

PM 25

100-701

04/28/99

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April 9, 1999

Document Processing Desk (AMEND)
Office of Pesticide Programs (H7504C)
U.S. Environmental Protection Agency
401 M. Street, S.W.
Washington, D.C. 20460

NOT REVIEWED
In Accordance with PR Notice 82-2
Based On Draft Labeling Dated
11 Sept 4-28-99

Attn: Mr. Jim Tompkins, PM 25

Dear Mr. Tompkins:

**SUBJECT: ACCUPAK® AMBER® HERBICIDE - EPA REG. NO. 100-701
CUSTOMPAK™ AMBER HERBICIDE - EPA REG. NO. 100-768
YOUR ACCEPTANCE LETTERS OF MARCH 3, 1999
SUBMISSION OF FINAL PRINTED LABELING**

In accordance with the subject letter, enclosed is one copy of final printed labeling for the highlighted product which accurately represents the labeling accepted on March 3, 1999.

Also enclosed is an EPA Form 8570-1 indicating the submission of the final printed labeling.

Sincerely,

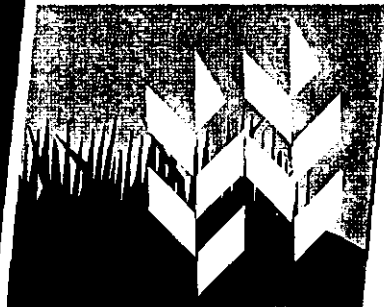
Karen S. Stumpf
Senior Regulatory Manager
Regulatory Affairs

Enclosures

PULL HERE TO OPEN ►

Accu-Pak®

Amber®



Active Ingredient:
 Triasulfuron: 3-(6-methoxy-4-methyl-1,3,5-triazin-2-yl)-1-[2-(2-chloroethoxy)-phenylsulfonyl]-urea 75.0%
Inert Ingredients: 25.0%
Total: 100.0%

Amber is a water-dispersible granule.


This outer protective bag contains Amber in 8 small water-soluble packets. These packets and their contents dissolve in water. After opening outer bag, immediately dump the required number of unopened packets into the partially filled sprayer or mix tank. Do not handle the soluble packets or expose them to moisture, as this may cause rupturing.

HERBICIDE
 For control of various weeds in wheat, barley, pastures, rangeland, and Conservation Reserve Program acres
 Made in Switzerland

KEEP OUT OF REACH OF CHILDREN.
CAUTION
 See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-701
 EPA Est. 70992-CHE-001
NCP 701A-L7N 0399
 40535 USA/4C (USA)

8 x 1.4 OUNCE
 Water-Soluble Packets
11.2 OUNCES
 TOTAL NET WEIGHT

 **NOVARTIS**

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) 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 4 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 CROP INJURY, POOR WEED CONTROL, AND/OR ILLEGAL RESIDUES.

GENERAL INFORMATION

Amber is a selective herbicide for the control of many weeds in wheat (including durum wheat), barley, fallow cropland, pastures, rangeland, and Conservation Reserve Program acres. Refer to Table 1 for a listing of weeds controlled. Amber is a 75% water-dispersible granule which must be thoroughly mixed in water and applied as a spray.

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). Growth of susceptible weeds is inhibited soon after Amber application. Leaves of susceptible plants turn yellow and/or red followed by death of the growing point. These visible effects of control may not be observed until 1-3 weeks after application depending upon weed species, growing conditions, and Amber rate.

Thorough coverage is necessary to provide good weed control.

Use Amber in the following states only: CO, ID, KS, MN, MT, ND, NE, NM, NV, OK, OR, SD, TX, UT, WA, and WY.

Do not use Amber in the San Luis Valley of CO or in sections of WA and OR, west of the Cascade Mountains. In WA, abide by all sulfonyleurea aerial application rulings in effect by the Washington Department of Agriculture.

SPRAY EQUIPMENT

Use either ground or aerial spray equipment. Calibrate spray equipment before use.

Use equipment which is capable of continuous and vigorous tank agitation. Use spray nozzles that provide medium-coarse droplets (250-400 microns VMD). When the tank is full, the agitation system should be capable of creating a rippling or rolling action on the liquid surface.

Use a 16-mesh strainer at the tank outlet. For the nozzles, use the screen recommended by the nozzle supplier. For ground application of 3-20 gals./A, use only conventional or low pressure flat fan nozzles to assure adequate coverage. For ground application of more than 20 gals./A, rain-drop or floodjet nozzles may be used. In dense stands of wheat or barley, use an adequate spray volume to provide uniform coverage of the weeds.

For aerial application to wheat, barley, and fallow cropland, use a spray volume of 2-5 gals./A. For aerial application to pastures, rangeland, and Conservation Reserve Program acres, apply in a minimum of 2 gals. of spray volume per acre. Apply 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 assure accurate application within the target area.

Avoid application under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur.

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

Do not apply Amber through irrigation systems.

MIXING PROCEDURES

Water as Carrier

1. Be sure the sprayer is clean.
2. Always use clean water. Fill the tank with approximately 25% of the total water volume needed, and begin agitation.
3. Be certain that the agitation system is working properly and that it creates a rippling or rolling action at the liquid surface.
4. Add all of the appropriate number of Amber soluble packets and any other product packaged in water-soluble film to the tank (Refer to Table 2).
5. Complete filling of the tank, maintaining sufficient agitation at all times to ensure complete and uniform dispersal of product. This applies to both spray and nurse tanks.
6. Disperse Amber completely (agitate for 3-5 minutes) before adding surfactant or another chemical to the tank.
7. A nonionic surfactant with a minimum of 80% of the constituents effective as a spray adjuvant (e.g., X-77®) must be added at 1-2 qts./100 gals. of spray volume (0.25-0.5% volume per volume) for all applications to emerged weeds. Use 0.5% surfactant when applying Amber to dense weed populations or when applying Amber in a spray volume of 10 gals./A or less.
8. Always maintain continuous agitation while the spray suspension is in the tank.
9. Mix only sufficient spray suspension to be used the same day; however, Amber will remain active in the spray mixture for at least 36 hours.

Liquid Fertilizer as Carrier

The mixing steps are the same as listed above except the Amber must first be dispersed in water as described in the following steps prior to adding it to the spray tank (step number 4 above).

1. Fill a 2.5 gal. container with 2 gals. of water.
2. Place the appropriate number of Amber soluble packets (Refer to Table 2) in the container and wait 30 seconds.
3. Close the container and shake it vigorously until the packets are dissolved and the product is completely dispersed.
4. When the water-soluble packets and the Amber are completely dispersed, add the mixture to the spray tank. When using a surfactant with liquid fertilizer solutions, add the surfactant to this water mixture before adding the mixture to the spray tank.
5. Rinse the 2.5 gal. container with water, and add the rinsate to the spray tank.
6. Continue with steps 5-9 in the **Water as Carrier** instructions.

OR

Amber may be mixed in an inductor cone before adding it to the liquid fertilizer on sprayers so equipped as described in the following steps.

1. Shut off inductor cone valve and fill the cone with 2-3 gals. of water.
2. Add the appropriate number of Amber soluble packets (Refer to Table 2) to the water in the cone all at once.
3. Wait one minute to allow the packets and Amber to completely disperse.
4. When the water-soluble packets and the Amber are completely dispersed, open the inductor cone valve in order to add the Amber mixture to the spray tank. When using a surfactant with liquid fertilizer solutions, add the surfactant to the water mixture in the cone before opening the inductor cone valve.
5. Rinse the inductor cone thoroughly and keep the valve open so the rinsate is added to the spray tank.
6. Continue with steps 5-9 in the **Water as Carrier** instructions.

Note: The addition of surfactant to spray mixtures more than 50% fertilizer can cause increased temporary leaf burn. The surfactant may be omitted from the spray solution if the carrier contains more than 50% fertilizer. If the surfactant is omitted, control of some of the more difficult to control weeds (bottom of Table 1) may be reduced under unfavorable conditions (i.e., larger weeds, dry soil, etc.). For optimum control of those species, a 50% fertilizer solution as a carrier should be used with an appropriate surfactant.

Recommendations to Avoid Spray Drift

Do not allow spray from ground or aerial equipment to drift onto adjacent land or crops. When drift may be a problem, do everything possible to reduce spray drift, including:

- Do not spray if wind speeds are or become excessive. Do not spray if wind speed is 10 mph or greater. If sensitive crops or plants are downwind, extreme caution must be used under all conditions. Do not spray if winds are gusty.
- Use extreme caution when conditions are favorable for drift (high temperatures, drought, low relative humidity), especially when sensitive plants are located nearby.
- Drift from aerial applications of the herbicide is likely to result in damage to sensitive plants adjacent to the treatment site. This damage can occur at levels below the concentrations that can be detected with chemical analysis.
- Do not apply when a temperature inversion exists. If inversion conditions are suspected, consult with local weather services before making an application.

- Further reductions in drift can be obtained by:
 1. Using large droplet size sprays. Do not use nozzles that produce small droplets. Orient nozzles downward and slightly backward as needed to reduce drift for ground applications.
 2. Orienting nozzles straight back with the windstream, using straight stream orifices for aerial applications. Use the lowest number of nozzles practical with the largest possible orifice size to obtain the minimum one GPA volume. Application height and boom length should be set according to manufacturer's instructions to minimize drift.
 3. Increasing the volume of spray mixture (for example, a minimum of 20 gals./A for ground applications) by using higher flow rate nozzles. Using lower pressure with the appropriate nozzles to obtain larger droplets will also reduce drift.
 4. Applying as close to target plants as practical, while maintaining a good spray pattern for adequate coverage.

Cleaning Equipment after Application

Because some broadleaf crops are extremely sensitive to low rates of Amber, 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 cleaning solution of one gal. of household ammonia per 50 gals. of water. Many commercial spray tank cleaners may be used as well. Please read Novartis brochure "Clean It Up! - A Guide To Cleaning Your Sprayers (NCP 175-00088-A 3/97) for a partial listing of approved tank cleaners and more information about proper tank cleaning procedures. Do not use chlorine based cleaners such as Clorox®.
3. When available, use a pressure washer to clean the inside of the spray tank with this solution. Take care to wash all parts of the tank, including the inside top surface. Completely fill the sprayer with the cleaning solution to ensure contact of the cleaning 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 untreated corn or return to a rinsate tank for later use as make-up water for spraying corn.
6. Repeat steps 2-5.
7. Remove nozzles, screens, and strainers and clean separately in the 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 as outlined in this Note 1-2 times, including flushing the spray boom with the cleaning solution. After the last flush of the system, remove nozzles, screens, and strainers and clean separately in fresh cleaning solution.

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 such as Amber.

Control of these weeds may be excellent with the use of Amber in many fields; but, where there are known occurrences of ALS-resistant biotypes, Amber 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®; 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 Amber 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 Amber. A list of herbicides with the same mode of action as Amber can be obtained from your local Novartis Crop Protection representative. Amber applied to fallow cropland must be applied as a tank mixture, or be followed by a herbicide with a different mode of action within 12 months.

Do not use Amber 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 Amber must be applied postemergence only in combination with a herbicide having a mode of action different from Amber, or preemergence followed by a postemergence application of a herbicide having a mode of action different from Amber. Amber may also be applied in the fall, preemergence to winter wheat or to fallow cropland, but must be followed with an application of a herbicide with a different mode of action in the spring.

In CO and NE, use Amber 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 Amber, or a tillage operation, must be made to control any weeds before they flower that may be present in fallow cropland treated with Amber.

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

POSTEMERGENCE AMBER APPLICATION TO WINTER OR SPRING WHEAT, WINTER OR SPRING BARLEY, OR POSTEMERGENCE TO WEEDS IN FALLOW CROPLAND

Apply Amber at a standard or enhanced rate when the target weeds shown in Table 1 are ACTIVELY GROWING AND ARE WITHIN THE HEIGHT AND DIAMETER RANGE SPECIFIED, and the wheat is at ANY STAGE UP TO PRE-BOOT or barley is in the 2-LEAF TO PRE-BOOT STAGE. Optimal control can be obtained for most weed species when the weeds are 2 inches or less in height and/or diameter. Very large weeds may only be suppressed. Do not apply the enhanced rate in areas with a soil pH greater than 7.5, except in the Blacklands of TX and OK. Use the low range (0.28 oz./A) of the standard rate unless additional length of control is needed. If additional length of control is needed, or if weeds are at or above the maximum height, use the 0.35 or 0.47 oz./A rate of Amber. These rates of Amber can also be used for the more difficult to control weeds (such as wild buckwheat) at the bottom of the standard rate section of Table 1. Include a nonionic surfactant in the spray mixture as described in the **Mixing Procedures** section.

Amber will also provide preemergence control of the weeds listed in Table 1 that may germinate after application, provided rainfall (enough to wet the soil 2-3 inches deep) moves Amber into the soil before seedlings emerge. Application of Amber at the enhanced rate will increase the duration of weed control.

For optimum control, fall applications of Amber to weeds in winter wheat, winter barley, or fallow cropland must be made before the emerged weeds are exposed to extended freezing temperatures.

Precautions: To avoid possible crop injury, do not apply Amber to wheat or barley that is stressed due to (1) extremes in temperature or rainfall; (2) disease or insect pressure; or (3) when extremes in temperature or rainfall are expected within one week of application.

Amber must be tank mixed with other appropriate herbicide(s) to obtain broad spectrum weed control in fallow cropland. Refer to the **Amber Tank Mixtures with Other Herbicides** section.

Do not plant durum wheat less than 8 months after an Amber application to fallow cropland.

PREPLANT, PREPLANT SHALLOW-INCORPORATED, OR PREEMERGENCE AMBER APPLICATION TO WINTER OR SPRING WHEAT (EXCEPT DURUM WHEAT)

Preplant, preplant shallow-incorporated (top 1 inch of soil), or preemergence Amber application at a standard or enhanced rate will provide control of the weeds listed in Table 1, provided rainfall (enough to wet the soil 2-3 inches deep) is received before weed emergence. Preplant or preplant shallow-incorporated applications should be used only if a disk drill is to be used for planting; not hoe/sweep drills.

Apply Amber preplant, preplant shallow-incorporated, or preemergence to wheat at the enhanced rate (0.56 oz./A) for the suppression of annual ryegrass and for suppression of light to moderate Japanese brome, downy brome, and cheat populations that have not emerged. Sufficient and timely rainfall (enough to wet the soil 2-3 inches deep) is required for preplant, preplant shallow-incorporated, or preemergence activity. It may be necessary to apply a sequential application of Sencor® or Lexone® if suppression of Japanese brome, downy brome, or cheat is not adequate after Amber application. Refer to the Sencor or Lexone label for directions for use and wheat variety restrictions. Amber will not adequately suppress heavy or dense populations of downy brome or cheat.

Precaution: Do not apply Amber preemergence to late fall-seeded winter wheat if environmental conditions that stress wheat are expected within 2 weeks after application.

SPLIT AMBER APPLICATIONS TO WINTER WHEAT (SOIL pH LESS THAN 7.5)

Amber may be applied as a split application to winter wheat to control susceptible weeds that may be expected to emerge later in the growing season. Make the initial application of Amber either preplant, preplant shallow-incorporated, preemergence, or postemergence at the low standard rate (0.28 oz./A), and follow with an additional postemergence application at the low standard rate no sooner than 60 days after the first application. The second application **must be tank mixed** with a herbicide registered for use in wheat having a different mode of action (such as 2,4-D; MCPA; Banvel; and Buctril) to minimize selection of resistant weed biotypes. The second application must be applied no later than pre-boot, or any earlier growth stage specified on the tank mix partner label. Include a nonionic surfactant in the spray mixture as described in the **Mixing Procedures** section.

Precaution: Weed control is dependent upon weed species, size at application, growing conditions, and the level of competition from the crop. Weed control may be reduced if weeds are stressed due to drought, excess cold or warm temperatures, or other factors which reduce growth. Competition of the crop with the weeds helps in providing control.

Note: To avoid possible illegal residues, do not apply more than a total of 0.56 oz. of Amber per acre when making split applications.

Table 1: Weeds Controlled or Suppressed with Amber at the Standard and Enhanced Rates

STANDARD RATES (0.28 oz./acre = 1 soluble packet/5 acres, 0.35 oz./acre = 1 soluble packet/4 acres, or 0.47 oz./acre = 1 soluble packet/3 acres)	
Weeds Controlled	Maximum Height/Diameter for Optimum Control (inches)
Blue mustard (purple mustard), field pennycress (fanweed), flixweed, shepherd's-purse, tall hedge mustard, tansymustard, tumble mustard (Jim Hill mustard), wild mustard	No size limit, but control is recommended prior to weed competition with the crop resulting in yield reductions
Bur buttercup, common ragweed, common sunflower, creeping buttercup, horseweed (marestalk), Indian mustard, kochia*, lanceleaf ragweed, prickly lettuce (China lettuce*), puncturevine, tall buttercup, Virginia pepperweed, wild radish	Less than 6
Annual fleabane, bushy wallflower, coast fiddleneck (tarweed), common cocklebur, common purslane, common broomweed, common yarrow, corn gromwell, cutleaf eveningprimrose, giant ragweed, hairy vetch, jagged chickweed (umbrella spurry), London rocket, marshelder, miner's lettuce, Plains coreopsis, prostrate pigweed, redroot pigweed, rough fleabane, smooth pigweed, spring whitlowgrass, woolly croton	Less than 4
Annual polemonium (Jacobs-ladder), common chickweed*, common mallow, forget-me-not, Russian thistle*, wild buckwheat (treat after true leaves have emerged; not cotyledon stage)	Less than 2
Henbit	Preplant, preplant shallow-incorporated, or preemergence
Weeds Suppressed*** Wild garlic, wild onion	No limit
Western ragweed, annual morningglories	Less than 5 inches
Henbit	Less than 2 inches
ENHANCED RATE (0.56 oz./acre = 1 soluble packet/2.5 acres)	
Additional Weeds Suppressed** Canada thistle, curly dock, goldenrod, greenflower pepperweed, houndstongue, musk thistle	Less than 6 inches
Annual ryegrass, cheat, downy brome, Japanese brome, Persian dandel	Preplant, preplant shallow-incorporated, or preemergence

*See **Weed Resistance to Sulfonylurea Herbicides** section of this label.

**In addition to those controlled or suppressed by standard rates.

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

Table 2: Number of Amber Soluble Packets to Use to Treat Various Acreages at the Standard or Enhanced Rates

Acres to Treat	Number of Soluble Packets to Use			
	Standard Rates			Enhanced Rate
	0.28 oz./A	0.35 oz./A	0.47 oz./A	0.56 oz./A
3	—	—	1	—
4	—	1	—	—
5	1	—	—	2
10	2	—	—	4
15	3	—	5	6
20	4	5	—	8
25	5	—	—	10
30	6	—	10	12
40	8	10	—	16
50	10	—	—	20
60	12	15	20	24
70	14	—	—	28
80	16	20	—	32
90	18	—	30	36
100	20	25	—	40
120	24	30	40	48
140	28	35	—	56
160	32	40	—	64

Note: One packet treats 3-5 acres at the standard rates (0.28 oz./A-0.47 oz./A). Two packets treat 5 acres at the enhanced rate (0.56 oz./A).

POSTEMERGENCE AMBER APPLICATION TO PASTURES, RANGELAND, AND CONSERVATION RESERVE PROGRAM (CRP) ACRES

Amber can be applied postemergence to emerged and actively growing weeds in pastures, rangeland, and CRP acres at the standard or enhanced rates (see Table 1) for weed control in the following established grasses:

Common Name	Scientific Name
Bermudagrass	<i>Cynodon dactylon</i>
Bluestem, Big	<i>Andropogon gerardi</i>
Bluestem, Little	<i>Andropogon scoparius</i>
Bluestem, Old World	<i>Bothriochloa caucasica</i>
Brome, Smooth	<i>Bromus inermis</i>
Buffalograss	<i>Buchloe dactyloides</i>
Fescue, Sheep	<i>Festuca ovina</i>
Grama, Blue	<i>Bouteloua gracilis</i>
Grama, Side-oats	<i>Bouteloua curtipendula</i>
Redtop	<i>Agrostis alba</i>
Timothy	<i>Phleum pratense</i>
Wheatgrass, Bluebunch	<i>Agropyron spicatum</i>
Wheatgrass, Crested	<i>Agropyron cristatum</i>
Wheatgrass, Intermediate	<i>Agropyron intermedium</i>
Wheatgrass, Pubescent	<i>Agropyron tricophorum</i>

For new seedings of the above grasses, do not apply Amber until at least 60 days after emergence of the desirable grasses. Even established stands of orchardgrass, red fescue, and ryegrasses will likely be injured by Amber. If desirable broadleaves, such as clovers and alfalfa, are present, they will likely be severely injured by Amber applications.

Weed Control

For information on weeds controlled, size limitations, and rate of Amber to use, refer to Table 1. Many of the weeds in that table commonly occur in rangeland, pastures, and CRP acres. In addition to the weeds listed in Table 1, Amber at the standard or enhanced rates will provide first year control and subsequent year suppression of: hoary cress (whitetop), and poison hemlock.

For all postemergence applications, Amber should be applied to actively growing weeds and a nonionic surfactant should be included in the spray mixture as described in the **Mixing Procedures** section of this label. To obtain optimum control and to manage weed resistance, Amber should be applied in tank mixture with an appropriate registered herbicide having another mode of action (examples are 2,4-D, Banvel, Crossbow®, Grazon®, Stinger®, Weedmaster®, and Weedone® LV6). The tank mix partner should be used at a recommended tank mix rate; and all directions, restrictions, precautions, etc. should be followed on both labels.

Biotypes of the weeds marked with an (*) in Table 1 have been selected which are resistant to certain or all sulfonylureas. Those biotypes will likely not be controlled with Amber. Follow the precautions and instructions in the **Weed Resistance to Sulfonylurea Herbicides** section of this label. In addition, to reduce the possibility of selecting sulfonylurea-resistant biotypes, do not apply Amber or any other herbicide with the same mode of action in pastures, rangeland, or CRP acres more frequently than in one year out of three. If additional weed control is needed during that time, use a herbicide with another mode of action from that of Amber. For a list of herbicides with the same mode of action, or for further information, contact your local Novartis representative.

Amber at the standard rate (0.28 oz./A) will provide partial control of western ragweed (*Ambrosia psilostachya*) if applied to plants less than 5 inches tall. A second application of the standard or enhanced rate (0.28 or 0.56 oz./A) can be made no later than 60 days after the initial application for additional control of late germinating western ragweed and for improved residual control.

Precaution: Weed control is dependent upon weed species, size at application, growing conditions, and the level of competition from the crop. Weed control may be reduced if weeds are stressed due to drought, excess cold or warm temperatures, or other factors which reduce growth. Competition of the crop with the weeds helps in providing control.

Refer to Table 2 for the number of water-soluble packets to use to treat various acreages. The maximum amount of Amber which can be applied in a calendar year is 0.84 oz./A.

Poisonous plants: The following weeds controlled by Amber can be poisonous to livestock in pastures and rangeland: bur buttercup, coast fiddleneck, cocklebur, creeping buttercup, goldenrod, and tall buttercup.

Note: To avoid possible illegal residues, do not cut for hay for 30 days following application. Grazing may occur immediately following application.

PREEMERGENCE AMBER APPLICATION FOR DOWNY BROME AND CHEAT IN PASTURES, RANGELAND, AND CRP ACRES

Partial control of downy brome and cheat can be obtained by applying Amber at 0.56 oz./A prior to emergence of those grasses. Follow directions for control of downy brome in wheat as described in the **Preemergence Amber Application to Winter or Spring Wheat** section of this label.

TANK MIXTURES

Note: Amber tank mixtures with 2 or more of the products listed in the following sections or with products not listed below must be (A) tested for physical compatibility, (B) applied to a small area of the field and observed for resultant crop safety and weed control before widespread use, and (C) always add Amber soluble packets to the mix tank and allow the packets to completely dissolve and the Amber to fully disperse before adding any other tank mix partner.

Amber Tank Mixtures with Other Herbicides

APPLY AMBER IN TANK MIXTURE ONLY WITH HERBICIDES REGISTERED FOR USE ON THE PARTICULAR CROP.

TANK MIX A STANDARD RATE OF AMBER WITH A SUITABLE HERBICIDE FROM THE LIST BELOW TO: (1) CONTROL BROADLEAF WEEDS THAT ARE BEYOND THE OPTIMUM TREATMENT SIZE; OR (2) CONTROL BROADLEAF OR GRASSY WEEDS NOT NAMED ON THIS LABEL; OR (3) CONTROL SULFONYLUREA-RESISTANT WEEDS. DO NOT APPLY MORE THAN THE RECOMMENDED LABEL RATE OF THE HERBICIDES LISTED*BELOW. AMBER MUST BE APPLIED IN TANK MIXTURE FOR USE IN FALLOW CROPLAND.

Amber plus surfactant is known to be physically compatible with the following herbicides. Refer to the label of the tank mix herbicide used for weeds controlled, directions for use, precautions, limitations, and restrictions.

Assert® 2.5E	Gramoxone® Extra 2.5 lb. a.i./gal.
Banvel 4SC or SGF 2S	Hoelon® 3E
Bronate® 4E	Landmaster® BW 3.1 lb. a.i./gal.
Buctril 2E	or Landmaster II 2.2 lb. a.i./gal.
Curtail® 2.38 lb. a.i./gal.	Lexone 75DF
Curtail M 2.77 lb. a.i./gal.	MCPA amine or ester
diuron (various manufacturers, formulations, and product names)	Roundup® 4E
Fallow Master™ 1.6 lb. a.i./gal.	Sencor 75DF or Solupak or 4L
	2,4-D amine or ester

Tank Mixes for Henbit Control

If henbit has emerged, apply Amber early postemergence at a standard use rate in combination with Banvel, + 2,4-D; Buctril; MCPA; Lexone; or Sencor.

Tank Mix with Metribuzin (Lexone or Sencor) for Suppression of Downy Brome and Cheat

For suppression/partial control of downy brome and cheat in wheat, apply a standard rate of Amber plus 0.062-0.25 lb. a.i./A (2-8 oz./A of 4L or 0.083-0.33 lb./A of 75DF) of metribuzin early postemergence. Refer to the Lexone or Sencor label for rates, timings, and restrictions, such as variety limitations.

Tank Mix with Fallow Master for Conservation Tillage

For burndown plus residual control of weeds in Table 1, apply a standard rate of Amber plus labeled rates of Fallow Master in fallow cropland or at least 15 days prior to seeding winter or spring wheat in no-tillage or reduced-tillage systems. To obtain good soil activity, enough rainfall is needed to wet the soil 2-3 inches deep before weed emergence. If weeds emerge, control them with a herbicide(s) having a different mode of action than Amber; for example, 2,4-D + Banvel.

Tank Mix Application with Tilt® Fungicide

For control of foot rot in wheat in the Pacific Northwest, Tilt fungicide may be applied at 0.25 pt./A in combination with Amber at either a standard or enhanced rate. Refer to the Tilt label for specific use directions and restrictions.

AMBER APPLICATION WITH ORGANOPHOSPHATE INSECTICIDES

Amber may be tank mixed or applied sequentially with registered organophosphate insecticides **except** malathion. These tank mixtures or sequential applications may cause temporary crop discoloration or crop injury, especially if the crop is under environmental stress at the time of treatment.

Delay Amber application for at least 60 days after an in-furrow application of an organophosphate insecticide.

GRAZING AND RE-SEEDING FOLLOWING AMBER APPLICATION TO WHEAT, BARLEY, OR FALLOW CROPLAND

There are no grazing restrictions following Amber application.

Wheat (except durum wheat) may be re-seeded immediately after application of either a standard rate or the enhanced rate.

ROTATIONAL CROP RESTRICTIONS

The following crops may be planted after an Amber application without a field bioassay, provided the following conditions are met and the required time has elapsed between the last Amber application and the crop planting date. When applying Amber in a tank mix, refer to the rotational restrictions on this label and the label of the tank mix partner and observe the more restrictive interval.

Wheat

No rotational restrictions. Refer to **Grazing and Re-seeding following Amber Application to Wheat, Barley, or Fallow Cropland** section for re-seeding time intervals.

Barley, Rye, Oats, or Bermudagrass

- Six months **ONLY** under the following conditions:
 - In CO, KS, MT, NE, OK, SD, TX, Western ND – where soil pH is 7.9 or less – and where one application of Amber at a standard rate was made.
 - In all states – where soil pH is 6.9 or lower – one application of either a standard or enhanced rate.
- Eighteen months after application of either a standard or enhanced rate in areas not described above.

Proso Millet

Four months after application of either a standard or enhanced rate.

Field Corn

- Four months **ONLY** if an IR corn hybrid is planted; either a standard or enhanced rate.
- Fourteen months **ONLY** after application of either a standard or enhanced rate in KS and NE, where soil pH is 6.9 or lower, if a "normal" (not IR) hybrid is planted.
- Twenty-two months after application of either a standard or enhanced rate on soil with pH 7.9 or lower, if a "normal" (not IR) hybrid is planted.
- Thirty-six months after application in areas not described above. Corn may be planted sooner if a successful field bioassay is completed.

Grain Sorghum

- Fourteen months **ONLY** under the following conditions:
 - Soil pH 7.9 or lower and one application of a standard rate in Central TX (excluding Panhandle); Western OK (excluding Panhandle); and West Central and Western KS and NE.
 - Soil pH 7.9 or lower and one application of either a standard or enhanced rate in Eastern TX; Central and Eastern OK; and Central and Eastern KS.
- Twenty-four months after application of either a standard or enhanced rate in areas not described above.

Soybeans

1. Eleven months ONLY if STS® soybeans are planted; either a standard or enhanced rate.
2. Fourteen months ONLY under the following conditions:
 - A. Soil pH 7.5 or lower and a minimum of 25 inches cumulative precipitation from application to planting. One application of a standard rate in Central KS.
 - B. Soil pH 7.5 or less and a minimum of 25 inches cumulative precipitation from application to planting. One application of a standard or the enhanced rate in Eastern TX; Central and Eastern OK.
3. Twenty-six months ONLY under the following conditions:
 - A. Soil pH 7.5 or lower and cumulative precipitation of 46 inches from application to planting. One application of the enhanced rate in Central KS.
 - B. Soil pH 7.9 or lower and cumulative precipitation of 46 inches from application to planting. One application of a standard rate in Central KS; South Central NE.
4. Thirty-six months after application of a standard or enhanced rate in areas not described above. Soybeans may be planted sooner if a successful field bioassay is completed.

Sugar Beets, Sunflowers, or Onions

These crops are extremely sensitive to low levels of Amber in the soil and should *not* be planted less than 24 months after any application of Amber *and* only after a successful field bioassay is completed.

Other Crops

All crops other than wheat, barley, rye, oats, proso millet, bermudagrass, field corn, grain sorghum, and soybeans under the specific conditions described above, may be seeded only after the completion of a successful field bioassay and no sooner than 4 months after application. Refer to **Field Bioassay Instructions** section.

Additional Rotational Precaution

If both Amber and another sulfonylurea herbicide or Assert have been applied during a single growing season, a field bioassay must be performed before planting any crop except wheat in the next growing season. If visible injury, stand reduction, or yield reduction occurs in the bioassay, the crop must not be seeded.

FIELD BIOASSAY INSTRUCTIONS

Using typical tillage, seeding practices, and timings for the particular crop, plant several strips of the desired crop variety across the field which has been previously treated with Amber. Plant the strips perpendicular to the direction Amber was applied. The strips should be located so that all the different field conditions are encountered, including differences in soil texture, pH, and drainage. If the crop does not show visible symptoms of injury, stand reduction, and/or yield reduction, this field can be seeded with this crop the next growing season after the bioassay. If visible injury, stand reduction, or yield reduction occurs, this crop must not be seeded, and the bioassay must be repeated the next growing season.

ADDITIONAL PRECAUTIONS

1. Do not use Amber in fields where the combination of all three of these criteria occur:
 - Historic average annual rainfall (or the combination of historic annual rainfall plus planned irrigation of the crop) exceeds 35 inches per year, and
 - The ground water table is 30 ft. or less below the soil surface, and
 - The soil is classified as a coarse soil (sand or loamy sand soil texture in the surface layer).
2. When applying to wheat, barley, or fallow cropland, do not apply more than one application of 0.56 oz./A or 2 applications of 0.28 oz./A (separated by at least 60 days) per crop. Split applications must be made within the same cropping season.
3. When applying to pastures, rangeland, or CRP acres, do not apply more than a total of 0.84 oz./A per year as follows: one application of 0.28 oz./A may be applied postemergence, followed by a second application not more than 60 days later at up to 0.56 oz./A.
4. Do not apply Amber or other herbicides with the same mode of action within a 12-month period after an Amber application, except as directed above for split applications. If additional weed control is needed, use a herbicide with a different mode of action than Amber.
5. Do not apply Amber within 4 hours of an expected rainfall/irrigation event. Rainfall or irrigation soon after application may reduce foliar uptake by weeds, thereby reducing weed control.
6. Do not apply Amber to wheat or barley undersown with legumes or forage grasses, as injury to the undersown crops may occur.
7. Do not apply Amber to irrigated land if the tail water will be used on nontarget land.
8. Do not allow spray to drift to nontarget crops, other desirable plants, recreational areas, ornamental plants, or onto land scheduled to be planted with crops other than wheat or barley.
9. Do not apply Amber to snow-covered soil or to frozen soil surfaces, since runoff may occur.
10. Do not apply Amber where its movement through the soil or on soil particles may place it in contact with nontarget plants or their roots.

11. Do not apply Amber under conditions when uniform coverage cannot be obtained.
12. Do not apply Amber to stressed or dormant weeds, or when environmental conditions which stress weeds or cause weed dormancy are expected within one week after application.
13. Do not mix with or apply sequentially with malathion. Tank mixture or sequential application with other registered organophosphate insecticides may cause temporary crop discoloration or crop injury. Delay Amber application for at least 60 days after an in-furrow application of an organophosphate insecticide.
14. Do not apply Amber through irrigation systems.

CATASTROPHIC CROP LOSS

Where a catastrophic crop loss has occurred after an Amber application due to a natural disaster (such as late killing frost, hail, flooding, insect or disease damage) wheat (except durum) may be replanted immediately and IR corn hybrids after 4 months. Additionally, after 4 months barley, durum wheat, oats, rye, or STS soybeans may be planted with the expectation that some level of discoloration, stunting, or other crop injury will occur. Any damage and yield loss that occurs must be accepted by the grower. Growers not willing to accept this potential injury and yield loss are required to follow standard rotational guidelines.

STORAGE AND DISPOSAL

Pesticide Storage and Disposal

Store in a dry place. Do not contaminate water, food, or feed by storage or disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal

Do not re-use 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 inhaled or absorbed through skin. Causes eye irritation. Avoid breathing spray mist. Avoid contact with skin, eyes, or clothing.

Statement of Practical Treatment

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

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

If inhaled: Remove victim to fresh air.

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 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.

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 water or rinsate.

Ground Water Advisory

Amber has been identified in ground water sampling from a field research study under vulnerable conditions. There is the possibility that Amber may leach through soil to ground water, especially where soils are coarse and ground water is near the surface. Consult with the pesticide state lead agency or local agricultural agencies for information regarding soil permeability and aquifer vulnerability in your area.

Chemigation

Do not apply Amber through irrigation systems.

Accu-Pak®, Amber®, and Tilt® trademarks of Novartis
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Assert® trademark of American Cyanamid Company

Banvel® and Weedmaster® trademarks of BASF Corporation

Bronate®, Bucril®, and Weedone® trademarks of Rhône-Poulenc Ag Company

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Novartis Crop Protection, Inc.
Greensboro, North Carolina 27419

NCP 701A-L7N 0399

Accu-Pak®
Amber®

HERBICIDE

For control of various weeds in wheat, barley, pastures, rangeland, and Conservation Reserve Program acres

Active Ingredient:	
Triasulfuron: 3-(6-methoxy-4-methyl-1,3,5-triazin-2-yl)-1-[2-(2-chloroethoxy)-phenylsulfonyl]-urea	75.0%
Inert Ingredients:	25.0%
Total:	100.0%

Amber is a water-dispersible granule.

EPA Reg. No. 100-701

EPA Est. 70992-CHE-001

Made in Switzerland

Accu-Pak® and Amber® trademarks of Novartis
 U.S. Patent No. 4,514,212

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Novartis Crop Protection, Inc.
 Greensboro, North Carolina 27419
 NCP 701A-L7N 0399

8x1.4 OUNCE

Water-Soluble Packets

11.2 OUNCES

TOTAL NET WEIGHT

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**

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