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U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (H7505C)
401 "M" St., S.W.
Washington, D.C. 20460

NOTICE OF PESTICIDE:
____ Registration
_x_ Reregistration

(under FIFRA, as amended)

EPA Reg. Number:	Date of Issuance:
45639-160	June 18, 1998

Term of Issuance: Conditional

Name of Pesticide Product: CQ 1451 Sugar Beet Herbicide

Name and Address of Registrant (include ZIP Code):

Ms. Donna D. Switzer, CHMM
Registration Specialist
Agrevo USA Company
Little Falls Centre One
2711 Centerville Rd.
Wilmington, DE 19808

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.

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

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

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

Signature of Approving Official:

Date: 6-18-98

EPA Form 8570-6

FOR AGRICULTURAL USE ONLY

CQ 1451

SUGAR BEET HERBICIDE

Postemergence Herbicide for Control of Weeds in Sugar Beets

ACTIVE INGREDIENTS:		
Phenmedipham*		6%
Desmedipham**		6%
Ethofuinesate***		6%
INERT INGREDIENTS:		82%
	TOTAL	100%

Contains 1.6 lbs. active ingredient per gallon.
* 3 -methoxycarbonylaminophenyl-3-methylcarbanilate
** Ethyl m-hydroxycarbanilate carbanilate (ester)
*** 2-ethoxy-2, 3-dihydro-3, 3-dimethyl-5-benzofuranyl methanesulfonate

EPA Reg. No. 45639-160 EPA Est. No. 407-MN-1

KEEP OUT OF REACH OF CHILDREN

WARNING

Si usted no entiende 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.)

STATEMENT OF PRACTICAL TREATMENT

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.

AgrEvo
AgrEvo USA Company
2711 Centerville Road
Little Falls Centre One
Wilmington, DE 19808

Net Contents:
U.S. Patent Nos. 3,404,975; 3,692,820; 3,689,507

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS
(AND DOMESTIC ANIMALS)

WARNING

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 (PPE)

Applicators and other handlers must wear:

- ☐ Long-sleeved shirt and long pants
- ☐ Chemical Resistant gloves
- ☐ Shoes plus socks
- ☐ Protective Eyewear

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

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.
- 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.

STORAGE AND DISPOSAL

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 CQ 1451 from freezing temperatures.

PESTICIDE DISPOSAL: Do not contaminate water, food or feed by storage or disposal. Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate 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.

CONTAINER DISPOSAL:

When Packaged in Plastic Containers: 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.

When Packaged in SVR Containers: Return the ECHO SYSTEM® SVR container clean (outside only) and empty to the place of business from which the CQ1451 was purchased.

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

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.

IN CASE OF **MEDICAL** EMERGENCIES OR HEALTH AND SAFETY INQUIRIES, *OR* IN CASE OF FIRE, LEAKING, OR DAMAGED CONTAINERS, INFORMATION MAY BE OBTAINED BY CALLING 1-800-471-0660.

ENVIRONMENTAL HAZARDS

THIS PESTICIDE IS TOXIC TO FISH AND AQUATIC ORGANISMS. DO NOT APPLY DIRECTLY TO WATER, 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.

GENERAL INFORMATION

CQ 1451 is a selective postemergence herbicide for use in sugar beets (including beets grown for seeds) for the control of the following weeds:

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

* Spray kochia while in the rosette stage, less than 1" in diameter. For best results, spray when the weeds are at the two-leaf stage

USE PRECAUTIONS

DO NOT APPLY CQ 1451 TO SUGAR BEETS LATER THAN 75 DAYS PRIOR TO HARVEST.
DO NOT EXCEED A TOTAL OF 14.5 PINTS CQ 1451 PER ACRE PER SEASON.
DO NOT APPLY THIS PRODUCT THROUGH ANY TYPE OF IRRIGATION SYSTEM.

CQ 1451 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 (85° 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 evening when the temperature is lower
- Windy conditions or drought
- Use of a pre-plant or pre-emergence 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.
If extreme weather conditions are of short duration, delay spraying until the end of such a period. If CQ 1451 applications must be made on days with extreme temperature and/or brightness, delay spraying until evening.
DO NOT OVERTREAT: The use of higher than recommended rates may cause beet injury.
Do not spray while dew is present.
Rainfall within 6 hours of spraying may reduce weed kill. Do not allow spray drift to contact adjacent crops that may be injured by spray drift.

IMPORTANT: CQ 1451 may cause temporary growth retardation and/or chlorosis or tipburn on sugar beets. Beets usually resume normal growth within 10 days.

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 non-target crops during application of CQ 1451, 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 outer most nozzles on the boom must not exceed ¾ 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 the *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 ¾ 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 windspeeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph 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, non-target crops) is minimal (e.g. when wind is blowing away from sensitive areas).

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.

Mixing the Spray: Make sure the Sprayer is CLEAN.
CQ 1451 contains sufficient wetting agents for optimum coverage. Do not add additional wetting agents or other spray adjuvants. Add sufficient water to fill the lines. Then add the desired amount of CQ 1451 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.

By Ground: Apply CQ 1451 at the rate of 3.75 to 5.75 pints in 20 to 50 gallons water broadcast basis. For band application, see dosage chart.

By Air: Apply CQ 1451 at the rate of 3.75 to 5.75 pints per acre using 5 to 15 gallons of spray per acre.

Apply the 3.75 to 5.75 pint rates only to sugar beets past the two-true leaf stage. Use the 5.75 pint rate only on well-established beets which are not under stress.

To avoid excessive phytotoxicity to fall-planted sugar beets in Arizona and south of the Tehachapi Mountains in California when temperatures are above 85°F, apply CQ 1451 at the rate of 3.75 pints per acre (broadcast equivalent). Evening applications are recommended.

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

REPEAT APPLICATION OF CQ 1451: For control of later germinating weeds, make a second application of CQ 1451. Use 3.75 to 5.75 pints of CQ 1451. Allow at least 7 days between first and second applications. Apply when 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 beets are under stress as explained on the previous page, the General Information section.

SPLIT (LOW RATE) APPLICATIONS: Split (low rate) applications of CQ 1451 may be applied to sugar beets to control early germinating weeds. The first spray must be applied when the earliest emerging weeds have reached cotyledon size. See Chart 1, below, for broadcast rates. See Chart 2, below, for equivalent band rates. For band applications, apply in 5 to 10 gallons of water per acre. Any weeds that 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 above will be necessary.

CQ 1451 broadens and enhances the control of troublesome weeds, including the following:

ANNUAL BROADLEAF WEEDS

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

* Spray kochia while in the rosette stage, less than 1" in diameter. For best results, spray when the weeds are at the two-leaf stage

ANNUAL GRASS WEEDS

Annual bluegrass	(*Poa annua*)
Canary grass	(*Phalaris canariensis*)
Green foxtail	(*Setaria viridis*)
Pigeon grass (yellow foxtail)	(*Setaria glauca*)

See Chart 1, below, for broadcast rates. See Chart 2 for equivalent band rates.

CHART 1
DOSAGE CHART FOR BROADCAST APPLICATION

	Pints/Acre Broadcast
Sugar Beet Stage	**CQ 1451**
Cotyledon	2.0
2 leaf	2.5
4 leaf	3.75

CHART 2
DOSAGE CHART FOR BAND APPLICATION

Broadcast	Band	Band Rate - Row Spacing		
Equivalent	Width	22"	28"	30"
2.0 pt/A	5"	7.3 fl. oz.	5.7 fl. oz.	5.3 fl. oz.
	7"	10.2 fl. oz.	8.0 fl. oz.	7.5 fl. oz.
2.5 pt/A	5"	9.1 fl. oz.	7.1 fl. oz.	6.7 fl. oz.
	7"	12.7 fl. oz.	10.0 fl. oz.	9.3 fl. oz.
3.75 pt/A	5"	13.6 fl. oz.	10.7 fl. oz.	10.0 fl. oz.
	7"	19.1 fl. oz.	15.0 fl. oz.	14.0 fl. oz.
5.75 pt/A	5"	20.9 fl. oz.	16.4 fl. oz.	15.3 fl. oz.
	7"	29.3 fl. oz.	23.0 fl. oz.	21.5 fl. oz.

IMPORTANT: READ BEFORE USE

By using this product, user or buyer accepts the following conditions, warranty, 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, because of extreme weather and soil conditions, manner of use and other factors beyond AgrEvo USA Company's control, it is impossible for AgrEvo USA Company to eliminate all risks associated with the use of this product. As a result, crop injury or ineffectiveness is always possible. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, WHICH EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of AgrEvo USA Company is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. AgrEvo USA Company disclaims any liability whatsoever for incidental or consequential damages, including, but not limited to, liability arising out of breach of contract, express or implied warranty (including warranties of merchantability and fitness for a particular purpose), tort, negligence, strict liability or otherwise.

LIMITATIONS OF LIABILITY: THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT AGREVO USA COMPANY'S ELECTION, THE REPLACEMENT OF PRODUCT.

AgrEvo

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