

352-576

01-12-2004

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

Ms. Anna M. Stoops
DuPont Crop Protection
Stine-Haskell Research Center
P. O. Box 30
Newark, DE 19714-0030

Dear Ms. Stoops:

Subject: DuPont Staple Herbicide (Revise Master Label)
EPA Registration No. 352-576
Application Dated October 28, 2003

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended is acceptable provided you make the following change before you release the product for shipment.

1. In the list of "Personal Protective Equipment (PPE) within the Precautionary statements, revise the glove requirement to read "Chemical resistant gloves made of any waterproof material **such as polyethylene or polyvinylchloride.**
2. Revise the last sentence of your Environmental Hazards statement to read "Do not contaminate water when **cleaning of equipment or** disposing of equipment washwaters.

Submit three (3) copies of your final printed labeling before you release the product for shipment. Amended labeling will supercede all previously accepted ones. A stamped copy of labeling is enclosed for your records.

Sincerely,

Jackie K. Walker, for
James A. Tompkins
Product Manager 25
Herbicide Branch
Registration Division (7505C)

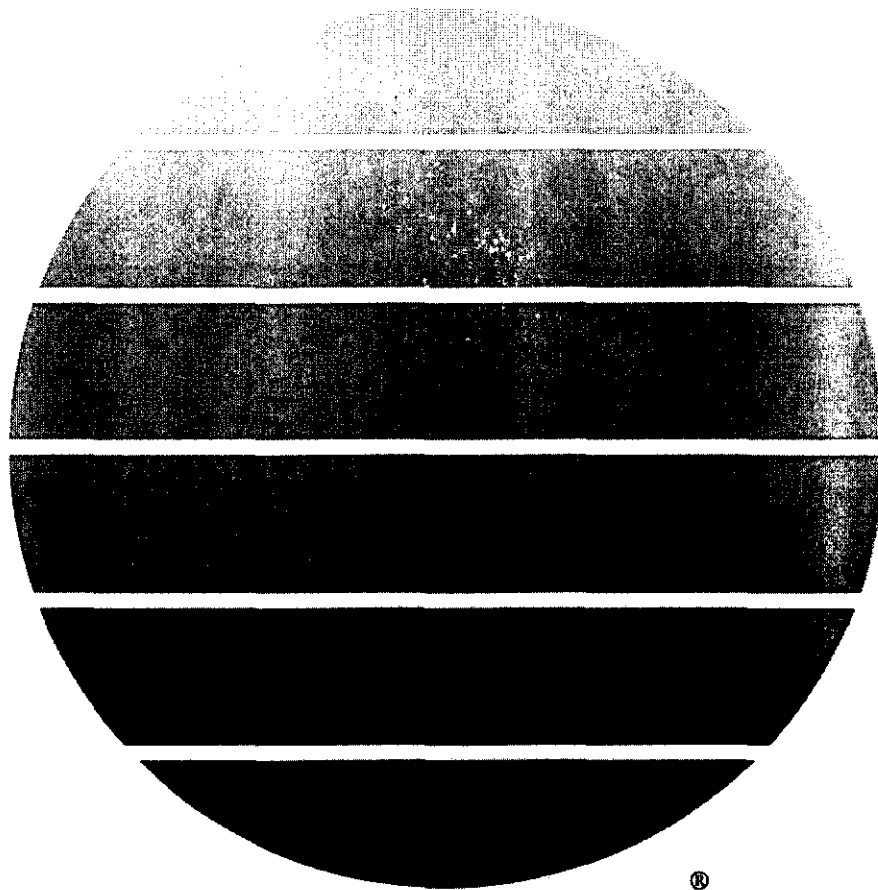
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MASTER



DuPont™ Staple®

herbicide



“..... A Growing Partnership With Nature”

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DuPontTM Staple[®]

herbicide

For Use on Cotton in the States of AL, AR, AZ, CA, FL, GA, KS, LA, MO, MS, NC, NM, OK, PR, SC, TN, TX, & VA.

Soluble Powder

Active Ingredient	By Weight
Pyrithiobac sodium	
Sodium 2-chloro-6-[(4,6-dimethoxy pyrimidin-2-yl)thio]benzoate	85%
Inert Ingredients	15%
TOTAL	100%

EPA Reg. No. 352-576

ACCEPTED
with COMMENTS
In EPA Letter Dated
JAN 12 2004
Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.
352-576

KEEP OUT OF REACH OF CHILDREN

WARNING

AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

FIRST AID

IF IN EYES: Hold open eye and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

FIRST AID (Cont'd)

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-441-3637 for medical emergencies involving this product.

PRECAUTIONARY STATEMENTS HAZARD TO HUMANS AND DOMESTIC ANIMALS

WARNING! Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Harmful if swallowed. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing.

PERSONAL PROTECTIVE EQUIPMENT

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

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Chemical Resistant Gloves made of any Waterproof material.
- Shoes plus socks.
- Protective eyewear.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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.

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.

ENVIRONMENTAL HAZARDS

This product is highly toxic to nontarget plants adjacent to area of application. Do not apply this product or allow it to drift to areas where endangered or desired plant species exist.

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

(U.S. except California)

GENERAL INFORMATION

DuPont™ STAPLE® herbicide is a water soluble powder formulation packaged in premeasured soluble packets that rapidly dissolve in water.

STAPLE® may be applied preemergence, postemergence or post-directed to cotton and weeds by ground application equipment. STAPLE® may also be applied postemergence to cotton and weeds by aerial equipment (except in Arizona).

If STAPLE® is used in a tank mixture with other herbicides, read and follow all use instructions, warnings and precautions on companion herbicide labels.

BIOLOGICAL INFORMATION

STAPLE® is absorbed by weed foliage following postemergence application. Thorough coverage of target weed species, including the weed terminals or growing points, is required to obtain best results. When using a banded spray application, the band spray area should be of sufficient width to ensure thorough coverage of target weeds.

Growth of susceptible weeds is rapidly inhibited. Growing points and leaves of susceptible weeds appear yellow in 5-10 days. Death of leaf tissue and growing points will follow in some species, while others remain green but stunted and non-competitive. Susceptible weeds are controlled in 14-28 days.

Do not apply STAPLE® on any crops other than cotton. Most crops other than cotton are sensitive to STAPLE®. All direct and indirect contact (such as drift) to crops other than cotton or land not scheduled to be planted to cotton in the current growing season should be avoided.

RESISTANCE

When herbicides that affect the same biological site of action are used repeatedly over several years to control the same weed species in the same field, naturally-occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field. Adequate control of these resistant weed biotypes cannot be expected. If weed control is unsatisfactory, it may be necessary to retreat the problem area using a product affecting a different site of action.

To better manage herbicide resistance through delaying the proliferation and possible dominance of herbicide resistant weed biotypes, it may be necessary to change cultural practices within and between crop seasons such as using a combination of tillage, retreatment, tank-mix partners and/or sequential herbicide applications that have a different site of action. Weed escapes that are allowed to go to seed will promote the spread of resistant biotypes.

It is advisable to keep accurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes. Consult your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representative for specific alternative cultural practices or herbicide recommendations available in your area.

INTEGRATED PEST MANAGEMENT

This product may be used as part of an Integrated Pest Management (IPM) program that can include biological, cultural, and genetic practices aimed at preventing economic pest damage. IPM principles and practices include field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

ENVIRONMENTAL CONDITIONS FOR OPTIMUM PERFORMANCE

WEATHER: Conditions which are conducive to healthy, actively growing weeds optimize STAPLE® postemergence weed control performance. Ideal conditions include warm soil temperatures (70 Deg. F or more) and adequate soil moisture before, during and immediately after application.

Rainfastness: Rainfall immediately after treatment may wash STAPLE® off the weed foliage and result in reduced weed control. A minimum of 4 hours is needed to allow STAPLE® to be absorbed by weed foliage.

REPLANTING TO COTTON

If initial seeding fails to produce a stand, cotton may be replanted in soil treated preemergence with STAPLE®. Whenever possible avoid disturbing the original seedbed. If it proves necessary to rework the soil before replanting, use shallow cultivation. Do not relist nor move soil into the original drill area. Plant cotton seed at least 1 inch deep. Do not retreat field with a second preemergence application of STAPLE® during the same year as injury may result. For tank mix applications, see the respective combination product label for further replanting information. Follow the label guidelines that are the most restrictive.

COTTON CROP FAILURE

In the event of a cotton crop failure where seasonal constraints do not allow replanting to cotton, pyriithiobac sodium tolerant soybeans, such as DuPont™ STS® soybeans may be used as a replant crop. Pyriithiobac sodium tolerant soybeans may be planted 30 days following the last STAPLE® application to the failed cotton crop.

Where other herbicides have been used with or in conjunction with STAPLE®, refer to the other herbicide label(s) for any information or restrictions prior to replanting with STS® soybeans.

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 in your State 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 protective equipment (PPE) and restricted-entry interval. 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 24 hours.

PPE required for early entry to 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 made of any Waterproof material.
- Shoes plus socks.
- Protective eyewear.

Do not apply this product through any type of irrigation system. DuPont will not be responsible for losses or damages resulting from the use of this product in any manner not specifically recommended by DuPont.

APPLICATION INFORMATION

SPRAY EQUIPMENT - VOLUMES

Ground Application - Apply uniformly by ground with a properly calibrated low pressure (20-40 psi) boom or cultivator mounted sprayer equipped with flat fan nozzles. Use a minimum of 10 gal water per acre. Under heavy weed pressure or dense crop foliage, increase minimum spray volume to 20-40 gal per acre

Aerial Application (except Arizona) - Use orifice discs, cores and nozzle types and arrangements that will provide for optimum spray distribution and maximum coverage at a minimum of 3 GPA. Do not apply during inversion conditions, when winds are gusty, or when other conditions will favor poor coverage and/or drift.

PREEMERGENCE USE

DuPont™ STAPLE® may be applied preemergence in cotton to aid in the control of many problem weeds.

STAPLE® is absorbed by weed roots following a preemergence application. Susceptible weeds may germinate and emerge, but growth is rapidly inhibited. Death of leaf tissue and growing points will follow in some species while others remain green but stunted and non-competitive.

Preemergence applications of STAPLE® require rainfall or sprinkler irrigation to activate the herbicide. Degree and duration of weed control depend on: rate used, weed spectrum, growing conditions at and following time of treatment, soil texture, organic matter, soil moisture at the time of treatment, and precipitation following treatment.

The amount of rainfall required to activate STAPLE® preemergence treatments depends on the amount of soil moisture available when rainfall is received. Several rainfalls of 0.25 inch or less are not as effective as one rainfall or supplemental irrigation of 0.5-1 inch for activation.

Note: Temporary leaf yellowing and/or stunting may occur following a preemergence treatment. Plant stresses from seedling diseases, cool soil temperatures (60° F or less), thrips injury or excessive soil moisture may increase the sensitivity of cotton to injury from preemergence treatments of STAPLE®.

PREEMERGENCE APPLICATION

STAPLE® may be applied preemergence in cotton (including bromoxynil and glyphosate tolerant varieties) for the control of pigweed (redroot, smooth), prickly sida, spotted spurge, spurred anoda & velvetleaf, and suppression of annual morningglory (cypressvine, entireleaf, ivyleaf, pitted, purple, red/scarlet, sharppod/cotton, small flower, threelobe, woolly) lambsquarters, smartweed (ladysthumb, pennsylvania), jimsonweed, coffee senna, palmer pigweed, lanceleaf sage, barnyardgrass, broadleaf signalgrass, goosegrass, fall panicum, giant foxtail, seedling johnsongrass & large crabgrass.

APPLICATION RATES

STAPLE® may be applied at the rates of 0.6 - 1.0 oz product/A. Use the higher rate of STAPLE® for harder to control weeds and/or in fields where high weed infestation levels are known to occur (see Specific Weed Problems section).

All rates are broadcast. Use proportionately less for band application.

Preemergence Combinations

For improved control of weeds, such as, prairie sunflower, lanceleaf sage and annual morningglory (entireleaf, ivyleaf, pitted, red morningglory, sharppod), STAPLE® may be applied preemergence in combination with diuron ("Karmex" DF, "Direx" 4L), fluometuron ("Cotoran"), or prometryn, ("Cotton-Pro") in cotton. Refer to the combination product labels for use rates, application information and use restrictions. Follow the label guidelines that are the most restrictive.

STAPLE® + "Karmex" DF, "Direx" 4L

Medium Soils (sandy loam, loam, silt loam, silt): Apply STAPLE® at 0.6 ounce per acre plus diuron at 1.0 pound per acre.

Fine Soils (sandy clay loam, clay loam, silty clay loam, sandy clay): Apply DuPont™ STAPLE® at 1.0 ounce per acre plus diuron at 1.25 pound per acre.

Note: A second application of STAPLE® may be applied postemergence if needed for extended weed control. See the POSTEMERGENCE USE section of this label for further application information and use restrictions.

Preemergence/Postemergence Programs

A program of STAPLE® at 0.6 oz /A plus fluometuron ("Cotoran") applied preemergence followed by STAPLE® early postemergence is recommended for improved control of bristly starbur, coffee senna, common ragweed, Florida beggarweed, hemp sesbania, jimsonweed, ladythumb smartweed, lambsquarter, annual morningglory (cypressvine, entireleaf, ivyleaf, pitted, purple, red/scarlet, sharppod/cotton, smallflower) Pennsylvania smartweed, pigweed (redroot, smooth, spiny), prickly sida, spotted spurge, spurred anoda, velvetleaf and for suppression of palmer pigweed.

Refer to the **POSTEMERGENCE USE** section of this label for use rates, application timings and restrictions.

Specific Weed Problems (Sicklepod, Wild Poinsettia, Yellow Nutsedge): For improved control of the above weeds and other labeled weeds that often occur in high populations and/or have multiple seasonal flushes, a program of STAPLE® at 1.0 oz /A plus fluometuron applied preemergence followed by a postemergence application of STAPLE® alone or in combination with "MSMA" or "DSMA" is recommended.

Refer to the **POSTEMERGENCE USE** and **TANK MIXTURES** sections of this label for use rates, application timings and restrictions.

USE PRECAUTIONS

- Do not use on soils with less than 0.5% organic matter (OM).
- Do not exceed 1.0 ounce per acre of STAPLE® when applied preemergence.
- Do not apply more than one preemergence application per season.
- Do not apply more than 2.4 ounces product total per acre per year of STAPLE®.
- Do not apply STAPLE® preemergence by aerial application.
- In West Texas (broadly defined as West of Highway 83), do not apply more than 1.5 ounce total per acre per year.
- In areas of West Texas where continuous cotton is grown, do not apply more than 1.8 ounce total per acre per year.
- Do not use on coarse soils such as sands or loamy sands.
- Do not use on soils with less than 1% organic matter when tank mixing with diuron. Otherwise, do not use of soils with less than 0.5 % organic matter.
- Do not use soil applied organophosphate insecticides where diuron will be applied preemergence. Refer to the specific diuron labels for further application information and use restrictions.
- Do not use on cotton planted in furrows.

POSTEMERGENCE USE

Application should be made postemergence (over-the-top) or as a post-directed spray to cotton (begin at cotyledon stage) and actively growing weeds. The degree of control and duration of effect are dependent on sensitivity and size of target weed and environmental conditions at time of and following application.

Application should be made by ground or aerial equipment (except Arizona). In Arizona, apply STAPLE® by ground equipment only.

Postemergence applications should be made to young, actively growing weeds. Control may be reduced if application is made to weeds under stress due to severe environmental conditions such as drought, excessive soil moisture or cool soil or air temperatures (60° F or less).

Foliar absorption is the primary means of uptake from postemergence applications of STAPLE®. Therefore, select a spray volume, delivery system and uniform spray pattern that will insure thorough coverage of the target weed species (including the growing point) to obtain best results. Increase spray volume as weed density and size increases. Avoid overlapping, and shut off spray booms while starting, turning, slowing or stopping, or injury to the crop may result.

Note: STAPLE® may cause temporary leaf yellowing, bronzing and/or leaf crinkling when applied as a postemergence application. Plant stresses from seedling diseases, insects (thrips injury), blowing sand (sand blasting), hail injury, cool soil or air temperatures (60° F or less), extreme temperature variations and lack of or excessive soil moisture just prior to or soon after treatment may increase the sensitivity of cotton to injury from STAPLE® treatments. To reduce the potential for increased cotton sensitivity, allow cotton plants to recover from stress conditions (approximately 2 days) prior to postemergence applications of STAPLE®.

NOTE:

Pima cotton

Foliar injury to Pima cotton varieties from postemergence applications of STAPLE® can be more severe than that occasionally observed on upland cotton varieties (see NOTE: under POSTEMERGENCE USE section of label). Any of the plant stress conditions mentioned above may further increase the severity of the injury to Pima varieties. Consequently, DuPont is not responsible for any crop injury arising from the use of STAPLE® on Pima cotton varieties.

APPLICATION RATES

Apply STAPLE® at 1.2 oz product / A for control of the weeds listed in "Weeds Controlled" section. To aid control under arid growing conditions or adverse conditions such as excessive moisture stress or where weed infestations are severe, STAPLE® may be applied at up to 1.8 oz product/A.

All rates are broadcast. Use proportionately less for band applications.

Add a nonionic surfactant cleared for application to growing crops, at the rate of 0.25% V/V with all postemergence applications.

For the states of AZ, KS, NM, OK and TX, add a nonionic surfactant cleared for application to growing crops, at the rate of 0.25-0.5% V/V or a crop oil concentrate cleared for application to growing crops, at the rate of 1-2% V/V with all postemergence applications.

Do not apply more than 2.4 oz of DuPont™ STAPLE® per acre per year.

New Mexico and W. Texas (broadly defined as West of Highway 83): Do not apply more than 1.5 oz product per acre per year.

Note: In the areas of West Texas where continuous cotton is grown, a maximum rate of 1.8 oz product per acre per year may be applied

Note: On sand or loamy sand soil types with less than 1% OM, confine in-season applications of STAPLE® to a band of no more than one-third the row width. If replanting back to cotton is necessary, replant outside the original treated band.

TIMING

STAPLE® may be used as a postemergence (over-the-top) or post-directed application to young, actively growing weeds (see weeds controlled list).

Sequential Applications

Annual broadleaf weeds may have more than one flush of emerging seedlings. Also, regrowth of treated annual weeds may occur due to application being made to weeds under stress from adverse growing conditions. To control weeds under these conditions, a sequential application of STAPLE® may be necessary.

If a respray of treated annual weeds is necessary, allow the weeds to begin to regrow prior to making a second application of STAPLE®.

When using STAPLE® in sequential treatment program, allow a minimum of 7 days between applications.

The combined use rate from all applications of STAPLE® cannot exceed 2.4 oz per acre per year.

Reduced Rate Sequential Applications (Glyphosate Tolerant Cotton)

Two applications of STAPLE® herbicide at 0.4 ounce per acre plus glyphosate at 16 ounces per acre (4 pound active ingredient per gallon formulation) are required for the control of the weeds listed in the Weeds Controlled section of this label.

Applications should be made postemergence (over-the-top) to glyphosate tolerant cotton from the cotyledon stage until the four leaf (node) stage of cotton development (until the fifth leaf stage reaches the size of a quarter). After the four leaf stage of growth through layby, apply the STAPLE® plus glyphosate tank mix as a post-directed application. For best results, the initial application should be made while weeds are small and actively growing. The applications must be made at least 10 days apart.

Refer to the label of the glyphosate formulation being used for any adjuvant recommendations.

NOTE: In this program, the second application may be applied at higher rates, e.g. STAPLE® at 0.6 ounce per acre plus glyphosate at 24 ounces per acre, if needed, due to

adverse growing conditions, heavy weed infestations, or if additional residual control is desired.

Do not exceed a total of 2.4 ounces of STAPLE® per acre per year.

Do not exceed a total of 4 quarts of glyphosate (4 pound per gallon formulation) per acre per season of in-crop use.

WEEDS CONTROLLED

Common Name	Scientific Name	Height or Diameter (inches)
Citronmelon	<i>Citrullus lanatus</i>	1-4
Cocklebur, common†	<i>Xanthium strumarium</i>	1-4
Cocklebur, common (AZ, KS, NM, OK, TX only)**		1-3
Coffee senna	<i>Cassia occidentalis</i>	1-4
Cowpea	<i>Vigna sinensis</i>	1-4
Dayflower, common/asiatic	<i>Commelina communis</i>	1-3
Devils claw	<i>Proboscidea louisianica</i>	1-2
Dock, curly	<i>Rumex crispus</i>	1-4
Florida beggarweed	<i>Desmodium tortuosum</i>	1-4
Goosefoot, nettleleaf	<i>Chenopodium murale</i>	1-2
Groundcherry, wright	<i>Physalis wrightii</i>	1-2
Jimsonweed	<i>Datura stramonium</i>	1-4
Knotweed, silversheath	<i>Polygonum argyrocoleon</i>	1-2
Ladysthumb	<i>Polygonum persicaria</i>	1-4
Morningglory**, cypressvine	<i>Ipomoea quamoclit</i>	1-4
entireleaf	<i>Ipomoea hederacea</i>	1-4
ivyleaf	<i>Ipomoea hederacea</i>	1-4
pitted	<i>Ipomoea lacunosa</i>	1-3
purple	<i>Ipomoea turbinata</i>	1-4
red/scarlet	<i>Ipomoea coccinea</i>	1-3
sharpod/cotton (seedling)	<i>Ipomoea trichocarpa</i>	1-3
smallflower	<i>Jacquemontia tamnifolia</i>	1-4
threelobe	<i>Ipomoea triloba</i>	1-3
woolly	<i>Ipomoea hirsutula</i>	1-3
Mustard, black	<i>Brassica nigrum</i>	1-2
Nightshade black	<i>Solanum nigrum</i>	1-2
hairy	<i>Solanum sarrachoides</i>	1-2
Pigweed redroot	<i>Amaranthus retroflexus</i>	1-2
smooth	<i>Amaranthus hybridus</i>	1-2
spiny	<i>Amaranthus spinosus</i>	1-2
tumble	<i>Amaranthus albus</i>	1-2
Redweed	<i>Melochia corchorifolia</i>	1-4
Rocket, London	<i>Sisymbrium irio</i>	1-2
Sage, lanceleaf	<i>Salvia reflexa</i>	0.25-0.5
Sesbania, hemp***	<i>Sesbania exaltata</i>	1-4
Shepherd's-purse	<i>Capsella bursa-pastoris</i>	1-2
Sida, prickly	<i>Sida spinosa</i>	0.25-1
Smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>	1-4
Smellmelon	<i>Cucumis melo</i>	1-3
Spiderflower, spiny	<i>Cleome spinosa</i>	1-4
Spurred anoda	<i>Anoda cristata</i>	1-4
Starbur, bristly	<i>Acanthospermum hispidum</i>	1-2
Sunflower common	<i>Helianthus annuus</i>	1-4
prairie	<i>Helianthus petiolaris</i>	1-3
Thistle, Russian	<i>Salsola iberica</i>	1-2
Velvetleaf	<i>Abutilon theophrasti</i>	1-4
Waterhemp, common	<i>Amaranthus tamariscinus</i>	1-4
Watermelon (volunteer)	<i>Citrullus vulgaris</i>	1-2
Wild poinsettia	<i>Euphorbia heterophylla</i>	1-2
Wild radish	<i>Raphanus raphanistrum</i>	1-2

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WEEDS SUPPRESSED††

Common Name	Scientific Name	Height or Diameter (inches)
Pigweed, palmer†*	<i>Amaranthus palmeri</i>	1-2
Puncturevine	<i>Tribulus terrestris</i>	1-2
Purple nutsedge	<i>Cyperus rotundus</i>	2-4
Purslane, common	<i>Portulaca oleracea</i>	1-2
Sicklepod	<i>Cassia obtusifolia</i>	0.5-2
Yellow nutsedge	<i>Cyperus esculentus</i>	2-4

† Naturally occurring biotypes of this weed are known to exist. DuPont™ STAPLE® will not control these biotypes. See Information in Resistance section.

†† Weed suppression is a visual reduction in weed competition (reduced population and/or vigor) as compared to an untreated check. The degree of control will vary with the rate used, size of weeds, crop competition, and environmental conditions.

* In AL, AZ, FL and GA only, Palmer Pigweed is controlled at the height of 1-2 inches.

** AZ, KS, NM, OK and TX: To aid control under arid growing conditions STAPLE® may be applied in a single application at up to 1.8 oz per acre. Include a nonionic surfactant at 0.25-0.5% V/V or crop oil concentrate at 1-2% V/V.

For best activity, treat at the one to two leaf stage of weed growth.

Note: In areas of West Texas where continuous cotton is grown, a maximum rate of 1.8 oz product per acre per year may be applied.

*** Effective control may require sequential applications of STAPLE® as cotyledon to one-leaf stage plants are more difficult to control.

SPECIFIC WEED PROBLEMS

Sicklepod and Yellow nutsedge: STAPLE® will provide partial control (growth suppression) of sicklepod and yellow nutsedge when applied alone at the sizes indicated. For best results, STAPLE® should be applied as a post-directed application in combination with MSMA at 2 2/3 pints / A (2 lbs ai/A at 6 lbs ai /gal). Treatments of STAPLE® + MSMA should be made only as a post-directed application using two nozzles per row set to provide complete coverage of the weeds while avoiding application over the top or to the growing point of the cotton plant. The use of gauge wheels or shielded sprayer equipment is recommended to prevent application of STAPLE® + MSMA over the top of cotton. Applications of STAPLE® + MSMA to sicklepod larger than 2 inches or yellow nutsedge larger than 4 inches will only provide partial control (growth suppression).

TANK MIXTURES

**STAPLE® plus GLYPHOSATE
(Glyphosate Tolerant Cotton)**

A tank mixture of STAPLE® at 0.6 - 0.8 ounces plus glyphosate at 24 - 32 ounces per acre may be applied as an early postemergence treatment in glyphosate tolerant cotton for improved control of hemp sesbania, morningglory (entireleaf, ivyleaf, pitted, scarlet/red), prickly sida and palmer pigweed.

The addition of STAPLE® to a glyphosate only program will provide residual control of prickly sida, pigweed (redroot, smooth), spotted spurge, velvetleaf and spurred anoda and suppression of annual morningglory (cypressvine, entireleaf, ivyleaf, pitted, purple, red/scarlett, sharppod/cotton, smallflower, threelobe, wooly), lambsquarters, smartweed (ladysthumb, pennsylvania), jimsonweed, coffee senna, palmer pigweed, lanceleaf sage, barnyardgrass, broadleaf signalgrass, goosegrass, fall panicum, giant foxtail, seedling johnsongrass and large

crabgrass. Rainfall (0.5-1 inch) following the postemergence application is required for residual control.

Glyphosate rates are based on 4 pound active ingredient per gallon formulation. For other glyphosate formulations, rates should be adjusted proportionally to the active ingredient content of the formulation.

STAPLE® plus glyphosate may be applied postemergence (over-the-top) to glyphosate tolerant cotton through the 4th true leaf stage of growth (when 5th true leaf is the size of a quarter or less).

STAPLE® plus glyphosate may be applied using precision post-directed or hooded sprayers to glyphosate tolerant cotton through layby. When making post-directed applications, be especially careful to minimize contact of the spray with cotton leaves. Any single application should not exceed 0.8 ounces of STAPLE® (1.8 ounces in Arizona) or 32 ounces of glyphosate. No more than two post-directed applications may be made from the fifth leaf stage through layby. All applications must be 10 days apart and cotton must have at least two nodes of incremental growth between applications. Do not exceed 2.4 ounces total of STAPLE® per acre per year.

Under hard water conditions, always add an appropriate rate of either a spray grade ammonium sulfate (AMS) or a water conditioner (i.e. Helena's "Quest" or Loveland's "Choice") to the spray water prior to adding the glyphosate.

Refer to the glyphosate formulation label for further application information and use restrictions. Follow the label guidelines that are the most restrictive.

Note: No antagonism has been observed to annual grass species from this tank mixture.

Arizona only

A tank mix of STAPLE® at 0.8 - 1.8 ounces per acre plus glyphosate at 32 ounces per acre may be applied as a postemergence (over-the-top) treatment in glyphosate tolerant cotton for improved weed control of groundcherry, morningglory, pigweed, puncturevine, purslane and nutsedge. Apply uniformly by ground application in a minimum of 5 - 20 gallons of water per acre.

Salvage Treatments (Glyphosate Tolerant Cotton)

From cotyledon stage cotton through layby, where weeds threaten to cause the loss of the crop, applications of STAPLE® at 0.8 to 1.8 ounces per acre plus glyphosate at 50 ounces per acre (4 lb active ingredient per gallon) ounces per acre may be applied. Apply this treatment either as an over-the-top application or as a post-directed application sprayed higher on the cotton plants and over the weeds. If at the timing of the salvage treatment the weeds are larger than specified in this label, only partial control may be achieved.

NOTE: Crop tolerance of glyphosate tolerant cotton has not been fully tested at this application rate. Salvage treatments are expected to result in significant boll loss, delayed maturity and/or yield loss. These salvage treatments are the sole responsibility of the grower. No more than two salvage treatments should be used per growing season.

The combined total of in-crop over-the-top plus selective equipment applications must not exceed 4 pounds active

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ingredient of glyphosate per acre per crop. In addition, the combined total of in-crop, over-the-top plus selective equipment applications must not exceed 2.4 ounces (2.0 ounces active ingredient pyriithiobac sodium) per acre per year.

DuPont™ STAPLE® plus "Buctril" 4 EC (Bromoxynil Tolerant Cotton)

A tank mixture of STAPLE® at 0.8 ounces per acre plus "Buctril" at 1 pint per acre may be applied as a postemergence treatment in Bromoxynil Tolerant (BXN) Cotton for improved control of pigweed (redroot, smooth, spiny and tumble) and prickly sida. The addition of STAPLE® to a BXN program will provide residual control of prickly sida, pigweed, spotted spurge, velvetleaf and spurred anoda. Rainfall (0.5-1 inch) following the postemergence application is required for residual control.

Refer to the "Buctril" 4EC label for further information and use restrictions. Follow the label guidelines that are the most restrictive.

STAPLE® plus MSMA or DSMA

STAPLE® may be tank mixed with MSMA or DSMA and applied post-directed for improved control of certain broadleaf weeds and suppression of sedges. Refer to MSMA or DSMA label for information on weeds, weed sizes, application conditions and use restrictions(follow label guidelines that are most restrictive).

Note: Certain weeds such as black and hairy nightshade, palmer amaranth, and wright groundcherry have shown antagonism (reduced weed control) from tank mixtures of STAPLE® plus MSMA. Only add MSMA or DSMA to spray tank after the water soluble bag of STAPLE® has dissolved. Adding MSMA or DSMA to the spray tank first may prevent or delay the dissolution of the water soluble bag causing filters and or nozzles to plug.

STAPLE® plus DuPont™ ASSURE® II: Johnsongrass

STAPLE® may be tank mixed with ASSURE® II for additional early postemergence control of johnsongrass in cotton. Refer to ASSURE® II label for johnsongrass control rates and timing of application.

Tank mixes of STAPLE® with other post grass herbicides can result in antagonism and partial control of of rhizome johnsongrass or annual grasses. To avoid poor control of rhizome johnsongrass or annual grasses apply other post grass herbicides at least 3 days prior to the application of STAPLE®.

STAPLE® plus Insecticides:

STAPLE® may be tank mixed with most insecticides that are approved for use on cotton.

Refer to companion insecticide label and follow the use directions which are most restrictive.

Note: Do not tank mix STAPLE® with malathion-containing insecticides (such as "Cythion" RTU or "Cythion" ULV) that are approved for use on cotton, as crop injury may result.

To avoid crop injury, apply malathion-containing insecticides at least 24 hours before or after the application of STAPLE®.

ROTATIONAL CROP RESTRICTIONS

These crops may be planted after treatment with STAPLE®:

CROP†	INTERVAL (MONTHS)
Cotton*	Anytime
Winter/spring, wheat	4
Peanuts	10
Rice	9
Soybeans	10
Corn, field #	9
Corn, field ##	10
Corn, field IR (imidazilinone resistant)	9
Sorghum, grain	‡
Tobacco (transplant)	10
All other crops**	Field Bioassay

Arizona only - (all crops listed in the main table above plus)

Field corn, cantaloupe	10
Watermelon, grain sorghum	10

Note: When rotating to either cantaloupe or watermelon in the spring season following cotton, use only a single application of STAPLE® at no more than 1.8 ounces per acre.

Note: Where "drip irrigated" cotton is grown, rotate only to cotton.

Southeast US Only - (GA, NC, N.FL, SC, S.AL)

(all crops listed in the main table above plus)

Cabbage	12
Cantaloupe	12
Carrots	12
Collards	12
English Pea	12
Mustard (greens)	12
Onions	++
Peppers	12
Snap bean	12
Squash	12
Sweet Corn	12
Sweet Potato	12
Tomato	12
Turnips	12
Watermelon	12

++ Do not rotate to Onions in the fall or spring crop season following a STAPLE® application.

* If initial seeding fails to produce a stand, cotton may be replanted into the treated area. Wherever possible, avoid disturbing original bed. If necessary to rework soil before replanting, use shallow cultivation. Do not rebed nor move soil into the original drill area.

Note: New Mexico and W. Texas (broadly defined as west of highway 83) - On sand or loamy sand soils with less than 1% OM replant cotton outside the original treated band.

** A minimum rotational interval of 10 months is required for all crops not listed above. Field bioassay results may require that this interval be extended. A successful field bioassay means growing to maturity a test strip of the crop(s) intended for production the following year. The test strip should cross the entire field including knolls and low areas.

- † In AZ, KS, NM, OK, and TX the rotational crops listed may be planted at the indicated intervals provided the fields are deep plowed prior to planting the rotational crop.
- # Field corn, corn grown for grain or silage, may be planted at the indicated interval provided DuPont™ STAPLE® is applied on a band (not to exceed 50% of the row width) and the fields have had a thorough soil mixing, for example, two diskings or a deep plowing, prior to planting. Otherwise, do not rotate to field corn in the season following a STAPLE® application.
 Note: New Mexico and W. Texas (broadly defined as West of Highway 83) do not rotate to field corn the season following a STAPLE® application.
- ## Limited Geography—Field corn grown for grain or silage, only in the States of AL, AR, FL, GA, LA, MO, MS, NC, SC, TN, and VA, may be planted at the indicated interval provided all the STAPLE® applications made in cotton do not exceed a total of 1.8 ounces broadcast per acre per season. No additional soil mixing (disking or plowing) will be required beyond that which is normally done with the various production systems, e.g. conventional tillage, minimum till, no-till, ridge till, etc.
- ‡ Do not rotate to grain sorghum in the season following a STAPLE® application.
 For Southeast Texas, in an area broadly defined as east of route I-35 and south of route US 90, to include Uvalde, Medina and Bexar counties, grain sorghum may be planted after a 10 month interval provided that in the above outlined area has received a minimum of 25 inches of rainfall following a STAPLE® application and the fields have had a thorough soil mixing, for example two diskings or a deep plowing prior to planting.
 For the Rio Grande Valley of Texas, do not rotate to corn or grain sorghum in the fall crop season following a STAPLE® application.

ADDITIONAL USE PRECAUTIONS

Pima cotton

Foliar injury to Pima cotton varieties from postemergence applications of STAPLE® can be more severe than that occasionally observed on upland cotton varieties (see NOTE: under POSTEMERGENCE USE section of label). Any of the plant stress conditions mentioned in the "Postemergence Use" section of the label may further increase the severity of the injury to Pima varieties.

Consequently, DuPont is not responsible for any crop injury arising from the use of STAPLE® on Pima cotton varieties.

- Do not tank mix with "Dual" herbicide as a postemergence treatment as crop injury may result.
- Do not apply to irrigated land where tail water will be used to irrigate crops other than cotton.
- Do not exceed 1.8 oz/A in a single application.
- Do not exceed 2.4 oz/A per year.
- Do not apply within 60 days of harvest.

NOTE

Injury to or loss of desirable trees or vegetation may result from failure to observe the following:

Do not apply, drain or flush equipment on or near desirable trees or other plants or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.

Do not use on lawns, walks, driveways, tennis courts, or similar areas. Prevent drift of spray to desirable plants.

Injury to or loss of adjacent sensitive crops and vegetation may result from failure to observe the following:

Avoid all direct or indirect (such as spray drift) contact with crops other than cotton.

Carefully observe all sprayer cleanup instructions both prior to and after using this product, as spray tank residue may damage crops other than cotton.

SOLUBLE PACKET HANDLING PRECAUTIONS

Exposure to moisture or excessive handling of the soluble packets can cause them to break open.

Do not handle the soluble packets with wet hands or place them on wet surfaces.

Protect unused soluble packets by immediately resealing them in the original barrier bag.

The outer, barrier bag is NOT soluble in water. Do not place it in the spray tank.

SPRAYER PREPARATION

It is important that spray equipment is clean and free of existing pesticide deposits before using STAPLE®. Follow the clean up procedures specified on the label of the product(s) previously used. If no clean up procedure is provided, follow this clean up procedure for all application equipment before using STAPLE®:

1. Thoroughly rinse sprayer, tanks, boom and hoses with clean water.
2. Partially fill tank with water and add ammonia (1 gal. of ammonia per 100 gal. of tank volume) or a tank cleaner. Complete filling the tank and flush the cleaning solution through the boom hoses. Let solution stand for 15 minutes while agitating/recirculating, and then drain the tank by flushing the hoses, booms and nozzles.
3. Thoroughly rinse the sprayer, tanks, boom and hoses with clean water.
4. Follow label directions on product(s) previously sprayed for disposal.

Mix the proper amount of STAPLE® into the necessary volume of water in the spray tank with the agitator running. Continuous agitation is required for a uniform suspension and application. STAPLE® must be added first to the spray tank followed by tank mix partner, if used, then the adjuvant.

Use spray preparation of STAPLE® and approved adjuvant within 7 days or product degradation may occur. If spray preparation is left standing without agitation, thoroughly agitate before using.

PRECAUTION: Do not use chlorine bleach with ammonia. See Sprayer Clean Up Section for more information.

SPRAYER CLEAN UP

Spray equipment must be clean and free of previous pesticide deposits before applying STAPLE® and properly cleaned out after applying STAPLE®. Using the clean up procedures specified on the label of the previously used product, clean all application equipment before applying STAPLE®. If no clean up procedure is provided, use the procedure that follows. Immediately following applications of STAPLE®

thoroughly clean all mixing and spray equipment according to the following instructions:

1. Drain Tank: Thoroughly hose down the interior surfaces of the tank; then flush tank, boom and hoses with clean water for a minimum of 5 minutes. Loosen and physically remove any visible deposits.
 2. Fill the tank with clean water and add one gal. of household ammonia* (3% active) for every 100 gal. of water. Flush the cleaning solution through the boom, hoses and nozzles. Add more water to completely fill the tank and allow to agitate/recirculate for at least 15 minutes. Again, flush the boom, hoses and nozzles with the cleaning solution, then drain the tank.
 3. Remove the nozzles and screens and clean separately in a bucket containing the cleaning agent and water.
 4. Repeat step 2.
 5. Thoroughly rinse the tank with clean water for a minimum of 5 minutes, flushing the water through the hoses and boom.
 6. Dispose of the rinsate on site or at an approved waste disposal facility.
- * Equivalent amounts of an alternate-strength ammonia solution or DuPont approved cleaner can be used in the cleanout procedure. Carefully read and follow the individual cleaner instruction.

PRECAUTION

Do not use chlorine bleach with ammonia when cleaning out spray tanks. All traces of liquid fertilizer containing ammonia, ammonia nitrate or ammonium sulphate must be rinsed with water from the mixing and application equipment before adding any chlorine bleach solution. Failure to do so will release a gas with a musty chlorine odor which can cause eye, nose, throat and lung irritation.

Do not clean equipment in an enclosed area.

SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets (>150 - 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. **APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS!** See **Wind, Temperature and Humidity**, and **Temperature Inversions** sections of this label.

Controlling Droplet Size - General Techniques

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. **WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.**
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles.

Controlling Droplet Size - Aircraft

- **Number of Nozzles** - Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations.
- **Nozzle Type** - Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.
- **Boom Length** - The boom length should not exceed 3/4 of the wing or rotor length - longer booms increase drift potential.
- **Application Height** - Application more than 10 ft above the canopy increases the potential for spray drift.

BOOM HEIGHT

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

WIND

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. **AVOID GUSTY OR WINDLESS CONDITIONS.**

Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store product in original container only.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Do not reuse the outer box or the resealable plastic bag. When all water-soluble packets are used, the outer packaging should be clean and may be disposed of in a sanitary landfill or by incineration, or if allowed by state and local authorities, by open burning. If burned, stay out of smoke. If the resealable plastic bag contacts the formulated product in any way, the bag must be triple-rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer wrap as described above.

NOTICE TO BUYER: Purchase of this material does not confer any rights under patents of countries outside of the United States.

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NET WEIGHT 6 oz per soluble bag.

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(CALIFORNIA)

GENERAL INFORMATION

DuPont™ STAPLE® herbicide is a water soluble powder formulation packaged in premeasured soluble packets that rapidly dissolve in water.

STAPLE® may be applied postemergence (over-the-top) or post-directed to cotton and weeds by ground application equipment.

If STAPLE® is used in a tank mixture with other herbicides, read and follow all use instructions, warnings and precautions on companion herbicide labels.

BIOLOGICAL INFORMATION

STAPLE® is absorbed by weed foliage following postemergence application. Thorough coverage of target weed species, including the weed terminals or growing points, is required to obtain best results.

Growth of susceptible weeds is rapidly inhibited. Growing points and leaves of susceptible weeds appear yellow in 5-10 days. Death of leaf tissue and growing points will follow in some species, while others remain green but stunted and non-competitive. Susceptible weeds are controlled in 14-28 days.

Do not apply STAPLE® on any crops other than cotton. Most crops other than cotton are sensitive to STAPLE®. All direct and indirect contact (such as drift) to crops other than cotton or land not scheduled to be planted to cotton in the current growing season should be avoided.

RESISTANCE

When herbicides that affect the same biological site of action are used repeatedly over several years to control the same weed species in the same field, naturally-occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field. Adequate control of these resistant weed biotypes cannot be expected. If weed control is unsatisfactory, it may be necessary to retreat the problem area using a product affecting a different site of action.

To better manage herbicide resistance through delaying the proliferation and possible dominance of herbicide resistant weed biotypes, it may be necessary to change cultural practices within and between crop seasons such as using a combination of tillage, retreatment, tank-mix partners and/or sequential herbicide applications that have a different site of action. Weed escapes that are allowed to go to seed will promote the spread of resistant biotypes.

It is advisable to keep accurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes. Consult your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representative for specific alternative cultural practices or herbicide recommendations available in your area.

INTEGRATED PEST MANAGEMENT

This product may be used as part of an Integrated Pest Management (IPM) program that can include biological, cultural, and genetic practices aimed at preventing economic pest damage. IPM principles and practices include field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

ENVIRONMENTAL CONDITIONS FOR OPTIMUM PERFORMANCE

WEATHER: Conditions which are conducive to healthy, actively growing weeds optimize STAPLE® postemergence weed control performance. Ideal conditions include warm soil temperatures (70 Deg. F or more) and adequate soil moisture before, during and immediately after application.

Rainfastness: Rainfall immediately after treatment may wash STAPLE® off the weed foliage and result in reduced weed control. A minimum of 4 hours is needed to allow STAPLE® to be absorbed by weed foliage.

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 in your State 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 protective equipment (PPE) and restricted-entry interval. 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 24 hours.

PPE required for early entry to 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 made of any Waterproof material.
- Shoes plus socks.
- Protective eyewear.

Do not apply this product through any type of irrigation system.

DuPont will not be responsible for losses or damages resulting from the use of this product in any manner not specifically recommended by DuPont.

APPLICATION INFORMATION

POSTEMERGENCE BAND USE

Application should be made by ground equipment only. Apply DuPont™ STAPLE® as a postemergence band (over-the-top) or as a post-directed band spray over the cotton seed row at 8 - 10 inches wide (not to exceed 10 inches in width). Applications may be made over the top when cotton is at the first visible true leaf stage through 6 inches in height, or post-directed when cotton is up to 10 inches in height. Weeds should be young and actively growing. The degree of control and duration of effect are dependent on the sensitivity and size of the target weed, coverage, rate of STAPLE® applied and the environmental conditions at the time of and following application. Regrowth of susceptible weeds may occur if these conditions are not met. Application should be made to the same number of rows as planted to avoid row width variations.

Postemergence applications should be made to young, actively growing weeds. Control may be reduced if application is made following a cultivation, i.e., dirt clods blocking the spray, dust covered weeds, weeds injured by cultivation equipment, or to weeds under stress due to severe environmental conditions such as drought, excessive soil moisture or cool soil or air temperatures (60° F or less).

Foliar absorption is the primary means of uptake from postemergence applications of STAPLE®. Therefore, select a spray volume, delivery system and uniform spray pattern that

will insure thorough coverage of the target weed species (including the growing point) to obtain best results. Increase spray volume as weed density and size increases. Avoid overlapping, and shut off spray booms while starting, turning, slowing or stopping, or injury to the crop may result.

- Do not cultivate within 5 days after application.
- After a minimum of 5 days after application, a cultivation that moves soil to the crop and covers small treated weeds can improve efficacy.
- Do not sprinkler irrigate cotton within 48 hours after application.

Note: STAPLE® may cause temporary leaf yellowing, bronzing and/or leaf crinkling when applied as a postemergence application. Plant stresses from seedling diseases, insects, e.g., thrips injury, blowing sand (sand blasting), hail injury, cool soil or air temperatures (60° F or less), extreme temperature variations and lack of or excessive soil moisture just prior to or soon after treatment may increase the sensitivity of cotton to injury from STAPLE® treatments.

To reduce the potential for increased cotton sensitivity, allow cotton plants to recover from stress conditions prior to postemergence applications of STAPLE®.

NOTE:

Pima cotton

Foliar injury to Pima cotton varieties from postemergence applications of STAPLE® can be more severe than that occasionally observed on upland cotton varieties (see NOTE: under POSTEMERGENCE USE section of label). Any of the plant stress conditions mentioned above may further increase the severity of the injury to Pima varieties.

Consequently, DuPont is not responsible for any crop injury arising from the use of STAPLE® on Pima cotton varieties.

SPRAY EQUIPMENT - VOLUMES

Ground Application - Apply uniformly by ground with a properly calibrated low pressure (20-40 psi) stabilized boom equipped with either Even flat fan, "Twinjet", or under leaf banding nozzles. Use 10-40 GPA with ground spray equipment.

APPLICATION RATES

Apply STAPLE® at 1.2 - 1.8 oz product per acre as a single application. Use the higher rates of STAPLE® to aid control under arid growing conditions or adverse conditions such as excessive moisture stress or where weed infestations are severe.

All rates are broadcast. Use proportionately less for band applications.

Add a nonionic surfactant, cleared for application to growing crops, at the rate of 0.25 - 0.5% V / V with all postemergence applications.

Do not apply more than 2.4 oz of STAPLE® per acre per year.

SEQUENTIAL APPLICATIONS

Annual broadleaf weeds may have more than one flush of emerging seedlings. Also, regrowth of treated annual weeds may occur due to application being made to weeds under stress from adverse growing conditions. To control weeds under these conditions, a sequential application of DuPont™ STAPLE® may be necessary.

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If a respray of treated annual weeds is necessary, allow the weeds to begin to regrow prior to making a second application of STAPLE®.

When using STAPLE® in sequential treatment program, allow a minimum of 7 days between applications.

The combined use rate for all applications of STAPLE® cannot exceed 2.4 oz per acre per year.

Add a nonionic surfactant, cleared for application to growing crops, at the rate of 0.25 - 0.5% V/V with all postemergence applications.

TIMING

STAPLE® may be used as a postemergence application to young, actively growing weeds.

WEEDS CONTROLLED

Common Name	Scientific Name	Height or Diameter (inches)
Cocklebur, common	<i>Xanthium strumarium</i>	1-4
Goosefoot, nettleleaf	<i>Chenopodium murale</i>	1-2
Nightshade black	<i>Solanum nigrum</i>	1-2
hairy	<i>Solanum sarrachoides</i>	1-2
Knotweed, silversheath	<i>Polygonum argyrocoleon</i>	1-2
Mustard, black	<i>Brassica nigrum</i>	1-2
Pigweed palmer	<i>Amaranthus palmeri</i>	1-2
redroot	<i>Amaranthus retroflexus</i>	1-2
smooth	<i>Amaranthus hybridus</i>	1-2
spiny	<i>Amaranthus spinosus</i>	1-2
tumble	<i>Amaranthus albus</i>	1-2
Rocket, London	<i>Sisymbrium irio</i>	1-2
Shepherd's-purse	<i>Capsella bursa-pastoris</i>	1-2
Sunflower common	<i>Helianthus annuus</i>	1-4
Velvetleaf	<i>Abutilon theophrasti</i>	1-4
Watermelon (volunteer)	<i>Citrullus vulgaris</i>	1-2

WEEDS SUPPRESSED

Common Name	Scientific Name	Height or Diameter (inches)
Groundcherry, wright	<i>Physalis wrightii</i>	1-2
Morningglory, * entireleaf	<i>Ipomoea hederacea</i>	1-4
ivyleaf	<i>Ipomoea hederacea</i>	1-4
Puncturevine	<i>Tribulus terrestris</i>	1-2
Purslane, common	<i>Portulaca oleracea</i>	1-3

* To aid control under arid growing conditions STAPLE® may be applied in a single application at up to 1.8 oz per acre. Include a nonionic surfactant at 0.5% V/V or crop oil concentrate at 1% V/V.

For best activity, treat at the one to two leaf stage of weed growth.

TANK MIXTURES

STAPLE® plus MSMA

STAPLE® may be tank mixed with MSMA and applied post-directed for improved control of certain broadleaf weeds and suppression of sedges. Refer to MSMA label for information on weeds, weed sizes, application conditions and use restrictions (follow label guidelines that are most restrictive).

Note: Certain weeds such as black and hairy nightshade, and wright groundcherry have shown antagonism (reduced weed control) from tank mixtures of STAPLE® plus MSMA. Only add MSMA to spray tank after the water soluble bag of STAPLE® has dissolved. Adding MSMA to the spray tank first

may prevent or delay the dissolution of the water soluble bag causing filters and or nozzles to plug.

STAPLE® plus Post Grass Herbicides

Tank mixes of STAPLE® with post grass herbicides can result in antagonism and partial control of grasses. To avoid poor grass control apply post grass herbicides at least 3 days prior to the application of STAPLE®.

STAPLE® plus Insecticides:

STAPLE® may be tank mixed with most insecticides that are approved for use on cotton.

Refer to companion insecticide label and follow the use directions which are most restrictive.

Note: Do not tank mix STAPLE® with malathion-containing insecticides (such as "Cythion RTU" or "Cythion ULV") that are approved for use on cotton, as crop injury may result.

To avoid crop injury, apply malathion-containing insecticides at least 24 hours before or after an application of STAPLE®.

ROTATIONAL CROP RESTRICTIONS

The rotational crops listed may be planted at the indicated intervals provided the fields are double disked or deep plowed prior to planting. These crops may be planted after treatment with STAPLE®:

CROP	INTERVAL (MONTHS)
Cotton*	Anytime
Tomatoes	8
Wheat	6
All other crops**	Field Bioassay

* If initial seeding fails to produce a stand, cotton may be replanted into the treated area. Wherever possible, avoid disturbing original bed. If necessary to rework soil before replanting, use shallow cultivation. Do not rebed nor move soil into the original drill area. Note: Where "drip irrigated" cotton is grown, rotate only to cotton.

** A minimum rotational interval of 10 months is required for all crops not listed above. Field bioassay results may require that this interval be extended. A successful field bioassay means growing to maturity a test strip of the crop(s) intended for production the following year. The test strip should cross the entire field including knolls and low areas.

Note: Shortening of the rotational intervals listed under the Rotational Crop Restrictions may result in crop injury.

ADDITIONAL USE INFORMATION

COTTON CROP FAILURE

In the event of a cotton crop failure where seasonal constraints do not allow replanting to cotton, pyriithiobac sodium tolerant soybeans, such as DuPont™ STS® soybeans may be used as a replant crop. Pyriithiobac sodium tolerant soybeans may be planted 30 days following the last STAPLE® application to the failed cotton crop.

Where other herbicides have been used with or in conjunction with STAPLE®, refer to the other herbicide label(s) for any information or restrictions prior to replanting with STS® soybeans.

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USE PRECAUTIONS

Pima cotton

Foliar injury to Pima cotton varieties from postemergence applications of DuPont™ STAPLE® can be more severe than that occasionally observed on upland cotton varieties (see NOTE: under POSTEMERGENCE USE section of label).

Any of the plant stress conditions mentioned in the "Postemergence Band Use" section of the label may further increase the severity of the injury to Pima varieties.

Consequently, DuPont is not responsible for any crop injury arising from the use of STAPLE® on Pima cotton varieties.

- Do not tank mix with "Dual" herbicide as a postemergence treatment as crop injury may result.
- Do not apply to irrigated land where tail water will be used to irrigate crops other than cotton.
- Do not exceed 1.8 oz/A in a single application.
- Do not exceed 2.4 oz/A per year.
- Do not apply within 60 days of harvest.

NOTE

Injury to or loss of desirable trees or vegetation may result from failure to observe the following:

Do not apply, drain or flush equipment on or near desirable trees or other plants or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.

Do not use on lawns, walks, driveways, tennis courts, or similar areas. Prevent drift of spray to desirable plants.

Injury to or loss of adjacent sensitive crops and vegetation may result from failure to observe the following:

Avoid all direct or indirect (such as spray drift) contact with crops other than cotton.

Carefully observe all sprayer cleanup instructions both prior to and after using this product, as spray tank residue may damage crops other than cotton.

SOLUBLE PACKET

HANDLING PRECAUTIONS

Exposure to moisture or excessive handling of the soluble packets can cause them to break open.

Do not handle the soluble packets with wet hands or place them on wet surfaces.

Protect unused soluble packets by immediately resealing them in the original barrier bag.

The outer, barrier bag is NOT soluble in water. Do not place it in the spray tank.

SPRAYER PREPARATION

It is important that spray equipment is clean and free of existing pesticide deposits before using STAPLE®. Follow the clean up procedures specified on the label of the product(s) previously used. If no clean up procedure is provided, follow this clean up procedure for all application equipment before using STAPLE®:

1. Thoroughly rinse sprayer, tanks, boom and hoses with clean water.
2. Partially fill tank with water and add ammonia (1 gal. of ammonia per 100 gal. of tank volume) or a tank cleaner. Complete filling the tank and flush the cleaning solution through the boom hoses. Let solution stand for 15 minutes while agitating/recirculating, and then drain the tank by flushing the hoses, booms and nozzles.
3. Thoroughly rinse the sprayer, tanks, boom and hoses with clean water.
4. Follow label directions on product(s) previously sprayed for disposal.

Mix the proper amount of STAPLE® into the necessary volume of water in the spray tank with the agitator running. Continuous agitation is required for a uniform suspension and application. STAPLE® must be added first to the spray tank followed by tank mix partner, if used, then the adjuvant.

Use spray preparation of STAPLE® and approved adjuvant within 7 days or product degradation may occur. If spray preparation is left standing without agitation, thoroughly agitate before using.

PRECAUTION: Do not use chlorine bleach with ammonia. See Sprayer Clean Up Section for more information.

SPRAYER CLEAN UP

Spray equipment must be clean and free of previous pesticide deposits before applying STAPLE® and properly cleaned out after applying STAPLE®. Using the clean up procedures specified on the label of the previously used product, clean all application equipment before applying STAPLE®. If no clean up procedure is provided, use the procedure that follows. Immediately following applications of STAPLE® thoroughly clean all mixing and spray equipment according to the following instructions:

1. Drain Tank: Thoroughly hose down the interior surfaces of the tank; then flush tank, boom and hoses with clean water for a minimum of 5 minutes. Loosen and physically remove any visible deposits.
2. Fill the tank with clean water and add one gal. of household ammonia* (3% active) for every 100 gal. of water. Flush the cleaning solution through the boom, hoses and nozzles. Add more water to completely fill the tank and allow to agitate/recirculate for at least 15 minutes. Again, flush the boom, hoses and nozzles with the cleaning solution, then drain the tank.
3. Remove the nozzles and screens and clean separately in a bucket containing the cleaning agent and water.
4. Repeat step 2.
5. Thoroughly rinse the tank with clean water for a minimum of 5 minutes, flushing the water through the hoses and boom.
6. Dispose of the rinsate on site or at an approved waste disposal facility.

* Equivalent amounts of an alternate-strength ammonia solution or DuPont approved cleaner can be used in the

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cleanout procedure. Carefully read and follow the individual cleaner instruction.

PRECAUTION

Do not use chlorine bleach with ammonia when cleaning out spray tanks. All traces of liquid fertilizer containing ammonia, ammonia nitrate or ammonium sulphate must be rinsed with water from the mixing and application equipment before adding any chlorine bleach solution. Failure to do so will release a gas with a musty chlorine odor which can cause eye, nose, throat and lung irritation.

Do not clean equipment in an enclosed area.

SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets (>150 - 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. **APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS!** See **Wind, Temperature and Humidity, and Temperature Inversions** sections of this label.

Controlling Droplet Size - General Techniques

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. **WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.**
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles.

BOOM HEIGHT

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

WIND

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. **AVOID GUSTY OR WINDLESS CONDITIONS.**

Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store product in original container only.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Do not reuse the outer box or the resealable plastic bag. When all water-soluble packets are used, the outer packaging should be clean and may be disposed of in a sanitary landfill or by incineration, or if allowed by state and local authorities, by open burning. If burned, stay out of smoke. If the resealable plastic bag contacts the formulated product in any way, the bag must be triple-rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer wrap as described above.

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NET WEIGHT 6 oz per soluble bag.

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WARRANTY AND LIABILITY**

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