PM 25 100-763 2/6/98 1/38

1/38

FEB 6 1998

Thomas J. Parsley
Novartis Crop Protection, Inc.
P.O. Box 18300
Greensboro, NC 27419

Dear Mr. Parsley;

Subject: Revised Rotational Crop Statements and Labeling
Peak Herbicide
EPA Registration No. 100-763
Your Submission dated January 21, 1998

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended is acceptable provided that you:

1. Make the labeling changes listed below before you release the product for shipment bearing the amended labeling:

a. On pages 11 and 12 the sorghum directions for use recommend application rates of 0.75 and 1.0 oz/Acre. However, the rotational restrictions starting on page 23 limit the crops that may be rotated at these higher rates. To avoid confusion, add to the sorghum directions for use a statement which refers to the rotational crop restrictions that limit the crops that may be replanted at the higher application rates.

b. We note that the Warranty states "Novartis warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the directions for use subject to the inherent risks referred to above". This negates the precautionary statements and other labeling requirements specified by FIFRA. Refer to the enclosed 1966 PR Notice. Correct the warranty statement.

2. Submit one (1) copy of your final printed labeling before you release the product for shipment.

2/37

A stamped copy of the labeling is enclosed for your records.

Sincerely yours,

James A. Tompkins
Product Manager (25)
Herbicide Branch
Registration Division (7505C)

Enclosure

3/98

Accu-Pak®

Peak®

HERBICIDE

For weed control in grain sorghum (milo), wheat, barley, rye,oats, triticale, and proso millet

Active Ingredient:	
Prosulfuron: 1-(4-methoxy-6-methyl-triazin-2-yl)-3-[2-(3,3,3-trifluoropropyl)-phenylsulfonyl]-urea	57.0%
Inert Ingredients:	43.0%
Total:	100.0%

Peak is water-dispersible granules.

5 x 3 Oz.Water-Soluble Packets

15 Oz.
Total Net Weight

EPA Reg. No. 100-763

EPA Est. 100-LA-1

ACCEPTED
With Comments
FEB 6 1998
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 100-763

KEEP OUT OF REACH OF CHILDREN.

CAUTION

See additional precautionary statements and directions for use inside booklet.

This outer protective bag contains Peak in 5 inner water-soluble packets. Entire inner packets and contents dissolve in water. After opening outer bag, immediately dump the required number of unopened inner packets into a sprayer or mix tank partially filled with water. Do not excessively handle the inner soluble packets or expose them to moisture since this may cause rupturing.

NCP 763A-L4E 0298

4/38

DIRECTIONS FOR USE AND CONDITIONS OF SALE AND WARRANTY

IMPORTANT: Read the entire **Directions for Use** and the **Conditions of Sale and Warranty** before using this product. If terms are not acceptable, return the unopened product container at once.

Conditions of Sale and Warranty

The **Directions for Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with 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 Novartis Crop Protection, Inc. or the Seller. All such risks shall be assumed by the Buyer.

Novartis warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions for Use** subject to the inherent risks referred to above. **Novartis makes no other express or implied warranty of Fitness or Merchantability or any other express or implied warranty. In no case shall Novartis or the Seller be liable for consequential, special, or indirect damages resulting from the use or handling of this product.** Novartis and the Seller offer this product, and the Buyer and user accept it, subject to the foregoing **Conditions of Sale and Warranty,** which may be varied only by agreement in writing signed by a duly authorized representative of Novartis.

DIRECTIONS FOR USE

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

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

AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

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

- Coveralls
- Waterproof gloves
- Shoes plus socks

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

General Information

Peak is a selective herbicide applied after emergence of both crop and weeds for the control of broadleaf weeds in grain sorghum, winter wheat, spring wheat, barley, rye, oats, triticale, and proso millet. In addition, pre-emergence applications can be used in some areas for broadleaf weed control in sorghum. Peak is a water dispersible granule formulation which must be thoroughly mixed in water and applied as a spray.

Refer to Tables 1 and 5 for a listing of weeds controlled when Peak is applied postemergence. The degree of weed control resulting from application of Peak is dependent upon weed species, weed size at application, rate of Peak applied, and growing conditions. Weed control is optimum when ample soil moisture exists and weeds are actively growing.

Peak provides control or partial control of many broadleaf weeds. When reference is made to weeds partially controlled, partial control can mean either erratic control from good to poor or consistent control at a level below that generally considered acceptable for commercial weed control. Peak does not control grass weeds; therefore, if grasses are expected, a grass herbicide (such as Dual II®, Dual II Magnum®, Bicep Lite II®, or Bicep Lite II Magnum® preemergence in sorghum) should be applied.

Throughout this label, where rate ranges are listed, use the lower rate of Peak when weeds are in the middle or shorter portion of the recommended size range and the infestation is light or moderate. Use a higher rate of Peak when weeds are in the taller portion of the recommended size range or the infestation is heavy, and when a longer duration of weed control is desired.

Growth of susceptible weeds is inhibited soon after application of Peak. The leaves of susceptible plants turn yellow, red, or brown after several days, followed by death of the growing point. Complete plant death occurs 1-3 weeks after application, depending upon weed species and growing conditions. Weeds not completely killed by Peak are often stunted and are less competitive to the crop. Following postemergence applications, Peak provides residual/soil activity for up to 4 weeks.

This herbicide controls weeds by inhibiting a biochemical process which produces certain essential amino acids necessary for plant growth. The inhibited enzyme system is acetolactate synthase (ALS). Occurrence of ALS-resistant weed biotypes can be prevented or delayed by using this product in tank mixtures or in sequence with other herbicides having a different mode of action, and by using some form of mechanical control or a herbicide with a different mode of action to control weed escapes before they set seed.

Peak applied in accordance with this label rarely causes crop injury. When injury occurs, it is generally of short duration and yield potential is

7/38

not affected.

Restrictions: To avoid possible illegal residues: (1) Do not graze or feed forage from Peak-treated crops to livestock until 30 days after application, (2) Do not harvest silage until 40 days after application, (3) Do not harvest grain until 60 days after application, (4) Do not apply more than 1 oz./A of Peak in the cropping season, and (5) Complete all Peak applications before sorghum exceeds 30 inches in height or before head emergence; or before small grain cereal crops have the second node detectable in stem elongation.

Do not use Peak in the San Luis Valley of Colorado. In Washington, abide by all sulfonylurea aerial application rulings in effect by the Washington Department of Agriculture.

Weed Resistance to Sulfonylurea Herbicides

In some fields, there are naturally-occurring biotypes of kochia, Russian thistle, chickweed, prickly lettuce, and annual ryegrass that will not be controlled by sulfonylurea herbicides.

Control of these weeds may be excellent with the use of Peak in many fields; but, where there is the known occurrence of ALS-resistant biotypes. Peak must be tank-mixed or applied sequentially with an appropriate registered herbicide having a different mode of action* (such as 2,4-D; MCPA; Banvel®, Bronate®, Sencor®, or Buctril®) to insure control of these ALS-resistant biotypes.

*Mode of action is the biochemical mechanism for interfering with plant growth.

The occurrence of ALS-resistant weed biotypes can be prevented or delayed by using Peak in tank mixtures and/or in sequential applications with a registered herbicide having a different mode of action, and by not allowing weed escapes to flower. Post-harvest tillage or application of a herbicide with a different mode of action must be made to control any weed escapes before they flower or set seed. If weeds will flower before harvest, make a sequential application of an appropriate herbicide with a different mode of action from Peak. A list of herbicides with the same mode of action as Peak can be obtained from your local Novartis Crop Protection representative.

Do not use Peak alone in any field where ALS-resistant biotypes of any weed species have been identified.

Because of the prevalence of resistant kochia and Russian thistle biotypes in ID, WA, MT, SD, and ND, in these states Peak must be applied postemergence only in combination with a herbicide having a mode of action different from Peak, or preemergence followed by a postemer-

gence application of a herbicide having a mode of action different from Peak.

In CO and the Panhandle of NE, use Peak postemergence in combination with a herbicide having a different mode of action if kochia or Russian thistle are prevalent. See Novartis literature or contact the local representative for suggested tank-mix partners.

An application of a herbicide with a different mode of action from Peak, or a tillage operation, must be made to control any weeds before they flower that may be present in fallow cropland treated with Peak.

Do not apply Peak or other herbicides with the same mode of action within a 12-month period after a Peak application, except for split applications as described below. If additional weed control is needed, use a herbicide with a different mode of action from Peak.

Application Procedures

Ground Spray Equipment: Spray nozzles should be uniformly spaced and of the same size, and should provide accurate and uniform application. Use spray nozzles which provide medium droplets.

To help assure accuracy, calibrate sprayer at the beginning of the season before use and recalibrate frequently. For ground application, use a minimum of 5 gals. of water per acre. Higher volumes (i.e., at least 20 gals./A) should be used for severe weed infestations to ensure adequate spray coverage. Always include crop oil concentrate or nonionic surfactant in the spray mixture (see the **Mixing Instructions** section which follows).

Use a pump with capacity to: (1) maintain 35-40 psi pressure at nozzles and (2) provide sufficient agitation within the tank to keep product in suspension. Lower pressures may be used with extended range or drift reduction flat fan nozzles. A centrifugal pump which provides shear action for dispersing and mixing the product is recommended. The pump should provide a minimum of 20 gals./minute/100 gals. tank size circulated through a correctly positioned sparge tube or jet agitators. If jet agitators are used, at least 2 agitators should be aligned on the bottom of the tank pointing towards each end. Agitation during both mixing and application is essential. Screens or strainers placed on the suction side of the pump should be 16-mesh or coarser. Do not place a screen in the recirculation line unless a roller or piston pump is used for spraying the solution. Use 50-mesh or coarser screens between the pump and boom, and when required, at the nozzles. Check nozzle manufacturer's recommendations.

9/28

Good weed coverage with the spray mixture is essential for optimum weed control results. Observe sprayer nozzles frequently during the spraying operation to ensure that the spray pattern is uniform. Avoid large spray overlaps which result in excessive rates in the overlap areas. Also, avoid application under conditions when uniform coverage cannot be obtained or when excessive spray drift may occur. To reduce spray drift, do not apply under windy conditions. Allow adequate distance between target area and desirable vegetation to prevent drift to nontarget areas. Avoid placing nozzles directly over the row and concentrating spray into the sorghum whorls. Boom height for broadcast over-the-top application should be based upon the free-standing height of the crop, not height above the soil surface; and should be at least 15 inches above the crop.

Peak can be applied to the crop postemergence over-the-top or directed. In row crops, if the crop canopy would prevent adequate weed coverage, apply Peak with drop nozzles directed onto the weeds.

Avoid all direct or indirect contact (such as spray drift) of Peak with crops other than those recommended for treatment on this label, since injury may occur.

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

Aerial Application: Apply Peak in water using a minimum spray volume of 2 gals./A. Include crop oil concentrate or nonionic surfactant in the spray mixture (see following **Mixing Instructions**). Avoid application under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. Make applications at a maximum height of 10 ft. above the crop with low drift nozzles at a maximum pressure of 40 psi and wind speed not exceeding 10 mph to help assure accurate application within the target area.

Avoid application to humans or animals. Flagmen and loaders should avoid inhalation of spray mist and prolonged contact with skin.

Recommendations to Avoid Spray Drift

As with all crop protection products, it is important to avoid off-target movement. Do not allow spray to drift onto adjacent land or crops, as even small amounts may injure sensitive plants. When drift may be a problem, take steps to reduce spray drift, including:

- Do not spray if wind speed is 10 mph or greater. Do not spray if winds are gusty. If sensitive crops or plants are downwind, extreme caution must be used under all conditions.

- Use extreme caution when conditions are favorable for drift (high tem-

peratures, low relative humidity), especially when sensitive plants are located nearby.

- Do not apply when a temperature inversion exists. If an inversion condition is suspected, consult with local weather services before making an application.

- Further reductions in drift can be obtained by:

1. Using nozzles that provide a uniform droplet size. Do not use nozzles that produce extremely small droplets that are more prone to result in spray drift.

2. Applying as close to target plants as practical to obtain a good spray pattern for adequate coverage, while maintaining a minimum boom height of 15 inches over the crop canopy.

Mixing Instructions

1. Make sure the spray tank is clean before using. If it is contaminated with other materials, mixing problems and/or clogging may occur or injury to the crop may result.

2. Prepare no more spray mixture than is required for the immediate operation.

3. Fill the spray tank 1/4-1/2 full with **clean water** and begin agitation. For applications to small grain cereals, liquid fertilizer may replace part or all of the water as carrier.

4. Make certain that the agitation system is working properly and creates a rippling or rolling action on the water surface. Maintain agitation throughout the mixing and spraying process.

5. Drop the required number of unopened water-soluble packets of Peak into the spray tank all at once. Add any other products packaged in water-soluble film to the tank at the same time. Allow the packets to completely dissolve and the contents of the packets to fully disperse. **Important: Water-soluble packets must always be the first material put into the spray tank after water.**

   If liquid fertilizer is used as the total carrier, Peak must be dispersed in water prior to adding it to the spray tank. That may be accomplished by completely dissolving the appropriate number of Peak soluble packets in water in (a) a separate container, or (b) an inductor cone; then add the water mixture to the spray tank.

6. While maintaining agitation, continue filling the spray tank. When the tank is 3/4 full, add any tank mix partners. If AAtrex® (atrazine),

Banvel®, Banvel SGF®, Bronate®, Buctril®, Buctril + atrazine, Marksman®, MCPA, Sencor®, or 2,4-D is desired as a tank mix partner, add it next while continuing to agitate. Do not use crop oil concentrate as the spray adjuvant or add liquid nitrogen when using Banvel, Banvel SGF, Bronate, Buctril, Buctril + atrazine, Marksman, MCPA, Sencor, or 2,4-D tank mixtures, i.e., use only nonionic surfactant.

7. For postemergence applications, then add either (a) a high quality petroleum- or vegetable-based crop oil concentrate containing not less than 12% emulsifier at 1-4 pts./A as specified on the oil adjuvant label or (b) a good nonionic surfactant with a minimum of 80% of the constituents effective as a spray adjuvant, at the rate of 1-2 qts./100 gals. of spray mixture (0.25-0.5% volume/volume). Liquid nitrogen fertilizer (28-34%) at 0.5-1 gal./A or 2 lbs./A spray grade ammonium sulfate may also be added to enhance activity. Liquid nitrogen should not be used as a substitute for crop oil concentrate or nonionic surfactant. **Do not use liquid fertilizer as the total spray carrier on sorghum; that option is for small grain cereals only. When liquid fertilizer is used as the spray carrier, a nonionic surfactant should be included as described above. Do not use crop oil concentrate when liquid fertilizer is the carrier.**

8. Complete filling the tank, maintaining sufficient agitation at all times to ensure surface action until the spray tank mixture is uniform.

9. An anti-foaming agent may be added to reduce excessive foaming, if it occurs.

10. **Do not leave spray in the spray tank without continuous agitation.** Always maintain agitation to avoid separation and build-up of undesirable residues on the walls of the spray tank.

11. Make only sufficient spray mixture which can be used the day in which it will be sprayed; however, Peak will remain active in the spray solution for at least 36 hours.

Cleaning Equipment after Application

Because some broadleaf crops are extremely sensitive to low rates of Peak, special attention must be given to cleaning equipment before spraying a crop other than those registered for use and on this label. Mix only as much spray solution as needed. Immediately after spraying, clean equipment thoroughly using this procedure:

1. Flush tank, hoses, boom, and nozzles with clean water.

2. Prepare a tank cleaning solution of one gallon of household ammonia per 50 gals. of water. Do not use chlorine based cleaners such

as Clorox®.

3. When available, use a pressure rinser to clean the inside of the spray tank with this solution. Take care to wash all internal parts of the tank, including the inside top surface. Completely fill the sprayer with the cleaning solution to ensure contact of the cleansing solution with all internal surfaces of the tank and plumbing. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system.

4. Flush hoses, spray lines, and nozzles for at least one minute with the cleaning solution.

5. Dispose of rinsate from steps 1-3 in an appropriate manner. Spray the cleaning solution on an untreated crop on which Peak is registered, or return to a rinsate tank for later use as make-up water for spraying crops on which Peak is registered, or use other approved disposal.

6. Repeat steps 2-5.

7. Remove nozzles, screens, and strainers and clean separately in the ammonia cleaning solution after completing the above procedures.

8. Rinse the complete spraying system with clean water.

Note: If the tank is equipped with the proper number of correctly mounted 360° tank washing nozzles which are attached to a dedicated rinsing system, less cleaning solution than a full tank may be used. Use sufficient cleaning solution to thoroughly rinse all surfaces. Start the sprayer agitation and recirculate the cleaning solution for at least 15 minutes. Flush the spray boom with the cleaning solution. Repeat the rinsing procedure 1-2 times.

Grain Sorghum (Milo)

Peak controls many broadleaf weeds, including triazine-resistant biotypes, in grain sorghum.

Postemergence Application (in all sorghum growing areas)

Postemergence application should be made to sorghum at the rates and timings recommended in Table 1. If weeds are larger than the optimum size range recommended, only partial control may be obtained. For optimum control, if cultivation is to be used, cultivation is recommended 7-14 days after application of Peak.

Peak may be applied postemergence (over-the-top or directed) to actively growing sorghum between 5 and 30 inches in height and prior to head emergence. Within that broad window of application, it is more important to time applications to the optimum weed heights listed in Table 1, rather than crop height. Applications made to sorghum which is less than 5 inches tall increase the likelihood of crop injury. To insure good spray coverage of weeds, applications made after the sorghum is 20 inches tall should generally be directed or semi-directed using drop nozzles. In drier climates, crop oil concentrate (COC) is the preferred additive, instead of nonionic surfactant, when applying Peak alone.

Refer to Table 2 for the number of water-soluble packets to treat various acreages with Peak at the selected rate.

Postemergence Tank Mixtures (in all sorghum growing areas)

Peak may be applied in various tank mixtures for weed control in sorghum: (a) to include a different mode of action herbicide to help prevent or manage resistant weed biotypes; (b) for improved control of weeds not fully controlled by Peak alone; or (c) to control weeds which are larger than the optimum size range in Table 1.

Table 1: Weeds Controlled with Peak Applied Postemergence on Grain Sorghum

Weeds Controlled	Sorghum Tank Mix Rate (0.5 oz./A)	Standard Rate (0.75oz./A)	Enhanced Rate (1.0 oz./A)
	Weed Size Ranges for Optimum Control (inches)		
Amaranth, Palmer (*Amaranthus palmeri*)**	1-4*	1-4	1-6
Beggarweed, Florida (*Desmodium tortuosum*)	1-3	1-4	1-5
Bindweed, Field (*Convolvulus arvensis*)	2-4*	2-6*	2-8*
Bindweed, Hedge (*Calystegia sepium*)	1-3*	1-4	1-6
Buckwheat, Wild (*Polygonum convolvulus*)***	2-3*	2-4	2-5
Buffalobur (*Solanum rostratum*)	1-3*	1-3	1-5
Buttercup, Hairy (*Ranunculus sardous*)	1-4	1-5	1-6
Chamomile, Mayweed (*Anthemis cotula*)	1-3	1-4	1-6
Chickweed, Common (*Stellaria media*)**	1-3*	1-4*	1-5*
Cocklebur, Common (*Xanthium strumarium*)**	2-6	2-10	2-12
Devil's Claw (*Proboscidea louisianica*)	2-6	2-8	2-10
Eveningprimrose, Cutleaf (*Oenothera laciniata*)	1-4	1-6	1-8
Fiddleneck, Coast (*Amsinckia intermedia*)	1-3	1-4	1-6
Flixweed (*Descurainia sophia*)	1-6	1-8	1-10
Garlic, Wild (*Allium vineale*)	1-8	1-10	1-12
Henbit (*Lamium amplexicaule*)	1-2*	1-3*	1-4*
Horseweed (Marestail) (*Conyza canadensis*)	1-3*	1-4	1-6
Jimsonweed (*Datura stramonium*)	1-4	1-6	1-8
Kochia (*Kochia scoparia*)**	1-3*	1-4	1-6
Ladysthumb (*Polygonum persicaria*)	1-3	1-5	1-6
Lambsquarters, Common (*Chenopodium album*)	1-3*	1-4	1-5
Lettuce, Prickly (*Lactuca serriola*)**	1-4	1-5	1-6
Mallow, Common (*Malva neglecta*)	1-3*	1-4*	1-5*
Mallow, Venice (*Hibiscus trionium*)	1-3	1-4	1-5
Morningglory, Ivyleaf (*Ipomoea hederacea*)	1-3*	1-4*	1-4
Morningglory, Pitted (*Ipomoea lacunosa*)	1-3*	1-4*	1-4
Morningglory, Tall (*Ipomoea purpurea*)	1-3*	1-3*	1-4*
Mustard, Blue (*Chorispora tenella*)	1-6	1-8	1-10
Mustard, Tumble (*Sisymbrium altissimum*)	1-6	1-8	1-10
Mustard, Wild (*Brassica kaber*)	1-6	1-8	1-10
Pennycress, Field (*Thlaspi arvense*)	1-6	1-8	1-10
Pigweed, Redroot (*Amaranthus retroflexus*)**	1-3	1-5	1-6
Pigweed, Smooth (*Amaranthus hybridus*)**	1-3	1-5	1-6
Pigweed, Tumble (*Amaranthus albus*)	1-3	1-5	1-6
Puncturevine (*Tribulus terrestris*)	1-4	1-6	1-8
Pusley, Florida (*Richardia scabra*)	1-3	1-4	1-6
Radish, Wild (*Raphanus raphanistrum*)	1-4	1-6	1-8
Ragweed, Common (*Ambrosia artemisiifolia*)	2-6	2-10	2-12
Ragweed, Giant (*Ambrosia trifida*)	1-3*	1-3	1-4
Sesbania, Hemp (*Sesbania exaltata*)	1-3	1-4	1-6
Shepherd's-Purse (*Capsella bursa-pastoris*)	1-3	1-4	1-6
Sicklepod (*Cassia obtusifolia*)	1-3*	1-4	1-5
Sida, Prickly (*Sida spinosa*)	1-3*	1-3*	1-5*
Smartweed, Pennsylvania (*Polygonum pensylvanicum*)	1-3	1-4	1-6
Sunflower, Common (*Helianthus annuus*)	1-6	1-9	1-12
Tansymustard (*Descurainia pinnata*)	1-6	1-8	1-10
Thistle, Canada (*Cirsium arvense*)	1-2*	1-4*	1-6*
Thistle, Russian (*Salsola iberica*)**	1-2	1-3	1-4
Velvetleaf (*Abutilon theophrasti*)****	1-4	1-6	1-9
Waterhemp, Common (*Amaranthus rudis*)**	1-3*	1-4	1-5
Waterhemp, Tall (*Amaranthus tuberculatus*)**	1-3*	1-4*	1-4

*Partially controlled or suppressed.

**Certain biotypes of this weed species are known to be resistant to this and other ALS herbicides. Where these ALS-resistant biotypes are known to exist, an appropriate registered herbicide active against that weed and with another mode of action should be used alone or in tank mixture with Peak to control those biotypes.

***Spray after true leaves have emerged; earlier applications may result in unacceptable control.

****For optimum control, include nitrogen in the spray mixture; refer to **Mixing Instructions.**

Table 2: Number of Peak Water-Soluble Packets Required to Treat Various Acreages at the Recommended Rates

	Number of Peak Packets to Use for Broadcast Applications				
Acres to Treat	12 Acres per packet or 0.25 oz./A	8 Acres per packet or 0.38 oz./A	6 Acres per packet or 0.5 oz./A	4 Acres per packet or 0.75 oz./A	3 Acres per packet or 1 oz./A
3					1
4				1	
6			1		2
8		1		2	
9					3
12	1		2	3	4
15					5
16		2		4	
18			3		6
20				5	
24	2	3	4	6	8
30			5		10
40	3	5	7	10	13
60	5	8	10	15	20
80	7	10	13	20	27
120	10	15	20	30	40
160	13	20	27	40	53

Notes: (1) One bag of Peak contains 5 water-soluble packets. Each packet treats 3 acres at the 1 oz./A rate, 4 acres at the 0.75 oz./A rate, 6 acres at the 0.5 oz./A rate, 8 acres at the 0.38 oz./A rate, and 12 acres at the 0.25 oz./A rate. Thus, each **bag** treats 15 acres at the 1 oz./A rate, 20 acres at the 0.75 oz./A rate, 30 acres at the 0.5 oz./A rate, 40 acres at the 0.38 oz./A rate, and 60 acres at the 0.25 oz./A rate. (2) For band applications, use proportionately less product.

Refer to Table 3 for recommended tank mixture partners, rates, weeds controlled, weed sizes, additives, and crop stages. The tank mixtures in Table 3 will control the weeds listed in that table when treated at the growth stage recommended, plus the weeds and weed sizes listed in the

Standard Rate section of Table 1. Apply Peak in tank mixtures at the 0.5 oz./A tank-mix rate (refer to Table 2), and refer to the **Mixing Instructions** section of this label.

For all tank mixtures of Peak with other herbicides, refer to both labels for weeds controlled and application information; and follow all restrictions and precautions on both labels. For example, if applying Peak in tank mixture with AAtrex or other brands of atrazine, all the restrictions and rate limitations appearing on the AAtrex (atrazine) label must be followed if more restrictive/protective than those on this label.

Preemergence Applications Alone (in KS and NE only)

In the states of KS and NE only, Peak may be applied preemergence (during planting or within a few days after planting, but prior to weed or crop emergence) for control or partial control/suppression of many broadleaf weeds in sorghum.

Refer to Table 4 for recommended rates and weeds controlled with preemergence applications in sorghum. Then refer to Table 2 for the number of water-soluble packets to treat various acreages with Peak at the selected rate. Also refer to the **Mixing Instructions** section of this label, but the addition of a spray additive is not required for preemergence applications.

Note: For effective preemergence activity, enough rainfall or irrigation is needed to wet the soil approximately 2 inches deep before weed emergence.

If for some reason, a second application is desired, the maximum amount of Peak which can be applied is 1 oz./A during the cropping season. A second application may reduce rotational crop options; refer to the Rotational Crops section of this label.

Preemergence Tank Mixtures (in KS and NE only)

In the states of KS and NE only, where Peak can be used for preemergence control or partial control/suppression of broadleaf weeds in grain sorghums, Peak can be used in preemergence tank mixtures. For broader spectrum weed control, Peak may be tank mixed with other herbicides registered for preemergence weed control in sorghum, such as Bicep Lite II, Bicep Lite II Magnum, Dual II, Dual II Magnum; but note that many of those preemergence grass control products must be applied over Concep®-treated sorghum seed.

Refer to Table 4 for recommended rates and weeds controlled with preemergence applications of Peak in sorghum. Then refer to Table 2 for the number of water-soluble packets to treat various acreages with Peak at the selected rate. Also refer to the **Mixing Instructions** section of this

label, but the addition of a spray additive is not required for preemergence applications.

For all tank mixtures of Peak with other herbicides, refer to both labels for weeds controlled and application information; and follow all restrictions and precautions on both labels. For example, if applying Peak in tank mixture with AAtrex or other brands of atrazine, all the restrictions and rate limitations appearing on the AAtrex (atrazine) label must be followed if more restrictive/protective than those on this label.

Note: For effective preemergence activity, enough rainfall or irrigation is needed to wet the soil approximately 2 inches deep before weed emergence.

If for some reason, a second application is desired, the maximum amount of Peak which can be applied is 1 oz./A during the cropping season. A second application may reduce rotational crop options; refer to the Rotational Crops section of this label.

PRECAUTIONS - For all applications of Peak to sorghum

Follow these precautions to reduce chances of crop injury and/or to avoid reduced weed control:

1. Peak should not be applied to sorghum which is under severe stress due to drought, cold weather, hail, wind damage, sand abrasion, flooding, water-logged soil, compacted soil, disease, insect damage, nutrient deficiency (especially low nitrogen or iron levels), or other causes. Also, Peak should not be applied if weeds are under severe stress due to drought or if weeds are taller than the optimum heights listed in Table 1.

2. Do not apply Peak preemergence to early planted sorghum if cool, wet environmental conditions that stress sorghum are expected within 2 weeks after application. Cool, wet weather following Peak applications to sorghum may result in injury to the sorghum; this injury is normally temporary and yields are not affected.

3. If an organophosphate insecticide is applied to sorghum at planting time, do not use Peak preemergence. Do not make a foliar or soil application of any organophosphate insecticide within 15 days before or 10 days after an application of Peak.

4. Application of Peak either preemergence or postemergence to sorghum growing under stress caused by minor element nutrient deficiency (e.g., iron) or on highly calcareous soil (above pH 8.2), may result in crop injury. Applications of Peak to fields where iron chlorosis can occur in sorghum may result in enhanced iron chlorosis symptoms. Such enhanced iron chlorosis symptoms are gener-

ally of short duration and yields are not impacted; however, if such symptoms persist, they can be corrected by application of foliar iron fertilizer.

5. Peak can be applied to all grain sorghum hybrids except those susceptible to iron chlorosis which are being grown in areas where insufficient iron is available in the soil. Most inbred lines of sorghum have not been tested for sensitivity to Peak. Therefore, inbred lines must be thoroughly tested for sensitivity to Peak before treating large acreages.

6. Do not sprinkler irrigate within 4 hours after postemergence application of Peak. Rainfall or sprinkler irrigation occurring less than 4 hours after postemergence application may reduce weed control.

7. Do not apply Peak to sorghum that exhibits injury symptoms from a previous herbicide application or other causes.

8. Do not use Peak on sweet sorghum.

9. Observe all precautions and limitations on the label of each product used in tank mixtures with Peak.

Table 3: **Peak Tank Mixtures for Postemergence Weed Control in Grain Sorghum. Use the Tank-Mix Rate (0.5 oz./A or 1 packet/6 acres) or Standard Rate (0.75 oz./A or 1 packet/4 acres) for Peak and add one of the mixing partners recommended below.**

Weed and Recommended Size (inches)	Tank Mix Partner and Rate	Recommended Additive[1]	Sorghum Height Range (inches)
Cocklebur (2-12) Kochia (1-6 or areas with ALS resistance) Lambsquarters (1-6 or heavy infestations) Morningglories (1-5) Nightshades (1-5) Pigweeds/Carelessweed Palmer Amaranth, and Waterhemps (1-4 or ALS resistant) Velvetleaf (1-10)	AAtrex (atrazine)[2] 3/4-1 qt./A 4L	COC	5-12, or 8-12 directed
	or Banvel 1/4-1/2 pt./A	NIS	5-10, or 8-15 directed
	or Buctril 1/2-1 pt./A	NIS	5-12, or 8-24 directed
	or Buctril+atrazine[2] 1-2 pt./A	NIS	5-12, or 8-12 directed
	or Marksman[2] 1-2 pt./A	NIS	5-8, or 8-12 directed
	or 2,4-D 1/4-1/2 pt./A 4EC	NIS	5-8, or 8-24 directed
Canada Thistle (1-6)[3] Other Thistles (1-6)[3] Field Bindweed (2-8)[3] Hemp Dogbane (3-15)[3]	Banvel 1/4-1/2 pt./A	NIS	5-10, or 8-15 directed
	or 2,4-D 1/4-1/2 pt./A 4EC	NIS	5-8, or 8-24 directed

[1]NIS = Nonionic Surfactant or COC = Crop Oil Concentrate; nitrogen may also be included where COC is recommended; refer to **Mixing Instructions** section of this label.

[2]Do not use AAtrex (atrazine) on sand or loamy sand soils. Mixtures with AAtrex (atrazine) or premixes containing atrazine may result in some reduction in control (antagonism) on cocklebur, sunflower, and velvetleaf.

[3]Indicates "Partial Control" which means significant activity but not always at a level generally considered acceptable for commercial weed control.

19/38

Table 4: Weeds Controlled (C) or Partially Controlled/Suppressed (P) With Peak Applied Preemergence on Sorghum

	Rate of Peak	
	0.75 oz./A	1.0 oz./A
Amaranth, Palmer (*Amaranthus palmeri*)*	C	C
Buffalobur (*Solanum rostratum*)	C	C
Buttercup, Hairy (*Ranunculus sardous*)	C	C
Carpetweed (*Mollugo verticillata*)	C	C
Cocklebur, Common (*Xanthium strumarium*)*	P	P
Copperleaf, Hophornbeam (*Acalypha ostryifolia*)	C	C
Devil's Claw (*Proboscidea louisianica*)	C	C
Kochia (*Kochia scoparia*)*	C	C
Lambsquarters, Common (*Chenopodium album*)	C	C
Morningglory, Ivyleaf (*Ipomoea hederacea*)	P	P
Morningglory, Pitted (*Ipomoea lacunosa*)	P	P
Morningglory, Tall (*Ipomoea purpurea*)	P	P
Morningglory, Smallflower (*Jacquemontia tamnifolia*)	P	C
Mustard, Wild (*Brassica kaber*)	C	C
Pigweed, Smooth (*Amaranthus hybridus*)*	C	C
Pigweed, Redroot/Carelessweed (*A. retroflexus*)*	C	C
Puncturevine (*Tribulus terrestris*)	C	C
Purslane, Common (*Portulaca oleracea*)	C	C
Purslane, Horse (*Trianthema portulacastrum*)	C	C
Radish, Wild (*Raphanus raphanistrum*)	C	C
Ragweed, Common (*Ambrosia artemisiifolia*)	C	C
Ragweed, Giant (*Ambrosia trifida*)	P	C
Sesbania, Hemp (*Sesbania exaltata*)	P	P
Sicklepod (*Cassia obtusifolia*)	P	C
Sida, Prickly (*Sida spinosa*)	C	C
Smartweed, Pennsylvania (*Polygonum pensylvanicum*)	C	C
Sunflower, Common (*Helianthus annuus*)	C	C
Velvetleaf (*Abutilon theophrasti*)	P	P
Waterhemp, Common (*Amaranthus rudis*)*	C	C
Waterhemp, Tall (*Amaranthus tuberculatus*)*	C	C

*Certain biotypes of this weed species are known to be resistant to this and other ALS herbicides. Where ALS resistant biotypes are known to exist, an appropriate registered herbicide active against that weed and with another mode of action should be used alone or in tank mixture with Peak to control those biotypes.

Pigweed, Amaranth, and Waterhemp Control Program for Grain Sorghum: Since various pigweed related species, including redroot pigweed, Palmer amaranth, common waterhemp, tall waterhemp, and others, are prolific seed producers, have long germination periods, have ALS-resistant biotypes, and have become problem weeds in certain areas, the following three-step program for control of heavy infestations of these weeds is recommended: (1) Apply Bicep II, Bicep II Magnum, Bicep Lite II, Dual II, or Dual II Magnum preemergence at the recommended rate for that soil, over Concep-treated sorghum seed. If weeds have emerged prior to the application of the preemergence herbicide, control those weeds with tillage or a burndown herbicide. (2) Apply a postemergence tank mixture of Peak plus AAtrex (atrazine), or Banvel, or Marksman when the pigweed, amaranth, or waterhemp plants are 1-8 inches tall (not taller). Refer to Table 3 for additional information regard-

ing timings, rates, and additives for these tank mixtures. (3) If needed, cultivate 1-3 weeks after the postemergence application. In addition to controlling pigweeds, waterhemps, and related species, this program is also effective in controlling most other weeds common in grain sorghum.

Small Grain Cereals (Wheat, Barley, Rye, Oats, and Triticale) and Proso Millet

Peak controls many broadleaf weeds in small grain cereals, including winter wheat, spring wheat, winter barley, spring barley, rye, oats, and triticale; as well as proso millet.

Note: This product should not be used where small grains are underseeded with legumes, or the legumes may be severely injured or killed.

21/38

Table 5: Weeds Controlled by Peak Applied Postemergence in Small Grain Cereals and Proso Millet

Weeds Controlled	Cereal and Proso Millet Rates	
	0.38 oz./A	0.5 oz./A
	Weed Size Ranges for Optimum Control (inches)	
Amaranth, Palmer (*Amaranthus palmeri*)**	1-3*	1-3*
Bindweed, Field (*Convolvulus arvensis*)	2-3*	2-4*
Bindweed, Hedge (*Calystegia sepium*)	1-3*	1-3*
Buckwheat, Wild (*Polygonum convolvulus*)***	2-3*	2-3
Buffalobur (*Solanum rostratum*)	1-3	1-4
Buttercup, Hairy (*Ranunculus sardous*)	1-4	1-6
Chamomile, Mayweed (*Anthemis cotula*)	1-3	1-3
Chervil, Bur (*Anthriscus scandicina*)	1-2	1-3
Chickweed, Common (*Stellaria media*)**	1-3*	1-3*
Chickweed, Mouseear (*Cerastium vulgatum*)	1-3*	1-3*
Cocklebur, Common (*Xanthium strumarium*)**	2-4	2-6
Eveningprimrose, Cutleaf (*Oenothera laciniata*)	1-3	1-4
Fiddleneck, Coast (*Amsinckia intermedia*)	1-3	1-3
Flixweed (*Descurainia sophia*)	1-4	1-6
Garlic, Wild (*Allium vineale*)	1-6****	1-8****
Gromwell, Corn (*Lithospernum arvense*)	1-2*	1-3*
Henbit (*Lamium amplexicaule*)	1-2*	1-2*
Knotweed, Prostrate (*Polygonum aviculare*)	1-2*	1-3*
Kochia (*Kochia scoparia*)**	1-3*	1-3*
Lambsquarters, Common (*Chenopodium album*)	1-3*	1-3*
Lettuce, Miner's (*Montia perfoliata*)	1-4	1-6
Lettuce, Prickly (*Lactuca serriola*)**	1-3	1-4
Mallow, Common (*Malva neglecta*)	1-2*	1-3*
Mallow, Venice (*Hibiscus trionum*)	1-2	1-3
Mustard, Blue (*Chorispora tenella*)	1-4	1-6
Mustard, Tumble (*Sisymbrium altissimum*)	1-4	1-6
Mustard, Wild (*Brassica kaber*)	1-5	1-6
Pennycress, Field (*Thalspi arvense*)	1-4	1-6
Pigweed, Redroot (*Amaranthus retroflexus*)**	1-3*	1-3
Pigweed, Smooth (*Amaranthus hybridus*)**	1-3*	1-3
Pigweed, Tumble (*Amaranthus albus*)	1-2	1-3
Pineapple-weed (*Matricaria matricariodes*)	1-4	1-6
Radish, Wild (*Raphanus raphanistrum*)	1-3	1-4
Ragweed, Common (*Ambrosia artemisiifolia*)	2-5	2-6
Shepherd's Purse (*Capsella bursa-pastoris*)	1-2	1-3
Sunflower, Common (*Helianthus annuus*)	1-4	1-6
Tansymustard (*Descurainia pinnata*)	1-4	1-6
Thistle, Canada (*Cirsium arvense*)	1-2*	1-2*
Thistle, Russian (*Salsola iberica*)**	1-2*	1-2
Wallflower, Bushy (*Erysimum repandum*)	1-3	1-4

*Indicates "Partial Control" which means significant activity but not always at a level generally considered acceptable for commercial weed control.

**Certain biotypes of this weed species are known to be resistant to this and other ALS herbicides. Where these ALS-resistant biotypes are known to exist, an appropriate registered herbicide active against that weed and with another mode of action should be used alone or in tank mixture with Peak to control those biotypes.

***Spray after true leaves have emerged; earlier applications may result in unacceptable control.

****Wild Garlic is controlled at 0.25-0.5 oz./A. Use the 0.5 oz./A rate when added soil residual control is desired or control of other weeds listed in this table is desired.

Postemergence Application Alone

Postemergence application should be made to small grain cereals and proso millet at the rate and timings recommended in Table 5. If weeds are larger than the optimum size range recommended, only partial control may be obtained.

Peak may be applied postemergence over-the-top to actively growing small grain crops or proso millet from the 3-leaf stage of the crop to before the second node is detectable in stem elongation (Feekes Growth Stage 7). Within that broad window of application, it is more important to time applications to the optimum weed heights listed in Table 5, rather than crop stage. Applications made to small grain cereals or proso millet before the 3-leaf stage increase the likelihood of crop injury. In drier climates, crop oil concentrate (COC) is the preferred additive, instead of nonionic surfactant, when applying Peak alone with water as the carrier.

Refer to Table 2 for the number of water-soluble packets to treat various acreages with Peak at the selected rate and refer to the **Mixing Instructions** section.

Note: Refer to the **Rotational Crops** section for additional restrictions.

Postemergence Tank Mixtures

Peak may be applied in various tank mixtures for weed control in small grain cereals and proso millet (refer to partner label): (a) to include a different mode of action herbicide to help prevent or manage resistant weed biotypes; (b) for improved control of weeds not fully controlled by Peak alone; (c) to control weeds which are larger than the optimum size range in Table 5; or (d) to control grass weeds.

Refer to Table 6 for recommended broadleaf tank mixture partners, rates, weeds controlled, weed sizes, additives, and crop stages. The tank mixtures in Table 6 will control the broadleaf weeds listed in that table when treated at the growth stage recommended, **plus** the weeds and weed sizes listed in Table 5. Apply Peak in tank mixtures at the 0.25-0.5 oz./A tank-mix rate (refer to Table 2), and refer to the **Mixing Instructions** section of this label. When tank mixing with the 0.25 oz./A Peak rate, refer to the weed sizes given for 0.38 oz./A used alone.

Peak may also be applied at 0.25-0.5 oz./A in tank mixtures with cereal herbicides which control grasses; including Assert®, Avenge®, Dakota®, Hoelon®, or Tiller®.

For all tank mixtures of Peak with other herbicides, refer to both labels for weeds controlled, additives recommended, and application information; and follow all restrictions and precautions on both labels.

If a second application is desired, the maximum amount of Peak which can be applied is 1 oz./A during the cropping season.

PRECAUTIONS - For all applications of Peak to small grain cereals and proso millet

Follow these precautions to reduce chances of crop injury and/or to avoid reduced weed control:

1. Peak should not be applied to small grain or proso millet crops which are under severe stress due to drought, cold weather, hail, wind damage, sand cutting, flooding, water-logged soil, compacted soil, disease, insect damage, nutrient deficiency, or other causes. Also, Peak should not be applied if weeds are under severe stress due to drought or if weeds are taller than the optimum heights listed in Table 5.

2. Do not apply Peak to small grain cereals or proso millet if cold, wet environment conditions that stress wheat are expected within 1 week after application. Cold, wet weather following Peak applications to small grains may result in injury to the cereal crop; this injury is normally temporary and yields are not affected.

3. Do not make a foliar or soil application of any organophosphate insecticide within 15 days before or 10 days after an application of Peak.

4. Do not sprinkler irrigate within 4 hours after application of Peak. Rainfall or sprinkler irrigation occurring less than 4 hours after application may reduce weed control.

5. Do not apply Peak to small grains that exhibit injury symptoms from a previous herbicide application or other causes.

6. Observe all precautions and limitations on the label of each product used in tank mixtures with Peak.

7. Peak can be applied on proso millet crops. Do not apply Peak to pearl millet or other forage millets or crop injury may occur.

Table 6: **Peak Tank Mixtures for Postemergence Control of Broadleaf Weeds in Small Grain Cereals. Use the Cereal or Lower Tank-Mix Rate for Peak (0.25-0.5 oz./A or 1 packet/6-12 acres) and add one of the mixing partners listed below. Follow all stage of application restrictions on the mixing partner label.**

Weed and Recommended Size (inches)[1]	Mix Partner	Mix Partner Rate	Recommended Additive[3]
Kochia (1-6) Lambsquarters (1-6 or heavy infestations) Morningglories (1-5) Pigweeds (1-8) Wild buckwheat (2-4) Russian thistle (1-4)	Banvel	2-4 oz./A	NIS
	or Banvel SGF	4-8 oz./A	NIS
	or Bronate	3/4-1 1/2 pts./A	NIS
	or Buctril	3/4-1 1/2 pts./A	NIS
	or MCPA[4]	8-12 oz./A 4EC	NIS
	or 2,4-D	8-12 oz./A 4EC	NIS
	or Banvel	2-3 oz./A +2,4-D 8 oz./A	NIS
	or Sencor® DF (not for wild buckwheat)	1/3-2/3 lb./A, or	NIS
	Sencor 4 (not for wild buckwheat)	1/2-1 pt./A	NIS
Canada Thistle (1-6)[2] Other Thistles (1-6)[2] Field Bindweed (2-8)[2]	Banvel	2-4 oz./A	NIS
	or Banvel SGF	4-8 oz./A	NIS
	or 2,4-D	8-12 oz./A 4EC	NIS
	or Banvel	2-3 oz./A +2,4-D 8 oz./A	NIS

[1]Recommended weed sizes for optimum control.

[2]Indicates "Partial Control" which means significant activity, but not always at a level generally considered acceptable for commercial weed control.

[3]NIS = Nonionic Surfactant; refer to **Mixing Instructions** section of this label.

[4]MCPA usually does not control kochia.

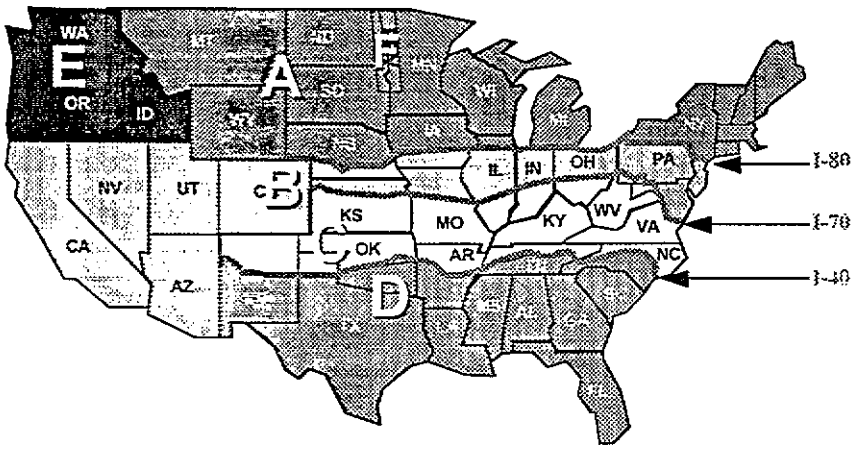
Crop Failure

If a crop treated with Peak is lost due to a natural catastrophe such as hail or frost; an IR or IMR field corn hybrid or a small grain cereal crop (wheat, barley, rye, oats, or triticale) may be replanted immediately. Normal field corn or grain sorghum may be replanted, but not until one month or more after application. For control of weeds in a replanted crop, Peak may be applied a second time only if the total Peak applied during the cropping season does not exceed 1 oz./Acre.

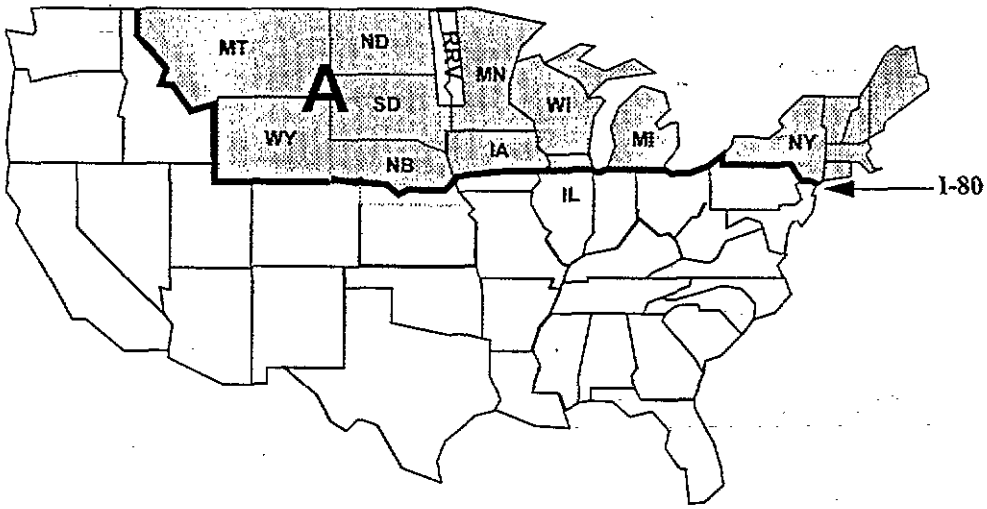
Rotational Crops Following Applications of Peak

Peak herbicide is broken down in the soil primarily by chemical hydrolysis and microbial degradation. Several factors influence degradation of Peak herbicide, including soil pH, moisture, temperature, and soil friability. In general the higher the soil pH, the less Peak is degradated due to chemical hydrolysis with little hydrolysis occurring when soil pH levels are above 7.8. Soil pH may vary dramatically across a field and so average samples from a field may not be representative of every area of the field. **Several soil samples for pH should be taken from across a field and analyzed individually** to better define areas of differing pH within the field. Soil moisture levels near field capacity and higher temperatures will promote microbial activity and Peak degradation. Microbial activity will be greatest in well aerated soils and will be reduced in areas subjected to flooding or compaction. The following tables indicate minimum intervals and restrictions for planting rotational crops after application of Peak herbicide. These tables were developed based on average weather and normal growing conditions. If, after Peak application, periods of drought, flood, or a shortened growing season occurs Peak levels remaining in the soil at time of replanting may be higher than expected. For a given geographical area and rotational crop, planting before the minimum interval or exceeding the restrictions regarding maximum rate, maximum soil pH, or latest application date may result in injury to the rotational crop and/or illegal residues. For rotational crop restrictions when Peak is used in tank mixtures, refer to the rotational crop intervals in the following tables for Peak and to the respective product label of any mixing partner for additional restrictions, and use the longest interval.

If due to environmental conditions, uncertainty exists as to safety of replanting a rotational crop, a field grown bioassay is the best indicator of the safety of planting a given crop. Wait to plant the rotational crop until optimum conditions exist for rapid plant establishment. Do not plant into a cold, wet, and/or compacted seedbed.



Region A (North of Interstate 80, except OR, WA, ID and the Red River Valley area of MN and ND on soils with pH <7.8)



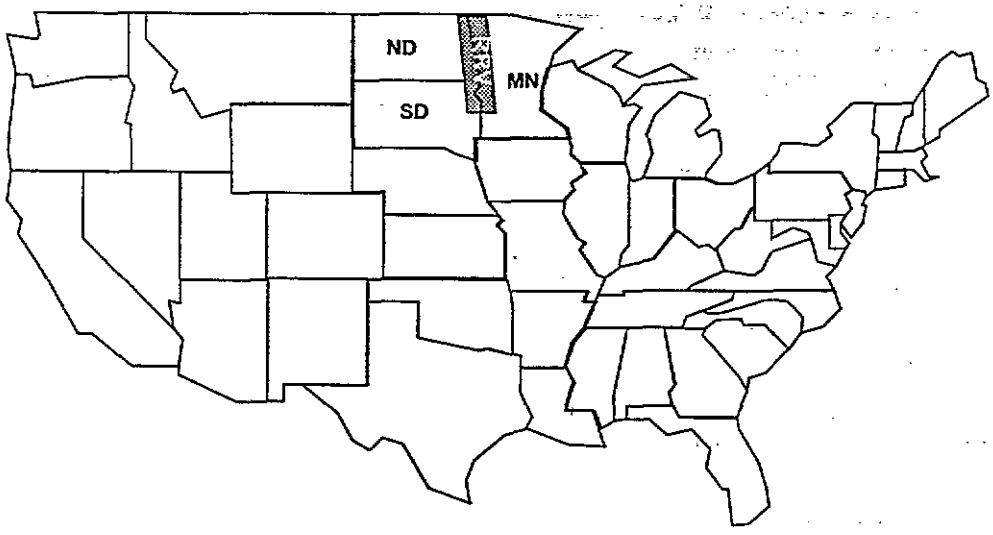
		Restrictions:	
Rotational Crop	Minimum Plant Back Interval where Soil pH is Below 7.8	Do Not Apply More Than (Maximum Rate in oz/A)	Make Application Before
Wheat, Barley, Rye Oats, Triticale, and IR or IMR Field Corn	None	0.75	see use recommendations
Normal Field Corn, Sorghums, Proso Millet	1 month	0.75	see use recommendations
Popcorn, Sweet Corn, Rice, Peas, Forage Grasses, Green Beans	10 months	0.5	July 10,
Garbanzos, Tobacco Cabbage, Canola, Flax Clovers, Alfalfa, Potatoes Sunflowers, Soybeans, Sugarbeets, Lentils, Leeks, Dry Beans and Onions All other crops	22 months	0.5	July 1

These recropping guidelines are applicable only on soils with pH below 7.8 and where Peak has been applied at or below the rates specified in the above table. Do not replant any broadleaf crop if less than 10 inches of precipitation or irrigation has occurred since the application of Peak.

For situations not covered adequately in the above table, i.e., higher soil pH but lower initial Peak use rate, conduct a soil bioassay to determine if Peak levels in the soil will allow successful establishment of the rotational crop. Take soil samples to a depth of six inches (preferably in a solid core) from several locations within the field as well as an untreated area. Plant the intended crop and allow to grow for three weeks. If, at the end of three weeks, no difference exists between the treated and untreated soil in root and shoot growth of the intended crop, it is safe to plant the intended crop with good growing conditions.

27/38

Red River Valley area of MN and ND, with soil pH <7.8



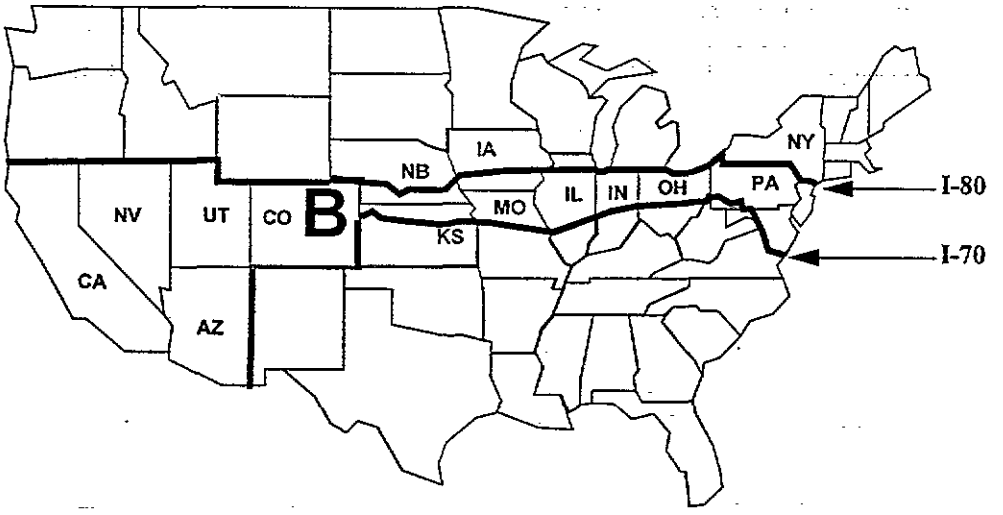
Rotational Crop	Minimum Plant Back Interval where Soil pH is Below 7.8	Restrictions: Do Not Apply More Than (Maximum Rate in oz./A)	Restrictions: Make Application Before
Wheat, Barley, Rye Oats, Triticale, and IR or IMR Field Corn	None	0.5	see use recommendations
Normal Field Corn, Sorghums, Proso Millet	1 month	0.38	see use recommendations
Popcorn, Sweet Corn, Rice, Green Beans Peas, Forage Grasses	10 months	0.25	July 10
Soybeans, Dry Beans, Cotton, Tobacco	22 months	0.25	July 10
Cabbage, Canola, Tomatoes, Flax, Lentils All other crops	Do not plant these crops for 34 months after an application of Peak.		

These recropping guidelines are applicable only on soils with pH below 7.8 and where Peak has been applied at or below the rates specified in the above table. Do not replant any broadleaf crop if less than 10 inches of precipitation or irrigation has occurred since the application of Peak.

For situations not covered adequately in the above table, i.e., higher soil pH but lower initial Peak use rate, conduct a soil bioassay to determine if Peak levels in the soil will allow successful establishment of the rotational crop. Take soil samples to a depth of six inches (preferably in a solid core) from several locations within the field as well as an untreated area. Plant the intended crop and allow to grow for three weeks. If, at the end of three weeks, no difference exists between the treated and untreated soil in root and shoot growth of the intended crop, it is safe to plant the intended crop with good growing conditions.

28/38

Region B (South of Interstate 80, North of Interstate 70 plus all of CO, UT, NV, AZ and CA on soils with pH <7.8)



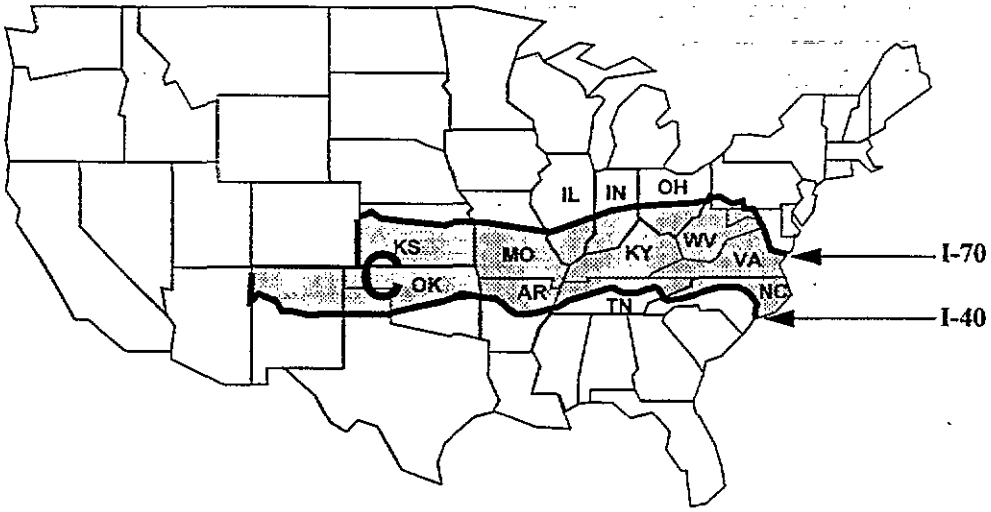
Rotational Crop	Minimum Plant Back Interval where Soil pH is Below 7.8	Restrictions: Do Not Apply More Than (Maximum Rate in oz./A)	Restrictions: Make Application Before
Wheat, Barley, Rye Oats, Triticale, and IR or IMR Field Corn	None	1	see use recommendations
Normal Field Corn, Sorghums, Proso Millet	1 month	1	see use recommendations
Popcorn, Sweet Corn, Rice, Peas, Forage Grasses, STS Soybeans* Green Beans	10 months	0.5	July 10
Soybeans, Dry Beans Tobacco	10 months	0.25	July 10
Cabbage, Canola, Flax Clovers, Alfalfa Potatoes, Sunflowers, Sugar Beets, Leeks, Onions All other crops	22 months	0.38	July 10

*STS soybeans which have enhanced tolerance to certain sulfonylurea herbicides.

These recropping guidelines are applicable only on soils with pH below 7.8 and where Peak has been applied at or below the rates specified in the above table. Do not replant any broadleaf crop if less than 10 inches of precipitation or irrigation has occurred since the application of Peak.

For situations not covered adequately in the above table, i.e., higher soil pH but lower initial Peak use rate, conduct a soil bioassay to determine if Peak levels in the soil will allow successful establishment of the rotational crop. Take soil samples to a depth of six inches (preferably in a solid core) from several locations within the field as well as an untreated area. Plant the intended crop and allow to grow for three weeks. If, at the end of three weeks, no difference exists between the treated and untreated soil in root and shoot growth of the intended crop, it is safe to plant the intended crop with good growing conditions.

Region C (Areas South of I-70 and North of I-40 with soil pH <7.8, excluding AZ, CA, NV and UT)



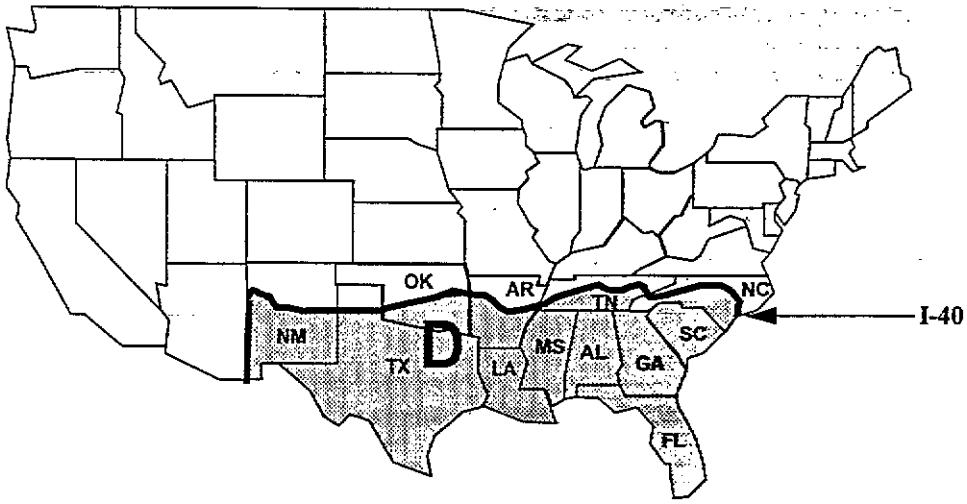
Rotational Crop	Minimum Plant Back Interval where Soil pH is Below 7.8	Restrictions: Do Not Apply More Than (Maximum Rate in oz./A)	Restrictions: Make Application Before
Wheat, Barley, Rye Oats, Triticale, and IR or IMR Field Corn	None	1	see use recommendations
Normal Field Corn, Sorghums, Proso Millet	1 month	1	see use recommendations
Popcorn, Sweet Corn, Rice, Peas, Forage Grasses	10 months	1	July 10
STS Soybeans*, Garbanzos, Green Beans, Peanuts, Tobacco	10 months	0.75	July 10
Soybeans, Dry Beans, Cabbage, Canola, Tomatoes, Flax, Lentils, Cotton	10 months	0.5	July 10
Clovers, Alfalfa, Potatoes, Sunflowers, Sugar Beets, Leeks, Onions, All Other Crops	22 months	0.5	July 10

*STS soybeans which have enhanced tolerance to certain sulfonylurea herbicides.

These recropping guidelines are applicable only on soils with pH below 7.8 and where Peak has been applied at or below the rates specified in the above table. Do not replant any broadleaf crop if less than 10 inches of precipitation or irrigation has occurred since the application of Peak.

For situations not covered adequately in the above table, i.e., higher soil pH but lower initial Peak use rate, conduct a soil bioassay to determine if Peak levels in the soil will allow successful establishment of the rotational crop. Take soil samples to a depth of six inches (preferably in a solid core) from several locations within the field as well as an untreated area. Plant the intended crop and allow to grow for three weeks. If, at the end of three weeks, no difference exists between the treated and untreated soil in root and shoot growth of the intended crop, it is safe to plant the intended crop with good growing conditions.

Region D (All Areas South of Interstate 40 with soil pH <7.8, except AZ and CA)



Rotational Crop	Minimum Plant Back Interval where Soil pH is Below 7.8	Restrictions:	
		Do Not Apply More Than (Maximum Rate in oz./A)	Make Application Before
Wheat, Barley, Rye Oats, Triticale, and IR or IMR Field Corn	None	1	see use recommendations
Normal Field Corn, Sorghums, Proso Millet	1 month	1	see use recommendations
Popcorn, Sweet Corn, Rice, Peas, Forage Grasses, STS Soybeans*	10 months	1	July 10
Soybeans, Dry Beans, Garbanzos, Green Beans, Peanuts, Cotton, Tobacco	10 months	0.75	July 10
Cabbage, Canola, Tomatoes, Flax, Lentils	10 months	0.5	July 10
Clovers, Alfalfa	15 months	0.5 (0.38 in west TX, western OK, NM and AZ)	July 10
Potatoes, Sunflowers, Sugar Beets, Leeks, Onions	22 months	0.5	July 10
All other crops	18 months	0.5	July 10

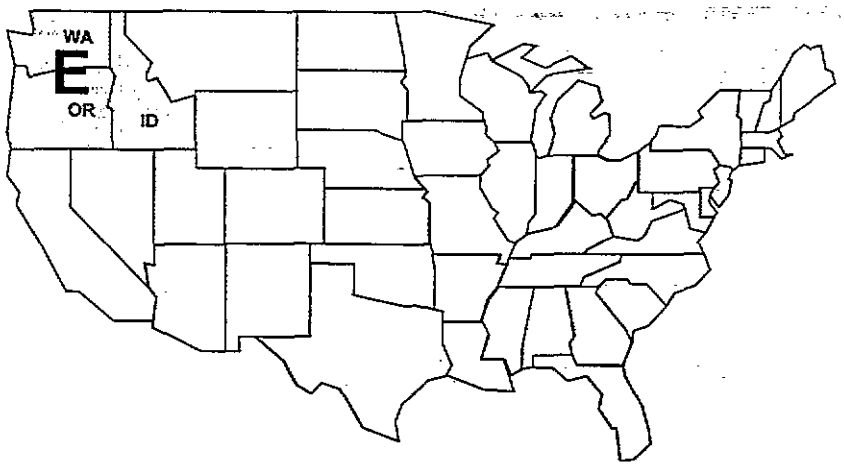
*STS soybeans which have enhanced tolerance to certain sulfonylurea herbicides.

Exception to requirement for pH <7.8 - In MS, LA, AR, and southern and eastern TX, including South Texas, the Lower Rio Grande Valley, the Coastal Bend, and the Blacklands; cotton, rice, STS soybeans which have enhanced tolerance to certain sulfonylurea herbicides, normal soybeans, dry beans, and peanuts can be planted on all soils (at least 10 months after application) provided there are at least 10 inches of rainfall or irrigation during the 6 months after application of Peak.

These recropping guidelines are applicable only on soils with pH below 7.8 and where Peak has been applied at or below the rates specified in the above table. Do not replant any broadleaf crop if less than 10 inches of precipitation or irrigation has occurred since the application of Peak.

For situations not covered adequately in the above table, i.e., higher soil pH but lower initial Peak use rate, conduct a soil bioassay to determine if Peak levels in the soil will allow successful establishment of the rotational crop. Take soil samples to a depth of six inches (preferably in a solid core) from several locations within the field as well as an untreated area. Plant the intended crop and allow to grow for three weeks. If, at the end of three weeks, no difference exists between the treated and untreated soil in root and shoot growth of the intended crop, it is safe to plant the intended crop with good growing conditions.

Region E Pacific Northwest (ID, OR, WA) with soil pH <7.2



Rotational Crop	Minimum Plant Back Interval where Soil pH is Below 7.8	Restrictions:	
		Do Not Apply More Than (Maximum Rate in oz./A)	Make Application Before
Wheat, Barley, Rye Oats, Triticale, and IR or IMR Field Corn	None	0.75	see use recommendations
Normal Field Corn, Sorghums, Proso Millet	1 month	0.75	see use recommendations
Grasses Grown for Seed	4 months	0.5	June 15
Popcorn, Sweet Corn, Rice, Peas, Forage Grasses, STS Soybeans*	10 months	0.5	July 1
Soybeans, Dry Beans, Garbanzos, Green Beans Peanuts, Tobacco Cabbage**, Canola**, Tomatoes**, Flax**, Lentils**	10 months	0.5	June 15
Clovers, Alfalfa Potatoes	15 months	0.5	May 15
Sunflowers, Sugarbeets, Leeks, Onions	22 months	0.5	May 15
All other crops	18 months	0.5	May 15

*STS soybeans which have enhanced tolerance to certain sulfonylurea herbicides.

**Do not rotate to green beans, cabbage, canola, tomatoes, flax, or lentils unless 6" of rainfall or irrigation is received within 6 months after application of Peak and the soil is tilled to a minimum of 4" deep prior to seeding the rotational crop.

These recropping guidelines are applicable only on soils with pH below 7.2 and where Peak has been applied at or below the rates specified in the above table.

For situations not covered adequately in the above table, i.e., higher soil pH but lower initial Peak use rate, conduct a soil bioassay to determine if Peak levels in the soil will allow successful establishment of the rotational crop. Take soil samples to a depth of six inches (preferably in a solid core) from several locations within the field as well as an untreated area. Plant the intended crop and allow to grow for three weeks. If, at the end of three weeks, no difference exists between the treated and untreated soil in root and shoot growth of the intended crop, it is safe to plant the intended crop with good growing conditions.

Storage and Disposal

Pesticide Storage and Disposal

Storage

Store in a cool, dry place. Do not store this product under wet conditions. Handle outer bag carefully to avoid breakage of inner soluble packets.

Pesticide Disposal

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

Do not reuse outer bag. Dispose of outer bag in a sanitary landfill, or by incineration, or by open burning, if allowed by state and local authorities. If burned, keep out of smoke.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing.

Statement of Practical Treatment

If in eyes: Flush eyes with plenty of water. Get medical attention if irrita-

tion persists.

If swallowed: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger.

Do not induce vomiting or give anything by mouth to an unconscious person.

If on skin: Wash with plenty of soap and water. Get medical attention if irritation occurs and persists.

Note to Physician: If ingested, induce emesis or lavage stomach. Treat symptomatically.

Personal Protective Equipment

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

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

Engineering Control Statements

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

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards

Do not apply directly to water, 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.

This chemical demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

Novartis Crop Protection, Inc.
Greensboro, North Carolina 27419

NCP 763A-L4E 0298

[QUARK/PEAK/PEAK-RR] - ccg - 2/4/98

Base Label

Accu-Pak®

Peak®

HERBICIDE

For weed control in grain sorghum (milo), wheat, barley, rye,oats, triticale, and proso millet

Active Ingredient:	
Prosulfuron: 1-(4-methoxy-6-methyl-triazin-2-yl)-3-[2-(3,3,3-trifluoropropyl)-phenylsulfonyl]-urea	57.0%
Inert Ingredients:	43.0%
Total:	100.0%

Peak is water-dispersible granules.

5 x 3 Oz.Water-Soluble Packets

15 Oz.
Total Net Weight

EPA Reg. No. 100-763

EPA Est. 100-LA-1

NCP 763A-L4E 0298

See directions for use in attached booklet.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

KEEP OUT OF REACH OF CHILDREN.

CAUTION

Precautionary Statements

Hazards to Humans and Domestic Animals

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing.

Statement of Practical Treatment

If in eyes: Flush eyes with plenty of water. Get medical attention if irritation persists.

If swallowed: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

If on skin: Wash with plenty of soap and water. Get medical attention if irritation occurs and persists.

Note to Physician: If ingested, induce emesis or lavage stomach. Treat symptomatically.

Environmental Hazards

Do not apply directly to water, 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.

This chemical demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is

shallow, may result in ground water contamination.

Novartis Crop Protection, Inc.
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[QUARK/PEAK/PEAK-RR] - ccg - 2/4/98