 5 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed. To delay herbicide resistance:

- Where possible, rotate the use of Atrazine 90 W or other Group 5 herbicides with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group when such use is permitted.
- Herbicide use should be based on an IPM program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical), cultural, biological and other chemical control practices.
- Monitor treated weed populations for resistance development.
- Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment and planting clean seed.
- Contact your local extension specialist or certified crop advisors for any 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 Makhteshim-Agan at 1 212 661-9800.

Atrazine 90W provides selective control of broadleaf weeds and wild oats in corn and certain broadleaf weeds in triazine tolerant canola. This product may be applied before or after weeds emerge.

#### WEEDS CONTROLLED:

Wormseed Mustard	Wild Buckwheat
Wild Mustard	Lamb's-quarters
Common Purslane	Redroot Pigweed
Ragweed	Volunteer Clover
Smartweed	Wild Oats
Lady's-Thumb	

**NOTE**: Some naturally occurring triazine tolerant biotypes of the above listed broadleaf weeds may not be controlled by atrazine alone. Refer to specific recommendations in the tank mix section of this label or consult your local agricultural authority.

**TIMING OF APPLICATION**: Atrazine 90W can be applied, Preplant incorporated (PPI), Pre-emergence, Post-emergence in either conventional tillage or minimum tillage programs. If weeds escape a PPI or pre-emergence application, an additional post-emergence application may be necessary. Do not make more than one reapplication per year and only in the spring.

# LIQUID FERTILIZERS (CORN):

For pre-plant incorporated and pre-emergence application, nitrogen solutions or complete liquid fertilizers may replace the water as a carrier.

**CAUTION:** Do not apply after the corn has emerged as there is danger of liquid fertilizer causing crop injury. If there is any doubt about compatibility, check by mixing a small amount of Atrazine 90W with the liquid fertilizer.

# DRY BULK FERTILIZERS:

Many dry bulk granular fertilizers may be impregnated with Atrazine 90W or Atrazine 90W plus Dual Magnum or Dual II Magnum as a preplant incorporated application to control weeds in corn. Prepare the herbicide/fertilizer mixtures by using any commercially used dry bulk fertilizer blender. Spray the herbicide(s) uniformly onto the fertilizer. If the herbicide/fertilizer mixture is too wet, the use of a highly absorptive powder such as Microcel E, diatomaceous earth or finely powdered clay is recommended. Generally less than 2% by weight of absorptive powder will be needed.

For best results, apply Atrazine 90W or Atrazine 90W plus Dual Magnum or Dual II Magnum/Fertilizer mixtures uniformly to the soil with properly calibrated equipment immediately after blending and incorporate according to label directions.

**NOTE:** Apply a minimum of 225 kg per hectare of dry granular fertilizer impregnated with recommended rates of Atrazine 90W or Atrazine 90W plus Dual Magnum or Dual II Magnum tank mixtures. Do not impregnate Atrazine 90W or Atrazine 90W plus Dual Magnum or Dual II Magnum or Dual II Magnum onto nitrate fertilizers, super phosphates or limestone.

Atrazine 90W In Oil-Water Emulsions (Post-Emergent Treatment): The post-emergent activity of Atrazine 90W is increased when applied in an oil-water emulsion. This combination produces satisfactory control of seedling broadleaf weeds up to 10 cm high. Always apply Atrazine 90W before the corn reaches 30 cm in height in order to favor degradation during the growing season. The combination of Atrazine 90W in oil-water emulsions has been particularly useful following periods of hot, dry weather, when weeds are more difficult to kill.

**NOTE:** Some injury to corn can occur with Atrazine 90W applied in oil-water emulsions, especially during cold, backward weather. There is no risk of corn injury when Atrazine 90W is applied in water alone. Do not add hormone-type weed killers such as 2,4-D, 2,4-DB, MCPA, MCPB and dicamba, or other herbicides, to combinations of oil-water emulsions and Atrazine 90W. The risk of damage to other vegetation from spray drift is increased with the use of Atrazine 90W in an oil-water emulsion.

## DIRECTIONS FOR USE:

#### MIXING AND SPRAYING INSTRUCTIONS:

This product should not be mixed/loaded, or used within 30 metres of all wells, lakes, streams, ponds or sink holes in order to avoid the potential of well or surface water contamination. Where possible, use a nurse tank to fill your spray tank.

Mixing steps:

- (1) Spray equipment should be thoroughly flushed with clean water before mixing Atrazine 90W.
- (2) Fill spray tank 1/2 full with carrier. Engage gentle agitation.
- (3) Pour in the required amount of Atrazine 90W and/or wettable powder or wettable granule herbicides.
- (4) Fill tank 3/4 full and add liquid flowable herbicide if applicable.
- (5) Fill tank 9/10 full and add emulsifiable concentrate, liquid solutions or emulsifiable oils, as required. If adding emulsifiable oils, avoid excessive agitation to prevent mixture from forming a grease-like mass and settling out.
- (6) Finish filling tank. Maintain gentle agitation during mixing and spraying operations.
- (7) Do not let stand without agitation.
- (8) When using a mixture of Atrazine 90W and emulsifiable oil, clean tank immediately after use with a strong detergent and clean water.

Spray pressure 200 - 300 kPa, - Spray volume - minimum 150 litres per hectare - Use 16 mesh suction screen. 50 mesh screens elsewhere on sprayer

APPLICATION INFORMATION – CORN FOR ATRAZINE 90W ALONE, PPI AND PRE-EMERGENCE TREATMENTS:			
SOIL TYPE	RATE PF APPLICATION/HA		
light and sandy loams and clays	1.1 -1.7* kg of ATRAZINE 90W 1.7 kg of ATRAZINE 90W		

\*Use higher rate for heavy weed infestations.

Rainfall is required within 10 days or a shallow cultivation will be necessary. Atrazine 90W may be applied as an overall spray or as a band application. USE PROPORTIONATELY LESS PRODUCT FOR BAND APPLICATION.

PREPLANT INCORPORATED TANK MIXES (Silage, Field, Sweet Corn)		
WEEDS CONTROLLED PRODUCT RATES		
Broadleaf Weeds and Wild Oats	1.1-1.7 kg/ha ATRAZINE 90W	
Yellow Nutsedge, Annual Grasses, and Broadleaf Weeds	1.1 - 1.7 kg/ha + 1.25-1.75 L/ha ATRAZINE 90W Dual Magnum or Dual II Magnum	
Annual Grasses And Broadleaf Weeds	1.2 - 1.5 kg/ha + 4.4 - 5.5 L/ha ATRAZINE 90W BLADEX Liquid	

If tillage is intended after spraying, do not incorporate Atrazine 90W deeper than 5.0 cm. CONSULT TANK MIX PARTNER LABELS FOR COMPLETE INSTRUCTIONS AND RESTRICTIONS

PRE-EMERGENT TANK MIXES (Silage, Field, Sweet Corn):		
WEEDS CONTROLLED	PRODUCT RATES	
Broadleaf Weeds and Wild Oats	1.1 - 1.7 kg/ha ATRAZINE 90W	
Broadleaf Weeds, Wild Oats and Triazine Tolerant Weeds*	1.1 - 1.7 kg/ha + 1.25 L/ha ATRAZINE 90W BANVEL 480 (1, 2)	
Annual Grasses and Broadleaf Weeds	1.1 - 1.7 kg/ha + 1.25 – 1.75 L/ha ATRAZINE 90W Dual Magnum or Dual II Magnum	
Annual Grasses, Broadleaf Weeds Triazine Tolerant Weeds*	1.1 - 1.7 kg/ha + 1.25 - 1.75 L/ha ATRAZINE 90W Dual Magnum or Dual II Magnum and 1.25 L/ha BANVEL 480 (1, 2)	
Annual Grasses And Broadleaf Weeds	1.4 - 1.7 kg/ha + 3.75 - 4.75 L/ha ATRAZINE 90W BLADEX Liquid	

\*This tank mix will control triazine tolerant forms of the weeds listed on the Banvel label.

CONSULT TANK-MIX PARTNER LABELS FOR COMPLETE INSTRUCTIONS AND RESTRICTIONS.

A firm, level seedbed free from large clumps and surface trash must be prepared to ensure uniform weed control. Do not use Atrazine 90W on loose and rough seedbeds.

- 1) DO NOT APPLY TO SWEET CORN.
- 2) Eastern Canada only.

POST-EMERGENT TANK MIXES (Silage, Field, Sweet Corn):		
WEEDS CONTROLLED	PRODUCT RATES	
Broadleaf Weeds And Wild Oats	1.1 - 1.7 kg/ha ATRAZINE 90W + 17 L/ha emulsifiable crop oil or 1.1 - 1.7 kg/ha ATRAZINE 90W + 2.75 - 5.5 L/ha Oil Concentrate**	
Broadleaf Weeds Wild Oats Triazine Tolerant Weeds*	1.1 - 1.7 kg/ha       + 0.6 L/ha         ATRAZINE 90W       BANVEL 480 (1)         Or       -         1.1 - 1.7 kg/ha       + 0.85 L/ha         ATRAZINE 90W       TARGET DS	
Annual Grasses And Broadleaf Weeds	1.1 - 1.7 kg/ha + 1.25 - 1.75 L/ha ATRAZINE 90W Dual Magnum or Dual II Magnum	

\*Tank mix with Banvel or TARGET DS will control triazine tolerant forms of the weeds listed on their labels. CONSULT TANK MIX PARTNER LABELS FOR COMPLETE INSTRUCTIONS AND RESTRICTIONS.

\*\*Rate of oil concentrate depends on water volume used.

- Use 300 L water/ha at higher rate.
- 1) DO NOT APPLY TO SWEET CORN.
- 2) DO NOT USE SUSPENSION FORMULATIONS OF BLADEX (cyanazine) POST-EMERGENCE DUE TO RISK OF CROP INJURY.

-ALWAYS APPLY Atrazine 90W BEFORE THE CORN REACHES 30 CM IN HEIGHT
-SOME INJURY TO CORN CAN OCCUR WITH Atrazine 90W APPLIED IN OIL-WATER EMULSIONS UNDER CROP STRESS CONDITIONS.
-USE ONLY CROP OILS OR OIL CONCENTRATES LABELLED FOR USE WITH Atrazine 90W.
-OILS CONTAMINATED WITH WATER OR OTHER MATERIALS CAN CAUSE COMPATIBILITY PROBLEMS, CROP INJURY, OR BOTH.

# WEED CONTROL IN TRIAZINE TOLERANT CANOLA - EASTERN CANADA ONLY:

#### NOTE: Use Atrazine 90W on Triazine Tolerant Canola: pedigree seed only.

Application Timing:

ATRAZINE 90W may be applied as a PRE-EMERGENCE application or as a POST-EMERGENCE application in an oil-water emulsion when triazine-tolerant canola is at the 2- leaf stage (3 cm in height).

PRE-EMERGENT APPLICATION		
WEEDS CONTROLLED	SOIL TYPE	PRODUCT RATES
Wild Mustard (non-triazine resistant)	light and sandy	1.2 kg/ha ATRAZINE 90W
and Lamb's quarters (non-triazine resistant)	loam and clay	1.7 kg/ha ATRAZINE 90W

#### **POST-EMERGENT APPLICATION:**

To control non-triazine resistant wild mustard and non-triazine resistant lamb's-quarters, apply 0.8 kg of ATRAZINE 90W plus 17 litres of emulsifiable crop oil in 150 - 300 L of water per hectare.

**CAUTION:** WHERE PLANTING OF TRIAZINE TOLERANT CANOLA IS DELAYED DUE TO INCLEMENT WEATHER CONDITIONS, OR, IF THIS CROP IS GROWN IN LOW HEAT UNIT AREAS, CHECK FOR RESIDUE CARRYOVER PRIOR TO ROTATING TO SUSCEPTIBLE CROPS.

# WEED CONTROL IN LOW BUSH BLUEBERRIES

WEEDS CONTROLLED	APPLICATION RATE	APPLICATION TIMING
Brown top, Poverty grass, Sheep fescue, Hawkweed, Wild Strawberry, Canada goldenrod*, Narrowleaf goldenrod*, Solidago bicolor* *suppression only	4.4 kg/ha ATRAZINE 90W	Apply to native stands in the spring after burn and before new blueberry growth has emerged.

**CAUTION:** Do not apply Atrazine 90W to steep terrain where excellent weed control will result in soil erosion. Do not apply 90 WP to coarse textured soils low in organic matter.

**WARNING-** Injury may occur if land treated with Atrazine 90W is planted to any crop other than corn or triazine tolerant canola in the same season. One year after application there is virtually no hazard to most rotational crops when annual weed label rates are applied. Sugar beets and tobacco are sensitive to Atrazine 90W and should not be planted on land treated with Atrazine 90W the previous year. When extended periods of dry weather occur during the year of treatment, there can be some injury to succeeding crops such as white beans, onions, peas, tomatoes and turnips. Injury is most likely to occur when the seedling crop is subjected to periods of stress (e.g., during periods of abnormally hot, dry weather).

Under conditions of heavy rainfall sufficient to cause erosion, soil containing Atrazine 90W may wash to lower areas of land and injury to existing or subsequent crops other than corn may result.

THOROUGH TILLAGE INCLUDING PLOUGHING SHOULD PRECEDE THE PLANTING OF CROPS OTHER THAN CORN. PLOUGH THE LAND FLAT AS OPPOSED TO SETTING THE FURROW ON EDGE. UNEVEN APPLICATION OF Atrazine 90W OR APPLICATION IN EXCESS OF RECOMMENDED RATES WILL NOT INJURE CORN BUT MAY RESULT IN THE INJURY OF SUCCEEDING CROPS OTHER THAN CORN.

This control product is to be used only in accordance with the directions on this label. It is an offence under the *PEST CONTROL PRODUCTS ACT* to use a control product under unsafe conditions.

# **NOTICE TO BUYER:**

Seller's guarantee shall be limited to the terms set out on the label and, subject thereto, the buyer assumes the risk to persons or property arising from the use or handling of this product and accepts the product on that condition.

DUAL and TARGET DS are registered trademarks of SYNGENTA Inc. BLADEX is a registered trademark of DUPONT CANADA LTD. BANVEL is a registered trademark of BASF CORP.

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