



DuPont™ Panoflex™

HERBICIDE (WITH TOTALSOL® SOLUBLE GRANULES)

GROUP	2	HERBICIDE
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Soluble Granule

For Use on Fallow and as a Pre-plant or Post-harvest Burndown Herbicide

Active Ingredients

By Weight

Tribenuron methyl

Methyl 2-[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)methylamino]carbonyl]amino]sulfonyl]benzoate40%

Thifensulfuron-methyl

Methyl 3-[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl) amino]carbonyl]amino]sulfonyl]-2-thiophenecarboxylate10%

Other Ingredients

50%

TOTAL

100%

EPA Reg. No. 352-876

EPA Est. No. _____

Nonrefillable Container

Net: _____

OR

Refillable Container

Net: _____

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID

IF ON SKIN: 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 emergency medical treatment information.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes or clothing.

For medical emergencies involving this product, call toll free 1-800-441-3637.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some of the materials that are chemical-resistant to this product are listed below.

Applicators and other handlers must wear:

Long-sleeved shirt and long pants.

Chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.

Shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exists, 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/PPE 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

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 cleaning equipment or disposing of equipment washwaters.

PESTICIDE HANDLING

- Calibrate sprayers only with clean water away from well sites.
- Make scheduled checks of spray equipment.
- Ensure that all operation employees accurately measure pesticides.
- Mix only enough product for the job at hand.
- Avoid overfilling of spray tank.
- Do not discharge excess material on the soil at a single spot in the field, grove, or mixing/loading station.
- Dilute and agitate excess solution and apply at labeled rates or uses.
- Avoid storage of pesticides near well sites.
- When triple-rinsing the pesticide container, be sure to add the rinsate to the spray mix.

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 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 12 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.

DuPont™ PANOFLEX™ herbicide (with TotalSol® soluble granules), referred to below as DuPont™ PANOFLEX™ or PANOFLEX™, must be used only in accordance with instructions on this label or in separately published DuPont instructions. DuPont will not be responsible for losses or damages resulting from the use of this product in any manner not specified by DuPont.

Check with your state extension service or Department of Agriculture before use, to be certain PANOFLEX™ is registered in your state.

PRODUCT INFORMATION

PANOFLEX™ is a water soluble granule that is used for selective post-harvest burndown, fallow, and pre-plant burndown weed control. The best control is obtained when PANOFLEX™ is applied to young, actively growing weeds. The use rate will depend on weed spectrum and size of weed at time of application. The degree and duration of control may depend on the weed spectrum and infestation intensity, weed size at application, and environmental conditions at and following treatment.

PANOFLEX™ is noncorrosive, nonflammable, nonvolatile, and does not freeze. PANOFLEX™ should be mixed in water and applied as a uniform broadcast spray.

BIOLOGICAL ACTIVITY AND ENVIRONMENTAL CONDITIONS

PANOFLEX™ is absorbed through the foliage of broadleaf weeds, rapidly inhibiting their growth. Leaves of susceptible plants appear chlorotic from 1 to 3 weeks after application and the growing point subsequently dies.

In warm, moist conditions, the expression of herbicide symptoms is accelerated in weeds; in cold, dry conditions, expression of herbicide symptoms is delayed. In addition, weeds hardened-off by drought stress are less susceptible to PANOFLEX™.

PANOFLEX™ is rainfast in 4 hours.

IMPORTANT USE RESTRICTIONS

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

- When using DuPont™ PANOFLEX™ in tank mixes or sequential applications with other products containing tribenuron-methyl and thifensulfuron-methyl, do not exceed the following limits:

Use	Active Ingredient	Maximum oz ai per Single Application	Maximum oz ai per Use Period
fallow, burndown, post harvest	tribenuron-methyl	0.25	0.25
	thifensulfuron-methyl	0.45	0.75

IMPORTANT USE PRECAUTIONS

- Injury to or loss of adjacent sensitive crops and vegetation may result from failure to observe the following:
 - Take all necessary precautions to avoid all direct or indirect contact (such as spray drift) with non-target plants or areas.
 - Carefully observe all sprayer cleanup instructions both prior to and after using this product, as spray tank residue may damage crops other than wheat or barley.

WEED RESISTANCE

PANOFLEX™ contains the active ingredients tribenuron-methyl and thifensulfuron-methyl and is a Group 2 herbicide based on the mode of action classification system of the Weed Science Society of America. When herbicides with mode of action classifications that affect the same biological sites of action are used repeatedly over several years to control the same weed species in the same treatment area, naturally-occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that area. 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 biological 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 affect a different site of action. Weed escapes that are allowed to go to seed, and movement of plant material between treatment areas on equipment 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 to determine appropriate actions for treating specific resistant weed biotypes 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.

LABELED USES

BURNDOWN - POST HARVEST, FALLOW, PRE-PLANT

APPLICATION TIMING

PANOFLEX™ may be used as a burndown treatment when the majority of weeds have emerged and are actively growing. PANOFLEX™ may be applied to crop stubble, as a fallow treatment, or as a pre-plant burndown prior to planting any crop. See "CROP ROTATION" for the minimum interval allowed between the burndown application and when a crop may be planted.

BURNDOWN USE RATE

Apply 0.3 to 0.6 oz PANOFLEX™ per acre as a burndown treatment prior to planting any crop (except cotton). Use the 0.6 ounce per acre rate when weed infestation is heavy or predominantly consists of those weeds listed under the "Weeds Partially Controlled" section of this label, or when application timing and environmental conditions are marginal.

See "CROP ROTATION" for the minimum interval allowed between the burndown application and when a crop may be planted.

Sequential treatments of PANOFLEX™ may also be made provided the total amount of PANOFLEX™ applied during one post harvest/fallow/pre-plant time period does not exceed 0.6 ounce per acre. Allow at least 14 days between treatments.

PANOFLEX™ should be applied in combination with other suitable registered burndown herbicides (See the "TANK MIXTURES" section of this label for additional information).

SPRAY ADJUVANTS - ALL USES

Include a spray adjuvant with applications of PANOFLEX™. In addition, an ammonium nitrogen fertilizer may be used.

Consult your Ag dealer or applicator, local DuPont fact sheets and technical bulletins prior to using an adjuvant system. If another herbicide is tank mixed with PANOFLEX™, select adjuvants authorized for use with both products. Products must contain only EPA-exempt ingredients.

NONIONIC SURFACTANT (NIS)

- Apply 0.06 to 0.5% volume/volume (0.5 pt to 4 pt per 100 gal of spray solution).
- Surfactant products must contain at least 60% nonionic surfactant with a hydrophilic/lipophilic balance (HLB) greater than 12.

CROP OIL CONCENTRATE (COC) - PETROLEUM OR MODIFIED SEED OIL (MSO)

- Apply at 1% v/v (1 gal per 100 gal spray solution) or 2% under arid conditions. MSO adjuvants may be used at 0.5% v/v if specified on local DuPont product literature or service policies.
- Oil adjuvants must contain at least 80% high quality, petroleum (mineral) or modified vegetable seed oil with at least 15% surfactant emulsifiers.

SPECIAL ADJUVANT TYPES

- Combination adjuvant products may be used at doses that provide the required amount of NIS, COC, MSO and/or ammonium nitrogen fertilizer. Consult product literature for use rates and restrictions.
- In addition to the adjuvants specified above, other adjuvant types may be used if they provide the same functionality and have been evaluated and approved by DuPont product management. Consult separate DuPont technical bulletins for detailed information before using adjuvant types not specified on this label.

AMMONIUM NITROGEN FERTILIZER

- Use 2 qt/acre of a high-quality urea ammonium nitrate (UAN), such as 28%N or 32%N, or 2 lb/acre of a spray-grade ammonium sulfate (AMS). Use 4 qt/acre UAN or 4 lb/acre AMS under arid conditions.
- See TANK MIXTURES With Liquid Nitrogen Fertilizer for instructions on using fertilizer as a carrier in place of water.

WEED CONTROL INFORMATION

WEEDS CONTROLLED

DuPont™ PANOFLEX™ effectively controls the following weeds when used according to label directions:

Black mustard	Marestail***†
Blue/Purple mustard	Marshelder†
Bushy wallflower	Mayweed chamomile/Stinking
/Treacle mustard†	chamomile/dog fennel
Canada thistle**	(<i>Anthemis cotula L.</i>)**†
Canola, volunteer (except Clearfield)**	Miners lettuce
Coast fiddleneck	Narrowleaf hawksbeard** ***
Common Chickweed†	Nightflowering catchfly
Common Groundsel	Pineappleweed
Common Lambsquarters†	Poison hemlock***
Common Purslane	Prickly lettuce**†
Corn, Gromwell**	Puncturevine
Corn spurry	Purslane speedwell (@ 0.6 oz)***
Cowcockle	Redroot pigweed†
Cressleaf groundsel ***	Russian thistle**†
(butterweed)	Shepherd's-purse
Curly Dock**	Slimleaf lambsquarters
Dandelion	Small-flower buttercup (@ 0.6 oz)***
Deadnettle (@ 0.6 oz)	Smallseed falseflax†
Early whitlowgrass	Smartweeds, annual
False chamomile/	Tansymustard
Wild chamomile/Scentless	Tarweed fiddleneck
chamomile (<i>Matricaria</i>	Tumble pigweed (@ 0.6 oz)
<i>maritima L.</i>)	Tumble/Jim Hill mustard**
Field pennycress	Velvetleaf
Flixweed†	White cockle (@ 0.6 oz)
Hairy buttercup	Wild mustard†
London Rocket	Wild parsnip***

WEEDS PARTIALLY CONTROLLED*

PANOFLEX™ partially controls the following weeds when used according to label directions:

Annual sowthistle	Narrowleaf hawksbeard
Common cocklebur†	Pennsylvania smartweed
Common sunflower	Prostrate knotweed
(volunteer)**†	Redmaids
Common vetch**	Redstem filaree***
Eastern black nightshade†	Wild buckwheat
Hairy nightshade	Wild carrot
Hairy vetch**	Wild garlic
Henbit	Wild radish**
Jimsonweed	

* Partially controlled weeds exhibit a visual reduction in numbers as well as a significant loss of vigor. For better results, include a tankmix partner such as 2,4-D, MCPA, bromoxynil or dicamba. See the "TANK MIXTURES" section of this label.

** See the Specific Weed Instructions section of this label for more information.

***2,4-D LVE addition required.

† Naturally occurring resistant biotypes are known to occur.

SPECIFIC WEED INSTRUCTIONS

Canada thistle: For best results, apply 0.6 oz per acre when all thistles are 4" to 8" with 2" to 6" of new growth. Make the application in the spring.

Canola, volunteer: Burndown applications will provide effective control when tank mixed with glyphosate.

Corn Gromwell : For best results, apply 0.6 oz of DuPont™ PANOFLEX™ per acre in combination with 2,4-D or MCPA (refer to the Tank Mixtures section of this label).

Curly Dock: For best results, apply PANOFLEX™ in combination with 2,4-D or MCPA (refer to the Tank Mixtures section of this label).

Kochia: For best results, apply PANOFLEX™ in combination with other herbicides listed in the Tank Mixtures section of this label that control kochia when it is <4 inches in height.

Mayweed chamomile/Stinking Chamomile/dog fennel: For best results, apply 0.4 to 0.6 oz of PANOFLEX™ per acre.

Narrowleaf hawksbeard: During the post harvest, fallow, and/or pre-plant burndown period, PANOFLEX™ may be used in a tank mix with 1 to 2 pints of glyphosate (such as "ABUNDIT® Extra") per acre (4 lb per gallon formulation or equivalent) for postemergence control of narrowleaf hawksbeard.

Russian thistle, Prickly lettuce: For best results, use PANOFLEX™ in a tank mix with dicamba (such as "Banvel"/"Clarity") and 2,4-D or MCPA (ester or amine), or bromoxynil containing products (such as "Buctril", "Bison", "Bronate" or "Bronate Advanced").

PANOFLEX™ should be applied in the spring when Russian thistle, and prickly lettuce are less than 2" tall or 2" across and are actively growing (refer to the Tank Mixtures section of this label for additional details on rates and restrictions).

Tumble/Jim Hill mustard: For best results, apply 0.6 oz of PANOFLEX™ per acre in combination with 2,4-D or MCPA (refer to the Tank Mixtures section of this label for additional details on rates and restrictions).

Vetch (common and hairy): For best results, apply PANOFLEX™ when vetch is less than 6" in length. For severe infestations of vetch, or when vetch is greater than 6" in length, apply PANOFLEX™ in combination with 2,4-D or MCPA (refer to the Tank Mixtures section of this label for additional details on rates and restrictions).

Wild radish: For best results, apply PANOFLEX™ plus MCPA plus 0.25% v/v nonionic surfactant (1 qt per 100 gal of spray solution) to wild radish rosettes less than 6" diameter. Make the application either in the fall or spring. Applications made later than 30 days after weed emergence will result in partial control. Fall applications should be made before plants harden-off.

SU/IMI Tolerant Volunteer Sunflowers: For best results, use PANOFLEX™ in a tank mix with a product containing fluroxypyr (such as "Starane", "Starane + Salvo", "Starane + Sword"), dicamba (such as "Banvel"/"Clarity"), 2,4-D or MCPA (ester or amine), glyphosate (such as "ABUNDIT® Extra") or bromoxynil containing products (such as "Buctril", "Bison", "Bronate" or "Bronate Advanced").

TANK MIXTURES

PANOFLEX™ may be tank mixed with full or reduced rates of insecticides, fungicides or herbicides 2,4-D (ester or amine), MCPA (ester or amine), dicamba (such as "Banvel"/"Clarity"), fluroxypyr containing products (such as "Starane" brands), bromoxynil containing products (such as "Buctril", "Bison", "Bronate" or "Bronate Advanced"), carfentrazone (such as Aim), glyphosate (such as "ABUNDIT® Extra"), and postemergence grass herbicides such as "Goldsky", "Everest", or "Rimfire Max". Consult tank mix partner labeling for rate and crop rotation restrictions. Read and follow all manufactures label instructions for the companion pesticides. Do not use a tank mix partner product if its label conflicts with the PANOFLEX™ label. Ensure the tank mix product is labeled for the same timing, method of application, adjuvants, and use restrictions as PANOFLEX™, as well as other products used in the tank mixture. Read and follow all applicable use directions, precautions, and limitations specified on the respective product labels, technical bulletins, and fact sheets. Weed control and crop safety resulting from the use of tank mixtures not specifically noted on this label, or in separately published DuPont information, are the responsibility of the user.

With 2,4-D (amine or ester) or MCPA (amine or ester): For best results, add 2,4-D or MCPA herbicides to the tank at 0.125 to 0.375 lb active ingredient per acre. In tank mixes containing 0.125 lb active ingredient 2,4-D or MCPA per acre, add 1 to 2 pt of nonionic surfactant; in tank mixes containing 0.25 to 0.375 lb active ingredient 2,4-D or MCPA per acre, add 1 pt of nonionic surfactant.

Higher rates of 2,4-D or MCPA may be used, but do not exceed the highest rate allowed by those respective labels. When using rates of 0.375 lb ai per acre or higher, use of additional nonionic surfactant may not be needed, unless specified otherwise in the 2,4-D or MCPA label, or local guidance.

With 2,4-D or MCPA (amine or ester) and Dicamba (such as "Banvel"/"Clarity"): PANOFLEX™ may be applied in a 3-way tank mix with formulations of dicamba (such as "Banvel"/"Clarity") and 2,4-D or MCPA. Make applications of PANOFLEX™ + 1 to 1.5 oz active dicamba (such as "Banvel"/"Clarity") + 0.25 to 0.375 lb active ingredient of 2,4-D or MCPA (ester or amine) per acre. Use higher rates when weed infestation is heavy. Add 1 to 2 pt of nonionic surfactant to the 3 way mixture, where necessary, as deemed by local guidance. Use of additional nonionic surfactant may not be needed with the higher phenoxy rates and ester phenoxy formulations. Consult the specific 2,4-D or MCPA and dicamba labels, or local guidance for more information.

Do not apply this 3-way mixture at high rates more than once a year, or more than twice per year at the low rates.

With Bromoxynil containing products (such as "Buctril", "Bison", "Bronate" or "Bronate Advanced"): For best results, add bromoxynil containing herbicides to the tank at 3 to 6 oz active ingredient per acre (such as "Bronate" or "Bison" at 0.75 - 1.5 pt per acre). Tank mixes of DuPont™ PANOFLEX™ plus bromoxynil may result in reduced control of Canada thistle.

With fluroxypyr (such as "Starane" brands): PANOFLEX™ may be tank mixed with fluroxypyr containing herbicides for improved control of Kochia (2-4" tall) and other broadleaf weeds. For best results, add fluroxypyr containing herbicides to the tank at 1 to 2 oz active ingredient per acre (such as "Starane" 0.33 to 0.67 pints per acre). 2,4-D and MCPA herbicides (preferably ester formulations) may be tank mixed with PANOFLEX™ plus "Starane".

With glyphosate (such as "ABUNDIT® Extra"): PANOFLEX™ may be tank mixed with glyphosate herbicides (such as "ABUNDIT® Extra") for burndown of up to 3 inch weeds when applied postemergence as a preplant or harvest burndown or to fallow fields. Include a spray adjuvant with applications. In addition, an ammonium nitrogen fertilizer may be used. For best results, add a crop oil concentrate or modified seed oil (methylated, ethylated, or saponified) at 1% v/v (1 gallon per 100 gallons of spray) OR, add nonionic surfactant at 0.25 - 0.5% v/v (1-2 quarts per 100 gallons of spray).

With Postemergence Grass Herbicides: When used in tank mixture with "GoldSky", "Everest", or "Rimfire Max", PANOFLEX™ herbicide will result in improved control of yellow and green foxtail.

Consult tank mix partner labeling for any adjuvant, rate, and grass weed height limitations, as reduced grass control may result when using tank mixtures with some WSSA Group 1 (ACCase) herbicides.

With Insecticides

Do not apply PANOFLEX™ within 60 days of crop emergence where an organophosphate insecticide has been applied as an in-furrow treatment because crop injury may result.

GRAZING

Allow at least 7 days between application and grazing of treated forage.

CROP ROTATION

Labeled crops may be planted at specified time intervals following application of labeled rates of PANOFLEX™. Use the time intervals listed below to determine the required time interval before planting.

Time Interval Before Planting* (days after treatment with PANOFLEX™)

Crop	Days
Barley, Rice, Triticale and Wheat (including durum)	0
Oats and Soybeans (at PANOFLEX™ rate of 0.3 oz/a)	1**
Soybeans	7**
Cotton, Field Corn, and Grain/forage Sorghum	14**
Sugarbeets, Winter Rape, and Canola	60
Any other crop	45

* Refer to individual product labels to determine rotational crop restrictions when tank mixtures are used.

**Where PANOFLEX™ is used on light textured soils (such as sands and loamy sands) or on high pH soils (>7.9), extend time to planting by 7 additional days.

APPLICATION INFORMATION

PRODUCT MEASUREMENT

PANOFLEX™ may be measured using the PANOFLEX™ volumetric measuring cylinder provided by DuPont. The degree of accuracy of this cylinder varies by ± 7.5%. For more precise measurement, use scales calibrated in ounces.

MIXING INSTRUCTIONS

1. Fill the tank 1/4 to 1/3 full of water.
2. While agitating, add the required amount of PANOFLEX™.
3. Continue agitation until the PANOFLEX™ is fully dispersed, at least 5 minutes.
4. Once the PANOFLEX™ is fully dispersed, maintain agitation and continue filling tank with water. PANOFLEX™ should be thoroughly mixed with water before adding any other material.
5. As the tank is filling, add tank mix partners (if desired) then add the required volume of spray adjuvant. Always add spray adjuvant last. Antifoaming agents may be used. Do not use with spray additives that alter the pH of the spray solution below pH 6.0 as rapid product degradation can occur. Spray solutions of pH 7.0 and higher allow for optimum stability of PANOFLEX™.
6. If the mixture is not continuously agitated, settling will occur. If settling occurs, thoroughly re-agitate before using.
7. Apply PANOFLEX™ spray mixture within 24 hours of mixing to avoid product degradation.
8. If PANOFLEX™ and a tank mix partner are to be applied in multiple loads, pre-slurry the PANOFLEX™ in clean water prior to adding to the tank. This will prevent the tank mix partner from interfering with the dissolution of the PANOFLEX™.

APPLICATION METHOD

GROUND APPLICATION

For optimum spray distribution and thorough coverage, use flat-fan or low-volume flood nozzles.

- Select nozzles and pressure that deliver medium spray droplets.
- Nozzles that deliver coarse spray droplets may be used to reduce drift, provided spray volume is increased to maintain coverage on small weeds. For optimal product performance and minimal spray drift, adjust the spray boom to the lowest possible spray height listed in manufacturers' specifications.
- Overlaps or starting, stopping, slowing, and turning while spraying may result in crop injury.
- For flat-fan nozzles, use a spray volume of at least 5 gal per acre (GPA).
- For flood nozzles on 30" spacing, use flood nozzles no larger than TK10 (or the equivalent), a pressure of at least 30 psi and a spray volume of at least 10 GPA only. For 40" nozzle spacing, use at least 13 GPA; for 60" spacing use at least 20 GPA. It is essential to overlap the nozzles 100% for all spacings.
- "Raindrop RA" nozzles are not recommended for DuPont™ PANOFLEX™ applications, as weed control performance may be reduced.
- Use screens that are 50-mesh or larger.

AERIAL APPLICATION

For aerial application, select nozzles and pressure that deliver medium or coarse spray and that provide optimum spray distribution and maximum coverage at 2 to 5 GPA.

Do not apply PANOFLEX™ by air in the state of New York.

For aerial applications, do not apply during a temperature inversion, when wind speed is less than 3 mph or above 10 mph, or when conditions favor poor coverage and/or off-target spray drift.

See the **Spray Drift Management** section of this label.

APPLICATIONS WITH LIQUID NITROGEN SOLUTION FERTILIZER

Liquid nitrogen fertilizer solutions may be used as a carrier in place of water. Run a tank mix compatibility test before mixing PANOFLEX™ in fertilizer solution. PANOFLEX™ must first be slurried with water and then added to liquid nitrogen solutions (e.g., 28-0-0, 32-0-0). Ensure that the agitator is running while the PANOFLEX™ is added.

If using low rates of liquid nitrogen fertilizer in the spray solution (less than 50% of the spray solution volume), the addition of surfactant is necessary. Add surfactant at 0.5 pt - 1 qt per 100 gal of spray solution (0.06 -0.25% v/v) based on local guidance.

If 2,4-D or MCPA is included with PANOFLEX™ and fertilizer mixture, ester formulations tend to be more compatible (see manufacturer's label). Additional surfactant may not be needed when using PANOFLEX™ in tank mix with 2,4-D ester or MCPA ester and liquid nitrogen fertilizer solutions. Consult your agricultural dealer, consultant, field advisor, or DuPont representative for guidance before adding an adjuvant to these tank mixtures.

Do not use low rates of liquid nitrogen fertilizer solution as a substitute for a surfactant.

Do not use with liquid fertilizer solutions with a pH less than 3.0.

SPRAY EQUIPMENT

For specific application equipment, refer to the manufacturer's instructions for additional information on GPA, pressure, speed, nozzle types and arrangements, nozzle heights above the target canopy, etc.

Be sure to calibrate air or ground equipment properly before application. Select a spray volume and delivery system that will ensure thorough coverage and a uniform spray pattern with minimum drift. Use higher spray volumes to obtain better coverage when weed canopy is dense. Avoid swath overlapping, and shut off spray booms while starting, turning, slowing, or stopping, to avoid injury to the crop.

Do not make applications using equipment and/or spray volumes or during weather conditions that might cause spray to drift onto nontarget sites. For additional information on spray drift refer to Spray Drift Management section of label.

Continuous agitation is not required to keep PANOFLEX™ in suspension but may be required to keep tank mix partners in solution or suspension. Refer to tank mix partner labels for additional information.

BEFORE SPRAYING PANOFLEX™

The spray equipment must be clean before PANOFLEX™ is sprayed. Follow the cleanup procedures specified on the labels of the previously applied products. If no directions are provided, follow the six steps outlined in the After Spraying PANOFLEX™ section of this label.

AT THE END OF THE DAY

When multiple loads of PANOFLEX™ herbicide are applied, it is recommended that at the end of each day of spraying the interior of the tank be rinsed with fresh water and then partially filled, and the boom and hoses flushed. This will prevent the buildup of dried pesticide deposits which can accumulate in the application equipment.

AFTER SPRAYING DUPONT™ PANOFLEX™ AND BEFORE SPRAYING CROPS OTHER THAN WHEAT, BARLEY, OATS, AND TRITICALE

To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of PANOFLEX™ as follows:

1. Empty the tank and drain the sump completely.
2. Spray the tank walls with clean water using a minimum volume of 10% of the tank volume. Circulate the water through the lines, including all by-pass lines, for at least two minutes. Flush the boom well and empty the sprayer. Completely drain the sump.
3. Repeat step 2.
4. Remove the nozzles and screens and clean separately in a bucket containing water. The rinsate solution may be applied back to the crop(s) specified on this label. Do not exceed the maximum-labeled use rate. If cleaners are used, consult the cleaner label for rinsate disposal instructions. If no instructions are given, dispose of the rinsate on site or at an approved waste disposal facility.

Notes:

1. Steam-cleaning aerial spray tanks is recommended to facilitate the removal of any caked deposits.
2. When PANOFLEX™ is tank mixed with other pesticides, all cleanout procedures for each product should be examined and the most rigorous procedure should be followed.
3. Follow any pre-cleanout guidelines recommended on other product labels.

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. 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 **Surface 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 AND HEIGHT

- **Boom Length (aircraft)** - The boom length should not exceed 3/4 of the wing length, using shorter booms decreases drift potential. For helicopters use a boom length and position that prevents droplets from entering the rotor vortices.
- **Boom Height (aircraft)** - Application more than 10 ft above the canopy increases the potential for spray drift.
- **Boom Height (ground)** Setting the boom at the lowest height which provides uniform coverage reduces the exposure of droplets to evaporation and wind. The boom should remain level with the target weeds and have minimal bounce.

WIND

Drift potential increases at wind speeds of less than 3 mph (due to variable direction and inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. For aerial application, do not apply when wind speed is less than 3 mph or above 10 mph.

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

SURFACE TEMPERATURE INVERSIONS

Drift potential is high during a surface temperature inversion. Surface inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Surface 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 a surface 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.

PESTICIDE STORAGE AND DISPOSAL

Pesticide Storage: Store the product in original container only. Do not contaminate water, other pesticides, fertilizer, food, or feed in storage. Store in a cool, dry place.

Product Disposal: Do not contaminate water, food, or feed by disposal. Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING:

Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable Container" or "Refillable Container" designation.

Nonrefillable Plastic and Metal Containers (Capacity Equal to or Less Than 50 Pounds): Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities

Nonrefillable Plastic and Metal Containers (Capacity Greater Than 50 Pounds): Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down): Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying the contents from this container into application equipment or mix tank and before final disposal using the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Paper or Plastic Bags, Fiber Sacks including Flexible Intermediate Bulk Containers (FIBC) or Fiber Drums With Liners: Nonrefillable container. Do not reuse or refill this container. Completely empty paper or plastic bag, fiber sack or drum liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer for recycling if available or dispose of empty paper or plastic bag, fiber sack or fiber drum and liner in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

Refillable Fiber Drums With Liners: Refillable container (fiber drum only). Refilling Fiber Drum: Refill this fiber drum with DuPont™ PANOFLEX™ herbicide (with TOTALSOL® soluble granules) containing thifensulfuron-methyl and tribenuron methyl only. Do not reuse this fiber drum for any other purpose. Cleaning before refilling is the responsibility of the refiller. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Disposing of Fiber Drum and/or Liner: Do not reuse this fiber drum for any other purpose other than refilling (see preceding). Cleaning the container (liner and/or fiber drum) before final disposal is the responsibility of the person disposing of the container. Offer the liner for recycling if available or dispose of liner in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner. To clean the fiber drum before final disposal, completely empty the fiber drum by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer the fiber drum for recycling if available or dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

All Other Refillable Containers: Refillable container. Refilling Container: Refill this container with DuPont™ PANOFLEX™ herbicide (with TOTALSOL® soluble granules) containing thifensulfuron-methyl and tribenuron methyl only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. If damage is found, do not use the container, contact DuPont at the number below for instructions. Check for leaks after refilling and before transporting. If leaks are found, do not reuse or transport container, contact DuPont at the number below for instructions. Disposing of Container: Do not reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, use the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Outer Foil Pouches of Water Soluble Packets (WSP): Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or, dispose of the empty outer foil pouch in the trash as long as WSP is unbroken. If the outer pouch contacts the formulated product in any way, the pouch must be triple rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer pouch as described previously.

Do not transport if this container is damaged or leaking. If the container is damaged, leaking or obsolete, or in the event of a major spill, fire or other emergency, contact DuPont at 1-800-441-3637, day or night.

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