



# SUTAN+<sup>®</sup> 6.7-E

**Selective Herbicide**

A Selective Emulsifiable Preplant Incorporated Liquid Herbicide for Annual Grass control in Field, Sweet, Pop, and Silage Corn

ACTIVE INGREDIENT	
S-Ethyl diisobutylthiocarbamate .....	85.1%
INERT INGREDIENTS .....	<u>14.9%</u>
TOTAL .....	100.0%

Contains 6.7 pounds of active ingredient per gallon.

EPA Reg. No. 73637-3-74530

EPA Est. No. 62171-MS-003

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**

Read entire booklet before using this product.  
Observe all Precautionary Statements, and  
carefully follow Directions for Use, Storage and Disposal.



HELM AGRO US, INC.  
8295 Tournament Drive, Suite 310  
Memphis, Tennessee 38125

NET CONTENTS: 2.5 Gallons / 9.46 Liters

<b>FIRST AID</b>	
<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>• Call poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 - 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 - 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	

**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300.**

## **PRECAUTIONARY STATEMENTS**

### **HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

#### **CAUTION**

**HARMFUL IF SWALLOWED.** Avoid contact with skin, eyes, and clothing. Avoid breathing spray mist. Flush eyes with water.

#### **Personal Protective Equipment (PPE)**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate or nitrile rubber or neoprene rubber or viton
- Shoes plus socks
- Protective eyewear

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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

#### **User Safety Recommendations**

Users should:

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

### **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

## DIRECTIONS FOR USE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours. Exception: If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry into treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves, such as barrier laminate or nitrile rubber or neoprene rubber or viton
- Shoes plus socks
- Protective eyewear

## STORAGE AND DISPOSAL

**PROHIBITIONS:** Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

**STORAGE:** Keep container tightly closed when not in use. Do not store near seeds, fertilizers, or foodstuffs. Store out of reach of children, pets and domestic animals. Can be stored at temperatures as low as minus 50° F.

**PESTICIDE DISPOSAL:** Rinse spray equipment. Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

### CONTAINER DISPOSAL:

**Metal:** Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

**Plastic:** Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

### FOR BULK AND MINI-BULK CONTAINERS

**CONTAINER DISPOSAL:** Reseal container and offer for reconditioning, or triple rinse (or equivalent) and offer for recycling or reconditioning, or clean in accordance with manufacturer's instructions.

**CONTAINER PRECAUTIONS:** Before refilling, inspect thoroughly for damage such as cracks, punctures, bulges, dents, abrasions, and damaged or worn threads on closure devices.

REFILL ONLY WITH SUTAN+ 6.7-E. The contents of this container cannot be completely removed by cleaning. Refilling with materials other than SUTAN+ 6.7-E will result in contamination and may weaken container.

After filling and before transporting, check for leaks.

Do not refill or transport damaged or leaking container.

**CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!**

## GENERAL INFORMATION

SUTAN+ 6.7-E selective herbicide is mixed (incorporated) or injected into the soil for control or suppression of weeds listed in Tables 1 and 2 of this label. SUTAN+ 6.7-E controls annual grasses as their seeds germinate by interfering with normal germination and seedling development. It does not control established weeds.

## GENERAL USE PRECAUTIONS

### READ ALL LABEL DIRECTIONS BEFORE USING.

- SUTAN+ 6.7-E can be stored at temperatures as low as minus 50°F.
- SUTAN+ 6.7-E is recommended for use only on mineral soils or those soils containing less than 10% organic matter.
- SUTAN+ 6.7-E should not be used on milo or sorghum.
- SUTAN+ 6.7-E should not be used on corn seed stock such as Breeders, Foundation, or Increase.
- SUTAN+ 6.7-E can be used on production seed corn.
- Do not contaminate irrigation water used for crops other than corn or water used for domestic purposes.
- Do not apply SUTAN+ 6.7-E before preirrigation in irrigated areas.
- Do not allow SUTAN+ 6.7-E to contaminate feed or food.
- SUTAN+ 6.7-E should not be stored near seeds, fertilizers, or foodstuffs.
- All containers of SUTAN+ 6.7-E should be kept tightly closed when not in use.
- Do not use in Arizona except on field and silage corn at elevations of 2500 feet or higher.
- Do not use in the ten southernmost California counties except Kern. In Kern county SUTAN+ 6.7-E may only be used on field and silage corn.
- Applied according to directions and under normal growing conditions, SUTAN+ 6.7-E will not harm the treated crop. During germination and early stages of growth, extended periods of unusually cold and wet or hot and dry weather, insect or plant disease attack, carryover pesticide residues, the use of certain soil-applied systemic insecticides, improperly placed fertilizers or soil insecticides may create abnormal conditions that weaken seedlings. SUTAN+ 6.7-E used under these abnormal conditions could result in crop injury.
- When applied according to directions and when conditions exist for normal plant growth through the season, no harmful residues of SUTAN+ 6.7-E should remain beyond harvest. In the Southeastern U.S., when SUTAN+ 6.7-E is used for weed control in silage corn, do not plant small seeded grains until September following corn harvest.

## APPLICATION DIRECTIONS

### Carriers

- Liquids - Either water or fluid fertilizers such as solutions, slurries, or suspensions may be used as liquid carriers. If fluid fertilizers are used, a physical compatibility test with these must be done before combining in the spray tank. See Appendix I for details of the compatibility testing procedure. Even if SUTAN+ 6.7-E is physically compatible with a fluid fertilizer, constant agitation is necessary to maintain a uniform mixture during application.
- If there is a delay between applications and incorporation when liquid carriers are used, then the application must be made to a soil surface dry to at least ½ inch deep and free from dew and incidental moisture and must be incorporated within 4 hours.
- Dry bulk fertilizer - SUTAN+ 6.7-E may be impregnated on dry bulk fertilizer except nitrate fertilizers and applied as the fertilizer is spread.
- Bulk fertilizer impregnated with SUTAN+ 6.7-E alone or in tankmix combinations should be applied immediately, not stored.
- It is recommended that all bulk containers be tightly covered while the product is being transported and applied to reduce probability of SUTAN+ 6.7-E loss via volatilization.
- Any application using impregnated materials that are not immediately incorporated in the same operation must be made to a soil surface dry to at least ½ inch deep and free from dew and incidental moisture and incorporated the same day.
- Uniform distribution of SUTAN+ 6.7-E on fertilizer particles and uniform application are necessary to assure good results.
- See Appendix II and consult your local dealer for details including what fertilizers are compatible.

### Adding to Spray Tank:

If SUTAN+ 6.7-E is used alone:

- Add the recommended amount to a clean (thoroughly rinsed and decontaminated) spray tank before it is half filled so that addition of the remaining water or fluid fertilizer carrier can aid in the thorough agitation and mixing of the spray solution.

If a tank mixture is used:

- The order of mixing should be (1) wettable powders, (2) dry flowables, (3) liquid flowables, and (4) ECs last.

### Volume and Agitation:

- Apply in 10 to 50 gallons of water or fluid fertilizers per acre using a properly calibrated sprayer having good agitation.
- Use higher gallonage in arid areas.

**Pressure and Nozzles:**

- Use 15 to 50 psi to ensure good distribution in the spray pattern.
- Use either flood, fan, or swirl chamber nozzles on a boom type sprayer that has been properly calibrated.

**Soil Moisture and Tillth:**

- Improper incorporation or poor tillth such as large clods may result in erratic or unsatisfactory weed control.
- The soil should be dry enough to permit good soil mixing or incorporation.
- Loss of weed control will result from any delay in incorporation if SUTAN+ 6.7-E is applied to a moist soil surface.
- Delayed applications must be made on a soil surface dry to ½ inch deep and free from dew and incidental moisture.

**Incorporation Timing:**

- Application and incorporation should be done in the same operation when possible.
- If there is a delay between application and incorporation, see the comments on soil moisture and time allowable under Liquid Carriers and Dry Bulk Fertilizer Carriers above.

**Incorporation Equipment and Methods:**

SUTAN+ 6.7-E must be incorporated into the soil to prevent loss of the herbicide. Thorough mixing is necessary for uniform weed control.

*Power driven cultivation equipment*

- Soil should have previous primary tillage.
- Ground speed must be adjusted with PTO to ensure thorough incorporation.
- Set horizontal action tine equipment to cut 4 to 6 inches deep.
- Set vertical action tine equipment to cut 3 to 4 inches deep.

*Tandem disc*

- Can be used on all soil types.
- Set disc to cut 4 to 6 inches deep.
- Operate disc at 4 to 6 MPH.
- Follow disc by a harrow or leveling device slightly wider than the disc.
- Two passes in different directions will improve incorporation.
- On the second pass the disc should be operated shallower than on the first pass.
- If deep germinating weeds are present, a second incorporation will improve control or suppression. Weeds which fall into this category are: shattercane, seedling Johnsongrass, and nutsedge.

*Field cultivator*

- Recommended for use on lighter soils in good tillth.
- Equip with 3 to 4 rows of sweeps spaced at 7 inches or less and staggered from row to row to leave no soil unturned or undisturbed.
- Set the field cultivator to cut 4 to 6 inches deep.
- Operate the field cultivator at 5 MPH or more.
- Follow by a harrow or leveling device.
- Chisel plows or points should not be used.
- Two passes in different directions will improve incorporation.
- If deep germinating weeds are present, use a tandem disc for the first pass. Weeds which fall into this category are: shattercane, seedling Johnsongrass, and nutsedge.

*Till 'N Bed Conditioner*

- Recommended for bedded fields of all soil types in good tillth.
- Till 'N Bed equipment is most effective on well peaked beds.
- Low beds require two passes for effective incorporation.
- Set the tillers or choppers to a depth of 4 to 6 inches.
- Operate the conditioner at 5 to 7 MPH.
- To ensure moisture conservation and proper mixing of SUTAN+ 6.7-E, set the disc hippers to run only in the upper loose soil of the bed.
- Do not use in fields with excessive trash and/or moisture.
- For more effectiveness on rhizome Johnsongrass, shattercane, and nutsedge, a row disc should be run the winter prior to SUTAN+ 6.7-E use to chop up rhizomes and to destroy vegetating nutsedge tubers and early germinating seeds.

*Subsurface injection before or at planting*

- Use only in the Southeastern U.S.
- See Table 1 Comments and Restrictions section for use rates.
- Do not use when SUTAN+ 6.7-E is tank mixed with another product.
- Special equipment designed for subsurface application must be used.
- Injector units must be rigidly mounted on, immediately ahead of, or immediately behind the planter unit.
- Coulter and injector shanks must be spaced 3½ inches apart.
- The two shanks adjacent to the drill row must be 1¾ to 2 inches on either side of it.
- Mount injectors in staggered positions to avoid trash buildup.
- Injectors must be set to inject SUTAN+ 6.7-E below the soil surface.
- The width of the band in which weed control is desired will determine the number of injectors required per row. For example: 4 injectors spaced 3½ inches apart give a 14 inch band.
- Broadcast applications can be made by increasing the number of shanks.
- Seal injector openings by using a roller or chain drag behind the injectors.
- Apply in 20 to 50 gallons of water per acre.

#### *Center Pivot Sprinkler*

- SUTAN+ 6.7-E can be applied and incorporated by this method before or immediately after planting before corn or weeds have emerged at the rates recommended for the specific weed.
- Application and incorporation should be done after last tillage operation and before weeds germinate.
- Meter the herbicide during entire irrigation period.
- Apply in ½ to 1 inch of water or sufficient water to penetrate the soil to a depth of 5 to 7 inches.
- SUTAN+ 6.7-E should be diluted no more than 1 part of SUTAN+ 6.7-E to 4 parts of water or fluid fertilizer on a volume basis and good agitation must be maintained during the entire application period.
- Apply only through center pivot sprinkler irrigation systems. Do not apply through any other type of system.
- In the semi-arid areas of eastern Washington, eastern Oregon and Idaho, SUTAN+ 6.5-E may be surface applied immediately after planting (see soil moisture statement above). The SUTAN+ 6.7-E can then be incorporated using ½ to 1 inch of water within 36 hours of application.
- Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.
- Questions about calibration should be directed to your State Extension Service specialist, equipment manufacturers, or other experts.
- Do not connect an irrigation system, including greenhouse systems, used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place.
- A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

#### **USE PRECAUTIONS:**

- The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must also contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must contain a functional, normally closed, solenoid operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- The system must use a metering pump, such as a positive displacement injection pump effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- Apply during low or no wind conditions to avoid drift.

#### **Weeds Controlled and Use Rates:**

- Consult Tables 1 and 2 below.
- NOTE COMMENTS AND RESTRICTIONS IN TABLES 1 AND 2.

**SUTAN+ 6.7-E BROADCAST RATE PER ACRE**  
**TABLE 1**

ANNUAL GRASSES	SCIENTIFIC NAME	USE RATE IN PINTS		COMMENTS AND RESTRICTIONS
		United States (except California)	California	
Barnyardgrass (watergrass)	<i>Echinochloa crus-galli</i>	4 ¾ - 7 ⅓	4 ¾	<p>GENERAL:</p> <ul style="list-style-type: none"> <li>• Should weeds develop, a shallow cultivation at no more than ½ the depth of incorporation or injection will generally result in better weed control.</li> <li>• Use the higher rates for medium and fine textured soils and heavy infestations.</li> </ul> <p>SUBSURFACE INJECTION APPLICATIONS:</p> <ul style="list-style-type: none"> <li>• Use is limited to the Southeastern U.S. only.</li> <li>• Use 3 ¾ pints of SUTAN+ 6.7-E per broadcast acre, reducing the dosage proportionately depending upon the row spacing to be treated.</li> </ul> <p>FALL APPLICATIONS:</p> <ul style="list-style-type: none"> <li>• Do not use fall application for suppression of shattercane.</li> <li>• Use only in Minnesota, northern Iowa north of I-80, northeast Nebraska north of I-80 east of Highway 14, South Dakota east of Missouri River, Wisconsin, northern Illinois north of I-80.</li> <li>• Apply and incorporate 7 ⅓ pints per acre in the late fall before the ground freezes.</li> <li>• Impregnated dry bulk fertilizer may be used in fall applications.</li> </ul> <p>ARIZONA FIELD AND SILAGE CORN GROWN AT 2500 FEET OR HIGHER IN ELEVATION:</p> <ul style="list-style-type: none"> <li>• Use 3 ¾ to 4 ¾ pints of SUTAN+ 6.7-E per acre.</li> <li>• Use the higher rate on medium to fine textured soils.</li> <li>• Use 4 ¾ pints of SUTAN+ 6.7-E for nutsedge control.</li> </ul>
Bermudagrass (seedling)	<i>Cynodon dactylon</i>	4 ¾ - 7 ⅓	4 ¾ - 7 ⅓	
Crabgrass	<i>Digitaria</i> spp.	4 ¾ - 7 ⅓	4 ¾	
Foxtail, giant	<i>Setaria faberi</i>	4 ¾ - 7 ⅓	4 ¾	
Foxtail, green	<i>Setaria viridis</i>	4 ¾ - 7 ⅓	4 ¾	
Foxtail, yellow	<i>Setaria lutescens</i>	4 ¾ - 7 ⅓	4 ¾	
Goosegrass	<i>Eleusine indica</i>	4 ¾ - 7 ⅓	4 ¾	
Johnsongrass (seedling) <sup>1</sup>	<i>Sorghum halepense</i>	4 ¾ - 7 ⅓	4 ¾ - 7 ⅓	
Panicum, fall	<i>Panicum dichotomiflorum</i>	4 ¾ - 7 ⅓	4 ¾	
Panicum, Texas <sup>1,2</sup>	<i>Panicum texanum</i>	4 ¾ - 7 ⅓	4 ¾ - 7 ⅓	
Sandbur, field <sup>1</sup>	<i>Cenchrus paciflorus</i>	4 ¾ - 7 ⅓	4 ¾	
Sorghum, volunteer <sup>1</sup>	<i>Sorghum</i> spp.	4 ¾ - 7 ⅓	4 ¾	

<sup>1</sup>Cultivation is suggested in addition to SUTAN+ 6.7-E treatment with moderate to heavy infestations.

<sup>2</sup>Southeastern U.S. only.

**SUTAN+ 6.7-E BROADCAST RATE PER ACRE**

**TABLE 2**

<b>ANNUAL GRASSES</b>	<b>SCIENTIFIC NAME</b>	<b>USE RATE IN PINTS</b>	<b>COMMENTS AND RESTRICTIONS</b>
Shattercane (suppression only)	<i>Sorghum vulgare</i>	7 1/3	<ul style="list-style-type: none"> <li>• Apply and incorporate immediately before planting for suppression and reduced early competition from shattercane.</li> <li>• Sequential treatment with a postemergence grass herbicide recommended for shattercane is recommended for season-long control of shattercane escapes.</li> <li>• On continuous corn acreage with a high shattercane seed population, rotate to another crop such as soybeans where Fusilade® 2000 herbicide can also be used to control the population in alternate years.</li> <li>• Suppression may be improved if all the following practices are followed:               <ul style="list-style-type: none"> <li>- fall or spring moldboard plowing</li> <li>- soil should be well-worked with a disc and dry enough to permit good incorporation of the herbicide.</li> <li>- all trash should be worked into the soil before application.</li> <li>- delay application until soil warms to a constant 55 degrees or higher temperature.</li> <li>- plant immediately after application and incorporation.</li> <li>- cultivate immediately if shattercane emerges. This cultivation should be shallower than the depth of the SUTAN+ 6.7-E herbicide.</li> </ul> </li> </ul>
Nutsedge, purple Nutsedge, yellow	<i>Cyperus rotundus</i> <i>Cyperus esculentus</i>	4 3/4 - 7 1/3	<ul style="list-style-type: none"> <li>• Use the higher rates on medium and fine textured soils and for heavy infestations.</li> <li>• Existing stands of nutsedge must be turned and chopped thoroughly before treatment.</li> <li>• Cultivation is recommended in addition to SUTAN+ 6.7-E in fields with moderate to heavy infestations.</li> </ul>

**Planting:**

- Plant seed to a maximum depth of 2 inches.
- Planting can be done immediately or delayed up to two weeks (South and West) or four weeks (North and Pacific Northwest).
- Avoid moving or shaping soil after incorporation or working deeper than the SUTAN+ 6.7-E was incorporated since this can remove SUTAN+ 6.7-E from the row and result in a loss of weed control.
- Corn can be planted again without working the field if circumstances such as flooding, insects, or disease result in a poor stand of corn.

**Cultivation:**

- Should weeds develop, a shallow cultivation or rotary hoe will generally result in better weed control.
- A shallow cultivation is less than 1/2 the depth of incorporation.

## Band Applications:

For band applications, calculate the amount to be applied per acre as follows:

$$\frac{\text{Band width in inches}}{\text{Distance between rows in inches}} \times \text{Rate per acre for a broadcast treatment} = \text{Amount needed for a band treatment}$$

## TANKMIX COMBINATIONS

### ATRAZINE, BLADEX® HERBICIDE AND PRINCEP® HERBICIDE/CALIBER® HERBICIDE COMBINATIONS

- For control of a broader spectrum of weed and increased control of labelled grasses; atrazine, Bladex, or Princep, or a combination of atrazine and Bladex may be tank mixed and applied preplant incorporated with recommended use rates of SUTAN+ 6.7-E.
- Do not apply atrazine, Bladex, or Princep/Caliber through any irrigation system.
- Atrazine and Bladex combinations may be impregnated on dry bulk fertilizer. See APPENDIX II and consult your local dealer for details including what fertilizers are compatible.
- As an alternative, atrazine and Bladex at recommended rates may be applied preemergence to the soil surface following a preplant incorporated treatment of SUTAN+ 6.7-E at recommended rates.
- If a preemergence application of atrazine or Bladex is used, consult the application directions on the appropriate label.
- A preemergence application of atrazine and Bladex may require a rotary hoeing or shallow cultivation if rainfall or sprinkler irrigation has not occurred within 10 days of the surface application.
- With the combinations of atrazine and Bladex, the potential hazard of triazine residues affecting certain crops the following year is reduced because a lower rate of triazine can be used.

#### General Use Precautions For Atrazine, Bladex, and Princep/Caliber:

- Follow all the use precautions and warnings that appear on the atrazine, Bladex, and Princep/Caliber labels and supplemental literature.
- Make only one application per crop.
- Do not use on milo and sorghum or Breeders, Foundation, or Increase seed corn stock.
- Bladex is not recommended for use on sandy soils consisting of more than 70% sand and containing less than 1% organic matter. Consult the Bladex label for more specific recommended rates on sandy soils.
- After a treatment including atrazine or Princep/Caliber, do not plant any crop except corn until the following year or injury may occur.
- Consult the atrazine, Bladex, or Princep/Caliber labels and use directions for complete details on any rotation restrictions following their use.
- When Princep/Caliber is used in a tankmix, the soil should be thoroughly tilled after harvest. This fall or spring tillage will help to minimize possible injury to spring seeded rotational crops regardless of the rate of Princep/Caliber used.
- Do not apply any tankmixes with Princep/Caliber in the High Plains and Intermountain areas of the West where rainfall is sparse and erratic or where irrigation is required. Included in this are central and western Kansas, western Nebraska, western Oklahoma, and the Panhandle of Texas.
- Injury may occur to soybeans planted in northcentral and northwest Iowa, and southcentral and southwest Minnesota, northeast Nebraska, southeast South Dakota and other areas in the year following applications of Princep/Caliber on soils having a calcareous surface layer.
- Do not plant sugar beets, tobacco, vegetables including dry beans, spring seed small grains or small seeded legumes, and grasses the year after an application of atrazine or Princep/Caliber as injury may occur.

#### Carriers

- Liquids - The tankmix combinations may be applied using the same liquid carriers as SUTAN+ 6.7-E used alone. If fluid fertilizers are used, a physical compatibility test with these must be done *before combining* in the spray tank. See Appendix I for details of the compatibility testing procedure. Even if the tankmix is physically compatible with a fluid fertilizer, constant agitation is necessary to maintain a uniform mixture during application.
- Dry bulk Fertilizer - Tankmixes with atrazine and Bladex combinations may be impregnated on dry bulk fertilizer. Princep/Caliber is not labelled for dry bulk fertilizer impregnation. Follow all directions and precautions listed under SUTAN+ 6.7-E alone on impregnated dry bulk fertilizer (refer to Carriers under Application Directions).

**Adding to Spray Tank:**

- It is recommended that the compatibility of any tankmix combination be tested on a small scale, such as a jar test, before actual tank mixing. See Appendix I for details on the procedure for such a test.
- Fill a thoroughly rinsed and decontaminated spray tank  $\frac{2}{3}$  full of clean water.
- Start and continue moderate agitation throughout mixing. Excessive agitations may cause the Bladex, atrazine, or Princep/Caliber to settle out and set up in the spray tank.
- All return lines to the spray tank must discharge below liquid level to prevent foaming.
- Mix and disperse wettable powders first, followed by flowable products and then SUTAN+ 6.7-E.
- For some combinations, premixing wettable powders in a little water in a pail or bucket before adding them to the spray tank will improve the compatibility of the final mixture.
- Premix the Bladex, atrazine, or Princep/Caliber individually in proper order listed above making sure they are thoroughly wetted and dispersed in the tank before adding the SUTAN+ 6.7-E.
- Add the SUTAN+ 6.7-E to the tank that is  $\frac{2}{3}$  full of water already mixed with the approved tankmix products and continue filling tank.
- The tankmix combinations should not be left in the spray tank for prolonged periods. Batches should be mixed and applied the same day.

**Volume and Agitation:**

- Apply tankmixes of atrazine and/or Bladex in 10 to 50 gallons of water or fluid fertilizers per acre using a properly calibrated sprayer having good agitation.
- Apply tankmixes of Princep/Caliber in 20 - 50 gallons of water or fluid fertilizers per acre using a properly calibrated sprayer having good agitation.
- Use higher gallonage in arid areas.
- All tankmixes require at least 20% bypass agitation at all times.

**Pressure and Nozzles:**

- Use 15 to 50 psi to ensure good distribution in the spray pattern.
- Use either flood, fan, or swirl chamber nozzles on a boom type sprayer that has been properly calibrated.
- Check nozzles frequently during application to be sure they are free from clogging and are delivering a uniform spray pattern.
- Tankmixed products require screens to protect the pump and prevent nozzle clogging:
  - Suction side of the pump - 16 mesh or coarser.
  - Recirculation line - no screen needed.
  - Between pump and boom and/or nozzles - 50 mesh.

**Soil Moisture and Tilth:**

- Same as for SUTAN+ 6.7-E alone (refer to Soil Moisture and Tilth under Application Directions).

**Incorporation Timing:**

- Same as for SUTAN+ 6.7-E alone (refer to Incorporation Timing under Application Directions).

**Incorporation Equipment and Methods:**

- Same as for SUTAN+ 6.7-E alone except for subsurface injection.
- Do not apply Atrazine, Bladex, or Princep/Caliber through a center pivot sprinkler irrigation system.
- Do not apply any tank mixture through subsurface injection systems.

**Planting:**

- Same as for SUTAN+ 6.7-E alone (refer to Planting under Application Directions).

**Cultivation:**

- Same as for SUTAN+ 6.7-E alone (refer to Cultivation under Application Directions).

**Sequential Herbicide Applications:**

- Accent<sup>®</sup> herbicide, Beacon<sup>®</sup> herbicide  
A sequential treatment with Accent or Beacon is recommended for escapes of Johnsongrass and shattercane.
- 2,4-D, Banvel<sup>®</sup> herbicide  
A sequential treatment with 2,4-D or Banvel is recommended for escapes of broadleaves.
- Use Accent, Beacon, 2,4-D and Banvel at recommended rates found on the manufacturer's label.

**Weeds Controlled and Use Rates:**

- Consult Tables 3 and 4.
- NOTE COMMENTS AND RESTRICTIONS IN TABLE 3.

**TANKMIX COMBINATIONS WITH SUTAN+ 6.7-E  
ADDITIONAL WEEDS CONTROLLED  
TABLE 3**

ADDITIONAL WEEDS CONTROLLED WITH TANKMIXES	SCIENTIFIC NAME	SUTAN+ 6.7-E TANK MIXED WITH				COMMENTS AND RESTRICTIONS
		ATRAZINE	BLADEX	ATRAZINE & BLADEX	PRINCEP & CALIBER	
Bluegrass, annual	<i>Poa annua</i>	—	C	C	—	<p><b>FALL APPLICATIONS</b></p> <ul style="list-style-type: none"> <li>• Fall applications may be made with SUTAN+ 6.7-E and tankmix combinations of Atrazine and Bladex.</li> <li>• Fall applications may be made in Minnesota, Iowa north of I-80 and east of Highway 14, South Dakota east of the Missouri River, Wisconsin and Illinois north of I-80.</li> <li>• Apply and incorporate 7½ pints of SUTAN+ 6.7-E and highest rate of the selected 2 or 3-way tank mix combination of atrazine or Bladex.</li> <li>• The application must be done before the ground freezes.</li> <li>• Impregnated dry bulk fertilizer may be used for a fall application.</li> <li>• Do not use a fall application for suppression of wild cane.</li> </ul> <p><b>BLADEX</b></p> <ul style="list-style-type: none"> <li>• Use high rate on clay soils or when organic matter is 3% or higher.</li> </ul>
Brome, downy	<i>Bromus tectorum</i>	—	—	—	—	
Buckwheat, wild	<i>Polygonum convolvulus</i>	—	C	C	—	
Buffalobur	<i>Solanum rostratum</i>	—	C	C	—	
Bullgrass	<i>Paspalum boscianum</i>	—	C	C	—	
Burclover	<i>Medicago</i> spp.	—	—	—	—	
Buttercup, annual	<i>Ranunculus</i> spp.	—	C	C	—	
Carpetweed	<i>Mollugo verticillata</i>	—	C	C	—	
Chickweed, common	<i>Stellaria media</i>	—	C	C	—	
Cocklebur, common	<i>Xanthium pensylvanicum</i>	C	C	C	—	
Corn spurry	<i>Spergula arvensis</i>	—	C	C	—	
Curly dock, seedling	<i>Rumex crispus</i>	—	C	C	—	
Fiddleneck	<i>Amsinckia</i> spp.	—	—	—	—	
Fescues, annual	<i>Festuca</i> spp.	—	C	C	—	
Flora's paintbrush	<i>Emilia sagittata</i>	—	C	C	—	
Florida pusley	<i>Richardia scabra</i>	—	C	C	C	
Groundcherry, annual	<i>Physalis lanceifolia</i>	—	C	C	—	
Groundsel, common	<i>Senecio vulgaris</i>	—	—	C	—	
Henbit	<i>Lamium amplexicaule</i>	—	—	—	—	
Indian lovegrass	<i>Eragrostis pilosa</i>	—	C	C	—	
Jimsonweed	<i>Datura stramonium</i>	C	C	C	—	
Junglerice	<i>Echinochloa colonum</i>	—	C	C	—	
Knotweed, prostrate	<i>Polygonum aviculare</i>	—	C	C	—	
Kochia	<i>Kochia scoparia</i>	—	C	C	—	
Ladysthumb	<i>Polygonum persicaria</i>	—	C	C	—	
Lambsquarters, common	<i>Chenopodium album</i>	C	C	C	C	
Lettuce, prickly	<i>Lactuca serriola</i>	—	—	—	—	
Mallow, common	<i>Malva neglecta</i>	—	C	C	—	
Mayweed	<i>Anthemis cotula</i>	—	C	C	—	
Morningglory, annual	<i>Ipomoea purpurea</i>	—	C	C	—	

**TANKMIX COMBINATIONS WITH SUTAN+ 6.7-E  
ADDITIONAL WEEDS CONTROLLED  
TABLE 3 (cont'd)**

ADDITIONAL WEEDS CONTROLLED WITH TANKMIXES	SCIENTIFIC NAME	SUTAN+ 6.7-E TANK MIXED WITH				COMMENTS AND RESTRICTIONS
		ATRAZINE	BLADEX	ATRAZINE & BLADEX	PRINCEP & CALIBER	
Mustard, black Mustard, hedge Mustard, wild	<i>Brassica nigra</i> <i>Sisymbrium officinale</i> <i>Brassica kaber</i>	C — C	C C C	C C C	— — —	<b>PRINCEP/CALIBER</b> • Use the higher rate of Princep or Caliber on fine textured soils. • Use the higher rate of Princep or Caliber where heavy broadleaf weed infestations are expected.
Nightshade Oats, wild Pepperweed Pepperweed, yellowflower Pigweed, prostrate	<i>Solanum</i> spp. <i>Avena fatua</i> <i>Lepidium</i> spp.  <i>Lepidium perfoliatum</i> <i>Amaranthus blitoides</i>	C C — — C	— C — — —	C C — — —	— — — — —	
Pigweed, redroot Pigweed, smooth Pineappleweed  Plantain Poorjoe	<i>Amaranthus retroflexus</i> <i>Amaranthus hybridus</i> <i>Matricaria matricarioides</i>  <i>Plantago</i> spp. <i>Diodia teres</i>	C C —  — —	C C C  C C	C C C  C C	C — —  — —	
Prickly sida Purslane, common Radish, wild Ragweed Russian thistle	<i>Sida spinosa</i> <i>Portulaca oleracea</i> <i>Raphnus raphanistrum</i> <i>Ambrosia</i> spp. <i>Salsola kali</i>	— C — C —	C C C C —	C C C C —	— — — C —	
Ryegrass, annual Shepherd's purse Sicklepod Signalgrass, broadleaf Smallflower, galinsoga	<i>Lolium multiflorum</i> <i>Capsella bursa-pastoris</i> <i>Cassia obtusifolia</i>  <i>Brachiaria platyphylla</i>  <i>Galinsoga parviflora</i>	— — C  C  —	C C C  —  C	C C —  —  C	— — —  —  —	
Smartweed, pennsylvania Speedwell Spurge, prostrate Stinkgrass Sunflower, common	<i>Polygonum pennsylvanicum</i> <i>Veronica</i> spp. <i>Euphorbia supina</i> <i>Ergrostris cilianensis</i> <i>Helianthus annuus</i>	C — — — —	C — C C —	C — C C —	— — — — —	
Tansymustard Tarweed Turnip, wild Velvetleaf Witchgrass	<i>Descurainia pinnata</i> <i>Henizonia congesta</i> <i>Brassica campestris</i> <i>Abutilon theophrasti</i> <i>Panicum capillare</i>	— — — C C	— C C C C	— C C C C	— — — — —	

**TANKMIX COMBINATIONS WITH SUTAN+ 6.7-E  
ADDITIONAL WEEDS CONTROLLED  
TABLE 3 (cont'd)**

ADDITIONAL WEEDS CONTROLLED WITH TANKMIXES	SCIENTIFIC NAME	SUTAN+ 6.7-E TANK MIXED WITH				COMMENTS AND RESTRICTIONS
		ATRAZINE	BLADEX	ATRAZINE & BLADEX	PRINCEP & CALIBER	
Nutsedge, purple Nutsedge, yellow Texas Panicum*  *Southwest only	<i>Cyperus rotundus</i> <i>Cyperus esculentus</i> <i>Panicum texanum</i>	C C C	C C C	C C C	C C C	<ul style="list-style-type: none"> <li>• Use 4¾ to 7⅓ pints of SUTAN+ 6.7-E.</li> <li>• Use the higher rate for medium and fine textured soils and heavy infestations.</li> <li>• Existing stands of nutsedge must be turned under and chopped up thoroughly before application.</li> <li>• Cultivation is recommended.</li> </ul>
Shattercane (suppression only)	<i>Sorghum vulgare</i>	S	S	S	S	<ul style="list-style-type: none"> <li>• Use 7⅓ pints of SUTAN+ 6.7-E.</li> <li>• Apply and incorporate the tankmix combination immediately before planting for suppression and reduced competition.</li> <li>• On corn acreage with high shattercane seed populations, rotate to another crop such as soybeans where Fusilade 2000 can be used to control the population in alternate years.</li> <li>• See Table 2 under Shattercane for supplemental cultural and tillage practices.</li> </ul>
Bermudagrass, rhizome Bermudagrass, seedling Johnsongrass, rhizome Johnsongrass, seedling	<i>Cynodon dactylon</i> <i>Cynodon dactylon</i> <i>Sorghum halepense</i> <i>Sorghum halepense</i>	C C S C	C C S C	C C S C	C C S C	<ul style="list-style-type: none"> <li>• Use 4¾ to 7⅓ pints of SUTAN+ 6.7-E.</li> <li>• Use the higher rate for medium and fine textured soils and heavy infestations.</li> <li>• Apply and use a disc to incorporate immediately before planting.</li> <li>• Disc a second time at right angles to the first pass.</li> <li>• See Table 2 for supplemental cultural and tillage practices under rhizome bermudagrass and rhizome johnsongrass.</li> </ul>

Hemp dogbane	<i>Apocynum cannabinum</i>	S	S	---	---	<ul style="list-style-type: none"> <li>• For early and midseason suppression apply 7½ pints of SUTAN+ 6.7-E.</li> <li>• Use 1¼ pounds of Atrazine 80W or 2 to 3 pints of Atrazine 4L or 1 to 1¾ pounds of AAtrex® Nine-O® Herbicide.</li> <li>• Cultivation or application of a postemergence herbicide recommended for hemp dogbane may aid in extending control beyond midseason.</li> </ul>
--------------	----------------------------	---	---	-----	-----	--

C = Control, S = Suppression or reduced competition

**RATE RECOMMENDATIONS FOR SUTAN+ 6.7-E TANKMIX PARTNERS**  
**TABLE 4**

TANKMIX PARTNER	USE RATE PER ACRE
ATRAZINE 80W ATRAZINE 4L AATREX NINE-O	1 to 2 LBS 1 ½ to 3 PINTS 4/5 to 1 ¾ LBS
BLADEX 80W BLADEX 4L	2 to 2 ½ LBS 3 to 4 PINTS
ATRAZINE 80W + BLADEX 80W ATRAZINE 80W + BLADEX 4L ATRAZINE 4L + BLADEX 80W ATRAZINE 4L + BLADEX 4L	¾ to 1 ¼ + 1 ¼ to 2 ½ LBS ¾ to 1 ¼ LBS + 2 to 4 PINTS 1 to 2 PINTS + 1 ¼ to 2 ½ LBS 1 to 2 + 2 to 4 PINTS
PRINCEP 4L PRINCEP 80W PRINCEP CALIBER 90	2 to 6 PINTS 1 ¼ to 3 ¾ LBS 1 1/10 to 3 1/8 LBS

**APPENDIX I**

**Procedure for Testing the Compatibility of SUTAN+ 6.7-E alone or with Tankmix Combinations with Fluid Fertilizers.**

The following procedure is suggested for determining whether or not SUTAN+ 6.7-E may be combined with a specific fluid fertilizer or tankmix herbicide for spray tank application.

**Materials Required:**

1. SUTAN+ 6.7-E
2. Fluid fertilizer and tankmix herbicides
3. Adjuvant for spray tankmix combinations: Compex™, Sponto™ 168-D, Unite™, or equivalent. The adjuvant which provides the best emulsification depends on the specific fertilizer and herbicide under consideration.
4. Two one-quart, wide mouth glass jars with lid or stopper.
5. Measuring spoons. A 25 mL pipette or graduated cylinder provides more accurate measurement. 1 tablespoon equals 3 teaspoons equals approximately 5 milliliters.
6. Measuring cup, 8 ounces (257 mL).

**Procedure:**

- Pour a pint or about 473 mL of the fluid fertilizer or water into each of the quart jars.
- Add adjuvant to one of the jars and mix. See Table 6 footnote for rate.
- If a tankmix is being tested, premix the wettable powders in ½ cup of water prior to addition to the pint of fluid fertilizer or water. See Table 4 for rates of tankmix products.
- The order of addition is wettable powders first, followed by flowables and SUTAN+ 6.7-E last.
- Add SUTAN+ 6.7-E to both jars. See Table 6 for rate to use.
- Close both jars with lid or stopper and mix the contents by turning the jars upside down ten times.
- Inspect the surface and body of the mixtures:

- Immediately after completing the jar inversions.
- After allowing the jars to stand quietly for 30 minutes.
- And then again after turning the jars upside down 10 times after the 30 minute wait.

**Evaluation:**

- If a uniform mixture cannot be made, the mixture should not be used.
- If either mixture remains uniform for 30 minutes, the combination may be used.
- Should either mixture separate after 30 minutes, but readily remixes uniformly with ten jar inversions, the mixture can be used if adequate agitation is maintained in the tank.
- If the mixture with adjuvant is satisfactory, but the one without adjuvant is not, be sure to use the adjuvant in the spray tank.
- If adjuvant is needed, add it first at a rate of 3 pints per 100 gallons of fluid fertilizer or water.
- Foaming can be minimized by using moderate agitation.
- If nondispersible oil, sludge, or clumps of solids form in the mixture, the combination should not be used.
  - If adjuvant is needed, add it first at a rate of 3 pints per 100 gallons of fluid fertilizer or water.
  - Foaming can be minimized by using moderate agitation.
  - If nondispersible oil, sludge, or clumps of solids form in the mixture, the combination should not be used.

**SUTAN+ 6.7-E CONVERSION CHART**

**TABLE 5**

<b>SUTAN+ 6.7-E PINTS PER ACRE</b>	<b>APPROXIMATE POUNDS OF ACTIVE PER ACRE</b>
3 <sup>3</sup> / <sub>4</sub>	3.00
4 <sup>3</sup> / <sub>4</sub>	4.00
6	5.00
7 <sup>1</sup> / <sub>3</sub>	6.00

**RATE TABLE FOR SUTAN+ 6.7-E and  
ADJUVANT\* WITH THE FLUID FERTILIZER**

**TABLE 6**

<b>GALLONS OF FLUID FERTILIZER TO BE APPLIED PER ACRE</b>	<b>SUTAN+ 6.7-E TO BE ADDED TO 1 PINT OF FERTILIZER PER POUND OF ACTIVE</b>	
	<b>mL</b>	<b>tsp.</b>
<b>10</b>	7	1 <sup>1</sup> / <sub>3</sub>
<b>15</b>	5	1
<b>20</b>	4	<sup>3</sup> / <sub>4</sub>
<b>25</b>	3	<sup>2</sup> / <sub>3</sub>
<b>30</b>	2	<sup>1</sup> / <sub>2</sub>
<b>40</b>	2	<sup>1</sup> / <sub>2</sub>

\*Two (2) milliliters or one-half (<sup>1</sup>/<sub>2</sub>) teaspoon of adjuvant should be added to 1 pint of fluid fertilizer in order to equal the rate of 3 pints of adjuvant per 100 gallons of fluid fertilizer.

**APPENDIX II**

**Impregnation on Dry Bulk Fertilizers**

- Consult your local dealer for more details.
- SUTAN+ 6.7-E alone and tankmix combinations with atrazine and/or Bladex may be impregnated on dry bulk fertilizer.
- CAUTION: SUTAN+ 6.7-E alone and in combination tankmixes must not be impregnated on ammonium nitrate, potassium nitrate, or sodium nitrate fertilizers. Such mixtures may cause explosion and fire.
- All individual state regulations relating to dry bulk fertilizer blending, registration, labeling and application are the responsibility of the individual and/or company selling the herbicide and fertilizer mixtures.
- Approved Dry Bulk Fertilizer Ingredients for Use with SUTAN+ 6.7-E alone (Table 7).

**IMPREGNATION ON DRY BULK FERTILIZERS**

**TABLE 7**

<b>FERTILIZER INGREDIENT</b>	<b>N</b>	<b>P</b>	<b>K</b>
Ammonium sulfate	21	0	0
Ammonium phosphate-sulfate	16	20	0
Diammonium phosphate	18	46	0
Monoammonium phosphate	11	56	0
Potassium chloride	0	0	60
Potassium sulfate	0	0	52
Single Super-phosphate	0	20	0
Treble Super-phosphate	0	46	0
Urea*	45	0	0
K-Mag/Sul-Po-Mag	0	0	21

\*Some ureas may be phytotoxic when high rates are applied to corn. Use only urea rates known to be safe for corn application.

- Approved Dry Bulk Fertilizer Ingredients for use with SUTAN+ 6.7-E in tankmix conditions with atrazine and/or Bladex (Table 8).

**IMPREGNATION ON DRY BULK FERTILIZERS**

**TABLE 8**

<b>FERTILIZER INGREDIENT</b>	<b>N</b>	<b>P</b>	<b>K</b>
Ammonium sulfate	21	0	0
Ammonium phosphate-sulfate	16	20	0
Diammonium phosphate	18	46	0
Monoammonium phosphate	11	48	0
Potassium chloride	0	0	60
Potassium sulfate	0	0	52
Urea*	45	0	0
K-Mag/Sul-Po-Mag	0	0	21

\*Some ureas may be phytotoxic when high rates are applied to corn. Use only urea rates known to be safe for corn application.

**Impregnation on Dry Bulk Fertilizers**

- Uniform impregnation of the SUTAN+ 6.7-E on dry bulk fertilizer particles and uniform application in the field are necessary to assure good results.
- A minimum of 200 and a maximum of 700 pounds of approved fertilizers from Tables 6 and 7 must be applied per acre. See Tables 9 through 12 for the rates of herbicide to be applied per ton of fertilizer based on herbicide use rate.
- Use a closed rotary drum mixer or similar type of closed blender equipped with suitable spray equipment.
- The spray nozzle should be positioned inside of the mixer to provide uniform spray coverage of the tumbling fertilizer and provide a uniform fine spray pattern.
- Tankmix combinations may be added separately or mixed in the proposed use ratio in a uniform slurry for joint spray impregnation.
- Physical properties of fertilizers vary in liquid absorptive capacity. When absorptivity is sufficient, simple spray impregnation of the fertilizer with the herbicides provides a satisfactory, dry mixture.
- Drying agent for spinning-disc applicators is:
  - Micro-Cel™ E calcium silicate powder - Manville Sales corporation.
- Drying agents for pneumatic applicators are:
  - Micro-Cel E calcium silicate powder - Manville Sales Corporation
  - Agsorb™ 16/30 RVM-MS granular clay - Oil Dri Corporation
- Drying agents should be added separately and uniformly to the previously impregnated herbicide-fertilizer or soil herbicide mixture to insure that the mixture is free flowing. Generally the following amounts are sufficient:
  - Micro-Cel E Calcium Silicate powder less than 2% by weight
  - Agsorb 16/30 RVM - MS granular clay less than 5% by weight

• The amount of SUTAN+ 6.7-E, atrazine and/or Bladex actually required in the manufacture of individual fertilizer mixtures should be determined carefully for each production operation. This is necessary to ensure that the amount of herbicide actually contained in the mixture applied to the soil represents the correct use rate.

**Physical Data**

- Specific gravity 68°F / 20°C: 0.946 (typical)
- Pounds/Gallon 68°F / 20°C: 7.87 (typical)
- Flashpoint: 197°F (Tagliabue closed cup)
- Viscosity: Sprayable down to -20°F/-29°C

**RATE CHART OF IMPREGNATION OF DRY BULK FERTILIZER WITH SUTAN+ 6.7-E AND ATRAZINE OR BLADEX PER TON OF FERTILIZER**

**TABLE 9**

FERTILIZER RATE POUNDS PER ACRE	SUTAN+ 6.7-E			BLADEX ALONE IN TANKMIX			
	PINTS PER ACRE			4L PINTS PER ACRE		80W POUNDS PER ACRE	
	3¾	4¾	7½	3	4	2	2 ½
200	18 ¾ qts	23 ¾ qts	36 ⅔ qts	15 qts	20 qts	20 lbs	25 lbs
250	15 qts	19 qts	29⅓ qts	12 qts	16 qts	16 lbs	20 lbs
300	12 ½ qts	15 4/5 qts	24 2/5 qts	10 qts	13 ½ qts	13 ⅓ lbs	16 ⅔ lbs
350	10 ¾ qts	13 3/5 qts	21 qts	8 3/5 qts	11 ½ qts	11 2/5 lbs	14 ⅓ lbs
400	9 2/5 qts	11 7/8 qts	18 ⅓ qts	7 ½ qts	10 qts	10 lbs	12 ½ lbs
450	8 ⅓ qts	10 ½ qts	16 ⅓ qts	6 ⅔ qts	9 qts	8 7/8 lbs	11 1/5 lbs
500	7 ½ qts	9 ½ qts	14 ⅔ qts	6 qts	8 qts	8 lbs	10 lbs
550	6 4/5 qts	8 2/3 qts	13 ⅓ qts	5 ½ qts	7 ¼ qts	7 ¼ lbs	9 1/5 lbs
600	6 1/4 qts	8 qts	12 1/5 qts	5 qts	6 ⅔ qts	6 ⅔ lbs	8 ⅓ lbs
650	5 ¾ qts	7 ⅓ qts	11 ¼ qts	4 3/5 qts	6 ¼ qts	6 1/5 lbs	7 ⅔ lbs
700	5 ⅓ qts	6 4/5 qts	10 ½ qts	4 ¼ qts	5 ¾ qts	5 ¾ lbs	7 1/5 lbs

**RATE CHART OF IMPREGNATION OF DRY BULK FERTILIZER WITH  
SUTAN+ 6.7-E AND ATRAZINE OR BLADEX PER TON OF FERTILIZER**

**TABLE 10**

<b>FERTILIZER RATE POUNDS PER ACRE</b>	<b>SUTAN+ 6.7-E</b>			<b>ATRAZINE ALONE IN TANKMIX</b>			
	<b>PINTS PER ACRE</b>			<b>4L PINTS PER ACRE</b>		<b>80W POUNDS PER ACRE</b>	
	<b>3¾</b>	<b>4¾</b>	<b>7⅓</b>	<b>2</b>	<b>3</b>	<b>1¼</b>	<b>2</b>
200	18 ¾ qts	23 ¾ qts	36 ⅔ qts	10 qts	15 qts	12 ½ lbs	20 lbs
250	15 qts	19 qts	29⅓ qts	8 qts	12 qts	10 lbs	16 lbs
300	12 ½ qts	15 4/5 qts	24 2/5 qts	6 ⅔ qts	10 qts	8 ⅓ lbs	13 ⅓ lbs
350	10 ¾ qts	13 3/5 qts	21 qts	5 ¾ qts	8 3/5 qts	7 1/5 lbs	11 2/5 lbs
400	9 2/5 qts	11 7/8 qts	18 ⅓ qts	5 qts	7 ½ qts	6 ¼ lbs	10 lbs
450	8 ⅓ qts	10 ½ qts	16 ⅓ qts	4 ½ qts	6 ⅔ qts	5 ⅔ lbs	8 7/8 lbs
500	7 ½ qts	9 ½ qts	14 ⅔ qts	4 qts	6 qts	5 lbs	8 lbs
550	6 4/5 qts	8 2/3 qts	13 ⅓ qts	3 ⅔ qts	5 ½ qts	4 ⅔ lbs	7 ¼ lbs
600	6 1/4 qts	8 qts	12 1/5 qts	3 ⅓ qts	5 qts	4 1/5 lbs	6 ⅔ lbs
650	5 ¾ qts	7 ⅓ qts	11 ¼ qts	3 1/5 qts	4 3/5 qts	3 7/8 lbs	6 1/5 lbs
700	5 ⅓ qts	6 4/5 qts	10 ½ qts	2 7/8 qts	4 ¼ qts	3 ⅔ lbs	5 ¾ lbs

**RATE CHART OF IMPREGNATION OF DRY BULK FERTILIZER WITH  
SUTAN+ 6.7-E AND ATRAZINE PLUS BLADEX PER TON OF FERTILIZER**

**TABLE 11**

<b>FERTILIZER RATE POUNDS PER ACRE</b>	<b>SUTAN+ 6.7-E</b>			<b>BLADEX RATE FOR A 3-WAY MIX</b>			
	<b>PINTS PER ACRE</b>			<b>4L PINTS PER ACRE</b>		<b>80W POUNDS PER ACRE</b>	
	<b>3¾</b>	<b>4¾</b>	<b>7⅓</b>	<b>2</b>	<b>4</b>	<b>1¼</b>	<b>2½</b>
200	18 ¾ qts	23 ¾ qts	36 ⅔ qts	10 qts	20 qts	12 ½ lbs	25 lbs
250	15 qts	19 qts	29⅓ qts	8 qts	16 qts	10 lbs	20 lbs
300	12 ½ qts	15 4/5 qts	24 2/5 qts	6 3/5 qts	13 ½ qts	8 ⅓ lbs	16 ⅔ lbs
350	10 ¾ qts	13 3/5 qts	21 qts	5 4/5 qts	11 ½ qts	7 1/8 lbs	14 ⅓ lbs
400	9 2/5 qts	11 7/8 qts	18 ⅓ qts	5 qts	10 qts	6 ¼ lbs	12 ½ lbs
450	8 ⅓ qts	10 ½ qts	16 ⅓ qts	4 2/5 qts	9 qts	5 ½ lbs	11 1/5 lbs
500	7 ½ qts	9 ½ qts	14 ⅔ qts	4 qts	8 qts	5 lbs	10 lbs
550	6 4/5 qts	8 2/3 qts	13 ⅓ qts	3 ⅔ qts	7 ¼ qts	4 ⅔ lbs	9 1/5 lbs
600	6 1/4 qts	8 qts	12 1/5 qts	3 ⅓ qts	6 ⅔ qts	4 1/5 lbs	8 ⅓ lbs
650	5 ¾ qts	7 ⅓ qts	11 ¼ qts	3 1/8 qts	6 ¼ qts	3 7/8 lbs	7 ⅔ lbs
700	5 ⅓ qts	6 4/5 qts	10 ½ qts	2 7/8 qts	5 ¾ qts	3 ⅔ lbs	7 1/5 lbs

**RATE CHART OF IMPREGNATION OF DRY BULK FERTILIZER WITH  
SUTAN+ 6.7-E AND ATRAZINE PLUS BLADEx PER TON OF FERTILIZER**

**TABLE 12**

FERTILIZER RATE POUNDS PER ACRE	SUTAN+ 6.7-E			ATRAZINE RATE FOR A 3-WAY TANKMIX			
	PINTS PER ACRE			4L PINTS PER ACRE		80W POUNDS PER ACRE	
	3¾	4¾	7⅓	1	2	¾	1¼
200	18 ¾ qts	23 ¾ qts	36 ⅔ qts	5 qts	10 qts	7 ½ lbs	12 ½ lbs
250	15 qts	19 qts	29⅓ qts	4 qts	8 qts	6 lbs	10 lbs
300	12 ½ qts	15 4/5 qts	24 2/5 qts	3 ⅓ qts	6 ⅔ qts	5 lbs	8 ⅓ lbs
350	10 ¾ qts	13 3/5 qts	21 qts	2 7/8 qts	5 ¾ qts	4 ⅓ lbs	7 1/5 lbs
400	9 2/5 qts	11 7/8 qts	18 ⅓ qts	2 ½ qts	5 qts	3 ¾ lbs	6 ¼ lbs
450	8 ⅓ qts	10 ½ qts	16 ⅓ qts	2 ¼ qts	4 ½ qts	3 ⅓ lbs	5 ⅔ lbs
500	7 ½ qts	9 ½ qts	14 ⅔ qts	2 qts	4 qts	3 lbs	5 lbs
550	6 4/5 qts	8 2/3 qts	13 ⅓ qts	1 7/8 qts	3 ⅔ qts	2 ¾ lbs	4 ⅔ lbs
600	6 1/4 qts	8 qts	12 1/5 qts	1 ⅔ qts	3 ⅓ qts	2 ½ lbs	4 1/5 lbs
650	5 ¾ qts	7 ⅓ qts	11 ¼ qts	1 3/5 qts	3 1/5 qts	2 ⅓ lbs	3 7/8 lbs
700	5 ⅓ qts	6 4/5 qts	10 ½ qts	1 ½ qts	2 7/8 qts	2 1/5 lbs	3 ⅔ lbs

**CONDITIONS OF SALE  
AND LIMITATION OF WARRANTY AND LIABILITY**

**HELM AGRO US, INC. AND SELLER OFFER THIS PRODUCT AND THE BUYER AND USER ACCEPTS THIS PRODUCT 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 HELM or the Seller. HELM 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. HELM MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. In no case shall HELM or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product. Any variation or exception from this warranty must be in writing and signed by an authorized HELM representative.

HELM AGRO US, INC.  
8295 Tournament Drive, Suite 310  
Memphis, Tennessee 38125 USA

SUTAN® is a trademark of Helm Agro US, Inc.  
Aatrex®, Beacon®, Caliber®, Fusilade®, Nine-O®, and Princep® are trademarks of Syngenta Crop Protection, Inc.  
Accent® and Bladex® are trademarks of E.I. Dupont de Nemours & Co. (Inc.).  
Agsorb™ is a trademark of Oil Dri Corporation of America.  
Banvel® is a trademark of BASF.  
Compex® is a trademark of Kalo, Inc.  
Micro-Cel™ is a trademark of Manville Sales Corporation.  
Sponto™ is a trademark of Witco Corporation.  
Unite™ is a trademark of HACO, Inc.