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SANEX

2.26 KILOGRAMS

ATRAZINE
80W

Formulation of atrazine wetttable powder herbicide.

AGRICULTURAL

For selective weed control in corn, including quackgrass and nutgrass.

For total weed control and bare ground maintenance on non-cropland.

GUARANTEE:

Technical atrazine 80%

REGISTRATION NO. 15836

PEST CONTROL PRODUCTS ACT

READ THE LABEL BEFORE USING

Manufactured by
SANEX INC.
2695 Slough Street,
Mississauga, Ontario
L4T 1G2

Branches Throughout North America

AGRICULTURAL

For Selective Weed Control in Corn, including Quackgrass and Nut Grass.

GENERAL DIRECTIONS

WEEDS CONTROLLED: BROADLEAVES: Mustards, Purslane, Ragweed, Smartweed, Lady's Thumb, Wild Buckwheat, Lamb's Quarters, Redroot Pigweed, Volunteer Clover.

ANNUAL GRASSES: Barnyard Grass, Green Foxtail*, Yellow Foxtail, Wild Oats.

*Green Foxtail is best controlled by a post-emergent treatment.

Atrazine 80W will not control established perennials at rates recommended for annual broadleaf weed and grass control in corn, but will kill perennial

species freshly starting from seeds.

Atrazine 80W used in a pre-emergent application acts mainly through root absorption; consequently, rainfall or irrigation is needed to move it into the root zone. If no injury to the weeds is immediately apparent, and if they continue to grow, as may occur under dry or minimal moisture conditions, a shallow cultivation of rotary hoeing will keep them in check until moisture conditions improve.

TIMING OF APPLICATION

Atrazine 80W may be applied to corn land prior to planting (pre-plant treatment), after planting but prior to emergence of weeds and corn (pre-emergent treatment) or after emergence of weeds and corn (post-emergent treatment).

PRE-PLANT TREATMENT: Broadcast in the Spring at the rate indicated in the table below. Apply before, during or after final seedbed preparation. If tillage is intended after spraying, to not incorporate Atrazine 80W deeper than 2.5 cm.

PRE-EMERGENT TREATMENT: The seedbed must be firm and free from large air spaces. Apply the Atrazine spray during or shortly after planting, prior to weed emergence. DO NOT USE Atrazine ON LOOSE AND ROUGH SEEDBEDS.

POST-EMERGENT TREATMENT USING Atrazine 80W IN WATER: For broadleaf weed control, apply before seeding weeds are 5 cm tall.

Annual grasses should be treated in the 1 to 2-leaf stage, but not if more than 2.5 cm in height.

POST-EMERGENT TREATMENT USING Atrazine 80W IN OIL-WATER EMULSION: The post-emergent activity of Atrazine 80W is increased when applied in an oil-water emulsion. This combination produces satisfactory control of seedling broadleaf weeds up to 10 cm high and of annual grasses up to 2.5 cm high in the 1 to 2-leaf stage.

The combination of Atrazine 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 80W applied in oil-water emulsions, especially during cold, backward weather. There is no risk of corn injury when Atrazine is applied in water alone. Do not add hormone-type weed killers such as 2,4-D, 2,4DB, MCPA, MCPB and dicamba; or other herbicides, to combinations of oil-water emulsions and Atrazine 80W. The risk of damage to other vegetation from spray drift is increased with the use of Atrazine 80W in an oil-water emulsion.

METHODS OF APPLICATION

Atrazine 80W may be applied either as an overall spray or as a band treatment. Apply in 100-300 litres of water per hectare. Band treatments are desirable where cultivation is intended to alleviate hard soil

conditions, or to control troublesome perennial weeds. For band application, use proportionately less herbicide and water per hectare.

APPLICATION RATES FOR ANNUAL WEEDS (kg/ha)	
SOIL TYPE	RATE PER HECTARE
Light and Sandy (See Note a)	2.00 kg/ha
Loams & Clays	2.75 kg/ha
Muck Soils (see Note b)	4.25 kg/ha

NOTE: (a) The rates for loams and clays should be used on light and sandy soils where annual grass weeds predominate, or when an unusually heavy infestation of broadleaf weeds is expected.

NOTE: (b) Muck soils are highly absorptive and may interfere with the uptake of Atrazine by weed roots following pre-emergent treatment. Therefore, a firm level seedbed is particularly important and unless this can be achieved, an early post-emergent spray is preferable to a pre-emergent treatment.

Atrazine TANK MIX COMBINATIONS
(for use on silage, field and sweet corn)

GENERAL: Either for severe infestations of late germinating grasses (e.g. crabgrass) or for the reduction of residues of Vectal Atrazine for certain susceptible succeeding crops, the following tank mix combinations are recommended. Apply in 150-300 litres of water per hectare.

COMBINATION	APPLICATION TIME	WEEDS CONTROLLED	RATE / ha
Atrazine Sutan*	Pre-plant incorporated	annual grasses and broadleaves	1.5 kg of Atrazine 80W + 4.25 L Sutan
	pre-plant incorporated	yellow nut sedge (nutgrass), annual grasses and broadleaf weeds	1.5 kg of Atrazine 80W + 5.5 L Sutan
Atrazine Bladex++	pre-emergent	annual grasses and broadleaf weeds	1.5-2.25 kg of Atrazine 80W + 2.5-2.75 kg of Bladex 80W
	early post-emergent	annual grasses and broadleaf weeds	1.5-2.25 kg of Atrazine 80W + 2.5-2.75 kg of Bladex 80W

CAUTION: Do not mix oils, oil conc. or surfactants or hormone- type herbicides with Atrazine/Bladex.

The respective label MUST be consulted for detailed directions and dosage variations according to soil type and spray timing.

FOLLOW ALL MIXING INSTRUCTIONS. USE PRECAUTIONS AND WARNINGS THAT APPEAR ON THE LABEL OF THE PRODUCT SELECTED FOR TANK MIXING WITH Atrazine.

*Sutan is a registered trade mark of Stauffer Chemical Company of Canada Ltd.
++Bladex is a registered trade mark of Shell Canada Limited.

Atrazine COMBINATION WITH SIMADDEX (SIMAZINE): For improved control of crabgrass and other annual grasses in corn, and overall spray of 1.5 kg of Atrazine 80W plus 1.5 kg of Simadex 80W per hectare as a tank mix, may be used in place of Atrazine 80W alone. This combination can be applied as a pre-emergent treatment. It may also be applied as a post-emergent treatment in an oil-water emulsion to broadleaf weeds up to 10 cm in height and annual grasses up to 2.5 cm in height (1 to 2 leaf stage).

CULTIVATIONS AFTER SPRAYING: Following BAND TREATMENT, the crops must be cultivated to control weeds in the unsprayed areas between the rows. After OVERALL TREATMENT it is not normal necessary to cultivate, but if rotary-hoeing is desirable to help the corn seedlings emerge, it can be carried out without materially destroying the effect of the treatment. Atrazine needs some rainfall to move it into the weed seedling root zone. When prolonged dry conditions persist after application, Atrazine 80W treatments have benefitted from light incorporation. A rotary hoe or harrow has been effective for this incorporation. If some seedlings do escape Atrazine 80W treatments in dry weather a shallow cultivation may be necessary to smother them. Generally, one shallow cultivation at lay-by (when corn is 30 to 45 cm tall) will be sufficient to control escaped or perennial weeds.

QUACKGRASS, CANADA THISTLE AND NUTGRASS CONTROL

QUACKGRASS, (COUCHGRASS) AND CANADA THISTLE: Make an application to Quackgrass foliage or areas infested with Canada Thistle in the Fall or early Spring using 2.75 kg of Atrazine 80W in at least 350 litres of water per hectare. Plough or cultivate one to three weeks later. Make a second application after planting the corn using 2.75 kg of Atrazine 80W per hectare as an early post-emergent spray. The addition of 17 litres of an emulsifiable oil to this second treatment will increase the speed of kill of the Quackgrass and Canada Thistle foliage. Row cultivation will increase the effectiveness of this treatment.

When the use of the split application of Atrazine 80W described above, has not been possible and severe Quackgrass or Canada Thistle infestation develops in established corn, an "emergency treatment" should be considered. Apply 5.5 kg of Atrazine 80W plus 17 litres of emulsifiable oil in 300 L of water per hectare. Some temporary injury to the corn may occur; however, such injury is usually offset by increased yields due to control of Quackgrass and Canada Thistle. It usually takes several annual applications of Atrazine to eliminate Canada Thistle, however, one season's treatment gives good economic control.

NUTGRASS (NUTSEDGE): Apply 2.75 kg of Atrazine 80W to the soil in the Spring before the Nutgrass shoots emerge and work into a depth of 5-8 cm by discing and harrowing. Plant the corn and make a second application of 2.75 kg of Atrazine 80W per hectare in an oil-water emulsion when the Nutgrass is in the early post-emergent (spike) stage. Row cultivation may be necessary to obtain good control.

NOTE: Where either the split application or the "emergency treatment" of Atrazine 80W has been used, corn must be grown on the land for two successive years.

SPECIFIC DIRECTIONS

MIXING: WATER ONLY: for amounts needed look for application rates. Make a slurry by stirring the necessary amount of powder with water in a pail, and then add this mixture to the spray tank during filling with clean water. Gentle agitation is required during mixing and spraying. After any break in the spraying operation, agitate thoroughly.

OIL-WATER EMULSIONS: Use the recommended rate of Atrazine 80W plus 17 litres of suitable oil (or oil concentrate at label rate) in 200-300 L of water per hectare. Use only non-herbical crop oils or oil concentrates labelled for use with Atrazine. Oils contaminated with water or other materials can cause either compatibility problems or crop injury, or both.

FOLLOW PROPER MIXING STEPS:

1. Fill the spray tank with water, leaving space for the addition of Atrazine 80W and oil.
2. Engage the agitation system and pour in the Atrazine 80W.
3. Finally, add the emulsifiable oil or oil concentrate. The mixture can now be applied.
4. Before refilling, empty the tank as completely as possible to prevent a build-up of oil in the tank. If any spray mixture remains in the tank, keep the agitation system in operation to avoid a separation of the oil from the water.
5. If an oil film starts to build up in the tank, drain and clean it with a strong detergent solution or solvent.
6. Immediately after use, thoroughly clean the sprayer by flushing the system with water containing a detergent.

SPRAYING: Spray at pressure of 200-300 kPa. Apply in 200-300 L of water per hectare. Use screens of 50 mesh size or larger. Keep Atrazine mixture well agitated and spray evenly to cover the surface to be treated.

PROCEDURE FOR MIXING Atrazine 80W WITH EITHER BLADDEX OR SUTAN: After adding the Atrazine slurry add either the Bladex or Sutan directly but slowly to tank. Agitate thoroughly before spraying.

PRECAUTIONS

Avoid excessive agitation as the mixture of Atrazine 80W and oil may form a grease like mass and settle to the bottom of the tank.

The by-pass line should discharge at the bottom of the spray tank.

WARNING

Injury may occur if land treated with Atrazine 80W is planted to any crop other than corn in the same season. One year after application there is virtually no hazard to most rotational crops when label rates are applied. Tobacco and sugar beets are sensitive to Atrazine 80W and should not be planted on land treated with Atrazine 80W the previous year.

THOROUGH TILLAGE INCLUDING PLOUGHING SHOULD PRECEDE THE PLANTING OF CROPS OTHER THAN CORN. UNEVEN APPLICATION OF Atrazine OR APPLICATION IN EXCESS OF RECOMMENDED RATES WILL NOT INJURE CORN BUT MAY RESULT IN INJURY TO SUCCEEDING CROPS OTHER THAN CORN.

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. When the directions outlined on this label are followed, injury to these crops is unlikely to occur under normal weather conditions.

Under conditions of heavy rainfall, sufficient to cause erosion, soil containing Atrazine 80W may wash to lower areas of land, and injury to existing or subsequent crops other than corn may result.

PRECAUTION: Do not use on crops other than corn.

INDUSTRIAL

For Total Weed Control and Bare Ground Maintenance on Non-Crop Land

Used as directed Atrazine 80W kills and prevents growth of most annual and perennial broadleaf weeds and grasses that are found on non-cropped land. Normally Atrazine 80W is used shortly after the start of growth. It is taken up mainly by weed roots but there may also be some herbicidal effect by absorption through foliage. Lack of precipitation may reduce or delay the effect on weeds especially when the soil is dry at application. Being active mainly through the roots, Atrazine 80W presents little spray drift hazard to established crops or ornamentals.

Although of low solubility, Atrazine 80W tends to penetrate well into the soil and it may creep to some extent, especially on sloping ground. Trees, ornamentals or crops are likely to be damaged if their roots extend into the treated zone. Heavy rain falling before Atrazine 80W has penetrated into the ground may wash the chemical off the surface. This risk is normal limited to sloping ground.

Atrazine 80W is non-corrosive, non-flammable and has low electrical conductivity. It is low in toxicity to man and animals.

DIRECTIONS FOR USE

Atrazine 80W is a wettable powder for use in sprays. Add the required amount of powder to the spraytank during filling with clean water. Creaming the powder in a little water before adding to the spray tank aids rapid suspension. Provide gentle agitation during mixing and spraying and especially after any break in spray operations, to ensure that the material remains in suspension. Mechanical agitation is preferred because hydraulic or by-pass agitation is often inadequate. If frothing occurs, due to excessive agitation, it may be reduced by adding approximately 500 mL of kerosene per 1000 litres of spray unless the water being used is very soft or agitation is very vigorous, in which case additional kerosene may be required. Apply with an efficient sprayer to obtain an even cover of the land. Do not use nozzle screens or line filters finer than 50 mesh size.

RATES OF APPLICATION vary with the type of weeds to be controlled, as specified below:

	PER HECTARE	PER 100 SQUARE METRES
Annual weeds and perennial seedlings	14 kg	150 g / 100 m ²
Shallow rooted perennials	21 kg	225 g / 100 m ²
Heavy perennial growth	27.5 kg	300 g / 100 m ²

SPOT TREATMENT FOR TOTAL VEGETATION CONTROL: Use 30-40 g of Atrazine 80W in 5-10 litres of water and apply to 10 square metres of infested area. This treatment will control most annual and perennial weeds and grasses.

Timing of Applications depends mainly on soil moisture, and will vary with climatic region. Early application will reduce unsightly and flammable remains of dead weeds.

LOCATION	TIMING
B.C. Pacific Coast	March to July
Prairies, Interior B.C. and the Lakehead of Ontario	April and May or August to freeze-up
Ontario and Quebec	May to July
Maritime Provinces	May to August

N.B. Spring applications in the Prairies, Interior B.C. and the Lakehead of Ontario can be extended into June, sometimes July, if rainfall and soil moisture are plentiful.

VOLUME OF SPRAY: The recommended rates of Atrazine 80W should be applied uniformly in 500-2000 litres of water per hectare (5-24 litres per 100 sq metres). The lower volume should be used only by experienced operators using equipment with an extremely efficient filtration system. Use the higher volume where established or dead vegetation is dense or obstructions frequent.

NOTE: Residual action of Atrazine 80W varies according to climate, soil and dose. Normally, the higher doses will control weeds for two seasons or more in the Prairies. Control may be of shorter duration in wetter areas.

Some weeds such as horsetail and milkweed may require more than one treatment to give effective control. If soil moisture is low, control of dandelion in the Prairies may not be complete until the following year.

Do not spray when ground is frozen or covered with snow. Higher than normal doses may be required on cinders and soils rich in organic matter. After using wash sprayer thoroughly with clean water. Store Atrazine 80W in a dry place.

PRECAUTION:

Do not apply to areas where roots of desirable species extend.

GENERAL PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN

Harmful if swallowed. Avoid contact with eyes or prolonged contact with skin. Avoid inhalation of dust and prevent contamination of food and feed. Do not contaminate domestic or irrigation water supplies, lakes, streams and ponds.

Do not re-use container, destroy when empty.

FIRST AID: Wash eyes immediately following any inadvertent eye contact. Get medical attention.

NOTICE TO USER: 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.

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