



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

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

MAY 1 2000

Mr. John Lublinkhof
Aventis CropScience USA LP
P.O. Box 12014
2 T.W. Alexander Drive
Research Triangle Park, NC 27709

Dear Mr. Lublinkhof:

Subject: Label Amendment
Progress Herbicide
EPA Reg. No. 264-632
Your submission dated January 11, 2000

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended is acceptable please make the following revision.

1. Amend your label to reflect the new company name.
2. Under the heading, "Chart 3", revise your dosage chart for Progress and Betanex to reflect the rates on the previously accepted labels or provide and explanation for the rate changes.
3. Submit three (3) copies of your final printed labeling before you release the product for shipment.

Sincerely,

A handwritten signature in black ink, appearing to read "James A. Tompkins".

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



AGREVO[®]

Progress[®]

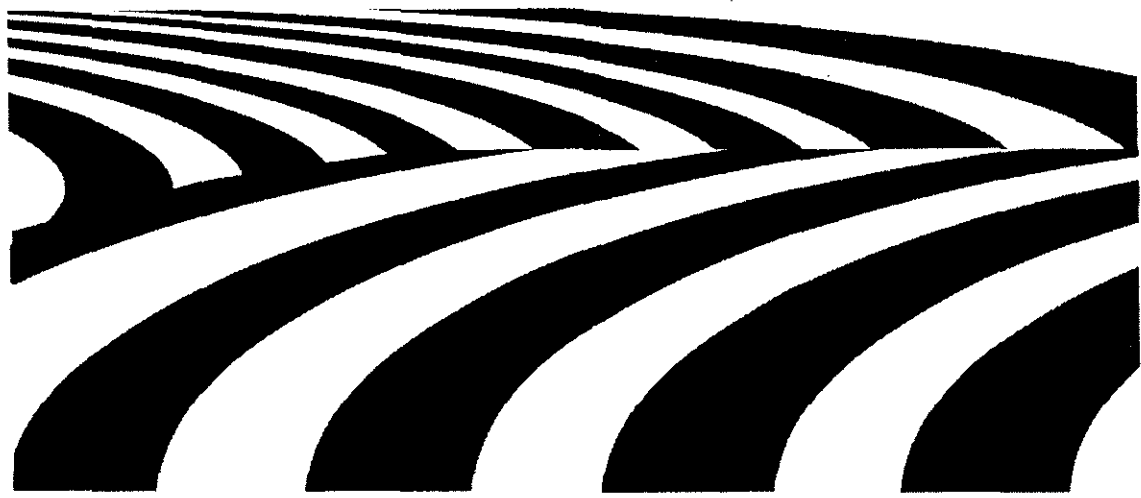
**REGISTERED
Pesticide FORMULATIONS**
In EPA Letter Dated:
MAY 1 2000

HERBICIDE

FOR AGRICULTURAL USE ONLY

Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.

264-632



Postemergence Herbicide for Control of Weeds in Sugar Beets

ACTIVE INGREDIENT:	
Phenmedipham*	7.0%
Desmedipham**	7.0%
Ethofumesate***	7.0%
INERT INGREDIENTS:	<u>79.0%</u>
TOTAL	100.0%
Contains 1.8 lbs. active ingredient per gallon. This product contains the toxic inert ingredient isophorone.	
*3-methoxycarbonylamino-phenyl-3-methylcarbanilate	
**Ethyl m-hydroxycarbanilate carbanilate (ester)	
***2-ethoxy-2,3-dihydro-3,3-dimethyl-5-benzofuranyl methanesulfonate	

**KEEP OUT OF REACH
OF CHILDREN
WARNING - AVISO**

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

SEE INSIDE FOR FIRST AID

EPA Reg. No. 45639-159
EPA Est. No.

FIRST AID

IF SWALLOWED: Call a physician or Poison Control Center. Do not induce vomiting. Drink promptly a large quantity of milk, egg whites, gelatin solution, or if these are not available, drink large quantities of water. Avoid alcohol.

IF ON SKIN: Wash with plenty of soap and water. Get medical attention if symptoms persist.

IF IN EYES: Hold eyelids open and flush with steady, gentle stream of water for 15 minutes. Get medical attention.

Probable mucosal damage may contraindicate the use of gastric lavage.

IN CASE OF MEDICAL, ENVIRONMENTAL, OR TRANSPORTATION EMERGENCIES OR INQUIRIES, CALL 1-800-471-0660 (24 HOURS/DAY).

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING – AVISO

CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY. HARMFUL IF ABSORBED THROUGH SKIN. PROLONGED OR FREQUENTLY REPEATED SKIN CONTACT MAY CAUSE ALLERGIC REACTION IN SOME INDIVIDUALS.

PERSONAL PROTECTIVE EQUIPMENT

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

Applicators and other handlers must wear:

- Long-sleeved shirt & long pants
- Chemical-resistant gloves
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS STATEMENT

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

- 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.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

THIS PESTICIDE IS TOXIC TO FISH AND AQUATIC ORGANISMS. 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. DRIFT AND RUNOFF FROM TREATED AREAS MAY BE HAZARDOUS TO FISH AND AQUATIC ORGANISMS IN ADJACENT AQUATIC SITES. DO NOT CONTAMINATE WATER THROUGH DISPOSAL OF EQUIPMENT WASHWATERS.

PHYSICAL OR CHEMICAL HAZARDS

DO NOT USE OR STORE NEAR HEAT OR OPEN FLAME.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in original container and keep closed. Store in a cool, dry place. Do not use or store near heat or open flame. Protect PROGRESS® Herbicide from freezing temperatures.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinseate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

WHEN PACKAGED IN PLASTIC CONTAINERS:

Container Disposal: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

DO NOT REUSE THIS CONTAINER, DESTROY WHEN EMPTY.

WHEN PACKAGED IN SVR CONTAINERS:

ECHO SYSTEM® SVR Return Procedure: Return the ECHO SYSTEM SVR container clean (outside only) and empty to the place of business from which the PROGRESS was purchased.

This ECHO SYSTEM SVR container is the sole property of AgrEvo USA Company.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read the entire Directions for Use before using this product.

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 24 hours.

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; wear shoes, socks, protective eyewear, and chemical-resistant gloves.

PRACTICES TO LOWER THE POTENTIAL FOR SPRAY DRIFT

Avoiding spray drift at the application site is the responsibility of the applicator. The interactions of many equipment and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. In order to avoid phytotoxic spray drift to nontarget crops during application of PROGRESS Herbicide, the following buffer zones should be observed:

- Cotton, Potatoes, Sunflowers, Sorghum, Wheat 50 feet
- Blackeye Beans, Cabbage, Flax 100 feet
- Lettuce, Canola, Tomatoes..... 300 feet

DO NOT APPLY WHEN WIND SPEED IS OVER 10 MILES PER HOUR. AVOID APPLICATIONS WHEN CONDITIONS FAVOR DRIFT.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outermost nozzles on the boom must not exceed the length of the wingspan or rotor.
2. Nozzles must always point backward, parallel with the air stream, and never be pointed downward more than 45 degrees.

Where States or Tribes have more stringent regulations, they should be observed.

The applicator should be familiar with, and take into account, the information covered in "Aerial Drift Reduction Advisory Information."

AERIAL DRIFT REDUCTION ADVISORY INFORMATION

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions. (See "Wind," "Temperature and Humidity," and "Temperature Inversions.")

CONTROLLING DROPLET SIZE

- Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of Nozzles - Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

BOOM LENGTH

- For some use patterns, reducing the effective boom length to less than that of the wingspan or rotor length may further reduce drift without reducing swath width.

APPLICATION HEIGHT

- Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

SWATH ADJUSTMENT

- When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

WIND

- Drift potential is lowest between wind speeds of 2 to 10 m.p.h.. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 m.p.h. due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY

- When making applications in low relative humidity, set-up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

TEMPERATURE INVERSIONS

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

The pesticide should be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, nontarget crops) is minimal (e.g., when wind is blowing away from sensitive areas).

GENERAL INFORMATION

When used as directed, PROGRESS Herbicide is selective against weeds in sugar beets. For best results, spray weeds in the cotyledon stage which are actively growing and are not under water or heat stress.

PROGRESS broadens and enhances the control of troublesome weeds, including the following:

Annual bluegrass	<i>Poa annua</i>
Annual sowthistle	<i>Sonchus oleraceus</i>
Black nightshade	<i>Solanum nigrum</i>
Hairy nightshade	<i>Solanum sarrachoides</i>
Canarygrass	<i>Phalaris canariensis</i>
Coast fiddleneck	<i>Amsinckia intermedia</i>
Common chickweed	<i>Stellaria media</i>
Common lambsquarters	<i>Chenopodium album</i>
Common ragweed	<i>Ambrosia artemisiifolia</i>
Green foxtail	<i>Setaria viridis</i>
Groundcherry	<i>Physalis lanceifolia</i>
Kochia	<i>Kochia scoparia</i>
Ladysthumb	<i>Polygonum persicaria</i>
London rocket	<i>Sisymbrium irio</i>
Nettleleaf goosefoot	<i>Chenopodium murale</i>
Pennsylvania smartweed	<i>Polygonum pennsylvanicum</i>
Prostrate pigweed*	<i>Amaranthus gracizans</i>
Purslane	<i>Portulaca oleraceus</i>
Redroot pigweed*	<i>Amaranthus retroflexus</i>
Shepherdspurse	<i>Capsella bursa-pastoris</i>
Yellow foxtail (Pigeongrass)	<i>Setaria glauca</i>
Wild buckwheat	<i>Polygonum convolvulus</i>
Wild mustard	<i>Brassica kaber</i>

*Redroot pigweed and prostrate pigweed control will be improved with a tank mix of PROGRESS and BETANEX® Herbicide in Eastern North Dakota and Minnesota (see Chart 3).

GENERAL PRECAUTIONS AND RESTRICTIONS

DO NOT APPLY PROGRESS HERBICIDE TO SUGAR BEETS WITHIN 75 DAYS OF HARVEST.

DO NOT EXCEED A TOTAL OF 8.7 PINTS PROGRESS PER ACRE PER SEASON.

DO NOT APPLY THIS PRODUCT THROUGH ANY TYPE OF IRRIGATION SYSTEM.

DO NOT ROTATE WITH CEREAL GRAIN CROPS FOR 120 DAYS FOLLOWING POSTEMERGENCE APPLICATION WITH PROGRESS.

PROGRESS MAY CAUSE BEET INJURY IF THE CROP IS UNDER STRESS FROM ONE OR MORE OF THE FOLLOWING CONDITIONS:

- Rapid climatic changes from cool, overcast days, to hot (80°F or over) bright days. When the air temperature is, or is likely to be, above 80°F on the day of spraying, application should be made in the late afternoon or evening when the temperature is decreasing.
- Frost within 3 days prior to application or 7 days following treatment could cause beet injury.
- Windy conditions or drought.
- Use of a preplant or preemergence herbicide or other chemicals.
- Insect or disease injury.
- Close cultivation.

If stress conditions are present, delay application in order to give plants a chance to recover.

IMPORTANT: PROGRESS Herbicide may cause temporary growth retardation and/or chlorosis or tipburn on sugar beets. Sugar beets usually resume normal growth within 10 days.

DO NOT OVERTREAT: The use of higher than recommended rates may cause beet injury.

Do not spray while dew is present.

Rainfall or sprinkler irrigation within 6 hours of spraying may reduce weed kill.

Do not allow spray drift to contact adjacent crops which may be injured by spray drift.

MIXING THE SPRAY

Make sure the Sprayer is CLEAN.

PROGRESS Herbicide contains sufficient wetting agents for optimum coverage. Do not add additional wetting agents or other spray adjuvants except as specified on the micro-rate supplemental label. Add sufficient water to fill the lines. Then add the desired amount of PROGRESS and the remaining quantity of water with the bypass agitator running. Bypass agitation is sufficient. Mechanical agitation is not necessary. Only use freshly prepared spray emulsions.

Always spray immediately after preparing the spray solution. Prepare only enough spray solution to last less than four hours.

RATE OF APPLICATION

MULTIPLE (LOW RATE) APPLICATIONS

Multiple (low rate) applications of PROGRESS Herbicide may be applied by air or ground to sugar beets to control early germinating weeds. The first application must be applied when the earliest emerging weeds have reached cotyledon size. See Chart 1 for broadcast rates. For broadcast applications with ground equipment, apply in 10 to 20 gallons of water per acre. Use 5 to 15 gallons of water per acre with aerial application. See Chart 2 for equivalent band rates. Any weeds which are not completely controlled by the first treatment will usually be checked and controlled by repeat applications. The repeat application should be made 5 to 7 days after the preceding application or when another flush of weeds germinates. If the second application is delayed, conventional treatment as described below will be necessary.

To avoid excessive phytotoxicity to fall-planted sugar beets south of the Tehachapi Mountains in California when temperatures are above 85°F, apply PROGRESS at the rate of 0.75 pint per acre (broadcast equivalent). Evening applications are recommended.

For further information, contact your County Agricultural Agent, Farm Advisor or AgrEvo USA Company.

CHART 1
DOSAGE CHART FOR BROADCAST APPLICATION
(Air and Ground Applications)

Weed Stage*	Pints/Acre Broadcast PROGRESS
Cotyledon	1.13-1.50
2 leaf	1.33-2.25
4 leaf	1.50-3.25

*Applications should begin at the cotyledon stage of the weeds.

*Higher dosage rates could be required, depending on the advancement of the weed stage.

*Do not exceed 1.5 pt./acre when sugarbeets are at the cotyledon stage.

*Early two true-leaf sugar beets tend to be the most susceptible to phytotoxicity.

CHART 2
DOSAGE CHART FOR BAND APPLICATION

Broadcast Equivalent	Band Width	Row Spacing Band Rate (fluid ounces)			
		22"	24"	28"	30"
1.13 pints/acre	5"	4.1	3.8	3.2	3.0
	7"	5.7	5.3	4.5	4.2
1.25 pints/acre	5"	4.5	4.2	3.6	3.3
	7"	6.4	5.8	5.0	4.7
1.33 pints/acre	5"	4.8	4.4	3.8	3.6
	7"	6.8	6.2	5.3	5.0
1.50 pints/acre	5"	5.4	5.0	4.3	4.0
	7"	7.6	7.0	6.0	5.6
1.75 pints/acre	5"	6.4	5.8	5.0	4.7
	7"	8.9	8.2	7.0	6.5
2.25 pints/acre	5"	8.2	7.5	6.4	6.0
	7"	11.4	10.5	9.0	8.4
3.25 pints/acre	5"	11.8	10.8	9.3	8.7
	7"	16.5	15.2	13.0	12.1
5.0 pints/acre	5"	18.2	16.7	14.3	13.3
	7"	25.5	23.3	20.0	18.7

CONVENTIONAL APPLICATIONS

By Ground: Apply PROGRESS Herbicide at the rate of 3.25 to 5.0 pints in 20 to 50 gallons water broadcast basis. For band application, see Chart 2.

By Air: Apply PROGRESS Herbicide at the rate of 3.25 to 5.0 pints per acre using 5 to 15 gallons of spray per acre.

Apply the 3.25 to 5.0 pint rates only to sugar beets past the two true-leaf stage. Use the 5.0 pint rate only on well established sugar beets which are not under stress. The stage of growth of the weeds is very important for satisfactory control. For best results, spray when the weeds are at the two true-leaf stage or smaller, are actively growing and are not under water or heat stress.

REPEAT APPLICATION OF PROGRESS: For control of later germinating weeds, make a second application of PROGRESS Herbicide. Use 3.25 to 5.0 pints of PROGRESS. Allow at least 7 days between first and second applications. Apply when sugar beets have at least 4 leaves. For best results, use the higher rate and spray when weeds are at the two true-leaf stage. Apply lower rates when the sugar beets are under stress as explained in the *General Precautions and Restrictions* section.

TANK MIX COMBINATIONS

When tank mixing, read and follow the label for each tank mix product used for precautionary statements, directions for use, weeds controlled, geographic and other restrictions. Use in accordance with the most restrictive of label limitations and precautions. No label dosage should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing.

PROGRESS Herbicide can be tank mixed with the following broadleaf herbicides for improved broadleaf weed control if application timing is correct for the tank mix products.

Herbicide	Use Rate (pt./A)
Stinger®*	0.25-0.50
BETANEX	See Chart 3

*The PROGRESS + Stinger tank mix should be applied when sugar beets are in the two true-leaf stage or larger.

CHART 3
DOSAGE CHART FOR TANK MIXES OF
PROGRESS AND BETANEX

Desired Rate (Pints/acre Broadcast)	PROGRESS + BETANEX (Pints/acre Broadcast)
1.13	0.43 + 0.57
1.25	0.47 + 0.63
1.33	0.50 + 0.67
1.50	0.56 + 0.75
1.75	0.66 + 0.88
2.25	0.85 + 1.13
3.25	1.22 + 1.63
5.0	1.88 + 2.50

TRADEMARK INFORMATION

Progress and Betanex are registered trademarks of Hoechst Schering AgrEvo GmbH.

Echo System is a registered trademark of AgrEvo USA Company.

Stinger is a registered trademark of DowElanco.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

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

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