

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

January 5, 2023

Jessica Vigna Federal Regulatory Manager Makhteshim Agan of North America, Inc. (d/b/a ADAMA) 3120 Highwoods Blvd., Suite 100 Raleigh, NC 27604

Subject: Registration Review Label Amendments Incorporating Mitigation Measures from

the Interim Decision for Metolachlor and the National Marine Fisheries Services' (NMFS) Biological Opinion on the Effects of Metolachlor on Pacific Salmonids

Product Name: PARALLEL PCS EPA Registration Number: 66222-86

Application Dates: 3-Sep-2021 and 14-May-2021

Decision Numbers: 578305 and 575838

## Dear Jessica Vigna:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Metolachlor Interim Decision. The Agency has concluded that your submission is acceptable.

This letter also addresses the label mitigation resulting from the NMFS' Biological Opinion on the effects of Metolachlor on Pacific salmonids. The Agency has concluded that your submission is also acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

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A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions about this letter, please contact Srijana Shrestha at shrestha.srijana@epa.gov.

Sincerely,

Linda Arrington, Branch Chief Risk Management and Implementation Branch 4

Pesticide Re-Evaluation Division
Office of Pesticide Programs

Enclosure: Stamped Label

## ACCEPTED

Jan 05, 2023

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under

EPA Reg. No. 66222-86

METOLACHLOR GROUP 15 HERBICIDE

## PARALLEL® PCS

### Herbicide

For weed control in corn, cotton, peanuts, pod crops, potatoes, safflower, grain or forage sorghum, soybeans and tomatoes

PARALLEL PCS contains 8 lbs. of active ingredient per gallon.

# KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCION

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

#### Manufactured for:

Makhteshim Agan of North America, Inc. (d/b/a ADAMA) 3120 Highwoods Blvd., Suite 100 Raleigh, NC 27604

How can we help? 1-866-406-6262

EPA Reg. No. 66222-86

NET CONTENTS:			
	FIRST AID		
IF INHALED:	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>		
IF ON SKIN OR CLOTHING:	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>		
IF IN EYES:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>		
IF SWALLOWED:	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>		
Have the product of	container or label with you when calling a poison control center or doctor or going for treatment.		

## In case of spills, fire, leaks or accidents call 1-800-5355053.

[For additional precautionary, handling and use statements, see inside of this booklet.]

You may also contact 1-877-250-9291 for emergency medical treatment information.

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION.** Harmful if swallowed, inhaled, or absorbed through skin. Causes eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing vapor or spray mist. This product may cause skin sensitization reactions in some people.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

## Mixers, loaders, applicators and other handlers must wear:

- · Coveralls over short-sleeved shirt and short pants
- Waterproof gloves
- Chemical-resistant footwear plus socks
- · Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing, or loading

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.

#### **ENGINEERING CONTROL STATEMENTS**

Mixers and loaders supporting aerial applications are required to use closed systems. The closed system must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4)). When using the closed system, the mixers and loaders PPE requirements may be reduced or modified as specified in the WPS.

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

#### **USER SAFETY RECOMMENDATIONS**

### **Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/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**

For terrestrial uses, 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 wash waters or rinsate.

## **GROUNDWATER ADVISORY:**

Metolachlor is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

**SURFACE WATER ADVISORY:** This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several weeks or months after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of metolachlor/S-metolachlor from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

## **NON-TARGET ORGANISM ADVISORY:**

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

## **Reporting Ecological Incidents:**

To report ecological incidents, including mortality, injury, or harm to plants and animals, call 1-866-406-6262.

#### **DIRECTIONS FOR USE**

This product is intended for use in weed control in corn, cotton, peanuts, pod crops, potatoes, safflower, grain or forage sorghum, soybeans, and tomatoes.

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.

## **ENDANGERED SPECIES PROTECTION REQUIREMENTS:**

It is a Federal offense to use any pesticide in a manner that results in an unauthorized "take" (e.g., kill or otherwise harm) of an endangered species and certain threatened species, under the Endangered Species Act section 9. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. You must obtain a Bulletin no earlier than six months before using this product. To obtain Bulletins, consult http://www.epa.gov/espp/, call 1-844-447-3813, or email ESPP@epa.gov. You must use the Bulletin valid for the month in which you will apply the product.

## **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.

**Exception:** If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry 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 over short-sleeved shirt and short pants
- Waterproof gloves
- Shoes plus socks

FAILURE TO FOLLOW THE DIRECTIONS FOR USE RESTRICTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.

Not for sale, use, or distribution in Nassau or Suffolk Counties, NY.

To avoid spray drift, do not apply under windy conditions. Avoid spray overlap as crop injury may result.

## **PRODUCT INFORMATION**

Observe all precautions and limitations on the labels of each product used in tank mixtures. Tank mixtures are permitted only in those states where the tank mix partner is registered.

When an adjuvant is to be used with this product, ADAMA suggests the use of a Chemical Producers and

Distributors Association certified adjuvant.

PARALLEL PCS is a selective herbicide for use as a preplant surface-applied, preplant incorporated, or preemergence treatment in water or fluid fertilizer for control of most annual grasses and certain broadleaf weeds in corn (all types), cotton, peanuts, pod crops, potatoes, safflower, grain or forage sorghum, soybeans, and tomatoes. PARALLEL PCS can also be used as a postemergence treatment in corn and soybeans.

**Mixing/Loading Instructions:** Care must be taken when using this product to prevent back-siphoning into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates.

Check-valves or antisiphoning devices must be used on all mixing and/or irrigation equipment.

Do not mix or load this product within 50 ft. of perennial or intermittent streams and rivers, natural or impounded lakes, and reservoirs. Do not mix or load this product within 50 ft. of all wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 ft. of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash-water, and rain water that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above-specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site.

#### WEED RESISTANCE MANAGEMENT

PARALLEL PCS is a Group 15 herbicide. Any weed population may contain or develop plants naturally resistant to metolachlor and other Group 15 herbicides. Weed species with acquired resistance to Group 15 may eventually dominate the weed population if Group 15 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by metolachlor or other Group 15 herbicides.

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of this product or other Group 15 herbicides within a growing season sequence of among
  growing seasons with different herbicide groups that control the same weeds in the field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on
  resistance in target weed species is available, use the less resistance-prone partner at a rate that will
  control the target weed(s) equally as well as the more resistance-prone partner. Consult your local
  extension service or certified crop advisor if you are unsure as to which active ingredient is currently
  less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses
  historical information related to herbicide use and crop rotation, and that consider tillage (or other
  mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application
  method and timing to favor the crop and not the weeds), biological (weed-competitive crops or
  varieties), and other management practices.
- Scout before and after herbicide application to monitor weed populations for early signs or resistance
  development. Indicators of possible herbicide resistance include: (1) failure to control a weed species
  normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent
  weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants
  mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed
  production in the affected area by an alternative herbicide from a different group or by a mechanical

- method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistancemanagement and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact ADAMA at 1-866-406-6262.

#### **APPLICATION PROCEDURES**

## **SOIL TEXTURES AND HERBICIDE RATES**

Where rates are based on coarse-, medium-, or fine-textured soils, it is understood that soil textural classes are generally categorized as follows:

Coarse-	Sand, Loamy sand, Sandy loam
Medium-	Loam, Silt loam, Silt
Fine-	Sandy clay loam, Silty clay loam, Clay loam, Sandy clay, Silty loam, Silty clay, Clay

Within rate ranges in the rate tables and elsewhere on this label, use the lower rate on soils relatively coarse-textured or low in organic matter; use the higher rate on soils relatively fine-textured or high in organic matter.

**Note:** PARALLEL PCS may be applied preemergence alone, or in combination with tank mix partners specified on this label, following preplant incorporated herbicides when used according to their label recommendations, provided that such use is not prohibited on the respective labels.

Thoroughly clean sprayer or other application device before using. Dispose of cleaning solution in a responsible manner. Do not use a sprayer or applicator contaminated with any other materials, or crop damage or clogging of the application device may result.

### MIXING INSTRUCTIONS

**PARALLEL PCS Alone:** Mix PARALLEL PCS with water or fluid fertilizer and apply as a spray. Fill the spray tank  $\frac{1}{2}$  -  $\frac{3}{4}$  full with water or fluid fertilizer, add the proper amount of PARALLEL PCS, then add the rest of the water or fluid fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform emulsion.

Tank Mixtures: Fill the spray tank 1/4 full with water, and start agitation; add 2,4-D, AAtrex®, Balan®, Banvel, Basagran®, Butoxone®, Butyrac®, Canopy®, Caparol® 4L, Command®, Cotoran®, Eptam®, Gemini®, Lexone®, Lorox®, Lorox Plus, Marksman®, MSMA, Preview®, Princep®, Prowl®, Pursuit®, AAtrex + Princep, Scepter®, Sencor®, Sonalan®, Starfire®, or Treflan®, and allow it to become dispersed; then add PARALLEL PCS; then add ® Extra, Landmaster® BW, or Roundup® if these products are being used; and finally the rest of the water. For tank mixtures with AAtrex, Banvel, Canopy, Caparol 4L, Command, Cotoran\*, Eptam, Gemini, Lexone, Lorox, Lorox Plus, Marksman, Preview, Princep, Prowl\*, Pursuit, AAtrex + Princep, Scepter, Sencor, Sonalan, Starfire, or Treflan, fluid fertilizers may replace all or part of the water as carrier, except in the AAtrex postemergence and the Banvel postemergence tank mixes. For tank mixtures with AAtrex, see additional mixing instructions on the AAtrex label. For each mixture, check compatibility with fluid fertilizer, as described below, before mixing in spray tank. For all tank mixtures, agitate during mixing and application to maintain a uniform suspension.

## **COMPATIBILITY TEST**

Since liquid fertilizers can vary, even within the same analysis, always **check compatibility with herbicide(s) each time before use**. Be especially careful when using complete suspension or fluid fertilizers, as serious compatibility problems are more likely to occur. Commercial application equipment may improve compatibility in some instances. The following test assumes a spray volume of 25 gals./A. For other spray volumes, make appropriate changes in the ingredients. Check compatibility using this procedure:

1. Add 1 pt. of fertilizer to each of 2 one-qt. jars with tight lids.

- 2. To **one** of the jars, add 1/4 tsp. or 1.2 milliliters of a compatibility agent approved for this use such as Compex® or Unite® (1/4 tsp. is equivalent to 2 pts./100 gals. spray). Shake or stir gently to mix.
- 3. To **both** jars, add the appropriate amount of herbicide(s). If more than one herbicide is used, add them separately with dry herbicides first, flowables next, and emulsifiable concentrates last. After each addition, shake or stir gently to thoroughly mix. The appropriate amount of herbicides for this test follows:

Dry herbicides: For each pound to be applied per acre, add 1.5 level teaspoons to each jar.

Liquid herbicides: For each pint to be applied per acre, add 0.5 teaspoon or 2.5 milliliters to each jar.

**Note:** For PARALLEL PCS tank mixtures with AAtrex + Princep, use 1/3-1/2 the amount of AAtrex specified above and the remainder as Princep, depending on whether the 1:2 or 1:1 ratio of AAtrex to Princep is to be applied.

4. After adding all ingredients, put lids on and tighten, and invert each jar 10 times to mix. Let the mixtures stand 15 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the 2 jars. If either mixture separates but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (A) slurry the dry herbicide(s) in water before addition, or (B) add 1/2 of the compatibility agent to the fertilizer and the other 1/2 to the emulsifiable concentrate or flowable herbicide before addition to the mixture. If incompatibility is still observed, do not use the mixture.

\*See **Special Mixing Instructions** for tank mixtures with Cotoran, and with AAtrex or Princep + Prowl under the appropriate tank mixture section.

## **APPLICATION TIMING**

PARALLEL PCS alone or in some tank mixtures with other labeled herbicides may be applied for weed control in certain crops at various times. Refer to the given crop section of the label to determine if application timings listed below are appropriate.

- a. Preplant Surface-Applied: For minimum-tillage or no-tillage systems only, PARALLEL PCS alone and some PARALLEL PCS tank mixtures may be applied up to 45 days before planting certain crops. Use only split applications for treatments made 30-45 days before planting, with 2/3 the labeled broadcast rate for the crop and soil texture applied initially and the remaining 1/3 at planting. Treatments less than 30 days before planting may be made either as a split or a single application. Refer to individual crop to determine if early preplant surface application is applicable. If weeds are present at the time of treatment, apply in a tank mixture combination with a contact herbicide (for example, Gramoxone Extra or Roundup). Observe directions for use, precautions, and restrictions on the label of the contact herbicide. To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished.
- b. Preplant Incorporated: Apply PARALLEL PCS to the soil and incorporate into the top 2 inches of soil within 14 days before planting, using a finishing disk, harrow, rolling cultivator, or similar implement capable of providing uniform 2-inch incorporation. Use a preplant incorporated application if furrow irrigation is used or when a period of dry weather after application is expected. If crop will be planted on beds, apply and incorporate PARALLEL PCS after bed formation, unless specified otherwise.
- **c. Preemergence:** Apply PARALLEL PCS during planting (behind the planter) or after planting but before weeds or crops emerge.
- d. Postemergence: For corn, cotton and soybean application: One application of PARALLEL PCS will provide preemergence control or partial control of the annual grasses and broadleaf weeds listed in the "WEEDS CONTROLLED" section of this label. PARALLEL PCS alone will not control emerged weeds, so it must be applied to a weed-free surface or in a tank mixture with products that provide postemergence weed control. If weeds are present at the time of application, tank-mix with a labeled postemergence herbicide and observe all directions for use, precautions and restriction on the label of the tank-mix partner. For additional postemergence information follow the crop specific label requirements identified on this label.

## **SPECIAL APPLICATION PROCEDURES**

- a. Preplant Incorporated: CA Only (Corn, Safflower, Pod Crops): Broadcast PARALLEL PCS to the soil and thoroughly incorporate with a disk or similar implement set to till 4-6 inches deep. For more thorough incorporation, till the soil in 2 different directions (cross-till). Crops may be planted on flat surface or on beds. Caution should be used when forming the beds that only soil from the PARALLEL PCS treated zone is used (i.e., untreated soil should not be brought to soil surface). If the application is made to preformed beds, incorporate PARALLEL PCS with a tillage implement set to till 2-4 inches deep. Care should be taken during tilling to keep the tilled (PARALLEL PCS treated) soil on the beds. Preemergence: Apply PARALLEL PCS after planting. Water with sprinkler or flood irrigation within 7-10 days.
- b. Fall Application (Only in IA, MN, ND, SD, WI, North of Route 20 in the state of NE, and North of Route 136 in the state of IL): Use on medium and fine soils with greater than 2.5% organic matter that will be planted to corn or soybeans the next spring. Ground may be tilled before or after application.

## Restrictions:

- Do not apply to frozen ground.
- Do not exceed a 2- to 3-inch incorporation depth if tilled after treatment.
- If a spring application is made, the total rate of the fall plus spring applications must not exceed the maximum total rate for the specific crop or illegal residues may result.
- **c. Ground Application:** Apply PARALLEL PCS alone or in tank mixtures by ground equipment in a minimum of 10 gals. of spray mixture per acre unless otherwise specified.

Use sprayers that provide accurate and uniform application. For PARALLEL PCS tank mixtures with wettable powder or dry flowable formulations, screens and strainers should be no finer than 50-mesh. Rinse sprayer thoroughly with clean water immediately after use.

Calculate the amount of herbicide needed for band treatment by the formula:

<u>band width in inches</u> x broadcast = amount needed row width in inches rate per acre per acre of field

## **AERIAL APPLICATION:**

Uniformly apply PARALLEL PCS with properly calibrated aerial equipment in 5 or more gallons of spray mixture per acre. Avoid application under conditions were uniform coverage cannot be obtained or where excessive spray drift may occur. To avoid injury to sensitive crops from drift, aerial applicators must adhere to the following SPECIAL AERIAL USE DIRECTIONS, RESTRICTIONS AND PRECAUTIONS: Nozzle height above ground must be a maximum of 10 feet above the crop with low drift nozzles at a maximum pressure of 40 psi. Nozzles must be pointed toward the rear of the aircraft. The downward angle of the nozzle should not be greater than 20 degrees.

To minimize wing-tip vortex roll, nozzles or spray boom must not be located any closer to the end of wing or rotor than three-fourths the distance from the center of the aircraft. Use a maximum spray pressure of 40 psi. A buffer zone must be established between the area to be sprayed and sensitive crops.

**Restriction:** Do not spray when wind velocity is greater than 5 mph.

Applicator is responsible for any loss or damage which results from spraying PARALLEL PCS in any manner other than what is listed on this label. In addition, applicator must follow all applicable state and local regulations and ordinances in regard to spraying.

## MANDATORY SPRAY DRIFT MANAGEMENT

## Aerial Applications:

- Do not release spray at a height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to select the nozzle and pressure that deliver medium or coarser droplets (ASABE S641).
- Do not apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- If the wind speed is 10 miles per hour or less, applicators must use ½ swath displacement upwind at the downwind edge of the field. When the wind speed is between 11-15 miles per hour, applicators must use ¾ swath displacement upwind at the downwind edge of the field.
- Do not apply during temperature inversions.

## **Ground Boom Applications:**

- User must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to select the nozzles and pressure that deliver medium or coarser droplets (ASABE S572).
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

## **Boomless Ground Applications:**

- Applicators are required to select the nozzle and pressure that deliver medium or coarser droplet size (ASABE S572.3) for all applications.
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

### **SPRAY DRIFT ADVISORIES**

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

## IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

## **Controlling Droplet Size - Ground Boom**

- **Volume** Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure** Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- **Spray Nozzle** Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

## **Controlling Droplet Size - Aircraft**

• **Adjust Nozzles -** Follow nozzle manufacturers' recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

## **BOOM HEIGHT - Ground Boom**

For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### **RELEASE HEIGHT - Aircraft**

Higher release heights increase the potential for spray drift.

#### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

#### **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

## **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or 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. Avoid applications during temperature inversions.

## **WIND**

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

## **Boomless Ground Applications:**

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

## **Handheld Technology Applications:**

Take precautions to minimize spray drift.

## **Sensitive Areas**

Apply PARALLEL PCS only when the potential for drift to adjacent sensitive areas (e.g., non-target crops, bodies of water, residential areas, known habitat for threatened or endangered species) is minimal (e.g., when wind is blowing away from the sensitive areas). Avoid application to humans or animals. Flagmen and loaders should avoid inhalation of spray mist and prolonged contact with skin.

<u>Application By Impregnated Dry Bulk Granular Fertilizers</u>: PARALLEL PCS may be impregnated or coated on many dry bulk granular fertilizers and applied with the fertilizers to control weeds. When applying PARALLEL PCS with dry bulk fertilizers, follow all directions for use restrictions and precautions on the PARALLEL PCS label regarding target crops, rates per acre, soil texture, application methods, and rotational crops.

It is the responsibility of the individual and/or company selling the herbicide/fertilizer mixture to comply with all individual state regulations relating to dry bulk granular fertilizer blending, registration, labeling, and application.

Prepare the herbicide/fertilizer mixture by using any closed drum, belt, ribbon, or other commonly used dry bulk fertilizer blender. Nozzles used to spray PARALLEL PCS onto the fertilizer must be spaced to provide uniform spray coverage. Care should be taken to aim the spray onto the fertilizer only, avoiding the walls of the blender.

If the herbicide/fertilizer mixture is too wet, add a highly absorptive material, such as Agsorb® FG or Celatom MP-79®, or similar granular clay or diatomaceous earth materials, to obtain a dry, free-flowing mixture. Absorptive materials should be added only after the herbicide has been thoroughly blended into the fertilizer mixture. Best application results will be obtained by using a granule of 6/30 particle size or of a size similar to that of the fertilizer materials being used. Generally, less than 2% by weight of absorptive material will be needed. Avoid using more than 5% absorptive material by weight.

Calculate the amount of PARALLEL PCS to be used per ton of fertilizer by using the following formula: 2,000 / pounds of fertilizer desired per acre X number of pints PARALLEL PCS required per acre = pints of PARALLEL PCS per ton of fertilizer.

Application by Pneumatic (Compressed Air) Equipment: High humidity, high urea concentrations, low fertilizer use rates, and dusty fertilizer may cause fertilizer mixtures to build up or plug the distributor head, air tubes, or nozzle deflector plates. To minimize buildup, premix PARALLEL PCS with ExxonMobil™ Aromatic 200 at a rate of 2.0 to 2.5 pints per gallon of PARALLEL PCS. Aromatic 200 is a noncombustible/nonflammable petroleum product. Aromatic 200 may be used in either a fertilizer blender or through direct injection systems. Drying agents should not be used when using Aromatic 200.

When impregnating PARALLEL PCS in a blender before application, a drier mixture can be obtained by substituting a drying agent for Aromatic 200. The use of Agsorb® FG or another drying agent of 6/30 particle size is recommended. Drying agents are not recommended for use with On-The-Go impregnation equipment.

**Precautions:** Mixtures of PARALLEL PCS and Aromatic 200 must be used on dry fertilizer only. Poor results or crop injury may result if these mixtures are used in water or liquid fertilizer solutions for spraying applications. **Restrictions:** 

To avoid potential for explosion:

- Do not impregnate PARALLEL PCS on ammonium nitrate, potassium nitrate, or sodium nitrate, either alone or in blends with other fertilizers.
- Do not combine PARALLEL PCS with a single superphosphate (1-20-0) or treble superphosphate (0-46-0).
- Do not use PARALLEL PCS on straight limestone, since absorption will not be achieved. Fertilizer blends containing limestone can be impregnated.

Application of Impregnated Dry Bulk Granular Fertilizer: Apply 200 to 700 pounds of the herbicide/fertilizer mixture per acre. For best results, apply the mixture uniformly to the soil with properly calibrated equipment immediately after blending. Uniform application of the herbicide/fertilizer mixture is essential in order to prevent possible crop injury to subsequent rotational crops. Non-uniform application may also result in unsatisfactory weed control. In areas where conventional tillage is practiced, a shallow incorporation of the mixture into the soil is recommended to obtain satisfactory weed control. On fine- or medium-textured soils in areas where soil incorporation is not planned, i.e., reduced-tillage situations or in some conventional till situations, make applications approximately 30 days before planting to allow moisture to move the herbicide/fertilizer mixture into the soil. On coarse-textured soils, make applications approximately 14 days prior to planting.

**Precaution:** To help avoid rotational crop injury, make applications as early as possible, since PARALLEL PCS impregnated onto dry bulk fertilizers can be expected to last longer in the soil than PARALLEL PCS applied as a spray in water or fluid fertilizer.

## **CHEMIGATION - CENTER PIVOT IRRIGATION**

PARALLEL PCS alone or in tank mixture with other herbicides on this label, which are registered for center pivot application, may be applied in irrigation water preemergence (after planting but before weeds or crop emerge) at rates listed on this label. Apply this product only through a center pivot irrigation system. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension specialists, equipment manufacturers, or other experts. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise

**Restriction:** Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

## **Operating Instructions**

- 1. The system must contain a functional check-valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from back flow.
- 2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.
- 3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve

located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

- 4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump or piston pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. Do not apply when wind speed favors drift beyond the area intended for treatment.
- 8. Prepare a mixture with a minimum of 1 part of water to 1 part herbicide(s) and inject this mixture into the center pivot system. Injecting a larger volume of a more dilute mixture per hour will usually provide more accurate calibration of metering equipment. Maintain sufficient agitation to keep the herbicide in suspension.
- 9. Meter into irrigation water during entire period of water application.
- 10. Apply in ½-1 inch of water. Use the lower water volume (1/2 inch) on coarse-textured soils and the higher volume (1 inch) on fine-textured soils. More than 1 inch of water at application may reduce weed control by moving the herbicide below the effective zone in the soil.

**Precaution for center pivot applications:** Where sprinkler distribution patterns do not overlap sufficiently, unacceptable weed control may result. Where sprinkler distribution patterns overlap excessively, crop injury may result.

Note: For information on applying in lower volumes of carrier, see Low Carrier Application in Appendix A.

#### **CLEANING**

Do not use the same sprayer without thoroughly cleaning on sensitive crops, as even small residues of Parallel PCS in the tank may cause injury to these crops.

Wash sprayer and spray equipment thoroughly with clean water immediately after use. Drain any remaining spray solution of Parallel PCS from the spray tank and dispose of according to label disposal instructions. Rinse the spray tank and refill with water, adding a heavy-duty detergent at the rate of one cup per 20 gallons of water. Recycle this mixture through the equipment for 5 minutes, and spray out. Clean pump and nozzle screens thoroughly. Wash away any spray mixture from the outside of spray tank, nozzles or spray rig. All rinse water must be disposed of in compliance with local, state, and Federal guidelines.

## **USE PRECAUTIONS**

Where directions specify a PARALLEL PCS tank mixture with AAtrex formulations, other brands of atrazine may be used. Follow the rates, recommendations, and limitations on the AAtrex or respective atrazine product label if other brands of atrazine are used. Injury may occur following the use of PARALLEL PCS under abnormally high soil moisture conditions during early development of the crop.

## **USE RESTRICTIONS**

- Do not use in nurseries, turf, or landscape plantings.
- Do not apply under conditions which favor runoff or wind erosion of soil containing this product to non-target areas.
- Do not apply to impervious substrates such as paved or highly compacted surfaces.
- Do not use tailwater from the first flood or furrow irrigation of treated fields to treat non-target crops unless at least ½ inch of rainfall has occurred between application and the first irrigation.
- If PARALLEL PCS is incorporated, any supplemental tillage before planting must not exceed the depth of incorporation.

**Note:** Certain states may have established rate limitations for atrazine within specific geographical areas. Consult your state lead pesticide control agency for additional information. It is a violation of this label to deviate from state

use regulations.

Dry weather following preemergence application of PARALLEL PCS or a tank mixture may reduce effectiveness. Cultivate if weeds develop.

Where reference is made to weeds partially controlled, partial control can either mean erratic control from good to poor or consistent control at a level below that generally considered acceptable for commercial weed control.

#### PARALLEL PCS APPLIED ALONE

## 1. Weeds Controlled:

Barnyardgrass (watergrass)	Prairie cupgrass	Yellow nutsedge	
Bristly foxtail	Red rice	Carpetweed	
Crabgrass	Robust foxtails (purple, white)	Common waterhemp	
Crowfootgrass	Signalgrass (Brachiaria)	Eastern black nightshade	
Fall panicum	Southwestern cupgrass	Florida pusley	
Foxtail millet	Wild proso millet*	Galinsoga	
Giant foxtail	Wwitchgrass	Pigweed	
Goosegrass	Woolly cupgrass*	Tall waterhemp	
Green foxtail Yellow foxtail			
*For control of these weeds in co	rn only, refer to the Corn – Woolly Cupg	rass and Wild Proso Millet	

<sup>\*</sup>For control of these weeds in corn only, refer to the Corn – Woolly Cupgrass and Wild Proso Millet ControlProgram section of this label.

## 2. Weeds Partially Controlled\*:

Common purslane	Sandbur	Volunteer sorghum
Eclipta	Seedling johnsongrass	Wild proso millet
Florida beggarweed**	Shattercane	Woolly cupgrass
Hairy nightshade	Texas panicum***	

<sup>\*</sup>See **Product Information** section. Control of these weeds can be erratic due partially to variable weather conditions.

Control may be improved by following these suggested procedures:

- 1. Thoroughly till moist soil to destroy germinating and emerged weeds. If PARALLEL PCS is to be applied preplant incorporated, this tillage may be used to incorporate PARALLEL PCS if uniform 2-inch incorporation is achieved as outlined in **Application Procedures**.
- 2. Plant crop into moist soil immediately after tillage. If PARALLEL PCS is to be used preemergence, apply at planting or immediately after planting.
- 3. If available, sprinkler irrigate within 2 days after application. Apply 1/2-1 inch of water. Use lower water volume (1 /2 inch) on coarse-textured soils and higher volume (1 inch) on fine-textured soils. Also, refer to the section on **Center Pivot Irrigation Application** for this method of applying PARALLEL PCS.
- 4. If irrigation is not possible and rain does not occur within 2 days after planting and application, weed control may be decreased. Under these conditions, a uniform, perform a shallow cultivation as soon as weeds emerge.

## **Rotational Crops:**

**PARALLEL PCS Alone:** (1) If crop treated with PARALLEL PCS alone is lost, any crop on this label may be replanted immediately. If the original application was banded and the second crop is planted in the untreated row middles, a second banded treatment may be applied. (2) Barley, oats, rye, or wheat may be planted 4½ months following treatment; alfalfa may be planted 4 months following application. Tomatoes may be planted 6 months following application. (3) Any crop on this label, in addition to root crops, tobacco, barley, buckwheat, milo, oats, rice, rye, wheat, cabbage, or peppers, may be planted in the spring following treatment. Clover may be seeded 9 months following application. All other rotational crops may be planted 12 months after a layby application. (4) Following a lay-by treatment or multiple treatments applied the previous season, any crop on this label, in addition to tobacco, cabbage, or peppers, may be planted in the spring.

<sup>\*\*</sup>For partial control of this weed, use a minimum of 2 pts./A and apply preemergence.

<sup>\*\*\*</sup>For partial control of this weed, use a minimum of 2 pts./A and apply through a center pivot irrigation system.

### **Restrictions:**

- Do not make a second broadcast application of PARALLEL PCS.
- Do not graze or feed forage or fodder from cotton to livestock.

**PARALLEL PCS Tank Mixtures:** For **Rotational Crops** restrictions for PARALLEL PCS used in tank mixtures, refer to the statements/restrictions above for PARALLEL PCS and to the respective product labels of any mixing partner(s) for additional statements/restrictions.

**Precautions:** To avoid injury to rotational alfalfa or clover, do not apply more than 3 lbs. a.i. of metolachlor per acre (3 pts. of PARALLEL PCS) preemergence (including preplant surface, preplant incorporated, postplant incorporated, etc.), and do not make lay-by or other postemergent applications of PARALLEL PCS.

# CROPS CORN (ALL TYPES)

#### PARALLEL PCSALONE

Apply PARALLEL PCS, either preplant surface, preplant incorporated, preemergence, or lay-by, using the appropriate rate specified below.

## 1. Preplant Surface-Applied:

Refer to instructions for use of PARALLEL PCS alone under **Application Procedures**.

- a. Fall Application (Apply after September 30 in MN, ND, SD, WI and north of Route 30 in IA; Apply after October 15 north of Route 91 in NE and south of Route 30 in IA; Apply after October 31 north of Route 136 in IL): In all locations, apply to crop stubble after harvest when the sustained soil temperature at a 4-inch depth is less than 55 °F and falling. In minimum-till or no-tillage systems on soils having greater than 2.5% organic matter, use 1.67 2.0 pts./A on *medium-textured* and 2.0 pts./A on *fine-textured soils*. A tillage operation may precede the application. Minimize furrow and ridge formation in the tillage operations. Restriction:
- If a spring application is made, the total rate of the fall plus spring applications must not exceed the maximum total rate for corn, or illegal residues may result.
- Do not apply to frozen ground.
- A fall and/or spring tillage may follow application, but do not exceed an incorporation depth greater than 2
   3 inches.
- b. Use on medium- and fine-textured soils with minimum-tillage or no-tillage systems in CO, IA, IL, IN, KS, KY, MN, MO, MT, ND, NE, SD, TN, WI, and WY. Apply 2/3 the labeled rate of PARALLEL PCS (1.67 pts./A on *medium soils* and 2.0 pts./A on *fine soils*) as a split treatment 30 45 days before planting and the remainder at planting. Applications made less than 30 days prior to planting may be as either a split or single treatment. Apply 1.33 pts./A on *coarse soils* not more than 2 weeks prior to planting.
- c. On medium- and fine-textured soils with minimum- or no-tillage systems in CT, DE, MA, MD, ME, MI, NH, NY, OH, PA, RI, VA, VT, and WV, preplant surface applications may be applied following the directions for use above. If the amount of rainfall results in unsatisfactory length of weed control following the earlier treatment, a postemergence application of an appropriately labeled broadleaf and/or grass weed herbicide may be used, i.e., AAtrex, Beacon®, Bicep®, Exceed®, Accent®, Banvel, Basagran®, bromoxynil (Brominal® or Buctril®), or 2,4-D. Observe all directions for use, restrictions, precautions, and limitations on the label of the postemergent herbicide.

**Restriction:** If the postemergence treatment includes the herbicide used preplant surface-applied, do not exceed the total labeled rate for corn on a given soil texture.

## 2. Preplant Incorporated or Preemergence:

Follow instructions for use of PARALLEL PCS alone under **Application Procedures**. On *coarse soils*, apply 1.0 - 1.33 pts./A of PARALLEL PCS if organic matter content is less than 3%, or 1.33 pts./A if organic matter content is 3% or greater. On *medium soils*, apply 1.33 - 1.67 pts./A of PARALLEL PCS . On *fine soils*, apply 1.33 - 1.67 pts./A of PARALLEL PCS if organic matter content is less than 3%, or 1.67 - 2.0 pts./A if organic matter content is 3% or greater.

a. **Lay-by:** To extend the duration of weed control in corn, a maximum rate of 2.0 pts. of PARALLEL PCS may be applied after corn emergence until the corn plants reach 40 inches in height, following any preplant surface-applied, preplant incorporated, or preemergence herbicide application, including PARALLEL PCS. For best results, applications should be made to soil free of emerged weeds and directed towards the base of corn plants in excess of 5 inches tall. The total PARALLEL PCS rate applied on corn during any one crop year must not exceed 4 pts./A, depending on soil texture.

**Restriction:** For all applications to corn, do not graze or feed forage from treated areas for 30 days following application, or possible illegal residues may result.

- b. Shattercane, Wild Proso Millet, Woolly Cupgrass, and Eclipta Partial Control: For more consistent partial control of shattercane, wild proso millet, woolly cupgrass, or eclipta, apply 1.0 1.33 pts./A of PARALLEL PCS preplant incorporated followed by 1.0 1.33 pts./A of PARALLEL PCS preemergence. Make the preemergence application during or after planting, but before weeds and corn emerge. Apply the 1.33 pts./A rate of PARALLEL PCS when a heavy infestation of shattercane, wild proso millet, woolly cupgrass, or eclipta is expected. A shallow cultivation may be needed to control any late emerging weeds.
- c. Woolly Cupgrass and Wild Proso Millet Control Program: For control of these species, use the following 3-step program: (1) Apply PARALLEL PCS early preplant, preplant incorporated, or preemergence at 1.67 pts./A on *medium soils* and 2.0 pts./A on *fine-textured soils*, up to the maximum label rate. Lightly incorporate with a rotary hoe if rainfall does not occur within 5 7 days; (2) Apply a postemergence tank mix of Beacon at 0.38 oz./A or Exceed at 1 packet per 4 acres plus Accent SP at 0.33 oz./A plus 1 qt. of crop oil concentrate plus 1 gal./A of 28% nitrogen, or the equivalent amount of ammonium sulfate, when the grasses are 2-3 inches tall and the corn is at least 4 inches tall; and (3) Cultivate 14-21 days after the postemergence application.

**Precautions:** (1) In corn, PARALLEL PCS may be used up to 2.6 pts./A as either a preplant surface, preplant incorporated, or preemergence treatment on soils having an organic matter content between 6% and 20%. (2) In the event of escape of annual weeds following a preplant surface, preplant incorporated, or preemergence treatment of PARALLEL PCS, follow with a postemergence application of an appropriately labeled broadleaf and/or grass weed herbicide, i.e., AAtrex, Beacon, Bicep, Exceed®, Accent, Banvel, Basagran, Brominal, Buctril, or 2,4-D. (3) Brominal or Buctril may be applied postemergence alone or in tank-mix combination with AAtrex.

## Restrictions:

- Do not apply more than the labeled application rate for a given soil texture per year, either as a single or split treatment, or illegal residues may result.
- Do not use PARALLEL PCS on peat or muck soils.
- If the postemergence treatment includes the herbicide used in the earlier treatment, do not exceed the total labeled rate for corn on a given soil texture.
- Do not exceed 1.2 lbs. a.i./A of AAtrex in tank-mix combination with Brominal or Buctril postemergence. Refer to the AAtrex, Brominal, and Buctril labels for specific rates and precautions.

## PARALLEL PCS COMBINATIONS

PARALLEL PCS in any tank mixture for corn (except PARALLEL PCS + AAtrex postemergence and PARALLEL PCS + Banvel postemergence) may be applied in water or fluid fertilizer. Use only water in the PARALLEL PCS + AAtrex or the PARALLEL PCS + Banvel postemergence tank mixes.

**Restriction:** For all applications to corn, do not graze or feed forage from treated areas for 30 days following application, or possible illegal residues may result.

**IMPORTANT:** FOR TANK MIXTURES WITH AATREX (OR OTHER BRANDS OF ATRAZINE) – If applying PARALLEL PCS in tank mixture with AAtrex, all the restrictions and rate limitations on the AAtrex label must be followed if more restrictive/protective than those on this label. In addition, if AAtrex is/must be applied at rates lower than those listed on this label, broadleaf weed control may be affected. Refer to the AAtrex label for weeds controlled at the reduced rates.

PARALLEL PCS Tank Mixtures for Corn – Additional Weeds Controlled and Special Instructions

	PARALLEL PCS + AAtrex and/or Princep (Preplant Surface, PPI, PRE)	PARALLEL PCS + AAtrex(Post)	PARALLEL PCS + Banvel (Field Corn)	PARALLEL PCS + AAtrex + Lorox	PARALLEL PCS + AAtrex or Princep + Prowl	PARALLEL PCS + Marksman
Special Mixing					2	
Instructions						
Comments	3,4,5,6,9,10	3,4,5,6		3,4,5,6,8	3,4,5,6	9
Browntop panicum	•			•	•	
Cocklebur	•	o	o	•	•	•
Common purslane	•			•	•	•
Hairy nightshade	•			•	•	•
Jimsonweed		•	o			•
Kochia		•				•
Lambsquarters	•	•	•	•	•	•
Morningglory	•	o	o	•	•	•
Mustard		•				•
Pigweed				•	•	•
Prickly sida		•				•
Ragweed	•	•	•	•	•	•
Smartweed	•	•	•	•	•	•
Velvetleaf	•	•	o	•	•	•

<sup>• =</sup> control; o = partial control; o• = partial to full control depending on ratio of products used or on weed population

## MIXING INSTRUCTIONS

- 1. Special Mixing Instructions for PARALLEL PCS + AAtrex or Princep and Prowl
  - (a). Fill the pray tank ¼ full with water or fluid fertilizer and start agitation.
  - (b) To aid compatibility, add a compatibility agent, such as Unite or X-77, at 4 pts./100 gals. of spray mixture.
  - (c) Then add the AAtrex or Princep and allow it to become dispersed.
  - (d) Then add PARALLEL PCS and Prowl 4E.
  - (d) Add the rest of the water.
- 2. Although a single formulation for AAtrex or Princep is listed in the rate tables, other formulations may be substituted, using the following formula:
  - 1 lb. of AAtrex Nine-O<sup>®</sup> or Princep Caliber 90<sup>®</sup> = 1.8 pts. of AAtrex 4L or Princep 4L.
- 3. Although directions specify AAtrex formulations in tank mixture with PARALLEL PCS, other brands of atrazine may be used. Follow the rates, recommendations, and limitations on the atrazine label.
- 4. See additional mixing instructions on the AAtrex label.
- 5. Restriction: Do not exceed a total of 2.5 lbs. a.i. of atrazine per acre per year. However, certain states may have established rate limitations for atrazine within specific geographical areas. Consult your state lead pesticide control agency for additional information. It is a violation of this label to deviate from state use regulations.
- 6. Other formulations of Lorox can be used: 1 lb. of Lorox DF = 1 pt. of Lorox L.
- 7. In minimum-tillage and no-tillage systems, mix with Gramoxone Extra for control of most emerged annual weeds and suppression of perennial weeds; or with Landmaster BW for suppression of emerged field bindweed and control or suppression of annual weeds; or with Roundup for control of most emerged annual and perennial weeds.
- For specific directions for 2,4-D or Banvel burndown combinations, refer to #7, Tank Mixture with AAtrex; or AAtrex + 2,4-D; or AAtrex + 2,4-D \_ Banvel for Minimum-Tillage or No-Tillage Systems label section.

PARALLEL PCS in any tank mixture for corn may be applied in water or fluid fertilizer, except as restrictions.

## **Restrictions:**

- For all applications to corn, do not graze or feed forage from treated areas for 30 days following application, or possible illegal residues may result.
- When applying PARALLEL PCS in tank mixture with AAtrex, do not exceed a total of 2.5 lbs. a.i. of atrazine
  per acre per year. Refer to Section C, Corn (All Types) PARALLEL PCS Alone, Note 3 for sequential
  postemergence treatments if escape weeds develop.
- 1. Tank Mixture with AAtrex or Princep, or AAtrex + Princep Preplant Surface, Preplant Incorporated, or Preemergence

In addition to the weeds controlled by PARALLEL PCS alone, PARALLEL PCS + AAtrex or Princep, or PARALLEL PCS + AAtrex + Princep, applied preplant surface, preplant incorporated, or preemergence, also controls the following weeds: browntop panicum, cocklebur, common purslane, hairy nightshade, lambsquarters, morningglory, ragweed, smartweed, and velvetleaf.

Apply PARALLEL PCS + AAtrex or Princep, or PARALLEL PCS + AAtrex + Princep either preplant surface, preplant incorporated, or preemergence.

**Preplant Surface-Applied:** Follow instructions for use of PARALLEL PCS alone under **Application Procedures** and under application instructions for PARALLEL PCS alone on corn. Apply PARALLEL PCS + AAtrex or Princep, or PARALLEL PCS + AAtrex + Princep on *medium soils* (1.67 pts./A of PARALLEL PCS + 3.2 - 4 pts./A of AAtrex 4L or Princep 4L combined) and on *fine soils* (1.67 - 2.0 pts./A of PARALLEL PCS + 4 - 5 pts./A of AAtrex 4L or Princep 4L, or AAtrex 4L + Princep 4L combined) in minimum-tillage and no-tillage systems in CO, IA, IL, IN, KS, KY, MN, MO, MT, ND, NE, SD, TN, WI, and WY. Apply the tank mixtures as a split or single treatment in those states and as indicated in the **PARALLEL PCS Alone – Preplant Surface-Applied** section of

the label for corn. On *coarse soils*, apply 1.33 pts./A of PARALLEL PCS and 3.2 pts./A of AAtrex 4L or Princep 4L, or AAtrex 4L + Princep 4L combined.

Preplant Incorporated or Preemergence: Follow instructions for use of PARALLEL PCS alone under Application Procedures. Apply PARALLEL PCS in combination with AAtrex and using the appropriate rates from the PARALLEL PCS + AAtrex or Princep, or PARALLEL PCS + AAtrex + Princep, Preplant Incorporated or Preemergence - Corn (All Types) table.

**Restriction:** Do not apply more than the labeled rate for a given soil texture per year, either as a split or single treatment, or illegal residues may result.

#### Shattercane and Wild Proso Millet – Partial Control

For more consistent partial control of shattercane or wild proso millet, where PARALLEL PCS is applied in tank mixture or sequentially with other registered corn herbicides, the following applications may be made:

- 1. Apply 1.0 1.33 pts./A of PARALLEL PCS + 2 lbs. a.i./A of AAtrex or Princep preplant incorporated, followed by 1.0 1.33 pts./A of PARALLEL PCS preemergence. Make the preemergence application during or after planting, but before weeds and corn emerge.
- 2. Apply PARALLEL PCS at 1.33 pts./A alone or in tank mix combination with up to 2 lbs. a.i./A of Aatrex or Princep, preplant incorporated. Do not exceed the total rate of triazine herbicide listed in combination with PARALLEL PCS for corn grown on a given soil texture. Follow with a post-directed application of Evik® 80W at 1.67 lbs./A. Refer to the Evik 80W label for specific directions for the post-directed application.
- 3. Apply Eradicane® or Sutan® (or equivalent EPTC or butylate formulations) at labeled rates preplant incorporated, followed by a preemergence application of PARALLEL PCS at 1.0 1.33 pts./A. Do not use Eradicane or Sutan on soils where rapid degradation has been shown to occur. Make the preemergence application during or after planting, but before weeds and corn emerge.

When following the application regimes in numbers 1-3 above, a shallow cultivation may be needed after the preemergence or postemergence application to help control any late emerging shattercane or wild proso millet plants.

**Precaution**: To avoid crop injury, do not exceed a total of 2 lbs. a.i./A of metolachlor (2 pts. of PARALLEL PCS) in the preplant incorporated plus preemergence application on soils with less than 6% organic matter.

PARALLEL PCS + AAtrex or Princep, or PARALLEL PCS + AAtrex + Princep, Preplant Incorporated or Preemergence - Corn (All Types)

	BROADCAST RATES PER ACRE				
	Less than 3%	Organic matter	3% Organic Ma	% Organic Matter or Greater	
SOIL TEXTURE	PARALLEL PCS	PARALLEL PCS	PARALLEL PCS	PARALLEL PCS	
	+ AAtrex	+ AAtrex	+ AAtrex	+ AAtrex	
	Nine-O -OR-	Nine-O**	Nine-O -OR-	Nine-O**	
	or	+	or	+	
	Princep Caliber 90*	Princep Caliber 90**	Princep Caliber 90*	Princep Caliber 90**	
Coarse	0.85 - 1.0 pts.	0.85 - 1.0 pts.	1.0 pts.	1.0 pts.	
	+	+	+	+	
	1.1 - 2.2 lbs.	0.6 - 1.1 lbs.	1.3 - 2.2 lbs	0.7 - 1.1 lbs.	
		+		+	
		0.6 - 1.1 lbs.		0.7 - 1.1 lbs.	
Medium	1.0 - 1.33 pts.	1.0 - 1.33 pts.	1.33 pts.	1.33 pts.	
	+	+	+	+	
	1.3 - 2.2 lbs	0.7 - 1.1. lbs.	1.8 - 2.2 lbs	0.9 - 1.1 lbs.	
		+		+	
		0.7 - 1.1 lbs.		0.9 - 1.1 lbs	

Fine	1.33 pts.	1.33 pts.	1.33 - 1.67 pts.	1.33 - 1.67 pts.
	+	+	+	+
	1.8 - 2.2 lbs	0.9 - 1.1 lbs.	1.8 - 2.2 lbs.***	0.9 - 1.1 lbs.***
		+		+
		0.9 - 1.1 lbs.		0.9 - 1.1 lbs.
Muck or Peat (soils with more than 20% organic matter)		DO NO	OT USE	

\*Use Princep in preference to AAtrex when heavy infestations of crabgrass or fall panicum are expected. On soil shaving between 6% and 20% organic matter, PARALLEL PCS may be used up to 2.33 pts./A in tank mix combination with 2.2 lbs./A of AAtrex Nine-O, or equivalent rates of AAtrex 4L. Refer to the AAtrex label for weeds controlled at this reduced rate.

\*\*When using the tank mixture of PARALLEL PCS + AAtrex Nine-O + Princep Caliber 90, use equal rates of each as shown when heavy broadleaf weed infestations are expected. When heavy infestations of crabgrass or fall panicum are expected, use a 1:2 ratio of AAtrex + Princep instead of the 1:1 ratio given in the PARALLEL PCS + AAtrex or Princep, or PARALLEL PCS + AAtrex + Princep, Preplant Incorporated or Preemergence - Corn (All Types) table.. ( Example: Total Aatrex Nine-O + Princep Caliber 90 = 1.2 lbs./A, use 0.4 lb. of AAtrex + 0.8 lb. of Princep, respectively.) Refer to Comment No. 2 following the PARALLEL PCS Tank Mixtures for Corn - Additional Weeds Controlled and Special Instructions chart for AAtrex 4L and Princep 4L conversions.

\*\*\*For cocklebur, yellow nutsedge, and velvetleaf control on *fine-textured soils* above 3% organic matter, apply 2.25 lbs./A of AAtrex Nine-O, or equivalent rates of AAtrex 4L, or the same total amount of AAtrex + Princep with 1.33 - 1.67 pts./A of PARALLEL PCS.

## 2. Tank Mixture with AAtrex - Postemergence

## a. Weeds Controlled:

Barnyardgrass (watergrass)	Yellow foxtail	Prickly sida
Crabgrass	Jimsonweed	Purslane
Crowfootgrass	Kochia	Ragweed
Fall panicum	Lambsquarters	Smartweed
Giant foxtail	Mustard	Velvetleaf
Green foxtail	Pigweed	

#### b. Weeds Partially Controlled:

Cocklebur	Morningglory	Yellow Nutsedge

Apply 1.0 pts./A of PARALLEL PCS + 1.3 lbs./A of AAtrex Nine-O\* on *coarse soils*, 1.33 pts./A of PARALLEL PCS + 1.8 lbs./A of AAtrex Nine-O on *medium soils*, or 1.33 - 1.67 pts./A of PARALLEL PCS + 1.8 - 2.2 lbs./A\*\* of AAtrex Nine-O on *fine soils*. Apply this tank mixture before grass and broadleaf weeds pass the 2-leaf stage and before corn exceeds 5 inches in height. Application to weeds larger than the 2-leaf stage will generally result in unsatisfactory control.

**Lay-by:** Apply to corn plants not more than 12 inches tall. Applications to corn in excess of 5 inches should be directed to the base of the corn plants; whereas, applications to corn plants less than 5 inches tall may be made over the top. Occasionally, some corn leaf burn may result, but this should not affect later growth or yield.

\*When using AAtrex 4L, use equivalent rates. One lb. of AAtrex Nine-O equals 1.8 pts. of AAtrex 4L.

<sup>\*\*</sup>For better control of cocklebur, morningglory, velvetleaf, and yellow nutsedge on *fine-textured soils* above 3% organic matter, apply 2.2 lbs./A of AAtrex Nine-O, or equivalent rate of AAtrex 4L, with 1.33 - 1.67 pts./A of PARALLEL PCS.

Tank mixtures of PARALLEL PCS + AAtrex may be applied following use of any registered preplant surface-applied, preplant incorporated, or preemergence corn herbicide, including PARALLEL PCS + AAtrex.

#### **Restrictions:**

- The total PARALLEL PCS rate must not exceed 4 pts (4 lb Al/A metolachlor).; nor the AAtrex rate more than 2.5 lbs. a.i./A during any one crop year or illegal residues may result.
- Do not apply this postemergence tank mixture in fluid fertilizer, or severe crop injury may occur.

Refer to the AAtrex label for geographic, soil-texture, and rotational restrictions.

#### 3. Tank Mixture with Banvel

**Precaution**: Avoid drift to sensitive non-target plants, such as soybeans, during application, or injury may occur. **Restriction**:

- Do not apply with aircraft.
- Do not apply on coarse soils or on soils with less than 2.5% organic matter.
- Do not incorporate before corn emergence.

**Preemergence:** Use this tank mixture only on field corn which is flat-planted (no furrows) in CO, IA, IL, IN, KS, MN, NE, OH, SD, and WI.

In addition to the weeds controlled by PARALLEL PCS alone, PARALLEL PCS + Banvel, applied preemergence, also controls lambsquarters, ragweed, smartweed, cocklebur\*, jimsonweed\*, morningglory\*, and velvetleaf\*.

\*Partially controlled.

Apply PARALLEL PCS + Banvel preemergence. Broadcast 1 pt./A of Banvel with 1.33 pts./A of PARALLEL PCS on *medium soils*, or with 1.33 - 1.67 pts./A of PARALLEL PCS on *fine soils*. Apply this tank mixture to the soil surface at planting or after planting, but before corn emerges. Plant corn at least 1.5 inches deep and apply behind planting equipment, avoiding incorporation by the planter wheel or other seed covering device. If it is necessary to rotary hoe to break the soil crust, do not disturb the soil more than 1 /2 inch deep.

Postemergence for Control of Pigweed (Mid-Atlantic states, including DE, MD, PA, VA, and WV): Apply 1.0 - 1.50 pts. of PARALLEL PCS + 0.5 - 1 pt./A of Banvel or 1 - 2 pts./A of Banvel II by ground equipment when pigweed plants are less than 3 inches tall and before corn exceeds 5 inches in height in a minimum of 20 gals. of spray per acre. Use the lower rate on coarse-textured and low organic matter soils. Use the higher rate on fine-textured and high organic matter soils.

## 4. Tank Mixture with AAtrex and Lorox for Control of Lambsquarters and Pigweed

For prolonged control of lambsquarters and pigweed in DE, MD, NJ, NY, PA, VA, and WV, PARALLEL PCS may be applied preemergence in tank mix combination with AAtrex + Lorox. Apply PARALLEL PCS and AAtrex according to the rates in the **PARALLEL PCS + AAtrex or Princep**, **or PARALLEL PCS + AAtrex + Princep**, **Preplant Incorporated or Preemergence - Corn (All Types)** table and Lorox according to the following rates.

SOIL TEXTURE	BROADCAST RATE PER ACRE
Sandy loam (1 - 3% organic matter)	0.67 lb. Lorox
Sandy loam (3 - 6% organic matter)	1.0 lb. Lorox
Medium- and fine-textured soils (1-6% organic matter)	1.0 lb. Lorox

Observe all directions for use, restrictions, precautions, and limitations on the PARALLEL PCS, AAtrex, and Lorox labels when applying these products in tank mix combinations.

5. Tank Mixture with AAtrex or Princep + Prowl for Prolonged Control of Lambsquarters and Pigweed in Field Corn Only (Northeast U.S., including MI, IN, KY, and States East of These)

For prolonged control of lambsquarters and pigweed, in addition to a broad spectrum of annual broadleaf and grass weeds, PARALLEL PCS in tank mix combination with AAtrex\* or Princep + Prowl 4E may be applied after planting, but before corn or weeds emerge. Apply by ground equipment in a minimum of 10 gals. of water or 20 gals. of liquid fertilizer. Apply by air in a minimum of 5 gals. of water. Refer to the **PARALLEL PCS + AAtrex or Princep, or PARALLEL PCS + AAtrex + Princep, Preplant Incorporated or Preemergence - Corn (All Types)** table of this label for rates of PARALLEL PCS, AAtrex, or Princep to be applied. Apply Prowl 4E according to the following rates in the , **Prowl 4E - Broadcast Rates Per Acre** table.

**Restriction**: Do not apply PARALLEL PCS in tank mix combination with AAtrex 80W + Prowl, as this combination is not compatible. Other AAtrex formulations may be used.

**Mixing Instructions:** See Item No. 1 following the **PARALLEL PCS Tank Mixtures for Corn – Additional Weeds Controlled and Special Instructions** chart.

### Prowl 4E - Broadcast Rates Per Acre

	Percent Organic Matter in Soil			
SOIL TEXTURE	Less Than 1.5%	1.5 - 3%	Over 3%	
Coarse	1.5 - 2.0 pts.	2.0 pts.	3.0 pts.	
Medium	2.0 pts.	3.0 pts.	3.0 pts.	
Fine	2.0 pts.	3.0 pts.	3.0 pts.	

Observe all directions for use, restrictions, precautions, and limitations on the respective product labels when applying these products in tank mix combination. Refer to the Prowl 4E label for replanting instructions in the event of crop loss.

6. Tank Mixture with AAtrex\* or Princep, AAtrex + Princep, with Gramoxone Extra, Landmaster BW, or Roundup for Minimum-Tillage or No-Tillage Systems

\*See Comment No. 1 following the **PARALLEL PCS Tank Mixtures for Corn – Additional Weeds Controlled and Special Instructions** chart for special mixing instructions.

In minimum-tillage or no-tillage systems where corn is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, the contact herbicides Gramoxone Extra, Landmaster BW, or Roundup may be added to a tank mix of PARALLEL PCS + AAtrex or Princep, or PARALLEL PCS + AAtrex + Princep. See Comment No. 9 following the **PARALLEL PCS Tank Mixtures for Corn – Additional Weeds Controlled and Special Instructions** chart. The PARALLEL PCS + AAtrex or Princep, or PARALLEL PCS + AAtrex + Princep portion of the tank mixture provides preemergence control of the weeds listed on this label in the tank mixture section for **PARALLEL PCS + AAtrex or Princep**, or **PARALLEL PCS + AAtrex + Princep – Preplant Surface**, **Preplant Incorporated**, or **Preemergence**.

**Application:** Apply before, during, or after planting, but before the corn emerges, at the rates specified below. Add Gramoxone Extra, Landmaster BW, or Roundup at the following broadcast rates:

**Gramoxone Extra:** 1.5 - 2.0, 2.0 - 2.5, or 2.5 - 3.0 pts./A to 1 - 3 inches, 3 - 6 inches, or 6-inch tall weeds, respectively. Apply surfactant at 1 or 2 pts./100 gals. of spray mixture with 75% or greater or 50 - 74% nonionic active ingredient, respectively. This treatment will not control weeds taller than 6 inches.

**Restriction:** Do not apply combinations containing Gramoxone Extra in suspension-type liquid fertilizers, because the activity of paraguat will be reduced.

**Landmaster BW:** 27 - 54 oz./A depending on weed species and size. See the Landmaster BW label for weeds controlled, rates for specific weeds, and other information concerning use.

Roundup: See the Roundup or Roundup RT label for weeds controlled, rates, and other use directions.

Apply in 20 - 60 gals. of water or fluid fertilizer per acre with ground equipment.

On coarse soils, apply 1.0 pts./A of PARALLEL PCS with 1.3 lbs. of AAtrex Nine-O\* or Princep Caliber 90\*, or with 0.7 lb. of AAtrex Nine-O\*\* + 0.7 lb. of Princep Caliber 90\*\*. On *medium soils*, apply 1.33 pts./A of PARALLEL PCS with 1.8 lbs. of Aatrex Nine-O or Princep Caliber 90, or with 0.9 lb. of AAtrex Nine-O + 0.9 lb. of Princep Caliber 90. On *fine soils*\*\*\*\*, apply 1.33 - 1.67 pts./A of PARALLEL PCS with 1.8-2.2 lbs. of AAtrex Nine-O or Princep Caliber 90, or with 0.9 - 1.1 lbs. of Aatrex Nine-O + 0.9 - 1.1 lbs. of Princep Caliber 90.

\*Use Princep in preference to AAtrex when heavy infestations of crabgrass or fall panicum are expected.

\*\*When using the tank mixture of PARALLEL PCS + AAtrex Nine-O + Princep Caliber 90, use equal rates of AAtrex and Princep as shown when heavy broadleaf weed infestations are expected. When heavy infestations of crabgrass or fall panicum are expected, use a 1:2 ratio of AAtrex + Princep instead of the 1:1 ratio given. (*Example*: Total AAtrex Nine-O + Princep Caliber 90 = 1.8 lbs./A, use 0.6 lb. of AAtrex + 1.2 lbs. of Princep, respectively.) Refer to Comment No. 2 following the **PARALLEL PCS Tank Mixtures for Corn – Additional Weeds Controlled and Special Instructions** chart for AAtrex 4L and Princep 4L conversions.

\*\*\*For cocklebur, yellow nutsedge, and velvetleaf control on *fine-textured soils* above 3% organic matter, apply 2.25 lbs./A of AAtrex Nine-O, or equivalent rate of AAtrex 4L, or the same total amount of AAtrex + Princep, with 1.33 - 1.67 pts./A of PARALLEL PCS.

## 7. Tank Mixture with AAtrex; or AAtrex + 2,4-D; or AAtrex + 2,4-D + Banvel for Minimum-Tillage or No-Tillage Systems

In minimum-tillage or no-tillage systems where corn is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, PARALLEL PCS applied in combination with AAtrex will kill most emerged small annual weeds. Apply PARALLEL PCS + AAtrex before, during, or after planting, but before corn emerges, according to the rates in the PARALLEL PCS + AAtrex or Princep, or PARALLEL PCS + AAtrex + Princep, Preplant Incorporated or Preemergence - Corn (All Types) table.

Where heavy crop residues exist, add 0.8 - 1.6 pts./A of an appropriately labeled 3.8 lbs. a.i./gal. 2,4-D amine (such as Weedar 64, Weedar 64A, DMA-4 Herbicide, or Formula 40) to the spray tank last and apply in a minimum of 25 gals. of carrier per acre.

As carriers, nitrogen solutions and complete liquid fertilizers, applied before corn emergence, enhance burndown of existing weeds, and therefore, are recommended instead of water. Add X-77 surfactant at 1.0 - 2.0 qts./100 gals. of diluted spray, or another appropriate surfactant at its labeled rate, or add crop oil concentrate plus 28% liquid nitrogen (or equivalent). Apply before weeds exceed 3 inches in height. If alfalfa is present, add Banvel to the spray mixture at 0.33 - 0.5 pt./A and apply before alfalfa exceeds 6 inches in height.

For fields with existing sod grasses (e.g., bromegrass, orchardgrass, rye, or timothy), when existing weeds exceed 3 inches in height or when very dry conditions exist, add Gramoxone Extra at the rate of 1.67 pts./A in place of or in addition to 2,4-D, as indicated above. Do not apply Gramoxone Extra in suspension-type liquid fertilizer. Observe all directions for use, restrictions, precautions, and limitations on the respective product labels when applying these products in tank mix combination.

## 8. Tank Mixture with Marksman in Conservation Tillage - Field and Silage Corn

In conservation tillage systems where corn is planted directly into a cover crop or previous crop residue, PARALLEL PCS + Marksman will kill most emerged small annual weeds. Apply PARALLEL PCS + Marksman before, during, or after planting, but before corn emergence on *medium* and *fine soils* with greater than 2.5% organic matter. For fields with existing vegetation exceeding 3 inches in height or when very dry conditions exist, add Gramoxone Extra at its standard rate. PARALLEL PCS + Marksman may be applied postemergence to corn less than 3 inches tall and before weedy grasses exceed the 2-leaf stage.

As carriers, nitrogen solutions and complete liquid fertilizers, applied before corn emergence, enhance burndown of existing weeds.

Restriction: Do not apply Gramoxone Extra in suspension-type liquid fertilizer or use on emerged corn.

Refer to the Marksman label and follow all directions, limitations, restrictions, precautions, and information regarding application and use in corn.

#### 9. Tank Mixture with Broadstrike® + PARALLEL PCS

For preplant surface, preplant incorporated, or preemergence application where severe grass populations are expected on medium- or fine-textured soils with relatively high organic matter content, Broadstrike + PARALLEL PCS may be spiked with PARALLEL PCS for optimum performance. Refer to the Broadstrike + PARALLEL PCS label for its use rate and the amount of metolachlor active ingredient it contains. PARALLEL PCS may be added up to, but not to exceed, the maximum alone PARALLEL PCS label rate for the soil classification. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

## **COTTON**

#### PARALLEL PCS ALONE

1. Application: Apply PARALLEL PCS preemergence only in Area 1\* at the rate of 0.75-1.0 pt./A on sandy loams, 1.0-1.33 pts./A on medium soils, or 1.0-1.33 pts./A on fine soils. Apply PARALLEL PCS preplant incorporated or preemergence in Area 2\*\* at 1.0 pt./A on sandy loams, 1.0-1.33 pts./A on medium soils, or 1.33 pts./A on fine soils. Apply PARALLEL PCS postemergence to cotton and preemergence to weeds at 0.75-1.33 pts./A, according to the state rate limitations in the following **Postemergence** section.

**Restriction:** Do not use on sands and loamy sand.

\*Area 1 = AR, LA, MS, TN, and Bootheel of MO

\*\*Area 2 = NM, OK, and TX

2. Preplant Incorporated (NM, OK, and TX Only): Apply to the soil and incorporate into the top inch of soil immediately before planting, at planting, or after planting but before crop or weeds emerge. Use a rolling cultivator or similar implement to uniformly incorporate not more than 1 inch deep. Use a preplant incorporated application if furrow irrigation is used or when a period of dry weather after application is expected. Where furrow irrigation is used, wet the top of the bed for best results. If the crop is to be planted on beds, apply and incorporate after bed formation. Cotton should be planted below the zone of incorporation; i.e., at least 1 inch on fine soils and 1.5 inches on coarse and medium soils. If incorporated prior to planting, use a planter that will result in a minimum of soil disturbance.

**Note:** For best control of yellow nutsedge and suppression of seedling johnsongrass, apply PARALLEL PCS preplant incorporated at the maximum rate for the soil texture, whether applied alone or mixed with Caparol 4L.

- 3. Preemergence: Apply to the soil surface at planting or after planting but before weeds or crop emerge.
- 4. Postemergence: Apply PARALLEL PCS broadcast over-the-top or directed to the soil surface, according to the rate and cotton height limitations listed below by state. Application before weeds emerge or after clean cultivation to remove existing weeds is necessary since PARALLEL PCS will not control emerged weeds. PARALLEL PCS postemergence may be applied over any previous registered herbicide treatment. In sprinkler-irrigated areas, sprinkler-irrigate after application with ½-1 inch of water (½ inch on coarse-textured soils to 1 inch on fine-textured soils) to incorporate PARALLEL PCS. In furrow-irrigated areas, apply PARALLEL PCS, incorporate with a rolling cultivator or similar implement that provides uniform shallow incorporation (2 inches or less), and then irrigate. In non-irrigated areas, if at least ½ inch of rainfall does not occur within 10 days after application, cultivate with a rolling cultivator or similar implement that provides uniform shallow incorporation of PARALLEL PCS.

VA, NC, SC, GA, FL, and AL: Apply PARALLEL PCS at 1.0-1.33 pts./A when cotton is 3-6 inches tall.

TN, AR, MS, MO, and LA: Apply PARALLEL PCS at 0.75-1.33 pts./A when cotton is 3-12 inches tall.

**TX**, **OK**, **NM**, **AZ**, **CA**, and **Clay Soils in AR**: Apply PARALLEL PCS at 1.0-1.33 pts./A when cotton is 3-12 inches tall but before August 1.

5. Multiple Applications: Where weed pressure is heavy, difficult to control species are expected, or reinfestation may occur, and a weed control program is used, multiple applications of PARALLEL PCS are effective when used as part of the weed control program. Apply as a preplant incorporated or preemergence treatment and follow with an application postemergence to cotton before weeds emerge or after clean cultivation to remove existing weeds, since PARALLEL PCS will not control emerged weeds. Cotton should be at least 3 inches tall at the postemergence timing. Apply PARALLEL PCS postemergence over a previous preplant or preemergence PARALLEL PCS application as shown in the following table.

STATE	Multiple PARALLEL PCS Applications to Cotton			
	Preplant Incorporated or Preemergence Pts. / A	+	Postemergence and Height Pts. / A	
MS, LA, TN, AR, MO	0.75-1.33 (Preemergence Only)	+	0.75-1.33 to 3-12" Cotton	
TX, OK, NM	1.0-1.33	+	1.0-1.33 to 3-12" Cotton before August 1	
NC, VA	1.0-1.33 (Preemergence Only)	+	1.0-1.33 to 3-12" Cotton	

In sprinkler-irrigated areas, sprinkler irrigate after application with  $\frac{1}{2}$ -1 inch of water ( $\frac{1}{2}$  inch on coarse-textured soils to 1 inch on fine-textured soils) to incorporate PARALLEL PCS. In furrow-irrigated areas, apply PARALLEL PCS, incorporate with a rolling cultivator or similar implement that provides uniform shallow incorporation (2 inches or less), and then irrigate. In non-irrigated areas, if at least  $\frac{1}{2}$  inch of rainfall does not occur within 10 days after application, cultivate with a rolling cultivator or similar implement that provides uniform shallow incorporation of PARALLEL PCS.

**Note:** For best control of yellow nutsedge and suppression of seedling johnsongrass, apply PARALLEL PCS preplant incorporated, preemergence, or postemergence to cotton and preemergence to weeds at the maximum rate for the soil texture, whether applied alone or in combinations. Do not apply more than a total of 2.0 pts./A on coarse soils or 4 pts./A of PARALLEL PCS on medium and fine soils during a growing season. These treatments may be applied over previous registered herbicide treatments.

**Precautions**: (1) To avoid crop injury, do not apply PARALLEL PCS on sand or loamy sand soils, or in areas where water is likely to "pond" over the bed; (2) To avoid concentration in the seed furrow, do not make broadcast applications of PARALLEL PCS to cotton planted in furrows more than 2 inches deep. Band applications may be made to cotton planted in furrows deeper than 2 inches, but band width should not exceed the width of the bottom of the furrow; (3) In furrow-planted cotton, to avoid concentration in the furrow and potential injury, do not apply PARALLEL PCS postemergence until after first "knifing" or cultivation to level soil surface. (4) To avoid injury, do not apply over-the-top in fluid fertilizer or any other adjuvant, surfactant, oil, or other pesticide not listed in the cotton section of this label.

## **Restrictions:**

- Do not graze or feed forage or fodder from cotton to livestock or illegal residues may result.
- Do not apply on Taloka silt loam.
- Do not use in Gaines County, TX.

## PARALLEL PCS COMBINATIONS

## 1. Tank Mixture with Caparol 4L

PARALLEL PCS tank mixtures with Caparol 4L may be applied preplant incorporated or preemergence in water or fluid fertilizer. When fluid fertilizer is used as a carrier for PARALLEL PCS, either alone or in combination with Caparol 4L, mix only the amount that will be sprayed in one operation. Do not allow mixtures to stand without agitation. Only water may be used as a carrier for postemergence directed application.

In addition to those weeds controlled by PARALLEL PCS alone, PARALLEL PCS + Caparol 4L, applied preplant incorporated or preemergence, also controls the following weeds: junglerice, wild oats, annual morningglory, groundcherry, hairy night shade, lambsquarters, malva, mustard, prickly sida (teaweed), purslane, ragweed, and shallow-germinating seedlings of cocklebur and coffeeweed. As a postemergence directed application, Caparol provides postemergence control and residual control of weeds on its label, while PARALLEL PCS provides residual control of weed species on its label. PARALLEL PCS will not control emerged weeds.

**Preplant Incorporated or Preemergence:** Apply PARALLEL PCS + Caparol 4L, either preplant incorporated or preemergence, using the appropriate rate from the **PARALLEL PCS + Caparol 4L – Cotton (NM, OK, TX)** table. Cotton should be planted below the zone of incorporation; i.e., at least 1.0 inch on fine soils and 1.5 inches on coarse and medium soils. If incorporated before planting, use a planter that will result in a minimum of soil disturbance.

PARALLEL PCS + Caparol 4L - Cotton (NM, OK, TX)

USE AREAS	SOIL TEXTURE	BROADCAST RATES PER ACRE		
		PARALLEL PCS	CAPAROL 4L	
ALL	Sand, loamy sand	DO NOT USE		
OK, and Blacklands and	Loams	0.85-1.33 pts.	2.4 pts.	
Gulf Coast of TX	Clays	1.33 pts.	4.8 pts.	
Rio Grande Valley of TX	Loams	0.85-1.33 pts.	3.2 pts.	
-	Clays	1.33 pts.	4.8 pts.	
NM; High Plains, Rolling	Sandy loam	0.85-1.0 pt.	1.6 pts.	
Plains, Edwards Plateau	Loams	0.85-1.33 pts.	2.4 pts.	
of TX; and Southwest TX	Sandy clay loams	1.33 pts.	2.4 pts.	
	Other clay soils	1.33 pts.	3.2 pts.	

Postemergence-Directed (AR, AZ, CA, LA, MS, NM, OK, TN, TX, and MO): PARALLEL PCS may be tank mixed with Caparol 4L in water and applied postemergence directed in cotton for control of emerged weeds listed on the Caparol 4L label and residual preemergence control of weeds controlled by PARALLEL PCS and Caparol 4L or application may be made after cultivation for residual preemergence control. These treatments may be applied over previous registered treatments, including PARALLEL PCS, provided the maximum label rate of any product is not exceeded. Do not apply over-the-top of cotton or injury may occur.

Apply PARALLEL PCS + Caparol 4L in a minimum of 20 gals. of spray volume per acre. Follow the directions, limitations, restrictions and precautions on the Caparol 4L label when Caparol is applied as a postemergence-directed application. Refer to the directions, limitations, and precautions for use of PARALLEL PCS under the **Cotton-PARALLEL PCS Alone-Postemergence** section.

**Precautions**: (1) To avoid concentration in the seed furrow, do not make broadcast applications of PARALLEL PCS + Caparol 4L to cotton planted in furrows more than 2 inches deep. Band applications may be made to cotton planted in furrows deeper than 2 inches, but band width should not exceed the width of the bottom of the furrow. (2) To avoid crop injury, do not apply on sand or loamy sand soils, or in areas where water is likely to "pond" over the bed.

#### Restrictions:

- Do not graze or feed forage or fodder from cotton to livestock or illegal residues may result.
- Do not apply to glandless cotton varieties
- Do not apply on Taloka silt loam.
- Do not use in Gaines County, TX.
- Do not apply in cut areas of newly leveled fields, or in areas of excess salt.

Refer to the Caparol 4L label for further instructions and limitations.

## 2. Tank Mixture with Cotoran DF

PARALLEL PCS may be applied in tank mixture with Cotoran DF preemergence for control of those weeds controlled by PARALLEL PCS alone and those as listed on the Cotoran DF label. This combination will also control spotted spurge, hyssop spurge, nodding spurge, and prostrate spurge. Apply to the soil surface at planting or after planting but before weeds or crop emerge, using the appropriate rates from the **PARALLEL PCS + Cotoran DF-Cotton** table. The tank mixture may be applied postemergence to cotton but preemergence to weeds, or it may be applied postemergence to both cotton and broadleaf weeds for control of weeds on the Cotoran label. Apply as a directed, semi-directed, or over-the-top spray. PARALLEL PCS will not control emerged weeds but will provide preemergence control of species on its label.

Mixing Instructions: Incompatibility may occur when tank mixing PARALLEL PCS and Cotoran DF. To help

overcome this condition, fill the spray tank ¼ full with water or fluid fertilizer and start agitation, add the Cotoran DF and allow it to become dispersed. Add X-77 at 0.5% volume/volume final spray (4 pts./100 gals.), then add the PARALLEL PCS, and finally the rest of the water or fluid fertilizer. Agitate during mixing and application to maintain a uniform suspension.

**Restriction:** Do not use fluid fertilizer as a carrier for postemergence applications.

#### PARALLEL PCS + Cotoran DF-Cotton

SOIL TEXTURE	BROADCAST RATES PER ACRE			
	PARALLEL PCS (PTS.)		COTORAN DF*** (LBS.)	
	AREA 1* AREA 2**			
Sand, loamy sand	DO NOT USE			
Sandy Ioam	0.75-1.0 0.85-1.0 1.2			
Loam, silt, silt loam	1.0-1.33 1.0-1.33 1.2-1.9			
Fine soil	1.0-1.33	1.33	1.9-2.4	

<sup>\*</sup>Area 1 = AR, LA, MS, Bootheel of MO, and TN

**Postemergence:** This tank mixture may be applied postemergence to cotton but preemergence to weeds or postemergence to both cotton and weeds for control of weeds on the Cotoran label. Apply as a directed, semi-directed, or over-the-top spray. PARALLEL PCS will not control emerged weeds but will provide preemergence control of species on its label. Apply when cotton is in the 3- to 12-inch stage. Where rate ranges are given for Cotoran DF, use the higher rate when applying postemergence to weeds that are 2 inches or less. These treatments may be applied over previous registered treatments, including PARALLEL PCS, provided the maximum label rate of any product is not exceeded.

**Precautions:** (1) The use of Cotoran following the use of a systemic insecticide at planting may result in crop injury. (2) To avoid crop injury, do not apply PARALLEL PCS + Cotoran on sand or loamy sand soils, or in areas where water is likely to "pond" over the bed. (3) To avoid concentration in the seed furrow, do not make broadcast applications of PARALLEL PCS + Cotoran to cotton planted in furrows more than 2 inches deep. Band applications may be made to cotton planted in furrows deeper than 2 inches, but band width should not exceed the width of the bottom of the furrow. (4) To avoid crop injury, do not use on Taloka silt loam.

## **Restrictions:**

- To avoid possible illegal residues, do not feed treated forage or gin trash to livestock or graze treated areas.
- Do not use in Gaines County, TX.

Refer to the Cotoran labels for further instructions, restrictions, precautions, and limitations.

## 3. Tank Mixture of PARALLEL PCS or PARALLEL PCS + Cotoran with Gramoxone Extra or Roundup for Minimum-Tillage or No-Tillage Systems

In minimum-tillage or no-tillage systems where cotton is planted directly into a cover crop, stale seedbed, or previous crop residues, the contact herbicides Gramoxone Extra or Roundup may be added to a tank mix of either PARALLEL PCS or PARALLEL PCS + Cotoran. When used as directed, the Gramoxone Extra portion of the tank mixture controls most emerged weeds and suppresses many perennial weeds. Roundup combinations will control emerged annual and perennial weeds when applied as directed on the Roundup label. The PARALLEL PCS and PARALLEL PCS + Cotoran portion of the tank mixture provides preemergence control of the weeds listed on this label in the PARALLEL PCS and PARALLEL PCS + Cotoran sections, respectively.

Refer to the label of each product used in combination and observe the planting details, information regarding application, geographical restrictions, and all other precautions and limitations. Refer to **Mixing Instructions** under the **Tank Mixture with Cotoran DF** section.

**Application:** Apply before, during, or after planting, but before the cotton emerges, at the rates specified below. Apply PARALLEL PCS at 0.85-1.0 pts./A on sandy loams, medium-, and fine-textured soils. Refer to the **PARALLEL PCS + Cotoran DF-Cotton** table for the Cotoran DF rates.

<sup>\*\*</sup>Area 2 = Eastern OK, Gulf Coast, Rio Grande Valley, and Eastern TX

<sup>\*\*\*</sup>When using Cotoran 4L, use equivalent rates. Multiply lbs. of Cotoran DF by 1.7 to get pts. of Cotoran 4L.

Add Gramoxone Extra or Roundup at the following broadcast rates:

**Gramoxone Extra:** 1.5-2.0, 2.0-2.5, or 2.5-3.0 pts./A to 1-3 inches, 3-6 inches, or 6-inch tall weeds, respectively. Apply surfactant at 1 or 2 pts./100 gals. of spray mixture with 75% or greater or 50-74% nonionic active ingredient, respectively. This treatment will not control weeds taller than 6 inches.

**Restriction:** Do not apply combinations containing Gramoxone Extra in suspension-type liquid fertilizers as the activity of paraquat will be reduced.

Roundup: See the Roundup label for weeds controlled, rates, and other use directions.

**Precaution**: If heavy rain occurs soon after application, crop injury may result, especially in poorly drained areas where water stands for several days, or where the seeding slit has not been properly closed.

#### Restrictions:

- Do not apply PARALLEL PCS + Cotoran 4L + Roundup in tank mixture because of compatibility problems.
- Do not use in Gaines County, TX.

Apply in 20-60 gals. of water or fluid fertilizer per acre with ground equipment.

## 4. Tank Mixture with MSMA, MSMA + Caparol, or MSMA + Cotoran

PARALLEL PCS may be tank mixed with MSMA in water and applied postemergence directed for control of emerged weeds listed on the MSMA product label and residual preemergence control of weeds controlled by PARALLEL PCS. The addition of Caparol or Cotoran will add control of weed species on their respective labels.

Postemergence-Directed (AR, AZ, CA, LA, MS, NM, OK, TN, TX, and Bootheel of MO): Apply PARALLEL PCS + MSMA postemergence-directed to 3- to 12-inch cotton according to the directions, limitations, restrictions and precautions on the MSMA product label, as well as the directions, limitations, and precautions for use of PARALLEL PCS in the section for Cotton-PARALLEL PCS Alone-Postemergence. These treatments may be applied over previous registered treatments, including PARALLEL PCS, provided the maximum label rate of any product is not exceeded. Cotoran or Caparol may be added to the PARALLEL PCS + MSMA tank mixture according to the respective label directions for application to 3- to 12-inch cotton. When these mixtures are used, follow the mixing instructions for PARALLEL PCS + Caparol or Cotoran and then add the MSMA product.

## Restrictions:

- Do not use PARALLEL PCS in tank mix with premixes of MSMA plus herbicides other than those registered for use in tank mixture with PARALLEL PCS on cotton.
- Do not apply after first cotton bloom.

## **PEANUTS**

#### PARALLEL PCS ALONE

Apply PARALLEL PCS, either preplant incorporated, postplant incorporated, preemergence, or lay-by, using the appropriate rate specified below. **Preplant Incorporated or Preemergence:** Follow instructions for use of PARALLEL PCS alone under **Application Procedures. Postplant Incorporated:** Apply and shallowly incorporate PARALLEL PCS into the soil after planting but before peanut germination. Incorporation depth and incorporating implements must be kept above the seed or seed will be damaged. **Lay-by:** Apply PARALLEL PCS to the soil immediately after the last normal cultivation.

Apply PARALLEL PCS alone, preplant incorporated, postplant incorporated, preemergence, or lay-by, at a broadcast rate of 1.0-1.33 pts./A in the Southeast\* and 0.85-1.33 pts./A in NM, OK, and TX.

\*In the Southeast, use 1.33-2.0 pts./A and apply preemergence for partial control of Florida beggarweed.

**Note:** PARALLEL PCS alone may be applied as directed after any of the following preplant incorporated herbicides when used according to their label recommendations: Balan at 3-4 qts./A; Treflan E.C. at 1 pt./A; Vernam® at 2.33-3 pts./A; Sonalan at 1.25-3 pts./A; Pursuit at 0.25 pt./A; or Prowl at 1-2 pts./A.

## Restrictions:

- Do not graze or feed peanut forage or fodder to livestock for 30 days following application.
- Do not apply within 90 days of harvest or illegal residues may result.

#### PARALLEL PCS COMBINATIONS

## 1. Tank Mixture with Balan L.C.

PARALLEL PCS + Balan tank mixture applied preplant incorporated controls those weeds listed under **PARALLEL PCS Applied Alone** and those weeds as listed on the Balan label.

Apply 1.0-1.33 pts./A of PARALLEL PCS + 3-4 qts./A of Balan in a minimum of 10 gals. of spray volume per acre for ground application or in a minimum of 5.0 gals. of spray volume per acre for aerial application. Follow the procedures for Balan on the Balan label for soil preparation and incorporation of this tank mix. Apply and incorporate PARALLEL PCS + Balan up to 14 days prior to planting.

Note: Follow all restrictions and precautions on the Balan label.

## 2. Multiple Applications

Where weed pressure is heavy or where species difficult to control are expected, PARALLEL PCS is most effective when used as follows:

## a. Southeast Only (AL, FL, GA, NC, SC, VA)

**1st Application:** Apply PARALLEL PCS preplant incorporated as directed under **Peanuts-PARALLEL PCS Alone** or apply PARALLEL PCS + Balan preplant incorporated as directed previously in this section. Refer to the respective section for weeds controlled.

**2nd Application:** Apply PARALLEL PCS any time from preemergence up to "ground cracking" at 1.0-2.0 pts./A for extended control of weeds not yet emerged. Refer to the **PARALLEL PCS Applied Alone** section for a list of weeds controlled.

**3rd Application:** Apply PARALLEL PCS at lay-by as directed under **Peanuts-PARALLEL PCS Alone**. Use only when late germinating weeds are expected to be a problem. Refer to the **PARALLEL PCS Applied Alone** section for a list of weeds controlled.

#### **Restrictions:**

- Do not graze or feed peanut forage or fodder to livestock for 30 days following application.
- Do not apply within 90 days of harvest or illegal residues may result.
- Do not apply more than the equivalent of 2.66 pts. of PARALLEL PCS per acre during any one year or illegal residues may result. This includes Parallel and parallel PCS, but do not use PARALLEL after peanuts have emerged.

## b. Southwest Only (NM, OK, TX)

**1st Application:** Apply PARALLEL PCS preplant incorporated or preemergence or at-cracking as directed previously in this section. Refer to the respective section for weeds controlled.

**2nd Application:** Apply PARALLEL PCS at lay-by as directed under **Peanuts-PARALLEL PCS Alone** on this label. Use only when late germinating weeds are expected to be a problem. Refer to the **PARALLEL PCS Applied Alone** section for a list of weeds controlled.

### **Restrictions:**

- Do not graze or feed peanut forage or fodder to livestock for 30 days following application.
- Do not apply within 90 days of harvest or illegal residues may result.
- Do not apply more than the equivalent of 2.67 pts. of PARALLEL PCS per acre during any one year or illegal residues may result; this includes PARALLEL or PARALLEL PCS.
- Do not use PARALLEL after peanuts have emerged.

## 3. Tank Mixture or Sequentially with Pursuit

The tank mixture or sequential treatment of PARALLEL PCS and Pursuit controls all weeds controlled by PARALLEL PCS alone and by Pursuit alone. Refer to the **PARALLEL PCS Applied Alone** section for weeds

controlled by PARALLEL PCS and to the Pursuit label for weeds controlled by Pursuit. Refer to the respective labels for application methods, timing, rates, restrictions, and precautions; and use in accordance with the more restrictive label. PARALLEL PCS will not control emerged weeds.

**Restriction:** Do not exceed the label rate of either product.

#### 4. Tank Mixture with Sonalan

The tank mixture controls all weeds controlled by PARALLEL PCS alone and by Sonalan alone. Refer to the **PARALLEL PCS Applied Alone** section for weeds controlled by PARALLEL PCS and to the Sonalan label for weeds controlled by Sonalan.

Apply PARALLEL PCS + Sonalan preplant incorporated, using the appropriate rate from the **PARALLEL PCS + Sonalan-Peanuts PARALLEL PCS + Sonalan-Peanuts** table. Follow soil preparation procedures for Sonalan. Refer to the Peanut Sonalan/PARALLEL PCS Tank Mixture label for incorporation specifications.

#### PARALLEL PCS + Sonalan-Peanuts

SOIL TEXTURE	Broadcast Rates Per Acre				
	Sout	theast	NM, C	NM, OK, TX	
	PARALLEL PCS	Sonalan	PARALLEL PCS	Sonalan	
COARSE	1.0 - 1.33 pts.	1.25 - 2 pts.	0.85 - 1.33 pts.	1.25 - 2 pts.	
MEDIUM	1.0 - 1.33 pts.	1.75 - 2.50 pts.	0.85 - 1.33 pts.	1.75 - 2.50 pts.	
FINE	1.0 - 1.33 pts.	2.25 - 3 pts.	0.85 - 1.33 pts.	2.25 - 3 pts.	

**Note:** Follow all use directions, limitations, restrictions, precautions, and information regarding application to peanuts on the PARALLEL PCS and Sonalan labels.

#### 5. Tank Mixture with Prowl

PARALLEL PCS + Prowl applied preplant incorporated controls all weeds controlled by PARALLEL PCS alone plus Texas panicum, field sandbur, johnsongrass from seed, lambsquarters, kochia, annual spurge, and other species on the Prowl label. Apply PARALLEL PCS + Prowl by ground or by aerial equipment within 14 days before planting. Incorporate into the top 1-2 inches of soil before planting and within 7 days of application, using a finishing disk or similar implement capable of providing uniform incorporation. If peanuts will be planted on beds, apply and incorporate after bed formation. Refer to the **Incorporation** instructions of the respective labels for additional directions.

Apply PARALLEL PCS + Prowl preplant incorporated using the appropriate rates from the **PARALLEL PCS + Prowl-Peanuts** table.

## **PARALLEL PCS + Prowl-Peanuts**

SOIL TEXTURE	BROADCAST RATES PER ACRE		
	NM, OK, TX	OTHER PEANUT GROWING STATES	
	PARALLEL PCS + PROWL	PARALLEL PCS + PROWL	
Sand, loamy sand	0.85 + 1.0 - 1.5 pts.	1.0 - 1.33 + 1.5 – 2.0 pts.	
Sandy loam	0.85 - 1.0 + 1.0 - 1.5 pts.	1.0 - 1.33 + 1.5 – 2.0 pts.	
Fine soil	1.33 + 1.0 - 1.5 pts.	1.33 + 1.5 – 2.0 pts.	

**Note:** Follow all use directions, limitations, restrictions, precautions, and information regarding application to peanuts on the PARALLEL PCS and Prowl labels.

## 6. Tank Mixture or Sequentially with Starfire

PARALLEL PCS + Starfire applied at ground cracking or sequentially will control or suppress small (1-6 inch) emerged annual grass and broadleaf weeds and provide residual control of weed species listed in the **PARALLEL PCS Applied Alone** section of this label. Apply 11 fl. oz./A of Starfire with the appropriate PARALLEL PCS rate

from the **Peanuts-PARALLEL PCS Alone** section in a minimum spray volume of 20 gals./A with ground equipment. A second application of PARALLEL PCS + Starfire may be made 28 days after ground cracking. (Refer to the **Peanuts-PARALLEL PCS Combinations-Multiple Applications** section of this label for geographical areas where multiple applications are indicated.) A second Starfire application may be made in all peanut growing areas if needed. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

## 7. Tank Mixture or Sequentially with Starfire + Basagran

The addition of Basagran to the PARALLEL PCS + Starfire mixture will result in improved control of such problem broadleaf weeds as prickly sida, cocklebur, smartweed, and bristly starbur. PARALLEL PCS + Starfire + Basagran applied at ground cracking or sequentially will control or suppress small (1-6 inch) emerged annual grass and broadleaf weeds and provide residual control of weed species listed in the **PARALLEL PCS Applied Alone** section of this label. Apply 1 pt./A of Basagran + 11 fl. oz./A of Starfire with the appropriate PARALLEL PCS rate from the **Peanuts-PARALLEL PCS Alone** section in a minimum spray volume of 20 gals./A with ground equipment. A second application of PARALLEL PCS + Starfire + Basagran may be made 28 days after ground cracking. (Refer to the **Peanuts-PARALLEL PCS Combinations-Multiple Applications** section of this label for geographical areas where multiple applications are indicated.) A second Starfire + Basagran application may be made in all peanut growing areas, if needed. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

## 8. Tank Mixture or Sequentially with Starfire + Butyrac 200 or Butoxone 200

The addition of Butyrac 200 or Butoxone 200 to the PARALLEL PCS + Starfire mixture will result in improved control of such problem broadleaf weeds as sicklepod, morningglory, and cocklebur. PARALLEL PCS + Starfire + Butyrac 200 or Butoxone 200 applied at ground cracking or sequentially will control or suppress small (1-6 inch) emerged annual grass and broadleaf weeds and provide residual control of weed species listed in the **PARALLEL PCS Applied Alone** section of this label. Apply 11 fl. oz./A of Starfire + 8-16 fl. oz./A (0.125-0.25 lb./A) of Butyrac 200 or Butoxone 200 with the appropriate PARALLEL PCS rate from the **Peanuts-PARALLEL PCS Alone** section in a minimum spray volume of 20 gals./A with ground equipment. A second application of PARALLEL PCS + Starfire + Butyrac 200 or Butoxone 200 may be made 28 days after ground cracking. (Refer to the **Peanuts-PARALLEL PCS Combinations-Multiple Applications** section of this label for geographical areas where multiple applications are indicated.) A second Starfire + Butyrac 200 or Butoxone 200 application may be made in all peanut growing areas if needed. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

## 9. Tank Mixture or Sequentially with Basagran

PARALLEL PCS + Basagran applied at ground cracking or sequentially will control species on the Basagran label and provide residual control of species listed in the **PARALLEL PCS Applied Alone** section of this label. Apply 1-2 pts./A of Basagran in 20 gals./A, depending on weed species and stage of growth as specified on the Basagran label, with the appropriate PARALLEL PCS rate from the **Peanuts-PARALLEL PCS Alone** section. A second application of the combination may be made before peanut pegging. (Refer to the **Peanuts-PARALLEL PCS Combinations-Multiple Applications** section of this label for geographical areas where multiple applications are indicated.) A second Basagran application may be made in all peanut growing areas if needed. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

## 10. Tank Mixture or Sequentially with Basagran + Butyrac 200 or Butoxone 200

PARALLEL PCS + Basagran + Butyrac 200 or Butoxone 200 applied at ground cracking or sequentially will control species on the Basagran label and on the Butyrac or Butoxone labels, especially morningglories. Apply 1.5-2 pts./A of Basagran + 8 fl. oz./A of Butyrac 200 or Butoxone 200 in 20 gals./A, depending on weed species and stage of growth as specified on the Basagran label, with the appropriate PARALLEL PCS rate from the **Peanuts-PARALLEL PCS Alone** section. A second application of the combination may be made before peanut pegging. (Refer to the **Peanuts-PARALLEL PCS Combinations-Multiple Applications** section of this label for geographical areas where multiple applications are indicated.) A second Basagran + Butyrac 200 or Butoxone 200 application may be made in all peanut growing areas, if needed. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

### 11. Tank Mixture or Sequentially with Storm®

PARALLEL PCS + Storm applied at ground cracking through 2 expanded tetrafoliate leaves or PARALLEL PCS applied according to the directions for **PARALLEL PCS Alone** and followed with an at-cracking through

postemergence treatment of Storm as specified on its label will control species on the Storm label and provide residual control of species listed in the **PARALLEL PCS Applied Alone** section of this label. PARALLEL PCS will not control emerged weeds. Refer to the **Peanuts-PARALLEL PCS Alone** section and to the Storm label and follow all directions, limitations, and restrictions for each product.

#### **POD CROPS**

Pod crops, including garbanzo, great northern beans, kidney beans, lima beans, mung beans, navy beans, peas (English\*; southern peas, such as blackeye, pinkeye, crowder, etc.), pinto beans, snap beans (green, wax, string), lentils, and lupines (sweet, white, white sweet, and grain).

#### PARALLEL PCS ALONE

Apply PARALLEL PCS, either preplant incorporated or preemergence, using the appropriate rate specified below. **Preplant Incorporated or Preemergence:** Follow instructions for use of PARALLEL PCS alone under **Application Procedures**. On coarse soils with less than 3% organic matter, apply 1.0-1.33 pts./A of PARALLEL PCS or 1.33 pts./A if organic matter is 3% or greater. On medium soils, apply 1.33-1.67 pts./A of PARALLEL PCS. On fine soils, apply 1.33 - 1.67 pts./A of PARALLEL PCS if organic matter content is less than 3%, or 1.67-2 pts./A if organic matter content is 3% or greater.

Precaution: Do not use on English peas in northeastern U.S. or injury may occur.

#### Restrictions:

- Do not cut for hay within 120 days following an PARALLEL PCS application or illegal residues may result.
- Do not apply more than 3.0 pts/A (3 lb Al/A metolachlor) of Parallel PCS during any one crop year.
- On English peas, use only preemergence applications.

#### PARALLEL PCS COMBINATIONS

**Restriction:** When applying PARALLEL PCS in combination on pod crops, do not cut for hay within 120 days following application or illegal residues may result.

## 1. Tank Mixture and Sequential Applications with Eptam-Beans (Green or Dry)

This mixture controls all weeds controlled by PARALLEL PCS alone and by Eptam alone. Refer to the **PARALLEL PCS Applied Alone** section of this label for weeds controlled by PARALLEL PCS alone and to the Eptam label for weeds controlled by Eptam.

**Preplant Incorporated:** Follow instructions for use of PARALLEL PCS alone under **Application Procedures. Sequential:** Apply Eptam alone preplant incorporated as specified on that label. Follow with a preemergence application of PARALLEL PCS at rates specified for PARALLEL PCS alone, during planting (behind the planter), or after planting but before the weeds or crop emerge.

Refer to the **Product Information** section of this label and to the Eptam label for weather, cultural practices, and all other restrictions, precautions and limitations that affect performance of these products.

Apply 2.5-4.5 pts./A of Eptam 7E\* with PARALLEL PCS as specified. On coarse soils, apply 0.85 pt./A of PARALLEL PCS if organic matter content is less than 3% or 1.0 pt./A if organic matter content is 3% or greater. On medium soils, apply 1.0 pt./A of PARALLEL PCS if organic matter content is less than 3%, or 1.33 pts./A if organic matter content is 3% or greater. On fine soils, apply 1.33 pts./A of PARALLEL PCS if organic matter is less than 3%, or 1.33-1.67 pts./A if organic matter is 3% or greater.

\*Refer to the Eptam label for rate limitations depending on geographical area and for species and varietal restrictions.

**Restriction**: Do not exceed 3.5 pts./A of Eptam 7E on small white beans or green beans grown on coarse-textured soils.

## 2. Tank Mixture with Treflan-Beans (Dry-Kidney, Navy, Pinto, etc.; Lima; and Snap)

PARALLEL PCS + Treflan tank mix applied preplant incorporated controls those weeds listed under **PARALLEL PCS Applied Alone** and those weeds listed for Treflan alone on the Treflan label. PARALLEL PCS + Treflan may be applied by ground or by aerial equipment and incorporated up to 14 days prior to planting. Follow the procedures on this label and on the respective Treflan label using equipment that provides uniform 2-inch incorporation.

Apply PARALLEL PCS + Treflan tank mix using the appropriate PARALLEL PCS rate specified for PARALLEL PCS alone, and the Treflan rate from the Dry Beans, and the Lima and Snap Beans sections of the respective Treflan label. Choose the product rate for the specific soil texture/organic matter classification and weed species expected.

**Note:** Follow all restrictions and precautions on the respective Treflan label and in the **Pod Crops-PARALLEL PCS Alone** section of this label.

#### **POTATOES**

## **PARALLEL PCS ALONE**

Apply PARALLEL PCS, either incorporated, preemergence, or after hilling/lay-by, according to directions specified below for control of weeds listed under the **Product Information** section. Within a rate range, use the lower rate on soils relatively coarse-textured or low in organic matter; use the higher rate on soils relatively fine-textured or high in organic matter. Effectiveness will be reduced if later cultural practices expose untreated soil.

**Incorporated:** Apply PARALLEL PCS at 1.0-2.0 pts./A to the soil and incorporate into the top 3 inches before planting using a finishing disk, harrow, rolling cultivator, or similar implement. Planting and later cultural practices should not bring untreated soil to the surface. Postplant incorporated application may be made any time after planting to drag-off but before potato emergence. Use an implement that evenly distributes PARALLEL PCS in the top 2 inches of soil. Do not damage potato seed pieces or sprouts with incorporation equipment.

**Preemergence:** Apply PARALLEL PCS at 1.0-2.0 pts./A, either after planting as a preemergence, delayed preemergence, after drag-off or hilling treatment, but before weeds emerge. Up to 2.75 pts./A of PARALLEL PCS alone may be used where soil organic matter is between 6% and 20%.

**After Hilling/Lay-by:** Apply 1.67 pts./A of PARALLEL PCS after hilling/at lay-by to control PARALLEL PCS sensitive species for remainder of the growing season. This application will not control emerged weeds. It may be applied over a previous PARALLEL PCS application but do not apply more than 3.7 pts./A of PARALLEL PCS in a single crop season.

**Precautions:** To avoid crop injury, do not use on sweet potatoes or yams.

### **Restrictions:**

- Do not use on muck or peat soils. If cool, wet soil conditions occur after application, PARALLEL PCS may delay maturity and/or reduce yield of Superior and other early maturing potato varieties.
- Do not apply both as a preemergence and an incorporated treatment.
- Potatoes treated with PARALLEL PCS must not be harvested within 60 days after the at-planting to dragoff application or within 40 days after a lay-by application or illegal residues may result.
- Do not use in Kern County, CA.

## PARALLEL PCS COMBINATIONS

## 1. Tank Mixture with Sencor or Lexone

In addition to those weeds controlled by PARALLEL PCS alone, PARALLEL PCS applied in tank mix combination with, or sequentially with, any of the registered Sencor or Lexone formulations, also controls the following broadleaf weeds: cocklebur\*, hairy nightshade\*, hemp sesbania, jimsonweed\*, lambsquarters, prickly sida, ragweed, smartweed, velvetleaf, Venice mallow, and wild mustard.

\*Partially controlled.

PARALLEL PCS at 1.0-2.0 pts./A plus the labeled Sencor/Lexone use rate may be used preemergence through after last hilling. Apply 1.0-1.33 pts./A of PARALLEL PCS on coarse soils and 1.33-2.0 pts./A on other soil textures. Within this rate range, use the lower rate on soils relatively coarse-textured or low in organic matter; use the higher rate on soils relatively fine-textured or high in organic matter. Effectiveness will be reduced if later cultural practices expose untreated soil. PARALLEL PCS will not control emerged weeds.

Refer to the Sencor or Lexone labels for precautionary statements, restrictions, application information, and weeds controlled.

**Precautions**: (1) Postemergence applications to potatoes should be made only as a directed or semi-directed spray to avoid chlorosis, minor necrosis, or leaf distortion. (2) To avoid crop injury, do not use PARALLEL PCS + Sencor or Lexone on potatoes in Kern County, CA and do not apply to sweet potatoes or yams.

#### Restrictions:

- Potatoes treated with PARALLEL PCS in tank mixture with Sencor or Lexone cannot be harvested within 60 days after application or illegal residues may result.
- Potatoes may not be harvested within 40 days after a lay-by application of PARALLEL PCS or illegal residues may result.
- Do not use this tank mixture on muck or peat soils.

## 2. PARALLEL PCS + Lorox Tank Mixture (East of Rocky Mountains)

PARALLEL PCS may be applied in a tank-mix combination with any of the registered Lorox formulations as a preemergence broadcast application to potatoes. Apply to the soil surface after planting and before emergence of the crop or after final drag-off according to the rates specified in the **PARALLEL PCS + Lorox-Potatoes (East of Rocky Mountains)** table.

PARALLEL PCS + Lorox-Potatoes (East of Rocky Mountains)

SOIL TEXTURE	BROADCAST RATES PER ACRE			
	1% to Less Than 3% Organic Matter		3 - 5 % Organic Matter	
	PARALLEL PCS	Lorox*	PARALLEL PCS	Lorox*
Coarse	1.0 pt.	1.0-1.5 lbs.	1.33 pts.	1.5-2.0 lbs.
Sandy loam				
Medium	1.33 pts.	1.5-2.0 lbs.	1.67-2.0 pts.	2.0-2.5 lbs.
Loam, silt loam,silt				

<sup>\*</sup>When using Lorox L or Lorox DF, use equivalent rates. 1 pt. of Lorox L equals 1 lb. of Lorox DF.

**Precautions**: To avoid crop injury, do not use on sands or loamy sands and do not incorporate or spray over the top of emerged potatoes.

Refer to the **Product Information** section of this label and to the Lorox label for precautionary statements, restrictions, application information, and weeds controlled.

## 3. Tank Mixture with Prowl 4E

In addition to the weeds controlled by PARALLEL PCS alone, this tank mixture with Prowl 4E controls such problem species as kochia, lambsquarters, purslane, annual spurge, stinging nettle, and others specified on the Prowl 4E Alone label. Apply PARALLEL PCS + Prowl 4E preemergence, preemergence incorporated, or early postemergence, according to the specific directions on the Prowl 4E label, using the rates in the **PARALLEL PCS+Prowl 4E-Potatoes** table.

**PARALLEL PCS+ Prowl 4E-Potatoes** 

SOIL TEXTURE	BROADCAST RATES PER ACRE		
	Less Than 3% Organic Matter	More Than 3% Organic Matter	
	PARALLEL PCS+ Prowl 4E*	PARALLEL PCS+ Prowl 4E*	
Coarse	1.0-1.33 pts. + 1.0-1.5 pts.	1.0-1.33 pts. + 1.0-1.5 pts	
Medium	1.33 pts. + 1.5-2.0 pts.	1.33-1.67 pts. + 2.0-3.0 pts.	
Fine	1.33-1.67 pts. + 2.0-3.0 pts.	1.67-2.0 pts. + 3.0 pts.	
	of Prowl, use equivalent rates of active ing		

Refer to the PARALLEL PCS and Prowl 4E labels and observe all directions, timings, limitations, precautions, and restrictions concerning the use of these products on potatoes and follow the most restrictive.

## 4. Tank Mixture with Prowl 4E + Eptam

In addition to the weeds controlled by PARALLEL PCS alone, this tank mixture will control those species on the Prowl 4E and Eptam labels. Refer to the PARALLEL PCS + Prowl 4E labels for rates of those products and add Eptam 7E at 3.5-7.0 pts./A, depending on geographical area. Refer to the respective PARALLEL PCS, Prowl 4E, and Eptam labels and observe all directions, limitations, precautions, and restrictions concerning the use of these products on potatoes and follow the most restrictive.

## **SAFFLOWER**

#### PARALLEL PCS ALONE

**Preplant Incorporated or Preemergence:** Follow instructions for use of PARALLEL PCS alone under **Application Procedures.** 

On coarse soils, apply 1.0-1.33 pts./A of PARALLEL PCS if organic matter content is less than 3%, or 1.33 pts./A if organic matter is 3% or greater. On medium soils, apply 1.33-1.67 pts./A of PARALLEL PCS. On fine soils, apply 1.33-1.67 pts./A of PARALLEL PCS if organic matter content is less than 3%, or 1.67-2.0 pts./A if organic matter content is 3% or greater.

## GRAIN OR FORAGE SORGHUM (SEED TREATED WITH CONCEP® OR SCREEN®) PARALLEL PCS ALONE

Apply PARALLEL PCS, either preplant surface, preplant incorporated, or preemergence, using the appropriate rate specified below. Apply PARALLEL PCS alone only when the sorghum seed has been properly treated by the seed company with Concep or Screen.

**Preplant Surface-Applied:** Refer to instructions for use of PARALLEL PCS under **Application Procedures.** For minimum-tillage or no-tillage systems only, PARALLEL PCS may be applied up to 45 days before planting in CO, IA, IL, KS, MO, NE, and SD. Use only split applications for treatments made 30-45 days prior to planting, with % of the broadcast rate applied initially and the remaining 1/3 at planting. Apply 1.50 pts./A of PARALLEL PCS on medium soils or 1.67 pts./A on fine soils. Treatments less than 30 days prior to planting may be made either as a split or single application. Apply 1.33 pts./A of PARALLEL PCS on coarse soils not more than 2 weeks prior to planting. Under dry conditions, irrigation after application is recommended to move PARALLEL PCS into the soil.

**Preplant Incorporated or Preemergence:** Refer to instructions for use of PARALLEL PCS under **Application Procedures.** Broadcast 1.0-1.33 pts./A of PARALLEL PCS on coarse soils, 1.33-1.50 pts./A on medium soils, or 1.33-1.67 pts./A on fine soils.

**Precautions:** (1) If sorghum seed is not properly treated with Concep or Screen, PARALLEL PCS will severely injure the crop. (2) Under high soil moisture conditions prior to sorghum emergence, injury may occur following the use of PARALLEL PCS. The crop will normally outgrow this effect. (3) Do not use PARALLEL PCS on sorghum grown under dry mulch tillage or injury may occur.

**Restriction**: Except for the split preplant surface treatment, do not make more than one application per year or illegal residues may result.

## PARALLEL PCS COMBINATIONS

PARALLEL PCS tank mixtures with AAtrex may be applied in water or fluid fertilizer. Apply PARALLEL PCS in tank mixtures only when the sorghum seed has been properly treated by the seed company with Concep or Screen.

**IMPORTANT:** FOR TANK MIXTURES WITH AATREX (OR OTHER BRANDS OF ATRAZINE)-If applying PARALLEL PCS in tank mixture with AAtrex, all the restrictions and rate limitations on the AAtrex label must be followed if more restrictive/protective than those on this label. In addition, if AAtrex is/must be applied at rates lower than those listed on this label, broadleaf weed control may be affected. Refer to the AAtrex label for weeds controlled at the reduced rates.

**Precautions:** (1) Applications of PARALLEL PCS + AAtrex on highly alkaline soils or on eroded areas where calcareous subsoils are exposed may cause sorghum injury. (2) If sorghum seed is not properly treated with Concep or Screen, PARALLEL PCS + AAtrex may severely injure the crop. (3) Under high soil moisture conditions prior to sorghum emergence, injury may occur following the use of PARALLEL PCS + AAtrex. The crop will normally outgrow this effect. (4) To avoid injury, do not use PARALLEL PCS + AAtrex on sorghum grown under dry mulch

tillage.

**Restriction**: Except for the split preplant surface treatment, do not make more than one application per year or illegal residues may result.

## 1. Tank Mixture with AAtrex

In addition to the weeds controlled by PARALLEL PCS alone, PARALLEL PCS + AAtrex also controls the following broadleaf weeds when applied either preplant surface, preplant incorporated, or preemergence: cocklebur, common purslane, hairy nightshade, lambsquarters, morningglory, ragweed, smartweed, and velvetleaf.

Preplant Surface-Applied: Refer to instructions for use of PARALLEL PCS under Application Procedures. For minimum-tillage or no-tillage systems only, PARALLEL PCS + AAtrex may be applied up to 45 days prior to planting in IA, IL, eastern KS, MO, NE, and SD. Use only split applications for treatments made 30-45 days prior to planting, with  $\frac{2}{3}$  of the broadcast rate applied initially and the remaining  $\frac{1}{3}$  at planting. Apply 1.50 pts./A of PARALLEL PCS + 1.7-2 lbs./A of AAtrex Nine-O\* on medium soils with 1.5% organic matter or greater. Apply 1.50 pts./A of PARALLEL PCS + 1.7-2 lbs./A of AAtrex Nine-O on fine soils with 1.5% organic matter, or apply 1.67 pts./A of PARALLEL PCS + 2-2.2 lbs./A of AAtrex Nine-O on fine soils with 1.5% organic matter or greater. Treatments less than 30 days prior to planting may be made either as a split or single application. Under dry conditions, irrigation after application is recommended to move PARALLEL PCS + AAtrex into the soil.

**Precautions:** To avoid crop injury, do not use on coarse soils and do not use on medium soils with less than 1.5% organic matter.

**Preplant Incorporated or Preemergence:** Refer to instructions for use of PARALLEL PCS under **Application Procedures**. On medium soils with 1.5% organic matter or greater, apply 1.0 pt./A of PARALLEL PCS + 1.3 lbs./A of AAtrex Nine-O\*. On fine soils with less than 1.5% organic matter, apply 1.0 pt./A of PARALLEL PCS + 1.3 lbs./A of AAtrex Nine-O; on fine soils with 1.5% organic matter or greater, apply 1.2-1.33 pts./A of PARALLEL PCS + 1.6-1.8 lbs./A of AAtrex Nine-O.

\*When using AAtrex 4L, use equivalent rates. One lb. of AAtrex Nine-O equals 1.8 pts. of AAtrex 4L.

**Precautions:** To avoid crop injury, do not use on coarse soils and do not use on medium soils with less than 1.5% organic matter.

#### Restrictions:

- (1) Do not use in NM, OK, or TX, except in northeast OK and the TX Gulf Coast and Blacklands areas.
- (2) Do not apply preplant incorporated in AZ or the Imperial Valley of CA.

## 2. Tank Mixture of PARALLEL PCS or PARALLEL PCS + AAtrex, with Gramoxone Extra, Landmaster BW, or Roundup for Minimum-Tillage or No-Tillage Systems

In minimum-tillage or no-tillage systems where sorghum (seed treated with Concep or Screen) is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, the contact herbicides Gramoxone Extra, Landmaster BW, or Roundup may be tank mixed with PARALLEL PCS or PARALLEL PCS + AAtrex. See Comment below.\* The PARALLEL PCS or PARALLEL PCS + AAtrex portion of the tank mixture provides preemergence control of the weeds listed on this label under the respective sections.

\*In Minimum-Tillage and No-Tillage systems, mix with Gramoxone Extra for control of most emerged annual weeds and suppression of perennial weeds; or with Landmaster BW for suppression of emerged field bindweed and control or suppression of annual weeds; or with Roundup for control of most emerged annual and perennial weeds.

Refer to the label of each product used in combination and observe the planting details, restrictions, and all other precautions and limitations.

**Application:** Apply before, during, or after planting, but before sorghum emerges, at the appropriate rates listed under **Grain or Forage Sorghum-PARALLEL PCS Alone** or **-PARALLEL PCS Combinations-PARALLEL PCS + AAtrex**, respectively. Add Gramoxone Extra, Landmaster BW, or Roundup at the following broadcast rates:

**Gramoxone Extra:** 1.5-2, 2-2.5, or 2.5-3 pts./A to 1-3 inches, 3-6 inches, or 6-inch tall weeds, respectively. Apply surfactant at 1 or 2 pts./100 gals. of spray mixture with 75% or greater or 50-74% nonionic active ingredient, respectively. This treatment will not control weeds taller than 6 inches.

**Landmaster BW:** 27-54 oz./A depending on weed species and size. See the Landmaster BW label for weeds controlled, rates for specific weeds, and other information concerning use.

**Roundup:** See the Roundup or Roundup RT label for weeds controlled, rates, and other use directions.

Apply in a minimum of 20 gals. of water per acre with conventional spray equipment.

## **SOYBEANS**

#### PARALLEL PCS ALONE

Apply PARALLEL PCS, either preplant surface-applied, preplant incorporated, preemergence, or postemergence using the appropriate rate specified below. **Preplant Surface-Applied, Preplant Incorporated, Preemergence:** Follow instructions for use of PARALLEL PCS alone under **Application Procedures. Postemergence:** Follow the **Tank Mixture** instructions under **Postemergence Applications.** 

# **Preplant Surface-Applied**

A. Fall Application (Apply after September 30 in MN, ND, SD, WI and North of Route 30 in IA; Apply after October 15 north of Route 91 in NE and South of Route 30 in IA; Apply after October 31 north of Route 136 in IL): In all locations, apply to crop stubble after harvest when the sustained soil temperature at a 4-inch depth is less than 55°F and falling. In minimum-till or no-tillage systems on soils having greater than 2.5% organic matter, use 1.67-2.0 pts./A on medium-textured and 2.0 pts./A on fine-textured soils. A tillage operation may precede the application. Minimize furrow and ridge formation in the tillage operations.

### **Restrictions:**

- If a spring application is made, the total rate of the fall plus spring applications must not exceed the maximum total rate for soybeans or illegal residues may result.
- A fall and/or a spring tillage may follow application, but do not exceed an incorporation depth greater than 2-3 inches.
- Do not apply to frozen ground.
- B. Use on medium and fine soils with minimum-tillage or no-tillage systems in CO, CT, DE, IA, IL, IN, KS, KY, MA, MD, ME, MI, MN, MO, MT, ND, NE, NH, NY, OH, PA, RI, SD, TN, VA, VT, WI, WV, and WY. Apply 2/3 the labeled rate of PARALLEL PCS (1.67 pts./A on medium soils and 2.0 pts./A on fine soils) as a split treatment 30-45 days prior to planting and the remainder at planting. Applications made less than 30 days before planting may be as either a split or single treatment. Apply 1.33 pts./A on coarse soils not more than 2 weeks prior to planting.

**Preplant Incorporated or Preemergence:** On coarse soils, apply 1.0-1.33 pts./A of PARALLEL PCS if organic matter content is less than 3%, or 1.33 pts./A if organic matter content is 3% or greater. On medium soils, apply 1.33-1.67 pts./A of PARALLEL PCS. On fine soils, apply 1.33-1.67 pts./A of PARALLEL PCS if organic matter content is less than 3%, or 1.67-2.0 pts./A if organic matter content is 3% or greater.

# **Restrictions:**

- The total PARALLEL PCS rate applied to soybeans during any one crop must not exceed 2.75 pts./A.
- Do not graze or feed treated soybean forage, hay, or straw to livestock 30 days following treatment, or illegal residues may result.

**Note:** On soybeans, PARALLEL PCS may be used up to 2.75 pts./A as a preplant surface-applied, preplant incorporated, or preemergence treatment on soils having an organic matter content between 6% and 20%.

## Postemergence:

From emergence up through the third trifoliate leaf stage

Apply 1.0-1.33 pts/A as a postemergence treatment to soybeans from emergence up through the **third trifoliate leaf stage**. PARALLEL PCS will not control emerged weeds so it must be applied to a weed-free surface or in a tank mixture with products that provide postemergence control of weeds present at the time of application.

### From emergence up through the fifth trifoliate leaf stage\*

Apply 1.0-1.33 pts/A as a postemergence treatment to soybeans from emergence up through the **fifth trifoliate leaf stage**. PARALLEL PCS will not control emerged weeds so it must be applied to a weed-free surface or in a tank mixture with products that provide postemergence control of weeds present at the time of application.

Note: Make postemergence applications at least 90 days before harvest.

\*Not for use in California.

#### **Restrictions:**

- To avoid possible illegal residues when Parallel PCS is applied postemergence to soybeans, do not apply more than 1.33 pts/A postemergence.
- Do not graze or feed treated forage or hay from soybeans to livestock following a postemergence application of Parallel PCS.
- Do not apply a postemergence application of Parallel PCS if a preplant surface, preplant incorporated, or preemergence application of metolachlor products such as Parallel or Parallel PCS has already been applied.

#### PARALLEL PCS COMBINATIONS

Water or fluid fertilizer may be used as carrier for PARALLEL PCS in combination with Sencor, Lexone, Lorox, Lorox Plus, Gemini, Canopy, Preview, Pursuit, Scepter, Sonalan, or Command.

**Note:** For all of the following combinations, PARALLEL PCS may be used up to 2.5 pts./A on soils having an organic matter content between 6% and 20%.

**Restriction**: Do not apply more than 2.75 pts/A (2.75 lb Al/A metolachlor) of PARALLEL PCS during any one crop year.

## **Preplant/Preemergence Applications**

## 1. Tank Mixture with Sencor or Lexone

In addition to those weeds controlled by PARALLEL PCS alone, PARALLEL PCS + Sencor or Lexone, when applied as directed, also controls the following broadleaf weeds: cocklebur\*, hairy nightshade, hemp sesbania, jimsonweed\*, lambsquarters, prickly sida, ragweed, smartweed, velvetleaf, Venice mallow, and wild mustard. \*Partially controlled.

Apply PARALLEL PCS and Sencor or Lexone preplant incorporated or preemergence using the appropriate rates from the **PARALLEL PCS + Sencor or Lexone-Soybeans** table. **Preplant Incorporated or Preemergence:** Follow instructions for use of PARALLEL PCS alone under **Application Procedures**.

**Sequential:** Apply PARALLEL PCS alone **Preplant Incorporated**, as specified in the **PARALLEL PCS + Sencor or Lexone-Soybeans** table for this tank mixture. Follow with a preemergence application of Sencor or Lexone during planting (behind the planter) or after planting but before weeds or soybeans emerge.

Refer to the Sencor or Lexone labels for planting details and soybean variety restrictions.

## PARALLEL PCS + Sencor or Lexone-Soybeans

SOIL TEXTURE**	BROADCAST RATES PER ACRE			
	0.5% to Less Than 3% Organic Matter	3% Organic Matter or Greater		
	PARALLEL PCS + Sencor/Lexone DF*	PARALLEL PCS + Sencor/Lexone DF*		
Coarse	0.85-1.0 pt. + 0.33 lb.	1.0 pt. + 0.5 lb.		
Loamy sand (over 2%				
organic matter), sandy				
loam				
Medium	1.0-1.33 pts. + 0.5 lb.	1.33 pts. + 0.67 lb.***		
Fine	1.33 pts. + 0.67 lb.	1.33-1.67 pts. + 0.67 lb.		
Mississippi Delta only	1.33 pts. + 1.0 lb.	1.33-1.67 pts. + 1.0 lb.		
Silty clay, clay				
Muck or Peat	DO NOT USE			
(soils with more than				
20% organic matter)				

<sup>\*</sup>When using Sencor 4 or Lexone 4L, multiply lbs. of DF by 1.5 to get pts./A.

**Precaution:** If heavy rain occurs soon after application, crop injury may result, especially in poorly drained areas where water stands for several days.

**Restriction:** Do not use the tank mix or sequential application on soil with less than 0.5% organic matter or on alkaline soil with a pH over 7.4 or crop injury may occur.

#### 2. Tank Mixture with Lorox

In addition to those weeds controlled by PARALLEL PCS alone, PARALLEL PCS + Lorox, applied preemergence, also controls the following broadleaf weeds: cocklebur\*, jimsonweed\*, lambsquarters, morningglory\*, prickly sida, ragweed, smartweed, velvetleaf\*, Venice mallow, and wild mustard.

**Preemergence:** Apply during planting (behind planter) or after planting, but before weeds or soybeans emerge. Refer to the Lorox label for planting details. Apply the appropriate rates from the **PARALLEL PCS + Lorox-Soybeans** table.

**Precaution:** To avoid crop injury, do not use on soil with less than 0.5% organic matter.

## PARALLEL PCS + Lorox-Soybeans

SOIL TEXTURE*	BROADCAST RATES PER ACRE			
	0.5% to Less Than 3% Organic Matter	3% Organic Matter or Greater		
	PARALLEL PCS + Lorox DF***	PARALLEL PCS + Lorox DF***		
Coarse	0.85 pt. + 1 lb.	1.0 pt. + 1-1.5 lbs.		
Medium	1.0 pt. + 1-1.5 lbs.	1.33 pts. + 1.5-2 lbs.		
Fine	1.33 pts. + 2 lbs.	1.33-1.67 pts. + 2.5-3 lbs.		
Muck or Peat	DO NOT	USE		
(soils with more than 20%				
organic matter)				

<sup>\*</sup>Restriction: Do not use on sand, gravelly soils, or exposed subsoils.

<sup>\*\*</sup>Precaution: On all sand and on loamy sand with less than 2% organic matter, do not use this tank mixture preemergence or the sequential treatment. Do not use the tank mixture preplant incorporated on any sand, loamy sand, or sandyloam or crop injury may occur.

<sup>\*\*\*</sup>Use 0.5 lb./A if applied preplant incorporated.

<sup>\*</sup>Partially controlled.

<sup>\*\*</sup>Restriction: Do not use on loamy sand except in the northeastern U.S. on loamy sand with over 1% organic matter.

<sup>\*\*\*</sup>When using Lorox L or Lorox DF, use equivalent rates. One pt. of Lorox L equals 1 lb. of Lorox DF.

#### 3. Tank Mixture with Treflan

PARALLEL PCS + Treflan tank mix applied preplant incorporated controls those weeds listed under the **PARALLEL PCS Applied Alone** section and those weeds listed for Treflan Alone on the Treflan label. PARALLEL PCS + Treflan may be applied by ground or by aerial equipment and incorporated up to 14 days before planting. Follow the procedures on the Treflan and PARALLEL PCS labels using equipment that provides uniform 2-inch incorporation.

Apply PARALLEL PCS + Treflan tank mix, using the appropriate rate from the **Soybeans-PARALLEL PCS Alone** section of this label and the Treflan Alone section of the Treflan label for the specific soil texture/organic matter classification and weed species expected.

To control DNA-resistant goosegrass\* and other species on the respective labels where the soil organic matter is 3% or less, apply the rate listed in the **PARALLEL PCS + Treflan-Organic Matter Content Less Than 3%** table.

PARALLEL PCS + Treflan-Organic Matter Content Less Than 3%

SOIL TEXTURE	BROADCAST RATES PER ACRE			
	PARALLEL PCS	Treflan E.C.**		
		Organi	c Matter	
	Organic Matter Less Than 3%	Less Than 2%	2-3 %	
Coarse	0.85 - 1.0 pt.	1 pt.	1.5 pts.	
Medium	1.0 pt.	1.5 pts.	1.5 pts.	
Fine	1.33 pts.	2 pts.	2 pts.	

<sup>\*</sup>Where a range of rates is given for PARALLEL PCS, use the minimum rate where DNA-resistant goosegrass is the predominant species.

**Note:** Follow all restrictions and precautions on the respective Treflan label and in the **Soybeans-PARALLEL PCS Alone** section of this label.

### 4. Tank Mixture with Scepter

This tank mixture controls all weeds controlled by PARALLEL PCS alone and by Scepter alone. Refer to the **PARALLEL PCS Applied Alone** section for weeds controlled by PARALLEL PCS and to the Scepter label for weeds controlled by Scepter. Refer to the Scepter label for geographical locations where this tank mixture may be applied.

Apply PARALLEL PCS + Scepter preplant incorporated or preemergence using rates in the **PARALLEL PCS + Scepter-Soybeans** table. Follow use directions under **Application Instructions** on the Scepter label. For preplant incorporated applications, apply and incorporate within 30 days before planting. Observe all other restrictions, precautions and limitations on the Scepter labels.

PARALLEL PCS + Scepter-Soybeans

SOIL TEXTURE	BROADCAST RATES PER ACRE			
	Less Than 3% Organic Matter		3% or More Organic Matter	
	PARALLEL PCS	Scepter	PARALLEL PCS	Scepter
Coarse	0.85 pt.	0.67 pt.	1.0 pt.	0.67 pt.
Medium	1.0 pt.	0.67 pt.	1.33 pts.	0.67 pt.
Fine	1.33 pts.	0.67 pt.	1.33-1.67 pts.*	0.67 pt.
Muck or Peat (soils with more than 20% organic matter)		DON	NOT USE	

<sup>\*\*</sup>When Treflan MTF or Treflan 5 is used, use comparable rates. Multiply pts. of Treflan E.C. by 1 for Treflan MTF and by 0.8 for Treflan 5.

#### **Restrictions:**

- Do not apply within 90 days of harvest.
- Do not graze or feed treated soybean forage, hay, or straw to livestock or illegal residues may result.

#### 5. Tank Mixture with Lorox Plus

This tank mixture controls all weeds controlled by PARALLEL PCS alone and by Lorox Plus alone. Refer to the **PARALLEL PCS Applied Alone** section for weeds controlled by PARALLEL PCS and to the Lorox Plus label for weeds controlled by Lorox Plus.

Apply PARALLEL PCS + Lorox Plus preemergence after planting, but before soybeans emerge, using rates in the **PARALLEL PCS+ Lorox Plus-Soybeans** table.

**Note:** Follow all use directions, limitations, restrictions, precautions, information regarding application to soybeans, and rotational restrictions on the PARALLEL PCS and Lorox Plus labels.

# **PARALLEL PCS+ Lorox Plus-Soybeans**

SOIL TEXTURE	BROADCAST RATES PER ACRE			
	0.5-3% Organic Matter			
	PARALLEL PCS Lorox Plus (60DF)			
Coarse	0.85 pt.	12-14 oz.		
Medium	1.0 pt.	14-16 oz.		
Fine	1.33 pts.	16-18 oz.		

**Restriction:** Do not apply to sand, or to any soil with less than 0.5% organic matter, or to any soil with pH greater than 6.8.

#### 6. Tank Mixture with Gemini

This tank mixture controls all weeds controlled by PARALLEL PCS alone and by Gemini alone. Refer to the **PARALLEL PCS Applied Alone** section for weeds controlled by PARALLEL PCS and to the Gemini label for weeds controlled by Gemini.

Apply PARALLEL PCS + Gemini preemergence after planting, but before soybeans emerge, using rates in the **PARALLEL PCS + Gemini-Soybeans** table.

**Note:** Follow all use directions, limitations, precautions, information regarding application to soybeans, and rotational restrictions on the PARALLEL PCS and Gemini labels.

## PARALLEL PCS + Gemini-Soybeans

SOIL TEXTURE	Broadcast Rates Per Acre		
	0.5-3% Organic Matter		
	PARALLEL PCS Gemini (60DF)		
Coarse (Sandy loam only)	0.85 pt.	12-16 oz.	
Medium	1.0 pt.	16-20 oz.	
Fine	1.33 pts.	20-24 oz.	

**Restriction:** Do not apply to sand or loamy sand, or to any soil with less than 0.5% organic matter, or to any soil with pH greater than 7.0, except as in the directions for use on the Gemini label.

## 7. Tank Mixture with Canopy

This tank mixture controls all weeds controlled by PARALLEL PCS alone and by Canopy alone. Refer to the **PARALLEL PCS Applied Alone** section for weeds controlled by PARALLEL PCS and to the Canopy label for weeds controlled by Canopy.

Apply preplant incorporated or preemergence using the appropriate rates from the **PARALLEL PCS + Canopy-Soybeans** table. **Preplant Incorporated:** Apply within 2 weeks of planting. Uniformly incorporate into the top 1-2 inches of soil before planting soybeans. **Preemergence:** Apply after planting, but before soybeans emerge.

**Note:** Follow all use directions, varietal restrictions, limitations, precautions, information regarding application to soybeans, and rotational restrictions on the PARALLEL PCS and Canopy labels.

## PARALLEL PCS + Canopy-Soybeans

SOIL TEXTURE	ı	Broadcast Rates Per Acre		
	Less Than 3% Organic 3% or More Organic Matter Matter		ganic Matter	
	PARALLEL PCS	PARALLEL PCS	Canopy	
Coarse	0.85 pt.	1.0 pt.	*	
Medium	1.0 pt.	1.33 pts.	*	
Fine	1.33 pts.	1.33-1.67 pts.	*	

<sup>\*</sup>Refer to the Canopy label for appropriate rate according to geographical location, soil and organic matter classification, and pH limitations.

**Restriction:** Do not apply to sand, or to any soil with less than 0.5% organic matter, or to any soil with pH greater than 7.0, except as in the directions for use on the Canopy label.

#### 8. Tank Mixture with Preview

This tank mixture controls all weeds controlled by PARALLEL PCS alone and by Preview alone. Refer to the **PARALLEL PCS Applied Alone** section for weeds controlled by PARALLEL PCS and to the Preview label for weeds controlled by Preview.

Apply preplant incorporated or preemergence, using the appropriate rates from the **PARALLEL PCS + Canopy-Soybeans** table. **Preplant Incorporated:** Apply within 2 weeks of planting. Uniformly incorporate into the top 1-2 inches of soil before planting soybeans. **Preemergence:** Apply after planting, but before soybeans emerge.

**Note:** Follow all use directions, varietal restrictions, limitations, precautions, information regarding application to soybeans, and rotational restrictions on the PARALLEL PCS and Preview labels.

## PARALLEL PCS + Canopy-Soybeans

SOIL TEXTURE	BROADCAST RATES PER ACRE			
	0.5% to Less Than 3% Organic Matter 3-5 % Organic Matter			anic Matter
	PARALLEL PCS	Preview 75DF	PARALLEL PCS	Preview 75DF
Coarse	0.85 pt.	6 oz.	1.0 pt.	7 oz.
Medium	1.0 pt.	7 oz.	1.33 pts.	8 oz.
Fine	1.33 pts.	8 oz.	1.33-1.67 pts.	9-10 oz.

**Restriction:** Do not apply to sand, or to any soil with less than 0.5% organic matter, or to any soil with pH greater than 6.8.

## 9. Tank Mixture with Command\*

This tank mixture controls all weeds controlled by PARALLEL PCS alone and by Command alone. Refer to the **PARALLEL PCS Applied Alone** section for weeds controlled by PARALLEL PCS and to the Command label for weeds controlled by Command.

Apply PARALLEL PCS + Command preplant incorporated, using rates in the **PARALLEL PCS + Command-Soybeans** table. Follow all Command application instructions as to incorporation interval, geographical location, equipment operation, soil moisture conditions, etc.

\*Note: Before making applications, read and strictly follow all use directions, limitations, precautions, information regarding application to soybeans, and rotational restrictions on the PARALLEL PCS and Command labels.

## PARALLEL PCS + Command-Soybeans

SOIL TEXTURE	Broadcast Rates Per Acre			
	PARALLEL PCS		Comm	and 4E
	0.5-3% Greater Than 3%		Northern Area	Southern Area
	Organic Matter	Organic Matter		
Coarse	0.85 pt.	1.0 pt.	1.5-2 pts.	2-2.5 pts.
Medium	1.0 pt.	1.33 pts.	1.5-2 pts.	2-2.5 pts.
Fine	1.33 pts.	1.33-1.67 pts.	1.5-2 pts.	2-2.5 pts.

### 10. Tank Mixture with Sonalan

This tank mixture controls all weeds controlled by PARALLEL PCS alone and by Sonalan alone. Refer to the **PARALLEL PCS Applied Alone** section for weeds controlled by PARALLEL PCS and to the Sonalan label for weeds controlled by Sonalan.

Apply PARALLEL PCS and Sonalan preplant incorporated using the appropriate rates from the **PARALLEL PCS + Sonalan-Soybeans** table.

**Preplant Incorporated:** Follow soil preparation procedures for Sonalan. Refer to the Sonalan/ PARALLEL PCS Tank Mixture label for incorporation specifications.

**Sequential:** Apply Sonalan alone preplant incorporated as specified on the Sonalan label. Follow with a preemergence application of PARALLEL PCS during planting (behind the planter) or after planting but before weeds or soybeans emerge.

# PARALLEL PCS + Sonalan-Soybeans

SOIL TEXTURE	BROADCAST RATES PER ACRE			
	Less Than 3% Organic Matter 3% or More Organic Matter			ganic Matter
	PARALLEL PCS	Sonalan	PARALLEL PCS	Sonalan
Coarse	1.0-1.33 pts.	1.25-2 pts.	1.33 pts.	1.25-2 pts.
Medium*	1.33-1.67 pts.	1.75-2.50 pts.	1.33-1.67 pts.	1.75-2.5 pts.
Fine*	1.33-1.67 pts.	2.25-3 pts.	1.67-2 pts.	2.25-3 pts.
Muck or Peat (soils with more than 20% organic matter)	DO NOT USE			

<sup>\*</sup>For eastern black nightshade on these soils, apply Sonalan at 3 pts./A on medium- and 3.5 pts./A on fine-textured soils, and follow with 2 incorporation passes.

**Note:** Follow all use directions, limitations, restrictions, precautions, and information regarding application to soybeans on the PARALLEL PCS and Sonalan labels.

#### 11. Tank Mixture with Pursuit

This tank mixture controls all weeds controlled by PARALLEL PCS alone and by Pursuit alone. Refer to the **PARALLEL PCS Applied Alone** section for weeds controlled by PARALLEL PCS and to the Pursuit label for weeds controlled by Pursuit. Refer to the Pursuit label for geographical locations where this tank mixture may be applied.

Apply PARALLEL PCS + Pursuit early preplant, preplant incorporated, or preemergence after planting using rates in the **PARALLEL PCS + Pursuit-Soybeans** table. Application can be made in water or liquid fertilizer. Follow all use directions under Soil Applications on the Pursuit label. For early preplant and preplant incorporated applications, apply within 30 days before planting.

**Note:** Follow all use directions, limitations, precautions, information regarding application to soybeans, and rotational restrictions on the PARALLEL PCS and Pursuit labels.

# PARALLEL PCS + Pursuit-Soybeans

SOIL TEXTURE	BROADCAST RATES PER ACRE			
	Less Than 3% Organic Matter 3% or More Organic Matter			
	PARALLEL PCS	PARALLEL PCS	Pursuit	
Coarse	0.85 pt.	1.0 pt.	0.25 pt.	
Medium	1.0 pt.	1.33 pts.	0.25 pt.	
Fine	1.33 pts.	1.33-1.67 pts.	0.25 pt.	

**Sequential:** Apply PARALLEL PCS early preplant, preplant incorporated, or preemergence after planting at 0.85 pt./A on coarse soils and 1.0 pt./A on medium- and fine-textured soils. Follow with a sequential postemergence application of Pursuit to control emerged weeds according to the Pursuit label. PARALLEL PCS will improve the consistency and level of control from Pursuit on most grass species. Refer to the Pursuit postemergence label for a listing of weeds controlled, application rate, and growth stage limitations.

# 12. Tank Mixture with Lexone, Sencor, Scepter, Lorox, Lorox Plus, Gemini, Canopy, Preview, or Pursuit, plus Gramoxone Extra or Roundup for Minimum-Tillage or No-Tillage Systems

In minimum-tillage or no-tillage systems where soybeans are planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, the contact herbicides Gramoxone Extra or Roundup may be added to a tank mix of either PARALLEL PCS + Sencor or Lexone, PARALLEL PCS + Scepter, PARALLEL PCS + Lorox, PARALLEL PCS + Lorox Plus, PARALLEL PCS + Gemini, PARALLEL PCS + Canopy, PARALLEL PCS + Preview, or PARALLEL PCS + Pursuit. When used as directed, the Gramoxone Extra portion of the tank mixture controls most emerged weeds and suppresses many perennial weeds. Roundup combinations will control emerged annual and perennial weeds when applied as directed on the Roundup label. The PARALLEL PCS + Sencor / Lexone, Scepter, Lorox, Lorox Plus, Gemini, Canopy, Preview, or Pursuit portion of the tank mixture provides preemergence control of the weeds listed on this label in the tank mixture section for PARALLEL PCS + Sencor/Lexone, PARALLEL PCS + Scepter, PARALLEL PCS + Lorox, PARALLEL PCS + Lorox Plus, PARALLEL PCS + Gemini, PARALLEL PCS + Canopy, PARALLEL PCS + Preview, and PARALLEL PCS + Pursuit, respectively.

Refer to the label of each product used in combination and observe the planting details, soybean variety restrictions, information regarding application to soybeans, geographical restrictions, and all other precautions and limitations.

Refer below for rates of Gramoxone Extra or Roundup, PARALLEL PCS + Sencor / Lexone, PARALLEL PCS + Scepter, PARALLEL PCS + Lorox, PARALLEL PCS + Lorox Plus, PARALLEL PCS + Gemini, PARALLEL PCS + Canopy, PARALLEL PCS + Preview, and PARALLEL PCS + Pursuit, respectively.

**Application:** Apply before, during, or after planting, but before the soybeans emerge, at the rates specified below. Add Gramoxone Extra or Roundup at the following broadcast rates:

Gramoxone Extra: 1.5-2, 2-2.5, or 2.5-3 pts./A to 1-3 inches, 3-6 inches, or 6-inch tall weeds, respectively. Apply surfactant at 1 or 2 pts./100 gals. of spray mixture with 75% or greater or 50-74% nonionic active ingredient, respectively. This treatment will not control weeds taller than 6 inches.

**Restriction**: Do not apply combinations containing Gramoxone Extra in suspension type liquid fertilizers as the activity of paraquat will be reduced.

Roundup: See the Roundup or Roundup RT label for weeds controlled, rates, and other use directions.

Apply in 20-60 gals. of water or fluid fertilizer per acre with ground equipment.

## PARALLEL PCS + Lexone / Sencor + Gramoxone Extra or Roundup

On loamy sand with over 2% organic matter, apply 1.0 pt./ A of PARALLEL PCS + 0.33-0.5 lb./A of Sencor or Lexone DF. On medium soils, apply 1.33 pts./A of PARALLEL PCS + 0.5-0.67 lb./A of Sencor or Lexone DF. On fine soils, apply 1.33-1.67 pts./A of PARALLEL PCS + 0.67 lb./A of Sencor or Lexone DF.

\* When using Sencor 4 or Lexone 4L, multiply lbs. of DF by 1.5 to get pts./A.

**Precautions:** (1) To avoid crop injury, do not use this tank mixture on soil with less than 0.5% organic matter, on alkaline soil with a pH over 7.4, or on all sand and loamy sand with less than 2% organic matter. (2) If heavy rain occurs soon after application, crop injury may result, especially in poorly drained areas where water stands for several days or where the seeding slit has not been properly closed.

### PARALLEL PCS + Scepter + Gramoxone Extra or Roundup

On coarse soils, apply 1.0 pt./A of PARALLEL PCS + 0.67 pt./A of Scepter. On medium soils, apply 1.33 pts./A of PARALLEL PCS + 0.67 pt./A of Scepter. On fine soils, apply 1.67 pts. /A of PARALLEL PCS + 0.67 pt./A of Scepter.

#### **Restrictions:**

- Do not apply within 90 days of harvest.
- Do not graze or feed treated soybean forage, hay, or straw to livestock or illegal residues may result.

# PARALLEL PCS + Lorox + Gramoxone Extra or Roundup

On coarse soils\*, apply 1.0 pt./A of PARALLEL PCS + 1-1.5 lbs./A of Lorox DF\*\*. On medium soils, apply 1.33 pts./A of PARALLEL PCS + 1-2 lbs./A of Lorox DF. On fine soils, apply 1.33-1.67 pts./A of PARALLEL PCS + 2-3 lbs./A of Lorox DF.

**Precaution:** To avoid crop injury, do not use on soil with less than 0.5% organic matter.

\* **Precaution**: To avoid injury, do not use on loamy sand except in the northeastern U.S. on loamy sand with over 1% organic matter. Do not use on sand, gravelly soils, or exposed subsoils or injury may occur.

## PARALLEL PCS + Lorox Plus + Gramoxone Extra or Roundup

Use only where soils have 0.5-3% organic matter. On coarse soils, apply 1.0 pt.,/A of PARALLEL PCS + 12-14 oz./A of Lorox Plus 60DF. On medium soils, apply 1.33 pts./A of PARALLEL PCS + 14-16 oz./A of Lorox Plus. On fine soils, apply 1.33-1.67 pts./A of PARALLEL PCS + 16-18 oz./A of Lorox Plus.

**Restriction:** Do not apply to sand or to any soil with pH greater than 6.8.

## PARALLEL PCS + Gemini + Gramoxone Extra or Roundup

Use only where soils have 0.5-3% organic matter. On coarse soils (sandy loam only), apply 1.0 pt./A of PARALLEL PCS + 12-16 oz./A of Gemini 60DF. On medium soils, apply 1.33 pts./A of PARALLEL PCS + 16-20 oz./A of Gemini. On fine soils, apply 1.33-1.67 pts./A of PARALLEL PCS + 20-24 oz./A of Gemini.

**Restriction:** Do not apply to sand or loamy sand, or to any soil with less than 0.5% organic matter, or to any soil with pH greater than 7.0, except as in the direction for use on the Gemini label.

## PARALLEL PCS + Canopy + Gramoxone Extra or Roundup

Use only where soils have 0.5-5% organic matter. On coarse soils (except sand), apply 1.0 pt./A of PARALLEL PCS, on medium soils, apply 1.33 pts./A of PARALLEL PCS, and on fine soils, apply 1.33-1.67 pts./A of PARALLEL PCS. Refer to the Canopy label for appropriate rate according to geographical location, soil and organic matter classification, pH limitations, and all other use directions.

**Restriction:** Do not apply to sand, or to any soil with less than 0.5% organic matter, or to any soil with pH greater than 7.0, except as in the direction for use on the Canopy label.

## PARALLEL PCS + Preview + Gramoxone Extra or Roundup

Use only where soils have 0.5-5% organic matter. On coarse soils (except sand), apply 1.0 pt./A of PARALLEL PCS + 6\* -7 oz./A of Preview 75DF. On medium soils, apply 1.33 pts./A of PARALLEL PCS + 7\*-8 oz./A of Preview. On fine soils, apply 1.33-1.67 pts./A of PARALLEL PCS + 8\* to 9 - 10 oz./A of Preview.

<sup>\*\*</sup> When using Lorox L or Lorox DF, use equivalent rates. One pt. of Lorox L equals 1.0 lb. of Lorox DF.

\*Use this rate where the soil organic matter is in the 0.5 to less than 3.0% range.

**Restriction:** Do not apply to sand, or to any soil with less than 0.5% organic matter, or to any soil with pH greater than 6.8.

# PARALLEL PCS + Pursuit + Gramoxone Extra or Roundup

On coarse soils, apply 1.0 pt./A of PARALLEL PCS + 0.25 pt./A of Pursuit. On medium soils, apply 1.33 pts./A of PARALLEL PCS + 0.25 pt./A of Pursuit. On fine soils, apply 1.67 pts./A of PARALLEL PCS + 0.25 pt./A of Pursuit.

# **Postemergence Applications**

# **Tank Mixture with Glyphosate Products**

Parallel PCS at 1.0-1.33 pts/A may be tank mixed with glyphosate products at labeled rates and applied from emergence up through the (third) (fifth) trifoliate leaf stage of Roundup Ready or glyphosate-tolerant soybeans. Parallel PCS alone will not control emerged weeds. Use this treatment only on soybeans designated for use with glyphosate (e.g. Roundup Ready or glyphosate-tolerant soybeans). The glyphosate product must be registered for postemergence use in Roundup Ready or glyphosate-tolerant soybeans.

# Tank Mixture with Glufosinate Ammonium (Liberty) Products

Parallel PCS at 1.0-1.33 pts/A may be tank mixed with glufosinate products at labeled rates and applied from emergence up through the (third) (fifth) trifoliate leaf stage of soybeans. Parallel PCS alone will not control emerged weeds. Use this treatment only on soybeans designated for use with glufosinate (e.g. Liberty Link).

**Precaution**: The use of adjuvants such as COC or UAN with Parallel PCS may result in temporary crop injury. **Restrictions**: To avoid possible illegal residues with Parallel PCS is applied postemergence to soybeans: (1) Do not apply more than 1.33 pts/A postemergence. (2) Do not graze or feed treated forage or hay from soybeans to livestock following a postemergence application of Parallel PCS.

**Note**: (1) Follow the tank mix product label for adjuvant recommendations. (2) Make postemergence application at least 90 days before harvest

#### **TOMATOES**

**Transplanted Tomatoes:** PARALLEL PCS may be applied preplant incorporated or preplant before transplanting. If the latter method is used, keep soil disturbance to a minimum during transplanting. Application may also be made post-directed to transplants after the first settling rain or irrigation. When an application is made post-directed, apply in a minimum of 20 gallons of water per acre and minimum contact with tomato plants. PARALLEL PCS will not control emerged weeds. In bedded transplanted tomatoes, apply PARALLEL PCS preplant non-incorporated to the top of the pressed bed, as the last step, prior to laying plastic. PARALLEL PCS may also be used to treat row-middles in bedded tomatoes, as long as the total amount of PARALLEL PCS does not exceed the maximum allowed per crop.

**Seeded Tomatoes:** PARALLEL PCS may be applied post-directed to direct seeded tomatoes. Tomato plants must be at least 4 inches tall at the time of application and the product must be applied in a minimum of 20 gallons of water per acre. Minimize spray contact with tomato plants. PARALLEL PCS will not control emerged weeds.

**Tomato Use Rates:** On coarse soils apply PARALLEL PCS at 1.0-1.33 pts./A if organic matter content is less than 3% or 1.33 pts./A if the organic matter is 3% or greater. On medium soils apply PARALLEL PCS at 1.33-1.67 pts./A. On fine soils apply PARALLEL PCS at 1.33-1.67 pts./A if organic matter content is less than 3% or 1.67-2.0 pts./A if the organic matter content is 3% or greater. Apply by ground application only

**Precautions:** (1) PARALLEL PCS may damage transplants that have been weakened by any cause. (2) To prevent damage, plant only healthy transplants. (3) In transplanted tomatoes, if PARALLEL PCS is applied preplant incorporated, incorporate to a depth less than the depth of transplanting, and use the lower end of the rate range for the given soil type, or damage may occur. (4) For row middle applications where tomatoes are grown on sandy soils and where high soil moisture conditions can exist (i.e. low binding and high evaporation conditions), as may be found in the States of Florida, Georgia, Maryland, and Virginia, there is potential for crop injury in the form of leaf epinasty. The risk of this type of injury can be reduced by: (a) incorporating the PARALLEL PCS immediately following application, (b) applying the PARALLEL PCS seven or more days before transplanting (but only after the beds have been formed), (c) minimizing the application of PARALLEL PCS onto the plastic of the bed, or (d) any combination of the above.

## **Restrictions:**

- To avoid possible illegal residues, do not apply PARALLEL PCS within 90 days of tomato harvest.
- Do not exceed the maximum label rate for the soil texture per year.
- Do not apply more than 1 post emergence application per year.
- Do not apply to varieties or cultivars with unknown tolerance to PARALLEL PCS. Do not plant when wet, cool, or unfavorable growing conditions exist.

#### **APPENDIX**

#### APPENDIX A: LOW CARRIER APPLICATION

# For Broadcast Ground Application Only

Use sprayers, such as Ag-Chem RoGator®, Hagie, John Deere Hi-Cycle<sup>T</sup>, Melroe Spra-Coupe, Tyler Patriot<sup>TM</sup>, or Willmar Air Ride®, that provide accurate and uniform application. **Only water may be used as a carrier.** Screens in suction and in-line strainers should be 50-mesh. Manufacturers may require that tip screens as fine as 100-mesh be used with some nozzles. Use a pump with capacity to: (1) maintain up to 35-40 psi at the nozzles, and (2) provide sufficient agitation in tank to keep mixture in suspension. Use a minimum of 5 gals. of spray mixture per acre. Maximum sprayer speed is 15 mph. Rinse sprayer thoroughly with clean water immediately after each use.

**Note:** Low pressure nozzles are recommended to reduce drift and increase application accuracy. Care should be taken when using automatic rate controlling devices to spray the material within the rated working pressure and flow ranges of the nozzles selected. Nozzle screens should be used when recommended by the manufacturer. All nozzles should be placed on 20-inch centers, except flooding types which should be placed on 40-inch centers. When Flat Fan-type nozzles are used, angles of 80° or 110° are recommended. Always read and follow the manufacturer's directions for optimum setup and performance of their nozzles or tips.

#### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE**: This product may be stored at temperatures down to 30° F below 0° F.

**PESTICIDE DISPOSAL:** Open dumping is prohibited. Wastes resulting from the use of this product are toxic. Improper disposal of unused pesticide, spray mixture, or rinsate is a violation of Federal law. Pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to Federal, state, or local procedures. For guidance in proper disposal methods, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office.

## **CONTAINER DISPOSAL:**

# **NONREFILLABLE CONTAINERS:**

# Rigid, Nonrefillable containers small enough to shake (i.e. with capacities equal to less than five gallons).

Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure 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 offer for recycling or reconditioning if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank or collect rinsate at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Once container is rinsed, offer for recycling if available, or puncture and dispose of in a sanitary landfill.

# Rigid, Nonrefillable containers that are too large to shake (i.e. with capacities greater than 5 gallons or 50 lbs).

Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure 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. Offer for recycling or reconditioning if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank or collect rinsate at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Once container is rinsed, offer for recycling if available, or puncture and dispose of in a sanitary landfill.

## **REFILLABLE CONTAINERS:**

Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

## **REFILLING OR RETURNING CONTAINERS:**

If refilling or returning container is planned, end users are not authorized to remove tamper evident cables, one way values or clean container.

#### RECYCLE OR DISPOSAL OF CONTAINERS:

End users are authorized to remove tamper evident cable as required to remove the product from the container unless the container is equipped with one way valves and refilling or returning is planned. Instructions for container rinsing and either recycling or disposal are as follows:

# Bottom Discharge IBC (e.g. Schuetz Caged IBC or Snyder Square Stackable).

Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To pressure rinse the container before final disposal, empty the remaining contents from the IBC into application equipment or mix tank. Raise the bottom of the IBC by 1.5 inches on the side which is opposite of the bottom discharge valve to promote more complete product removal. Completely pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve.

# Top Discharge IBC, Drums, Kegs (e.g. Snyder 120 Next Gen, Bonar B120, Drums and Kegs).

Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To triple rinse the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

#### LIMITATION OF WARRANTY AND LIABILITY

Read the entire directions for use, conditions of warranties and limitations of liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following **CONDITIONS**, **DISCLAIMER OF WARRANTIES** and **LIMITATIONS OF LIABILITY**.

**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of ADAMA. All such risks shall be assumed by the user or buyer.

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