BLADEX(R) 80W

AGRICULTURAL HERBICIDE

Net Contents: 5 kg

Wettable Powder containing cyanazine for selective preplant incorporated, pre-emergence and early post-emergence weed control in corn.

GUARANTEE:

cyanazine 80% by weight

READ THE LABEL AND PAMPHLET BEFORE USING

REGISTRATION NO.: 10753 PEST CONTROL PRODUCTS ACT

DANGER POISON

FIRST AID:

If swallowed: Induce vomiting immediately. This should be done by introducing a finger into the throat. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. Keep patient lying down and quiet. Transport the patient immediately to the nearest physician.

Skin contact: If spilled on the skin, remove all contaminated clothing at once. Thoroughly wash skin with soap and water. Contact physician. Wash contaminated clothing separate from household laundry before re-use.

For eyes: If the material gets into the eyes, flush immediately with running water for at least 15 minutes. Contact physician.

Manufactured by E.I. du Pont de Nemours & Co. (Inc.) Agricultural Products, Wilmington, Delaware, U.S.A.

Distributed in Canada by DU PONT CANADA INC.

Agricultural Products Box 2300, Streetsville Mississauga, Ontario L5M 2J4 1-800-387-2169

CAUTION:

KEEP OUT OF REACH OF CHILDREN. Do not take internally. Harmful or fatal if swallowed. Keep in original container during storage.

- . Avoid contact with skin. Wear protective clothing such as coveralls, or a long-sleeved shirt and long pants and chemical-resistant rubber gloves.
- . Change contaminated clothing daily and wash separately from household laundry before reuse.
- Do not handle product with bare hands. Chemical-resistant gloves significantly reduce hand exposure. It is important to wear gloves for mixing/loading/clean-up operation and when making sprayer and nozzle repairs and adjustments. Do not use leather or cloth gloves.
- . Rinse gloves with soap and water before removal and wash hands thoroughly before eating, smoking or drinking.

Do not allow spray or spray mist to contact plants other than those being sprayed. Do not contaminate food or feed products. Do not contaminate streams, lakes, ponds, irrigation water, water used by livestock or water used for domestic purposes.

CAUTION: Do not graze the treated immature crops or cut for hay; there are not sufficient data available to support such use.

DISPOSAL AND DECONTAMINATION:

1. Empty bag thoroughly into spray tank.

- 2. Make the empty bag unsuitable for further use.
- 3. Dispose of the bag in accordance with provincial requirements.
- 4. For information on the disposal of unused, unwanted product, and the cleanup of spills, contact the regional office of Environmental Protection, Environment Canada.

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.

- 1. Sutan and Eradicane are Registered Trademarks of STAUFFER CHEMICAL COMPANY OF CANADA.
- 2. Dual Ciba-Geigy is a Registered Trademark of CIBA-GEIGY CANADA LTD.
- 3. Banvel is a Registered Trademark of SANDOZ AGRO CANADA INC.

EASTERN CANADA AND B.C.

GENERAL INFORMATION:

BLADEX 80W is a selective herbicide for preplant incorporated, pre-emergence or early post-emergence control of annual grasses and broadleaf weeds in field corn, and sweet corn. Pre-emergence treatments are active mainly through the roots and, therefore, effect on weeds is dependent on adequate rainfall to move the herbicide into the root zone. Performance results indicate that if at least 1.25 cm of rain does not fall within 7-10 days following pre-emergence application, a rotary hoeing or shallow cultivation will be required to move the material into moist soil; incorporation into dry soil is not recommended. If some seedlings do escape pre-emergence "Bladex" treatments in dry weather, a shallow cultivation will be necessary to smother them. A weed should be considered a pre-emergence escape when it has reached the 2 to 3-leaf stage. Barnyard grass and redroot pigweed are the weeds most likely to escape the treatment.

Preplant incorporation treatments should be applied as a broadcast spray and incorporated thoroughly into the top 5 cm of soil. The incorporation equipment, such as tandem discs or "S-tine" cultivators should be set no deeper than 10 cm to ensure shallow incorporation. "Bladex" 80W does not need to be incorporated immediately. When tank mixing "Bladex" 80W with other corn herbicides, always follow the warnings and precautions appearing on the labels of other products.

"BLADEX"/ATRAZINE MIXTURES:

Mixtures of "Bladex" and atrazine have provided superior broad spectrum weed control in preplant incorporated, pre and early post-emergence applications, over a wider range of weather conditions and soil types than "Bladex" alone. The mixture is particularly useful in situations where barnyard grass and pigweed are prominent in the weed spectrum, and is active on all mineral soils, including heavy clays such as Brookston Clay.

SOIL PERSISTENCE:

"Bladex" has a relatively short residual life in the soil; from normal spring applications, there is no carry-over of the herbicide to the next growing season. When "Bladex" 80W is applied alone as directed on the label, the user can rotate from corn to other crops. Since atrazine is a longer residual material than "Bladex", the possibility of soil persistence of atrazine from the combination of "Bladex"/atrazine must be recognized. Therefore, carefully read and carry out the warnings and instructions on the atrazine label.

SOIL TYPE:

"Bladex" is not recommended alone for use on heavy clay soils (greater than 20% clay content) such as Brookston Clay. For heavy clay soils, use "Bladex"/atrazine mixtures. "Bladex" is not recommended alone or in combination for use on peat or muck soils. "Bladex" is not recommended for use on sandy soils (consisting of more than 70% sand) or soils containing less than 1% organic matter.

SEEDBED PREPARATION:

Prepare a smooth seedbed, free from lumps or clods. Do not apply "Bladex" or "Bladex"/atrazine on loose or rough soil surfaces. For overall treatment, a suitable level and compact surface can be prepared by rolling or cultipacking before spraying. For pre-emergence band applications, mount the spray nozzle behind the press wheel.

WEEDS CONTROLLED BY "BLADEX":

Grasses:

Barnyard Grass*	Fall Panicum*	Witchgrass
Crabgrass	Green Foxtail	Yellow Foxtail

Broadleaves:

Black Nightshade	Lamb's-quarters	Shepherd's-purse
Common Purslane	Pigweed*	Wild Buckwheat
Lady's-thumb	Prostrate Knotweed	Wild Mustard
Velvetleaf**	Ragweed	Wormseed Mustard

NOTE:

* Pre-emergence applications do not adequately control barnyard grass, fall panicum and pigweed under conditions which delay weed germination, such as low temperature or lack of soil surface moisture. Addition of atrazine (tank mix) will improve the control of barnyard grass and pigweed in preplant incorporated, pre- and post-emergence applications. "Bladex" will not control deep-rooted perennials such as milkweed, Canada thistle, etc. Quack grass (couchgrass) and nutsedge are not controlled.

** Emerged velvetleaf will be controlled with "Bladex" 80W applied early post-emergence up to the 3-leaf stage. Velvetleaf germinating after this application may not be controlled.

PREPLANT INCORPORATED APPLICATION

When "Bladex" 80W is used preplant incorporated, it should only be used in combination with atrazine, Sutan+(1) or Dual Ciba-Geigy(2).

"Bladex"/Atrazine Broadcast Application Rates

Sandy Loam Soils 2.65 kg "Bladex" 80W plus 1.35 kg Atrazine 80W per ha Medium/Heavy Soils 3.35 kg "Bladex" 80W plus 1.65 kg Atrazine 80W per ha

PRE-EMERGENCE APPLICATION

"BLADEX" 80W

Soil Type	Broadcast Application Rates
Sandy Soil (not less than 1% organic matter)	2.0-2.75 kg per ha
Medium textured soil (loams)	2.75-4.25 kg per ha
Heavy textured soil (silt & clay loams)	4.25-5.5 kg per ha

"BLADEX"/ATRAZINE 2.25 - 2.75 kg "Bladex" 80W plus 1.5 - 2.25 kg Atrazine 80W per hectare (tank mix application).

EARLY POST-EMERGENCE APPLICATION

Do not mix adjuvants, such as oil, oil concentrate, surfactants, or any other materials, with "Bladex" or mixtures containing "Bladex".

"BLADEX" 80W 2.75 kg per hectare

"BLADEX"/ATRAZINE 2.25 - 2.75 kg "Bladex" 80W plus 1.5 kg Atrazine 80W per hectare (tank mix application).

FOR BAND APPLICATION, USE PROPORTIONATELY LESS MATERIAL.

TIMING: PRE- OR EARLY POST-EMERGENCE:

Apply "Bladex" or "Bladex"/atrazine mixtures pre or early post-emergence. Post-emergence applications should be made when annual grasses are in the 1 to 2-leaf stage (not more than 2.5 cm high); broadleaved weeds should not be more than 5 cm high. Performance characteristics are more reliable at early application timings (1 to 2-leaf stage of annual grasses). Proper application timing is particularly important following periods of hot, dry weather when weeds are tougher and more difficult to kill. Do NOT apply to corn that is higher than the 3-leaf stage (approx. 7.5 cm high). Injury to corn can occur with post-emergence application, especially during cold backward weather, in combination with flooding conditions; early applications under good growing conditions reduce the risk of crop injury. Do NOT add oil, oil concentrate or adjuvants.

"BLADEX"/SUTAN**+ TANK-MIX COMBINATION (PREPLANT INCORPORATED):

Mixtures of "Bladex" 80W and Sutan+ 8-E will provide effective control of annual grasses and broadleaf weeds. Sutan+ 8-E must be incorporated into the soil immediately after application. The tank mix of Sutan+ and "Bladex" must also be incorporated. Wherever possible, application and incorporation should be done in the same operation.

RATE OF APPLICATION

2.25 - 3.25 kg of "Bladex" 80W plus 4.25 - 5.5 L of Sutan+ 8-E per ha.

Use the lower rates on sand or loam soils.
Use the higher rates on clay soils.
Use the high rate of Sutan+ if nutsedge has been a problem. Use the high rate of Bladex to control high infestations of broadleaf weeds.

"BLADEX"/BANVEL(3) TANK MIX COMBINATION (PRE AND POST-EMERGENCE):

Mixtures of "Bladex" 80W and Banvel applied pre-emergence and early post-emergence will provide effective control of annual broadleaved weeds and grasses including TRIAZINE RESISTANT lamb's-quarters and redroot pigweed. Use the following rates:

Pre-emergence

2.75 - 4.25 kg "Bladex" 80W plus 1.25 litres Banvel per hectare. Do not use on SWEET CORN or SAND and SANDY LOAM soils.

Early Post-Emergence (Up to 3-leaf corn stage)

2.75 kg "Bladex" 80W plus 600 mL Banvel per hectare. Do not use on SWEET CORN.

"BLADEX"/Dual Ciba-Geigy(R) TANK-MIX COMBINATION (PREPLANT

INCORPORATED AND PRE-EMERGENCE):

Mixtures of "Bladex" 80W and Dual-Ciba-Geigy will provide effective control of germinating annual grasses and annual broadleaf weeds in corn. This combination is also effective for control of nutsedge when applied preplant incorporated. Incorporation should be thorough in the top 5 cm of soil prior to planting. To ensure shallow incorporation of 5 cm, tillage equipment should be set to work the soil no deeper than 10 cm. Immediate incorporation is not necessary.

Rate of Application:

Preplant incorporated 2.25 - 3.25 kg "Bladex" 80W plus 2.0 - 2.75 L Dual-Ciba-Geigy per hectare.

Pre-emergence 2.25 - 2.75 kg "Bladex" 80W plus 2.0 - 2.75 L Dual-Ciba-Geigy per hectare.

FOR BAND APPLICATION, USE PROPORTIONATELY LESS MATERIAL.

Use the low rate of "Bladex" on light soils and the high rate on medium to heavy soils. Use the high rate of Bladex to control high infestations of broadleaf weeds.

Use the low rate of Dual-Ciba-Geigy to control light to medium infestations of grasses and the high rate for medium to heavy infestations. "Bladex"/Dual-Ciba-Geigy will control nutsedge only when applied as a preplant incorporated treatment.

SPRAY APPLICATION:

Partially fill the sprayer tank with water; engage the agitation system and slowly add "Bladex" 80W directly to the sprayer tank. ("Bladex" 80W can be pre-mixed as a slurry, if desired, before adding to the tank). Maintain continuous agitation and fill the sprayer tank with water to the desired level.

In the case of "Bladex"/atrazine tank-mix combinations, pre-mix the required amount of Atrazine 80W by stirring the material with water in a pail. Add the atrazine/water mixture directly to the sprayer tank while maintaining continuous agitation. Allow sufficient time for atrazine to become completely suspended. Add "Bladex" 80W as described above.

When mixing "Bladex" with other liquid corn herbicides, fill the

spray tank 2/3 full of water. Turn on the agitation system. Add the "Bladex" and agitate for a few minutes until thoroughly mixed. Add the liquid herbicide and finish filling the tank while continuing agitation.

The spray tank should be designed to provide sufficient agitation to keep the herbicide in suspension during mixing and spraying. After any break in the spraying operation, agitate thoroughly. Apply 150-300 litres of spray solution per hectare for overall treatment. Use nozzles which have an orifice equal to, or larger than, Tee Jet 8003 in conjunction with 50-mesh screens. Spray at pressures of about 200-300 kilopascals. If allowed to stand in a spray tank or nurse tank for an extended period (several hours or overnight) strong agitation is required to re-suspend the material and to maintain a uniform suspension.

Note: Follow all the precautions and warnings that appear on the Bladex, Sutan+, Banvel, Dual-Ciba-Geigy and Atrazine labels.

FACTORS AFFECTING "BLADEX" PERFORMANCE:

There may be a risk of temporary crop damage in post-emergent applications when the crop is under stress due to prolonged cold, wet growing conditions. If these conditions of high moisture and cold temperature persist over a prolonged period, the corn may be under such severe stress that damaged plants will not recover following a post-emergent application of "Bladex". These particular stress factors have been more prevalent in those cooler areas having on an average less than 2,500 growing heat units. In areas where these stress conditions are most likely to occur, the possibility of damage can be overcome by using a pre-emergent application of "Bladex".

PRAIRIE PROVINCES

GENERAL INFORMATION:

"BLADEX" 80W Herbicide is a selective herbicide for preplant incorporated, pre-emergent and early post-emergent control of annual grass and broadleaf weeds in corn. Soil applied treatments are active mainly through the roots, therefore, effect on weeds is dependent on adequate moisture or mechanical incorporation to move the chemical into the soil. Pre-emergent treatments should be used only where irrigation can follow the "Bladex" treatment within seven days of application. Where irrigation is not available, "Bladex" should be applied in combination with Dual-Ciba-Geigy(2), Eradicane(1) or Sutan(1) followed with soil incorporation. Early post-emergent treatment can be made in combination with Bio-Veg T.M. crop oil. A timely inter-row cultivation will control any seedling weeds which escape the treatment. A weed should be considered an escape when it has reached the 2 to 3-leaf stage after a soil applied "Bladex" treatment.

SOIL PERSISTENCE:

"Bladex" 80W has a relatively short residual life in the soil; from normal spring applications, there is no carry-over of the herbicide to the next growing season. When "Bladex" is applied alone as directed on the label, the user can rotate from corn to other crops. Since atrazine is a longer residual material than "Bladex", the possibility of soil persistence of atrazine from the combination "Bladex"/atrazine must be recognized. Therefore, carefully read and carry out the warning and instructions on the atrazine label.

SOIL TYPE:

"Bladex" is recommended for use as a preplant incorporated or pre-emergence treatment on sandy and loam-type soils only. Do not use "Bladex" on soils with less than 1% organic matter.

SEEDBED PREPARATION:

Apply pre-emergent treatments to a firm, level seedbed. The soil surface should be free from trash and lumps. Soil conditions should be sufficiently dry to permit thorough mixing of the chemical into the soil with incorporation.

WEEDS CONTROLLED:

Grasses:

Barnyard Grass, Green Foxtail, Wild Oats##, Witchgrass, Yellow Foxtail, Volunteer Cereals##

Broadleaf Weeds:

Black Nightshade, Common Purslane, Lady's-thumb, Lamb's-quarters, Redroot Pigweed, Prostrate Knotweed, Common Ragweed, False Ragweed, Shepherd's-purse, Wild Buckwheat, Wild Mustard, Wormseed Mustard, Annual Smartweed species, Kochia, Russian Thistle, Oak-leaved Goosefoot, Stork's-bill

##Controlled only with "Bladex"/Eradicane tank mix combination.

"Bladex" will not control perennial weeds such as Canada Thistle, Milkweed or Quack Grass.

PREPLANT INCORPORATED APPLICATIONS:

Under dry conditions where irrigation is not available, use "Bladex" tank mixed with Dual-Ciba-Geigy(R), Eradicane, or Sutan + as a preplant incorporated treatment on light and medium textured soils.

Rates to Use (per hectare)

"Bladex" 80W at 2.5 - 3.0 kg/ha tank mixed with one of the following:

Dual-Ciba-Geigy	2.0 - 2.75	L
Eradicane	4.25 - 5.5	L
Sutan+	4.25 - 5.5	L

Use the low rate on sandy soils and low organic matter soils. Use the high rate on loam-type soils or high organic matter soils. Soil incorporation requirements are different for the following products. Follow the instructions on the Dual-Ciba-Geigy, Eradicane and Sutan+ labels for the correct soil incorporation technique to use when applying "Bladex" 80W in tank mixture with these products.

PRE-EMERGENCE APPLICATIONS:

Use pre-emergent applications only where irrigation is available. Apply "Bladex" 80W at 2.75 - 3.5 kg/ha. Use the low rate on sandy soils and low organic matter soils. Use the high rate on loam-type soils or high organic matter soils. Follow the application with at least 1.25 cm irrigation within 7 days of application. Irrigation is not required if adequate rainfall has occurred following application of "Bladex". Excessive irrigation or heavy rainfall following application may reduce weed control.

"BLADEX" CAN BE TANK MIXED WITH ATRAZINE, Dual-Ciba-Geigy.

Rates to Use (per hectare)

"Bladex" 80W at 2.25 - 2.75 kg/ha tank mixed with one of the following:

Atrazine 90W 1.40 kg Dual-Ciba-Geigy 2.0 - 2.75 L

EARLY POST-EMERGENT APPLICATION:

Apply 2.75 kg "Bladex" 80W in 150 - 200 L water when annual grasses are in the 1 to 2-leaf stage and broadleaf weeds 2.5 -5.0 cm in height. To improve control, add 1 L Bio-Veg T.M. crop oil per 100 L spray solution. "Bladex" must NOT be applied beyond the 3-leaf stage of corn (approx. 7.5 cm). Later applications will be less effective and result in crop injury. There is a risk of temporary crop damage with post-emergent applications when the crop is under stress due to prolonged cold, wet growing conditions. Do not apply "Bladex" as a post-emergent treatment if these conditions exist or are expected for a 7-day period after applications. (See Note 2.) Do NOT mix any oils or adjuvants other than Bio-Veg T.M. crop oil with "Bladex".

SPRAY APPLICATION AND MIXING INSTRUCTIONS:

Partially fill the sprayer tank with water; engage the agitation system and slowly add "Bladex" 80W directly to the sprayer tank, ("Bladex" 80W can be pre-mixed as a slurry, if desired, before adding to the tank). Maintain continuous agitation and fill the sprayer tank with water to the desired level.

In the case of "Bladex"/atrazine tank-mix combinations, pre-mix the required amount of atrazine by stirring the material with water in a pail. Add the atrazine/water mixture directly to the sprayer tank while maintaining continuous agitation. Allow sufficient time for Atrazine to become completely suspended. Add "Bladex" 80W, as described above, before the atrazine is added to the spray tank.

When mixing "Bladex" 80W with Bio-Veg T.M. crop oil or other liquid corn herbicides, fill the spray tank 2/3 full of water. Turn on the agitation system. Add the "Bladex" and agitate for a few minutes until thoroughly mixed. Add the Bio-Veg T.M. crop oil or liquid herbicide and finish filling the tank while continuing agitation.

The spray tank should be designed to provide sufficient agitation to keep the herbicide in suspension during mixing and spraying. After any breaks in the spraying operation, agitate thoroughly. For pre-emergent and preplant applications, apply 150 -300 litres of spray mixture per hectare for overall treatment. For post-emergent applications, apply 150 - 200 litres spray mixture per hectare. Use nozzles which have an orifice equal to, or larger than, Tee Jet 8003 in conjunction with 50-mesh screens. Spray at pressures of 200-300 kilopascals. If allowed to stand in a spray tank or nurse tank for an extended period, strong agitation is required to re-suspend the material and to maintain a uniform suspension.

- Note#1: Follow all the precautions and warnings that appear on the Bladex, Atrazine, Dual-Ciba-Geigy, Eradicane, and Sutan+ labels.
- Note#2: There may be a risk of temporary crop damage in post-emergent applications when the crop is under stress due to prolonged cold, wet growing conditions. If these conditions of high moisture and cold temperature persist over a prolonged period, the corn may be under such severe stress that damaged plants will not recover following a post-emergent application of Bladex.

Caution:

Do not mix ADJUVANTS, such as mineral oil, mineral oil concentrates, surfactants, or any other materials, with "Bladex" or mixtures containing "Bladex" unless otherwise recommended on this label.

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