BLADEX® 90DF HERBICIDE

ACTIVE INGREDIENTS	BY WEIGHT
2-[[4-chloro-6-(ethylamino)-s- triazine-2-yl]-2-methylpropionitrile	90%
INERT INGREDIENTS	10%
TOTAL	100%

NOTE CONDITIONS OF SALE AND WARRANTY
BEFORE OPENING THE CONTAINER.
IF THEY ARE NOT ACCEPTABLE,
RETURN UNOPENED PRODUCT.

ACCEPTED
AUG - 6 1985
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 201-414

EPA Reg. No. 201-414
EPA Est. No.

KEEP OUT OF REACH OF CHILDREN

WARNING

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.
IF IN EYES: Flush with plenty of water. If irritation persists, call a physician.
IF ON SKIN: Wash immediately with plenty of soap and water.
IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth, and get medical attention.

AVISO
PRECAUCION AL USUARO:

Si usted no lee ingles, no use este producto hasta que ie etiqueta haya sido explicado ampliamente.

Shell Chemical Company
A Division of Shell Oil Company
Agricultural Chemicals
P. O. Box 3871
Houston, TX 77001

CE8517702

PRECAUTIONARY STATEMENTS
HAZARD TO HUMANS AND DOMESTIC ANIMALS
WARNING

WARNING: May be fatal if swallowed. Harmful if inhaled or absorbed through the skin. Causes temporary eye injury.

This product may be hazardous to your health. This product has been determined to cause birth defects in laboratory animals. Use of protective clothing and equipment and following the precautions below can reduce risk.

Avoid breathing spray mist. Avoid contact with skin, eyes, or clothing. Do not get in eyes or on clothing. Wear a face shield when mixing and loading. Wash thoroughly with soap and water after handling and before eating or smoking.

Wear long trousers and long-sleeved clothing when applying this product. Wear rubber gloves extending above the wrist, long trousers and long-sleeved clothing when mixing or loading or when adjusting, repairing or cleaning equipment. Remove contaminated clothing and wash before reuse. Heavily contaminated clothing should be taken off immediately and incinerated or burned, if allowed by state and local authorities, or disposed of in a sanitary landfill and not laundered.

Do not apply this product in such a manner as to directly, or through drift, expose workers or other persons. The area being treated must be vacated by unprotected persons.

Keep out of reach of domestic animals, particularly cattle. Consumption of this product, spray solutions, or water contaminated with product can result in serious illness or possible death of bovines.

ENVIRONMENTAL HAZARDS

Do not apply directly to water or wetlands. Do not contaminate water by cleaning of equipment or disposal of wastes. In case of significant spill, call CHEMTREC 800-424-9300 or (713) 473-9461.

BLADEX is a pesticide which can move (seep or travel) through soil and can contaminate groundwater which may be used as drinking water. BLADEX has been found in groundwater as a result of agricultural use. Users are advised not to apply BLADEX where the water table (groundwater) is close to the surface and where the soils are very permeable (i.e. well drained soils such as loamy sands) Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater

DIRECTIONS FOR USE

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

FOR END USE ONLY. DO NOT REPACKAGE OR REFORMULATE WITHOUT MANUFACTURER'S WRITTEN APPROVAL.

STORAGE AND DISPOSAL

STORAGE: Do not contaminate water, food, or feed by storage or disposal. Do not use or store around the home environment. Avoid contact with water. In case of spill or leak, soak up with sand, earth, or synthetic absorbent do not use alkaline absorbents) and dispose of wastes in compliance with local, state, and federal regulations.

PESTICIDE DISPOSAL: Pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to applicable federal, state, or local procedures.

CONTAINER DISPOSAL: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

CONDITIONS OF SALE AND WARRANTY

SHELL AND THE SELLER OFFER THIS PRODUCT, AND THE BUYER AND USER ACCEPT THIS PRODUCT, ONLY UNDER THE FOLLOWING AGREED CONDITIONS OF SALE AND WARRANTY: The directions for use of this product are believed to be reliable and should be followed carefully. However, it is impossible to take into account all variables and to eliminate all risks associated with its use. Injury or damage may result because of conditions which are beyond the control of Shell or the seller, including soil texture, organic matter content of soil, weather, presence of other materials, and the manner of use or application. Shell warrants only that this product conforms to the chemical description on the label and is believed to be reasonably fit for the purposes referred to in the Directions for Use when used as directed under normal conditions. SHELL MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. Any variation or exception from this warranty must be in writing and signed by an authorized Shell representative.

LIMITATION OF LIABILITY

Shell's liability, whether or not based on negligence, breach of expressed or implied warranty, strict liability or any other legal cause, is limited to the cost of this product. In no case shall Shell or the Seller be liable for consequential, incidental, or indirect damages, such as loss of crops, resulting from the use or handling of this product.

GENERAL INFORMATION

BLADEX 90DF Herbicide is a selective herbicide for the control of annual grasses and broadleaved weeds in field corn, popcorn, sweet corn, cotton, grain sorghum, wheat, and fallow cropland.

Consult your local Agricultural Extension Agent for help in determining soil texture, organic matter content, and the most appropriate herbicide rate for local conditions.

Where surfactants or emulsifiable vegetable oils are added to BLADEX 90DF for over the top of corn postemergence applications, use on field corn only.

As a preemergence herbicide, BLADEX 90DF is active mainly through the roots, and therefore, its effect on weeds is dependent on adequate rainfall or sprinkler irrigation to move the herbicide into the root zone. Moisture should be sufficient to wet the top 1-1/2 to 2 inches of soil or make the soil too wet to cultivate; for most soils 1/2-3/4" of moisture is sufficient. A rotary hoeing or shallow cultivation is recommended if a rainfall or sprinkler irrigation has not occurred within about ten days after application of BLADEX 90DF. Under conditions which delay weed germination, such as low temperatures, lack of soil surface moisture, or when germination extends over a long period, the effectiveness of the herbicide may be impaired. Rotary hoeing, a shallow cultivation or a postemergence herbicide treatment may be of benefit under these circumstances. When applied as a post-emergence herbicide, BLADEX 90DF is also active through foilage as well as through the roots.

OBSERVE ALL CAUTIONS AND LIMITATIONS ON LABELING OF ALL PRODUCTS USED IN MIXTURES.

APPLICATION DIRECTIONS
GENERAL MIXING AND SPRAYING INSTRUCTIONS

Use sufficient agitation to ensure that the BLADEX 90 DF is completely dispersed (dissolved) and in uniform suspension prior to application or tank mixing with other formulations.

The following general mixing instructions are recommended when using this or any other dry flowable formulation.

I. General

1. Unless otherwise specified, use at least 15 gallons of water per acre for all applications with ground equipment. For aerial application, apply a minimum of four gallons of water per acre.

2. A nitrogen solution or complete liquid fertilizer may replace all or part of the water as a carrier for preemergence or preplant application on corn or sorghum. Do not apply fertilizer mixtures after crop emerges, as injury may occur.

3. Always check the tank mix compatibility (TMC) of this or any other formulation before mixing with liquid fertilizer carriers or other formulations. A simple but generally reliable TMC evaluation procedure has been provided for your use in step II of these mixing instructions.

4. Start with thoroughly clean equipment.

5. Fill tank 1/4 full with carrier. Start and maintain consistent agitation through all mixing and spraying procedures. Make sure that the agitation system is working properly and creates a rippling or rolling action on the liquid surface.

6. Slowly add the dry flowable (DF) to the tank or inductor.

7. Fill tank to 75 percent capacity with carrier. Filling and bypass lines should be kept below liquid surface. Increase tank agitation if necessary to maintain surface action.

8. When desired, appropriate emulsifiable oil, oil concentrate, or other tank mix formulations should be added at this time. Preslurry these added ingredients before addition if the compatibility test shows it to be necessary.

9. Complete filling tank, maintaining sufficient agitation at all times to ensure surface action. This applies to both spray and nurse tanks.

10. Tank mixtures should always be applied immediately after preparation. If for any reason this is not possible, assure that sufficient agitation has been provided to remix all products and check for complete resuspension prior to application.

11. Empty tank as completely as possible before refilling to prevent buildup of oil or emulsifiable concentrate residues when tank mixing with these formulations. Always maintain agitation to avoid separation.

12. If an oil or emulsifiable concentrate film starts to build up after using these formulations, drain and clean the tank with strong detergent solution or appropriate solvent.

13. It is recommended that the sprayer be thoroughly cleaned by flushing with a detergent solution at the end of each work day when any emulsifiable oil, oil concentrate, or other emulsifiable formulation has been used either alone or in tank mix combinations with other pesticide formulations, even if no obvious problems have been encountered. This precaution will ensure a clean sprayer and continued trouble-free operation.

II. Tank Mix Compatibility Evaluation Procedure

1. Add one pint of carrier liquid to each of two one-quart jars. Mark one quart jar "with" and the other "without."

2. Add 1/4 teaspoon of a suitable tank mix compatibility agent (1/4 teaspoon/pint = 2 pints/100 gallons of carrier) to the jar marked "with," cap the jar, and shake gently for five to ten seconds to mix.

3. Add the appropriate amount of herbicide to both jars, cap each jar, and shake gently for five to ten seconds to mix. If problems are encountered in mixing wettable powder or dry flowable formulations into a liquid fertilizer, then preslurry these formulations in water prior to their addition to the liquid fertilizer and proceed with the test. The following chart has been provided to assist you in selecting the appropriate BLADEX 90 DF use rate for this evaluation. If more than one herbicide is to be used in the tank mixture, each should be added separately as follows: water solubles first, wettable powders or dry flowables second, liquid flowables third, and emulsifiable concentrate or oil formulations last, with each jar capped and gently shaken for five to ten seconds for each addition.

Gallons of Liquid Carrier per Acre	4	10	15	20	25	30	40
Teaspoons of BLADEX 90 DF per Pint of Liquid Carrier	6.25	2.5	1.5	1.25	1.0	0.75	0.5

This chart is based on one pound of BLADEX 90DF (0.9 pounds active ingredient) per acre in the indicated carrier volumes. Intended field use rates are achieved by varying the amount of BLADEX 90DF; i.e., for a field use rate of 2.5 pounds of BLADEX 90DF in 15 gallons of carrier per acre, add 3.75 teaspoons of BLADEX to the quart jars containing one pint of carrier. Calculation: 2.5 pounds of BLADEX 90DF/15 gallons of carrier per acre = 2.5 X 1.5 teaspoons of BLADEX 90DF per pint of carrier.

4. Let each jar stand one-half hour and make observations. If any separation, agglomeration, or precipitation has occurred, shake the jar again for 10 to 15 seconds, and note whether any of the following occur:

   a. Separated phases do not remix uniformly

   b. Screen/nozzle plugging lumps do not disperse

   c. Precipitate does not resuspend readily

   d. Precipitate sticks tenaciously to the glass

5. If none of the above problems occur in either jar, then the herbicides can, in most cases, be safely used without a compatibility agent.

6. If problems a or b occur in the jar marked "without" but do not occur in the jar marked "with," the compatibility agent should be used.

7. If problems a or b are seen in both jars, then the herbicides and carrier mixture are incompatible and should not be used in the same spray tank. Alternatively, a different tank mix compatibility agent can be evaluated.

8. If problems c or d occur in the jar marked "without" but do not occur in the jar marked "with," the compatibility agent should be used unless constant, thorough agitation can be maintained and immediate clean-out of spray system is performed.

9. If problems c and d are seen in the jar marked "with," the user proceeds with mixing and application at his own risk should agitation in the system be insufficient or curtailed.

10. Those mixtures defined as compatible in this test should then be mixed for use as indicated in steps 1-12 of the general mixing instructions listed above.

III. Application Equipment

1. Use application equipment fitted with nozzles that provide accurate and uniform coverage. Be certain that nozzles are uniformly spaced and the same size. Calibrate sprayer before use and recheck frequently during use whenever possible.

2. Use a pump with capacity to:

   a. Maintain 35-40 psi at nozzles

   b. Provide sufficient agitation in tank to keep mixture in suspension

   c. Provide a minimum of 20 percent bypass at all times

3. Use centrifugal pumps which provide sufficient shear action for dispersing and mixing this product. The pump should provide a minimum of 10 gallons/minute/100-gallon tank size circulated through the jets of a correctly-positioned sparger tube.

4. Use screens to protect the pump and to prevent nozzles from clogging. Screens placed on suction side of pump should be 10 to 16 mesh. Do not place a screen in the recirculation line. Use a 40- to 50-mesh screen between the pump and boom and, where required, 50-mesh screens

at the nozzles. Check your equipment manufacturer's literature for specific recommendations.

Application in Center Pivot Sprinkler Irrigation Water (For use in Midwest and Plains States only).

BLADEX 90DF alone or in tank-mix combinations with atrazine or Lasso 4 EC, may be applied in center pivot sprinkler irrigation water. Apply anytime after planting but prior to crop emergence. Pre-mix the herbicide(s) in water to form a slurry and inject at a carefully calibrated rate into the irrigation water during the entire period of the run. Mix as directed for a spray application. Provide good agitation for the herbicide mixture throughout the application.

Select the correct application rate of BLADEX 90DF or the BLADEX tank-mix combinations from the rate tables listed on this label.

Example:

A center pivot sprinkler that is 1320 feet long (1/4 mile) will irrigate 125.7 acres. A sandy loam soil containing 2% organic matter will require 2.2 pounds of BLADEX 90DF per acre.

125.7 A x 2.2 lbs. = 276.5 lbs. BLADEX 90DF

Mixing tank size 600 gallons. Sprinkler takes 20 hours to apply 1/2 inch of water to the complete circle; inject rate =

$\frac{600}{20}$ = 30 gal./hr/ or 0.5 gal./minute

Calibrate injection pump to deliver herbicide mix into the irrigation system at the rate of 30 gallons per hour or 0.5 gallons per minute. Add 276 5 pounds of BLADEX 90DF to the tank.

For tank-mix combinations select the correct dosage rate and follow the same procedures outlined above for each herbicide component.

Apply in 1/2 to 1 acre inch of water. Use this method of application only with irrigation systems designed for uniform application of water.

Additional Use Precautions

1. Apply product or tank mixes only through center pivot irrigation systems containing anti-siphon and check valves which will prevent water source contamination and overflow of the slurry tank and containing interlocking controls between metering device and the water pump to ensure simultaneous shut off.

2. Inject the herbicide mix with a positive displacement pump into the main line ahead of a right angle turn to ensure adequate mixing.

3. Application of more than label recommended quantities of irrigation water per acre may result in decreased product performance by removing the chemical from the zone of effectiveness.

4. Do not apply when wind speed favors drift, when system connectors leak, when nozzles do not provide uniform distribution or when lines containing the product must be drained and dismantled.

5. Greater accuracy in calibration and distribution will be achieved by injecting a large volume or more dilute slurry per hour.

6. Where sprinkler distribution patterns do not overlay sufficiently, unacceptable weed control may result. Where sprinkler distribution patterns overlap excessively, crop injury may result.

7. Make sure the system is designed to shut off the herbicide injection if the traveling sprinkler stalls or stops for any reason, even if the water pump does not shut off.

CORN

WEEDS CONTROLLED BY BLADEX 90DF ALONE AND IN COMBINATION WITH OTHER HERBICIDES ON CORN

Grasses

Annual bluegrass
Annual fescues
Annual (Italian) ryegrass
Barnyardgrass[1]
Bullgrass
Crabgrass
Fall panicum
Giant foxtail
Goosegrass
Green foxtail
Junglerice
Stinkgrass (Indian lovegrass)
Witchgrass
Yellow foxtail

Broadleaves

Annual groundcherry
Annual morningglory
Annual sedge
Black mustard
Buffalobur
galinsoga
Buttercup (annual) (Pennsylvania)
Carpetweed
Cocklebur[2]
Common chickweed (Gumweed)
Common groundsel
Common mallow
Common purslane
Corn spurry
Curly dock (seedling)
Fiddleneck
Florida pusley (Florida purslane)
Hedge mustard
Jimsonweed[1]
Kochia
Ladysthumb
Lambsquarters
Mayweed
Nightshade (annual)
Pigweed[1]
Pineappleweed
Plantain
Poorjoe
Prickly sida (teaweed)
Prostrate knotweed
Prostrate spurge
Ragweed
Russian Thistle
Shepherdspurse
Smallflower
Smartweed
Sunflower[2] (wild, annual, common)
Tarweed cuphea
Velvetleaf[1]
Wild buckwheat
Wild mustard
Wild radish
Wild turnip

[1]Under conditions such as low temperatures, lack of soil surface moisture or other factors that may cause delay in germination of the seeds, the effectiveness of BLADEX may be impaired against these weeds.

[2]The degree of control will be reduced if soil moisture and temperature conditions cause deep germination of the seed.

Preemergence-Preplant Incorporated

Apply BLADEX treatments just before, at or after planting but before crop has emerged. Avoid removal of treated soil from seedrow prior to or during the planting operation.

BLADEX may also be applied early prior to planting or in a split application if preseason weed control is desired. For split applications, do not exceed the total amount of BLADEX for the soil texture and organic matter shown in Table 1. If BLADEX is applied early, more than 15 days before planting, a split application of BLADEX or some other herbicide treatment may be necessary at or after planting to provide additional length of weed control. For further information see "Early Preplant" recommendations in the Conservation Tillage section of label.

A rotary hoeing is recommended for preemergence applications which do not receive adequate rainfall or sprinkler irrigation to wet the top 1½-2" of soil within about 10 days after application.

If a BLADEX mixture is to be incorporated, except as noted, single or two pass incorporation is acceptable. Care should be taken to incorporate the BLADEX mixture no deeper than the top two inches of soil.

BLADEX Applied Alone

Use at the proper rate for soil texture and organic matter indicated in Table 1. Any rotational crop may be planted in the fall or spring following this treatment.

TABLE 1

PREEMERGENCE BROADCAST APPLICATION RATES PER ACRE FOR BLADEX 90DF APPLIED ALONE ON CORN

Soil Texture Description	Pounds of BLADEX 90DF Percent Organic Matter in Soil*					
	Less Than 1%	1%	2%	3%	4%	5% & Over
Sand, Loamy Sand	DO NOT USE	1.3	1.8	2.4	3.1	3.6
Sandy Loam	1.3	2.0	2.2	2.7	3.3	4.0
Loam, Silt Loam, Silt	1.8	2.2	2.7	3.3	4.0	4.4
Sandy Clay Loam, Clay Loam, Silty Clay Loam	2.2	2.7	3.3	4.0	4.4	4.9
Sandy Clay, Silty Clay, Clay	3.1	3.3	4.0	4.4	4.9	5.3
Peat or Muck	NOT RECOMMENDED					

* For organic matter content between those listed, adjust the rate proportionately.

BLADEX COMBINATIONS

BLADEX plus Atrazine

Use at the proper rate for soil texture and organic matter indicated in Table 2. Table 2 provides rates for generally weedy conditions. The ratio of the amounts of each herbicide may be adjusted as necessary for particular weed conditions as long as the combined rate of the two products does not exceed the combined rate for the soil shown in Table 2. For grassier conditions use a ratio that contains higher levels of BLADEX (3:1). For fields with more broadleaves use a ratio that contains higher levels of atrazine (1:1).

Rotational crops: (1) Plant only corn, peanuts, sorghum, or soybeans the year following the use of this mixture. (2) If soybeans are to be planted, injury may occur due to the carryover of atrazine. (3) If applied after June 10, do not rotate with crops other than corn or sorghum the next year or injury may occur. (4) In the high plains and intermountain areas of the west where rainfall is sparse and erratic or where irrigation is required, use only when corn or sorghum is to be planted the following year, or a crop of corn or sorghum not treated with atrazine is to precede other rotational crops. (5) Small grains may be planted 15 months following treatment. (6) All other crops may be planted 18 months after application.

TABLE 2

PREEMERGENCE BROADCAST APPLICATION RATES PER ACRE FOR TANK-MIX COMBINATIONS OF BLADEX 90DF PLUS ATRAZINE 90DF ON CORN

Soil Texture Description	Pounds of BLADEX 90DF + Pounds of Atrazine 90DF** Percent Organic Matter in Soil*					
	Less Than 1%	1%	2%	3%	4%	5% & Over
Sand, Loamy Sand	DO NOT USE	0.9+0.4	1.3+0.4	1.6+0.7	1.8+0.9	2.4+1.1
Sandy Loam	0.9+0.4	1.3+0.4	1.6+0.7	1.8+0.9	2.4+1.1	3.1+1.3
Loam, Silt Loam, Silt	1.3+0.4	1.6+0.7	2.2+0.9	2.4+1.1	3.1+1.3	3.6+1.3
Sandy Clay Loam, Clay Loam, Silty Clay Loam	1.6+0.7	2.2+0.9	2.4+1.1	3.1+1.3	3.6+1.3	3.8+1.6
Sandy Clay, Silty Clay, Clay	2.2+0.9	2.4+1.1	3.1+1.3	3.6+1.3	3.8+1.6	4.0+1.8
Peat or Muck	NOT RECOMMENDED					

*For organic matter content between those listed, adjust the rate proportionately.

**If Atrazine 4L is used, multiply rates shown by 0.9 to equal quarts of Atrazine 4L.
If Atrazine 80W is used, multiply rates shown by 1.125 to equal pounds of Atrazine 80W.

BLADEX plus Lasso 4 EC

Use BLADEX 90DF at the proper rate for the soil texture and organic matter shown in Table 3 plus 2 quarts per acre of Lasso. (Use 2.5 quarts Lasso on clay soils containing 5 percent organic matter and over). Any rotational crop may be planted the fall or spring following this treatment.

BLADEX plus Sutan+ 6.7E, or Eradicane™ 6.7E

Use BLADEX 90DF at the proper rate for the soil texture and organic matter shown in Table 3 plus 1.8 quarts per acre of Sutan+ or Eradicane for control of many annual grasses and broadleaf weeds. (Use 2.4 quarts of Sutan+ or Eradicane on loam soils containing 5 percent or more organic matter, and clay loams and clays containing 4 percent or more organic matter). Do not use on sands and loamy sands of less than 1 percent organic matter in the light sandy soils of eastern coastal states. Do not use on corn seed stock.

Apply before planting. Incorporate the mixture immediately upon application using power-driven cultivation equipment set for 2-3 inch depth, or a tandem disc set to cut to a depth of about 4 inches while operating at 4-6 mph. For thorough mixing, disc in two directions (cross disc), and follow with a harrow, drag, or other leveling device. Prior to the second discing, readjust the disc to prevent cutting deeper than 4 inches. BLADEX 90DF may be applied preemergence as an overlay over previous incorporated Sutan+ or Eradicane if desired. Any rotation crop may be planted in the fall or spring following these treatments.

Existing stands of quackgrass, purple and yellow nutsedge must be turned under and thoroughly chopped up prior to chemical treatments.

Additional weeds controlled by Sutan+ or Eradicane combinations:

Grasses	Sandbur
	Shattercane (Wild Cane)*
	Texas Panicum
	Quackgrass (Eradicane only)
	Wild Proso Millet* (Eradicane only)
Perennial Weeds	Yellow Nutsedge (nutgrass)
	Purple Nutsedge (nutgrass)

*Suppression only--refer to Sutan+ or Eradicane label for appropriate supplement cultural and tillage practices.

For fields with moderate to heavy infestations of these weeds refer to the Sutan+ or Eradicane labels for appropriate higher rates.

BLADEX Plus Dual 8E

Use BLADEX 90DF at the proper rate for soil texture and organic matter shown in Table 3. Use Dual as follows:

SOIL TEXTURE	BROADCAST RATE PER ACRE FOR DUAL
Coarse	
Sand, loamy sand, sandy loam	1.25 - 1.5 pints
Medium	
Loam, silt loam, silt	1.5 - 2.0 pints
Fine	
Sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, clay	1.5 - 2.5 pints

The low end of the rate range should be used for lowest organic matter soils and the rate increased as organic matter increases to a point that soils containing 4 percent organic matter or more require the highest rate shown for that soil texture. Refer to the Dual label for precautions on rotational crops.

TABLE 3

PREEMERGENCE BROADCAST APPLICATION RATES PER ACRE FOR BLADEX 90DF USED IN TANK-MIX COMBINATIONS WITH LASSO, SUTAN+, ERADICANE, OR DUAL ON CORN

	Pounds of BLADEX 90DF Percent Organic Matter in Soil*					
Soil Texture Description	Less Than 1%	1%	2%	3%	4%	5% & Over
Sand, Loamy Sand	0.7**	0.9	1.3	1.6	1.8	2.2
Sandy Loam	0.9	1.3	1.6	1.8	2.2	2.4
Loam, Silt Loam, Silt	1.3	1.6	1.8	2.2	2.4	2.9
Sandy Clay Loam, Clay Loam, Silty Clay Loam	1.6	2.0	2.2	2.4	2.9	3.1
Sandy Clay, Silty Clay, Clay	2.0	2.2	2.7	2.9	3.1	3.3
Peat or Muck	NOT RECOMMENDED					

*For organic matter content between those listed, adjust the rate proportionately.
**Do not use in the Atlantic Coastal Plain.

<u>BLADEX plus Atrazine plus Lasso, Sutan+, Eradicane, or Dual</u>

Use BLADEX 90DF plus atrazine at the proper rate for soil texture and organic matter shown in Table 4. Use Lasso, Sutan+, Eradicane, or Dual according to rates shown in "BLADEX Combinations" in this section of the label.

Rotational crops: Refer to Rotational Crops section of "BLADEX plus Atrazine" in this section of the label.

TABLE 4

PREEMERGENCE BROADCAST APPLICATION RATES PER ACRE FOR BLADEX 90DF PLUS ATRAZINE 90DF USED IN TANK-MIX COMBINATIONS WITH LASSO, SUTAN+, ERADICANE, OR DUAL ON CORN

Soil Texture Description	Pounds of BLADEX 90DF + Pounds Atrazine 90DF*** Percent of Organic Matter in Soil*					
	Less Than 1%	1%	2%	3%	4%	5% & Over
Sand, Loamy Sand	0.5+0.2**	0.7+0.2	0.9+0.4	1.2+0.4	1.1+0.7	1.6+0.6
Sandy Loam	0.7+0.2	0.9+0.4	1.2+0.4	1.1+0.7	1.6+0.6	1.8+0.6
Loam, Silt Loam, Silt	0.9+0.4	1.2+0.4	1.3+0.5	1.6+0.6	1.8+0.6	2.0+0.9
Sandy Clay Loam, Clay Loam, Silty Clay Loam	1.2+0.4	1.3+0.7	1.6+0.6	1.8+0.6	2.0+0.9	2.2+0.9
Sandy Clay, Silty Clay, Clay	1.3+0.7	1.6+0.6	1.8+0.9	2.0+0.9	2.2+0.9	2.2+1.1
Peat or Muck	NOT RECOMMENDED					

*For organic matter content between those listed, adjust the rate proportionately.

**Do not use in the Atlantic Coast Plain.

***If Atrazine 4L is used, multiply rates shown by 0.9 to equal quarts of Atrazine 4L.
If Atrazine 80W is used, multiply rates shown by 1.125 to equal pounds of Atrazine 80W.

Conservation Tillage Weed Control

Early Preplant (EPP)

[Prior to planting weed control for land going into production of corn.]

Complete any planned early spring tillage prior to application. Apply herbicide treatment before weeds germinate or before weed seedlings are more than 3 inches tall. Tillage after application may reduce the effectiveness of the herbicide treatment.

Apply BLADEX or BLADEX plus atrazine tank mix 15 - 30 days prior to planting. Use the proper rate for soil texture and organic matter indicated in Table 1 or 2. Where heavy crop residues exist, the rates shown in Tables 1 or 2 should be increased by 25%.

Where broadleaf weeds are present, add 2,4-D LV Ester at 1 1/3 - 2 pts./A (6 lb./gal.) or 2 - 3 pts./A. (4 lbs./gal.) plus X-77 surfactant at 1 qt./100 gals. of diluted spray, or other suitable surfactant at its recommended rate. If existing weeds exceed 3 inches in height, add 1 - 2 pts./A. of paraquat to the above mixture. Well established weeds over 6 inches tall may not be well controlled. Use at least 25 gals./A. of spray mixture by ground rig or 5 - 10 gals./A. for aerial application.

Depending upon weather conditions following the EPP application, a post-emergence BLADEX treatment, or some other herbicide treatment may be necessary at or after planting to provide additional length of weed control. If desired, 1½ - 2 pts./A. of Dual or 2 qts./A of Lasso may be tank mixed with the BLADEX EPP treatment or applied preemergence at planting.

Rotational Crops: Refer to Rotational Crops section for each treatment in the Preemergence section of the label.

At Planting

BLADEX 90DF applied alone or in combination with atrazine and/or Lasso or Dual according to the following directions will kill most existing small weeds and suppress many emerged perennial weeds when corn is planted into no-till stalk ground (corn, sorghum), stubble ground (soybean, small grains), and any minimum-till situation. This treatment then provides residual control of annual weeds as in conventional tillage.

Apply BLADEX 90DF alone or with other products according to the directions for those treatments in the Preemergence section of the label. Where heavy crop residues exist, the BLADEX rate shown in Tables 1, 2, 3 or 4 should be increased by 25%. Add ½-1 pt./A of 2,4-D Low Volatile 6 lb. Ester (0.75-1.5 pt./A 2,4-D LV 4 lb. Ester). Add the 2,4-D LV to the spray tank last. Use a minimum of 25 gals/A. of carrier. Complete spray coverage of the weeds is essential for best performance. Nitgrogen solutions and complete liquid fertilizers are the preferred carriers for this treatment as they aid in the burndown of existing weeds. Add Ortho X-77™ surfactant at 1-2 qts. per

100 gals. of diluted spray, or other suitable surfactant at its recommended rate. If water is used as a carrier, crop oil concentrate may be used as a surfactant. Apply before weeds exceed 3" in height. For control of existing alfalfa add 1/3-1/2 pt/A. of Banvel™ to the spray mixture. Apply before the alfalfa exceeds 6" in height.

For fields with existing sod grasses such as orchardgrass, bromegrass, rye or timothy, or when very dry conditions exist, or when existing weeds exceed 3" in height, add paraquat to the tank-mix. Use 2 pts/A. of paraquat in combination with BLADEX as described above in this section, except the 2,4-D LV may be omitted if desired. Do not apply paraquat in suspension type liquid fertilizer.

POSTEMERGENCE

BLADEX Applied Alone

Use BLADEX 90DF at the proper rate for the soil texture and organic matter shown in Table 5 or 5A. Use rates shown in Table 5 if BLADEX has not been applied to the soil this season. Use rates shown in Table 5A if BLADEX has been applied to the soil this season. This treatment may be used on peat or muck soils for burndown and suppression of existing weeds but will not provide residual control. Apply from crop emergence through the four-leaf stage of corn growth but before weeds exceed about 1-1/2" in height. Do not apply over the top of corn if the fifth leaf is visible. Apply in water only. Do not spray emerged corn plants in a liquid fertilizer carrier.

Under dry, arid conditions of low humidity and the absence of dew formation at night, add a surfactant such as X-77, or an emulsible vegetable (EV) oil suitable for use on growing corn at its recommended rate. Do not use petroleum-based crop oils. Addition of a surfactant or EV oil is not recommended under moist, rainy conditions and when dew forms at night as injury may occur.

DO NOT APPLY THIS TREATMENT UNDER COLD, WET WEATHER CONDITIONS OR TO WEATHER-STRESSED OR STORM-DAMAGED CORN.

Yellowing of the corn may result from this treatment, particularly if cold, adverse growing conditions occur after application. Extended or extreme cold and wet conditions may reduce stands.

Do not use on corn for seed. Any rotational crop may be planted the fall or spring following this treatment.

TABLE 5

POSTEMERGENCE BROADCAST APPLICATION RATES PER ACRE FOR BLADEX 90DF ON CORN

NO PRIOR BLADEX APPLICATION

	Pounds of BLADEX 90DF Percent Organic Matter in Soil*			
Soil Texture	Less than 1%	1%	2%	Over 2%
Sand, Loamy Sand	DO NOT USE	1.3	1.8	2.2
Sandy Loam	1.3	1.8	2.2	2.2
Loam, Silt Loam, Silt	1.8	2.2	2.2	2.2
All other textures	2.2	2.2	2.2	2.2

*For organic matter content between those listed, adjust the rate proportionately.

TABLE 5A

POSTEMERGENCE BROADCAST APPLICATION RATES PER ACRE FOR BLADEX 90DF ON CORN

BLADEX USED IN PRIOR APPLICATION

	Pounds of BLADEX 90DF Percent Organic Matter in Soil*			
Soil Texture	Less than 1%	1%	2%	Over 2%
Sand, Loamy Sand	DO NOT USE	DO NOT USE	1.5	1.5
Sandy Loam	DO NOT USE	DO NOT USE	1.75	2.2
Loam, Silt Loam, Silt	DO NOT USE	1.5	2.2	2.2
All other textures	DO NOT USE	2.0	2.2	2.2

*For organic matter content between those listed, adjust the rate proportionately.

BLADEX Combinations

BLADEX Plus Atrazine

Apply as directed in "Postemergence-BLADEX Applied Alone" section of this label. Use an amount of BLADEX 90DF plus Atrazine 90DF equal to the rate shown in Table 5 or 5A for the proper soil texture and organic matter. To determine the amount of BLADEX 90DF to use, multiply the rate indicated by 0.7. To determine the amount of Atrazine 90DF to use, multiply the rate indicated by 0.3. (For the 2.2 lb/A. rate shown in Table 5, use 1.5 lbs/A. of BLADEX 90DF plus 0.7 lbs/A. of Atrazine 90DF.)

Rotational Crops: See Rotational Crops section in the "Preemergence BLADEX Plus Atrazine" section of this label.

BLADEX Plus Banvel

Apply as directed under "Postemergence - BLADEX Applied Alone" section of this label. Add 1/2 - 2/3 pt/A. of Banvel to the mixture. Do not use with a surfactant or emulsible vegetable oil.

COTTON

IDLE SEASON EARLY PREPLANT WEED CONTROL (CALIFORNIA ONLY)

Weeds Controlled

Grasses

Annual Bluegrass	Volunteer Small Grains (suppression)
Annual Ryegrass	Wild Oat*
Barnyardgrass*	Yellow Foxtail
Bristly Foxtail	
Rabbitsfoot Grass	

Broadleaves

Annual Henbit	Groundsel	Pineapple Weed
Black Nightshade	Knotweed	Prickley Lettuce
Burclover	Marestail	Shepherdspurse
Cheeseweed*	Miners Lettuce	Sowthistle
Fiddleneck	Lambsquarter	Wild Mustard
	London Rocket	Wild Radish

*Under soil moisture conditions favoring deep germination, these species may not be completely controlled.

BLADEX may be used for burndown of small existing annual weeds and residual control of weeds during the winter and early spring season prior to planting cotton in California only. Complete any planned tillage prior to application. Apply herbicide treatment before weeds germinate or before weed seedlings are more than 3 inches tall. Tillage after application may reduce the effectiveness of the herbicide treatment.

Apply BLADEX at least 30 days prior to planting. Apply the proper rate for the soil texture, organic matter and time interval between application and planting indicated in the following table. Where existing weeds are present, add crop oil concentrate, surfactant, or emulsible vegetable oil at its recommended rate to aid in the burndown of small weeds.

Where existing weeds are greater than 3 inches in height, when very dry conditions exist or where volunteer grains are a major problem, tank-mix BLADEX with 1 - 2 pts./A. of paraquat or 2 - 3 pts./A. of Dinitro 5 Weed Killer. Well established weed 6 - 8 inches tall or taller may not be well controlled.

Apply BLADEX in at least 20 gal./A. of carrier by ground, 5 gal./A. by air. Add X-77 surfactant at 1 - 2 qts./100 gals. of diluted spray where paraquat is used. Crop oil concentrate or emulsible vegetable oil are not needed where paraquat or Dinitro Weed Killer are used.

BLADEX can also be tank-mixed with Treflan™ pre-plant incorporated for fall listed cotton beds instead of surface applied as described above.

BROADCAST APPLICATION RATES PER ACRE FOR BLADEX 90DF
IDLE SEASON EARLY PREPLANT TREATMENT ON COTTON

	DAYS PRIOR TO PLANTING*					
	30 Days		60 Days		90 days+	
	Pounds of BLADEX 90DF Organic Matter		Pounds of BLADEX 90DF Organic Matter		Pounds of BLADEX 90DF Organic Matter	
Soil Texture	2% or Less	2% or More	2% or Less	2% or More	2% or Less	2% or More
Sands & Loamy Sands	1.75	2.25	2.75	3.25	3.25	4.0
All Other Soils	2.25	2.75	3.25	4.0	4.0	4.5

*For time intervals between those listed, adjust the rate proportionately.

Precautions: 1) Failure to wait the recommended time interval between application and planting may result in crop injury. 2) At least one inch of rainfall or an equivalent irrigation that waters the surface of the soil after application must precede planting. 3) The use of this treatment on calcareous or caliche soil outcroppings may result in crop injury. 4) Do not graze or feed foliage from treated areas to livestock.

PREEMERGENCE USE

Weeds Controlled

Annual morningglory
Cocklebur
Prickly sida (teaweed)
Spurge

BLADEX 90DF Herbicide is a selective preemergence herbicide for early season weed control in cotton. Supplemental practices (such as directed postemergence BLADEX 90DF application) may be necessary to control late season weeds. BLADEX 90DF can be used in a tank-mix combination with Zorial™ 80WP. Apply only in the states of AL, AR, LA, MS.

Carefully match the BLADEX rate with the soil texture. Do not use on fields where the soil texture changes from coarse to fine. Avoid overlapping the

spray pattern or overdosing the field with BLADEX 90DF. Application rates above those recommended for the soil texture can result in yellowing or stunting of the crop and may result in stand reduction.

While cotton exhibits tolerance to BLADEX 90DF, adverse growing conditions such as excessive rains, standing water or cold weather may result in stand reduction.

DO NOT GRAZE OR FEED FOLIAGE FROM TREATED AREAS TO LIVESTOCK.

TABLE 6

PREEMERGENCE BROADCAST APPLICATION
RATES PER ACRE FOR BLADEX 90DF ON COTTON

Soil Texture (Soil Texture must contain at least 1.0% Organic Matter)		Lbs. BLADEX 90DF Organic Matter	
		1 - 1.5%	Over 1.5%
Coarse Soils	Sandy loam	0.9	0.9
Medium Soils	Silt and silt loam	0.9 - 1.1	1.1
	Loam, clay loam, sandy clay loam, and sandy clay	1.3 - 1.8	1.8
Fine Soils	Silty clay loam, silty clay and clay	1.8 - 2.2	2.2

Do not use BLADEX 90DF on coarse soils (sands and loamy sands) containing more than 70 percent sand. Do not use BLADEX 90DF on soils containing less than 1 percent organic matter. Use of BLADEX 90DF on sands and loamy sands and/or soils containing less than 1 percent organic matter will likely result in injury to the cotton crop.

BLADEX Plus Zorial 80WP

Apply BLADEX 90DF plus Zorial 80WP at the proper rate for the soil texture shown in Table 7. The soil must contain at least 1.0 percent organic matter. Seed placement should be 1/2 - 3/4 inch from the soil surface. Plant only cotton within six months after the last application of Zorial 80WP or injury may occur.

TABLE 7

PREEMERGENCE BROADCAST APPLICATION RATES PER ACRE FOR BLADEX 90DF + ZORIAL 80WP ON COTTON

Soil Texture (Soil Texture must contain at least 1.0% Organic Matter)		BLADEX 90DF lbs.	+ ZORIAL 90DF lbs.
Coarse Soils	Sandy loam	0.6	.8
Medium Soils	Silt and silt loam	0.7	1.3
	Loam, clay loam, sandy clay loam, and sandy clay	1.0	1.3
Fine Soils	Silty clay loam, silty clay and clay	1.3	1.6

DO NOT USE ON COARSE SOILS (SANDS AND LOAMY SANDS) CONTAINING MORE THAN 70% SAND.

DIRECTED POSTEMERGENCE - LAYBY USE

WEEDS CONTROLLED

Annual morningglory*	Palmer amaranth
Bristly starbur	Pigweed (redroot and spiny)
Cocklebur	Prickly sida (teaweed)
Crotalaria	Sicklepod
Jimsonweed	Spurge
Lambsquarters	Tropic croton
Nightshade (annual)	Wright groundcherry

*The degree of preemergence control from a layby treatment will be reduced if soil, moisture and temperature conditions cause deep germination of the seed.

BLADEX 90DF and tank-mix combinations may be applied directed postemergence/layby to cotton and either preemergence to weeds or postemergence to weeds in all cotton growing states. Apply before weeds are more than 2 inches tall.

Apply the directed postemergence treatment after the cotton has attained the minimum height of 6 inches. For layby treatment, apply BLADEX 90DF after the cotton has attained a height of 12 inches or more.

The spray mixture should be directed to the soil around the base of the cotton plants. Care should be taken to prevent the spray from striking the cotton leaves as injury will occur. The use of leaf lifters or shields on application equipment is recommended to help avoid the spray contacting the cotton foliage.

BLADEX may be applied postemergence following a preemergence application of BLADEX. Apply no more than two postemergence and one preemergence application to the same crop in any one year. In California, apply no more than two postemergence applications. If BLADEX is not used preemergence, apply no more than three postemergence applications to the same crop in any one year. When applied as a layby treatment before weeds emerge, the effectiveness of BLADEX 90DF depends on rainfall or irrigation to move it into the soil. When irrigation water activation is used, every row must be watered and for skip row cotton all treated soil must be irrigated. Any rotational crop may be planted the fall or spring following any of the treatments in this section.

DO NOT GRAZE OR FEED FOLIAGE FROM TREATED AREAS TO LIVESTOCK.

BLADEX Applied Alone

Apply BLADEX 90DF directed-postemergence at the rate shown in Table 8. Apply at layby at the rates for the soil texture indicated in Table 9. Add an agricultural surfactant such as X-77 or other surfactant suitable for use on growing cotton at the rate of 2 quarts per 100 gallons of spray mixture (or as directed by the manufacturer).

TABLE 8

DIRECTED POSTEMERGENCE APPLICATION RATES
PER ACRE FOR BLADEX 90DF ON COTTON

	Banded 38" Row	
Broadcast	12" Band	19" Band
0.7 - 1.1 lb.	0.2 - 0.4 lb.	0.4 - 0.5 lb.

Use the maximum rate when dry or arid conditions exist.

TABLE 9

LAYBY APPLICATION RATES PER ACRE FOR BLADEX 90DF ON COTTON

Height of Cotton		Soil Texture	Broadcast Rates
12 inches or more	Coarse	Sandy Loam	0.9 lb.
	Medium	Silt and silt loam, loam, clay loam, sandy clay loam and sandy clay	1.3 lb.
	Fine	Silty clay loam, silty clay and clay	1.8 lb.

BLADEX Plus MSMA

Apply a tank-mix combination of BLADEX 90DF plus MSMA plus surfactant after the cotton is 6" tall but before it reaches the bloom stage. Apply no more than two applications of this mixture before the first bloom stage. Tank-mix BLADEX plus MSMA at the rates indicated in Table 10. Add a surfactant, such as X-77, at the rate of 2 qts./100 gals of spray mixture (or as directed by the manufacturer).

TABLE 10

DIRECTED POSTEMERGENCE APPLICATION RATES PER ACRE FOR BLADEX 90DF + MSMA ON COTTON

	Banded 38" Row	
Broadcast	12" Band	19" Band
0.7 - 1.1 lb. BLADEX 90DF	0.2 - 0.4 lb.	0.4 - 0.5 lb.
+	+	+
4 pints MSMA (4 lb/gal)	1.3 pints	2 pints
or	or	or
2.4 pints MSMA (6.6 lb/gal)	0.8 pint	1.2 pints

BLADEX Plus Dinitro (dinoseb)

Apply a tank-mix combination of BLADEX 90DF plus Dinitro 3 plus surfactant after the cotton is 6" tall. Tank-mix BLADEX 90DF plus Dinitro 3 at the rates indicated in Table 11. Add a surfactant, such as X-77, at the rate of 2 qts/100 gals. of spray mixture. Do not apply when soil surface is wet or cotton plants are extremely succulent. Do not apply in CA or AZ.

TABLE 11

DIRECTED-POSTEMERGENCE APPLICATION RATES PER ACRE FOR BLADEX 90DF + DINITRO ON COTTON

	Banded 38" Row	
Broadcast	12" Band	19" Band
0.7 - 1.1 lb. BLADEX 90DF	0.2 - 0.4 lb.	0.4 - 0.5 lb.
+	+	+
1 - 2 qts. DINITRO 3	0.3 - 0.65 qt.	0.5 - 1.0 qts.

BLADEX Plus MSMA Plus Dinitro (dinoseb)

Apply as directed in the "BLADEX Plus MSMA" section of the label. Tank-mix BLADEX plus MSMA at the rates shown in Table 10. Add Dinitro at the rate shown in Table 11. Add a surfactant, such as X-77, at the rate of 2 qts./100 gals. of spray mixture. Do not apply when soil surface is wet or cotton plants are extremely succulent. Do not apply in CA or AZ.

GRAIN SORGHUM (MILO)

Tank-mix combinations of BLADEX 90DF plus propachlor (Ramrod™) or propazine (Milogard™) may be used for selective preemergence weed control in grain sorghum. Do not use on forage sorghum.

BLADEX 90DF in tank-mix combination with propachlor or propazine should be applied only once per crop season. If replanting of grain sorghum is necessary it may be planted in soil previously treated with these mixtures. Do not make a second application of BLADEX or crop injury may occur. Apply these tank-mix combinations at planting or after planting, but before the crop and weeds have emerged. Heavy rain immediately following application tends to cause excessive concentrations of herbicide in seed furrow, resulting in possible crop injury. Do not apply to furrow-planted sorghum until furrows are leveled (plowed-in). Level deep planter marks or seed furrows before application. Application to sorghum growing under stress caused by minor element deficiency or to sorghum growing on highly calcareous soil may result in crop injury.

BLADEX 90DF Plus Propachlor (Ramrod)

WEEDS CONTROLLED

Grasses

Barnyardgrass
Crabgrass
Fall panicum
Giant foxtail
Green foxtail
Yellow foxtail

Broadleaves

Annual morningglory
Carpetweed
Cocklebur*
Common purslane
Lambsquarters
Pigweed
Ragweed
Smartweed (Pennsylvania)
Velvetleaf*

*Under conditions such as low temperatures, lack of soil surface moisture or other factors that may cause delay in germination of the seeds, the effectiveness of BLADEX may be impaired against these weeds.

Apply BLADEX 90DF plus propachlor at the proper rate for soil texture and organic matter shown in Table 12. Only apply this tank-mix to grain sorghum grown in states East of the Rocky Mountains. Any rotational crop may be planted the fall or spring following this treatment.

TABLE 12

PREEMERGENCE BROADCAST APPLICATION RATES PER ACRE FOR BLADEX 90DF + PROPACHLOR (RAMROD) 4L ON GRAIN SORGHUM

	PERCENT ORGANIC MATTER IN SOIL*			
	2%		3%	
SOIL TEXTURE DESCRIPTION	LBS./ACRE BLADEX 90DF	QTS./ACRE PROPACHLOR 4L	LBS./ACRE BLADEX 90DF	QTS./ACRE PROPACHLOR 4L
Sand, Loamy sand	DO NOT USE			
Sandy loam	1.1	2.5	1.3	3.0
Loam, Silt loam, Silt	1.3	3.0	1.5	3.5
Sandy clay loam, Clay loam, Silty clay loam	1.5	3.5	1.8	4.0
Sandy clay, Silty clay, Clay	1.8	4.0	1.8	4.0
Peat or Muck	NOT RECOMMENDED			

*For organic matter content between those listed, adjust the rate proportionately.

BLADEX Plus Propazine (Milogard)

WEEDS CONTROLLED

Grasses

Crabgrass	Green foxtail
Fall panicum	Yellow foxtail
Giant foxtail	

Broadleaves

Annual morningglory	Pigweed
Carpetweed	Puncturevine
Cocklebur	Ragweed
Common purslane	Smartweed
Lamsbsquarters	Velvetleaf

Apply BLADEX 90DF plus Propazine at the proper rate for soil texture shown in Table 13.

Apply to grain sorghum grown only in the states of Texas, Oklahoma, and Kansas. Rotational Crops: In the Texas Gulf Coast and Texas Blacklands, fields treated with this tank-mix may be planted to cotton, soybeans, or corn 12 months after treatment. In Oklahoma and West Texas, fields treated with this tank-mix may be planted to cotton or corn 12 months after application. In Kansas, corn may be planted in rotation 12 months after treatment. Other crops should not be planted for 18 months following treatment.

TABLE 13

PREEMERGENCE BROADCAST APPLICATION RATES PER ACRE FOR BLADEX 90DF + PROPAZINE (MILOGARD) 4L ON GRAIN SORGHUM

SOIL TEXTURE	LBS./ACRE BLADEX 90DF	QTS./ACRE PROPAZINE 4L*
Sand, Loamy sand, Sandy loam	DO NOT USE	
Loam, Silt loam, Silt	0.9	0.75
Sandy clay loam, Clay loam, Silty clay loam	1.1	1.0
Sandy clay, Silty clay, Clay	1.3	1.25
Peat or Muck	NOT RECOMMENDED	

*If Propazine 80W is used multiply rate shown by 1.25 to equal pounds of Propazine 80W.
*If Propazine 90DF is used multiply rate shown by 1.125 to equal pounds of Propazine 90DF.

WHEAT

Early Preplant (Post-harvest weed control for land going into production of continuous winter wheat.)

Weeds controlled. See FALLOW CROPLAND section of this label.

Apply after wheat harvest but 45 - 60 days prior to planting winter wheat. Use at the proper rate for soil texture and organic matter indicated in Table 14. Add X-77 at 1 - 2 qts./100 gals. of diluted spray. Use higher rate of surfactant when dry weather conditions prevail. Failure to wait the recommended time interval between application and planting may result in crop injury. Use of this treatment on calcareous or caliche subsoil outcroppings may result in crop injury.

For best results, during harvest use a straw chopper/spreader on the combine that distributes the straw uniformly over the soil surface unless the straw is to be baled and removed prior to treatment. Avoid tillage after application as it may reduce the effectiveness of the herbicide treatment.

Where broadleaf weeds are present at time of application, tank-mix 1 1/3 - 2 pts./A. of 2,4-D low volatile 6 lb./gal. ester (2 - 3 pts./A. of 2,4-D LV 4 lb./gal.). Use the high rate when weeds are over 4" tall or when directed on the 2,4-D label for control of hard-to-kill weed species, such as perennials.

Where grasses and broadleaf weeds are present and exceed 2" in height, tank-mix with 1 - 2 pts./A. of paraquat. Well established weeds over 6" tall may not be well controlled. Apply at least 25 gals./A. of spray mixture by ground or 5 - 10 gals./A. by air where paraquat is included in the tank mixture.

No more than two applications of BLADEX may be made prior to planting wheat including applications made under the FALLOW CROPLAND section of this label.

TABLE 14

PREPLANT BROADCAST APPLICATION RATES
ACRE FOR BLADEX 90DF FOR WINTER WHEAT

60 days before planting*

	POUNDS OF BLADEX 90DF	
	Percent Organic Matter in Soil	
Soil Texture Description	Less than 2%	More than 2%
Sand, Loamy sand	2.2	2.7
All other textures	2.7	3.1

*For applications made 45 days prior to planting, decrease the BLADEX rate indicated by 0.4 pound/acre.

FALLOW CROPLAND.

Weeds Controlled by BLADEX 90DF Alone and in Tank-Mix Combinations

Grasses

Annual (Italian) ryegrass	Yellow foxtail
Barnyardgrass*	Indian lovegrass (Stinkgrass)
Crabgrass	Volunteer wheat
Cheatgrass	Witchgrass
Downy brome	Wild Oat*
Green foxtail	

Broadleaves

Cocklebur*	Prostrate spurge
Common chickweed	Purslane
Dog fennel	Russian thistle
False flax	Shepherdspurse
Henbit	Smartweed (Pennsylvania)
Horseweed (marestail)	Sunflower* (wild)
Kochia	Purple mustard
Lambsquarters	Tansy mustard
Pennycress	Tumble mustard
Pigweed*	Wild radish
Prickly lettuce	Wild buckwheat*
Prostrate knotweed	

Additional weeds controlled are listed in the Corn section of this label.

*Under soil moisture and temperature conditions favoring deep germination or other factors that may cause delayed germination, these species may not be completely controlled.

BLADEX 90DF may be used alone or in tank-mix combination with atrazine for the control of certain annual weeds during a fallow program.

BLADEX 90DF or BLADEX 90DF plus atrazine should be used in tank-mix combination with Paraquat CL and/or 2,4-D as described below if growing vegetation is present. Should weeds become established before adequate rainfall for herbicide activation occurs, sweep tillage may be employed to destroy them.

Application Directions

Apply fallow cropland herbicide treatments uniformly to the soil surface. Adjust boom height on ground rigs to obtain the correct spray pattern at the top of the stubble rather than the ground. At sprayer speeds over 8 mph and

when crop residues are heavy use floodtype nozzles and at least 25 gal./A. of carrier.

BLADEX 90DF Applied Alone

Select the appropriate rate of BLADEX 90DF from Table 15. Add X-77 surfactant at the rate of 1 qt./100 gals of diluted spray. Winter wheat may be planted four months or more after treatment. Spring wheat or durum wheat may be planted nine months after treatment. Grain sorghum or field corn may be planted in the spring following a late fall application.

TABLE 15

BROADCAST APPLICATION RATES PER ACRE FOR BLADEX 90DF ON FALLOW CROPLAND*

LBS. PER ACRE

Soil Texture	Post Harvest Treatment for Fall Weed Control	Late Fall Treatment for Spring Weed Control	Spring Treatment for Spring Weed Control
Clay loam, Loam, and sandy soils	2.7	3.6	2.7
Clays, loamy clays, silty clays and sandy clays	3.1	3.6	2.7

*For soils containing more than 2% organic matter, use an additional 0.4 lb/acre of BLADEX 90DF.

For soils containing more than 3% organic matter, use an additional 0.9 lb/acre of BLADEX 90DF.

BLADEX 90DF Plus Atrazine

BLADEX 90DF may be used in tank-mix combination with atrazine where a maximum period of weed control is desired in a fallow cropland program. Treatments must be applied before November 15 of the year before planting winter wheat or at least 11 months before planting spring wheat or durum wheat. Select the

appropriate rates of BLADEX 90DF plus atrazine for a particular location from Table 16. Add X-77 surfactant at 1 qt/100 gals. of diluted spray.

Do not use this treatment on sands or on Rosebud or Canyon series soils, or on calcareous or caliche subsoil outcroppings because of possible atrazine carryover damage to the succeeding crop.

Do not graze or feed foliage from treated areas to livestock within six months after application.

TABLE 16

BROADCAST APPLICATION RATES PER ACRE FOR TANK-MIX COMBINATIONS OF BLADEX 90DF PLUS ATRAZINE ON FALLOW CROPLAND*

LOCATION/TREATMENT			LBS/ACRE BLADEX 90DF	+	QTS/ACRE ATRAZINE 4L**
FALL APPLICATION FOR WINTER WHEAT Kansas, Southern Nebraska, Oklahoma, Colorado East Slope between HWY I-76 and State HWY 96			1.8	+	0.8
FALL APPLICATION FOR WINTER OR SPRING WHEAT Nebraska Panhandle, Wyoming, Utah, Colorado West Slope & East Slope North of HWY I-76 & South of HWY 96, Idaho, Montana, North Dakota, South Dakota			1.8	+	0.6
SPRING APPLICATION FOR SPRING WHEAT Idaho, Montana, North Dakota, South Dakota, Northern Utah, Northern Wyoming			2.2	+	0.4
FALL APPLICATION FOR WINTER WHEAT Columbia Basin Areas of Washington & Oregon	Average Annual Rainfall	over 15"	2.2	+	0.4
		10-15"	2.2	+	0.27
		Less than 10"	2.2	+	0.2

*Use an additional 0.4 lb/A. of BLADEX 90DF for soils with 2.0 to 3.0 percent organic matter.
Use an additional 0.9 lb/A. of BLADEX 90DF for soils containing more than 3.0 percent organic matter.

**If Atrazine 80W is used, multiply rate shown by 1.25 to equal pounds of Atrazine 80W.
If Atrazine 90DF is used, multiply rate shown by 1.1 to equal pounds of Atrazine 90DF.

Note: If conditions cause weeds to begin to germinate in the spring or summer following a post-harvest treatment of BLADEX or BLADEX plus atrazine, and atrazine, an application of BLADEX 90DF may be made for additional weed control in the spring or summer prior to planting winter wheat. Apply as directed in "BLADEX 90DF Applied Alone" in this section of the label. Do not make more than two applications of BLADEX 90DF prior to planting.

BLADEX Combinations With Paraquat

On fallow crop land having an existing or established weed population, paraquat may be tank mixed at 1-2 pts/A. with either BLADEX 90DF or BLADEX 90DF/atrazine tank-mix combination as previously described in this section. Apply the recommended rates in at least 25 gallons of spray mixture per acre by ground rig or 5-10 gals/A. for aerial application. Use higher volumes and the high rates of paraquat when weed growth is heavy or when dry weather conditions prevail. Add X-77 surfactant at 1 qt/100 gals of diluted spray.

BLADEX Combinations With 2,4-D Low Volatile Ester

2,4-D LV Ester may be added to any treatment in this section to help control broadleaf weeds growing at the time of application. Use 1-1/3 to 2 pts/A. of 2,4-D LV 6 lb. Ester (2-3 pts/A. of 2,4-D LV 4 lb. Ester). Use the high rate when weeds are over 4" tall or when directed on the 2,4-D label for the control of hard-to-kill weed species, such as perennials. When 2,4-D LV is used, it should be added to the spray tank last.

Use of Supplemental Tillage

In fields where established weeds are too large to be effectively controlled with paraquat or 2,4-D, sweep tillage should be employed. Till before applying the herbicide treatment. This type of tillage will preserve a maximum amount of existing stubble on the surface for soil protection. Similar tillage may also be used if weeds become established prior to receiving adequate rainfall for activation of the herbicide treatment. At some point prior to seeding wheat, the herbicide will degrade and no longer be effective. Limited tillage should be employed at this time. This tillage should be kept shallow to preserve as much moisture as possible for the crops.

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