

July 11, 2000

Becker Underwood, Inc.
801 Dayton Avenue
P.O. Box 667
Ames, IA 50010

Attention: Mr. Roger Underwood

Subject Tree Guard
EPA Reg. No. 66676-1
Your notifications of April 14 and May 7, 1998, and March 20, 2000
Your submission of June 17, 1999, and March 20, 2000

In the above five submissions you submitted three notifications, efficacy data, a revised Confidential Statement of Formula (CSF), and revised label. Our comments on these items follow:

Notification of April 14, 1998 In this notification, you added the following sentence to the "APPLICATION DIRECTIONS":

**CLEAN APPLICATION EQUIPMENT IMMEDIATELY
BEFORE SPRAY DRIES.**

Although characterized in the "Notification" as an "advisory statement", the sentence clearly is a command. Further the text is placed in **boldface** and underlined, thus making it the most conspicuous text in the "DIRECTIONS FOR USE", suggesting to us that nozzle clogging has been a big problem with this product.

Do users of containers equipped with "the squeeze trigger applicator" report fouling of the built-in nozzle or any related problems?

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Notification
of May 7,
1998

In this notification, you added several promotional statements without critical review. Two of these claims were in categories for which we previously had rejected claims.

- The claim "USE ON FLOWERS, SHRUBS & TREES" is largely consistent with the list of permissible use sites in the "**USE RESTRICTIONS:**" subsection of the "**DIRECTIONS FOR USE**", but unqualified use of "TREES" might imply to some that it is permissible to spray the product on bearing fruit trees, a use category for which there are no relevant tolerances for your active ingredient.
2. The claim "LEAVES NASTY TASTE" would appear to be true for humans. How deer might characterize the taste of treated foliage is not clear because they cannot speak as humans do. From direct observation of deer interacting with treated materials, it may be possible to infer aversion or even dislike.
- 3.. Claims such as "RAIN RESISTANT" were not accepted by us when proposed directly. The MRID Number (438751-04) cited refers to a report or research in which only one plant was treated with TREE GUARD. One is a very small sample size from which to generalize claims of weather resistance.
4. The MRID Number (438751-02) cited in conjunction with the claim "LASTS UP TO 100 DAYS" pertains to a rather poorly designed study in which there were many more plants in the treated plots than in the untreated plots, an untreated "plot" which consisted of a single tree which the report described as "expendable", no assessments of pretreatment damage, a homeowner-cooperator who apparently was very nervous about the outcome of the experiment and may have confounded the study with additional control efforts such as hazing deer away, and researchers who were concerned about "the large replacement cost of the trees" but apparently visited the site only occasionally. In other research that we have reviewed, the effects of one TREE GUARD treatment did not endure for anything close to 100 days.

**Efficacy
data**

The name of this study is "Deer Repellent Tests", which the Minnesota Department of Natural Resources conducted in 1996. Our comments follow:

1. The published efficacy report data submitted on August 1, 1999, by North American Consulting Services LLC on behalf of your company indicates that, under the test conditions described, the product known to the researchers as "Treeguard" performed as well at all sites as any other test material and superior to all others at one site.
2. These results are consistent with the claim that TREE GUARD deters deer from feeding on treated materials. However, the product was not applied as a foliar spray, as its label directs. Instead, halves of corn ears were dipped into TREE GUARD and the other test materials.
3. Due to differences in treatment sites and procedures, it is possible that the results obtained in the study would not generalize to other situations. Indeed, we have reviewed other comparative studies in which other test materials appeared to have outperformed the samples claimed to be TREE GUARD. Regardless of the actual case, product labeling may not include comparisons of the effectiveness of different pesticides.

**Label
review**

Submit one (1) copy of final printed labeling with the following changes before you release the product for shipment:

1. On the Front Panel, under "Tree Guard®", delete the following unacceptable claims:
 - a. "leaves nasty taste"
 - b. "rain resistant"
 - c. "lasts up to 100 days"
2. Revise the text under your product name as follows:

A ready-to-use deer repellent for reduction of feeding by deer on
CONIFERS AND DECIDUOUS, NON-BEARING TREES, SHRUBS,
FLOWERS, AND OTHER ORNAMENTAL PLANTS.

- Put "Denatonium Benzoate," in front of the chemical name in the ingredient statement. Modify the text directly under the ingredient statement as "(also known as Bitrex)".
- 4. On your Back/Side Panel, modify your "PRECAUTIONARY STATEMENTS" as follows:

PRECAUTIONARY STATEMENTS
HAZARD TO HUMANS & DOMESTIC ANIMALS

CAUTION

Harmful if absorbed through the skin. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling.

FIRST AID	
Have label with you when obtaining treatment advice.	
If on skin or clothing	<ul style="list-style-type: none"> •Take off contaminated clothing. •Rinse skin immediately with plenty of water for 15-20 min. •Call a poison control center, doctor, or 1-800-858-7378¹ immediately for treatment advice. [Toll-free number and footnote is optional.]

¹ National Pesticides Tele-Communications Network (NPTN): Gives information on health concerns, medical emergencies and incidents.

CSF Your Confidential Statement of Formula (CSF) dated March 20, 2000, was acceptable. All other versions are obsolete.

Existing stocks date for old labeling You will have six (6) months to use up existing stocks of previously approved labeling.

Consequence for non-compliance This registration will be subject to cancellation in accordance with FIFRA sec. 6(e) if you do not comply with these conditions. Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions.

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

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Page 5 of 5

EPA Contact If you have questions about this letter, please contact me at 703-305-5407 (by phone), 703-305-6596 (by fax), or peacock.dan@epa.gov (by E-Mail).

Sincerely,

Daniel Peacock, Biologist
Insecticide-Rodenticide Branch
Registration Division (7504C)

Enclosure Minimum Type Sizes for Final Printed Labels

Letter filed A:\Bitrex\66676-1 July 2000.wpd July 11, 2000

TREE GUARD®

- USE ON FLOWERS, SHRUBS & TREES
- LEAVES NASTY TASTE
- RAIN RESISTANT
- LASTS UP TO 100 DAYS

ACTIVE INGREDIENT:

Benzyldiethyl [(2,6 xylyl carbamoyl) methyl] ammonium benzoate	0.20%*
OTHER INGREDIENTS	<u>99.80%</u>

Total:	100.00%
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- * Contains 0.017 lbs (7.76g) of active ingredient
(also known as Denatonium Benzoate or Bitrex) per gallon

KEEP OUT OF REACH OF CHILDREN

CAUTION

See back panel for additional precautions.

ACCEPTED
with **COMMENTS**
in EPA Letter Dated:

JUL 11 2000

Manufactured for:
Becker Underwood, Inc.
801 Dayton Avenue, PO Box 667
Ames, IA 50010
www.bucolor.com

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

66676-1

NOTIFICATION

APR 14 2000

EPA Est. No. _____
EPA Reg. No. 66676-1
Net Contents: _____

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION: Harmful if absorbed through the skin. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling.

FIRST AID

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

ENVIRONMENTAL HAZARDS

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not clean equipment or dispose of equipment wash waters in a manner that will contaminate water resources or arable land.

DIRECTIONS FOR USE:

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

USE RESTRICTIONS: This product may be used to discourage deer (*Odocoileus spp.*) from feeding on shrubs, ornamental plants, conifers and nonbearing deciduous trees. Use this product only at ambient temperature between 40°F and 90°F. Where deer pressure is high, consider other abatement options including fencing. Do not use on food or feed crops.

Do not apply aerially. Do not apply product through any type of irrigation system or hose proportioner applicator. Do not apply directly to or where product might drift onto stone, concrete or siding as staining might occur.

TREE GUARD has been tested on many species of ornamental plants and is believed not to be generally phytotoxic. Nevertheless, it is advisable to test the product on types of plants that might be especially sensitive by treating and observing small portions of the plant before treating the entire plant.

APPLICATION DIRECTIONS:

This product is ready-to-use and should not be diluted. Shake container well before using product. Apply TREE GUARD directly using the squeeze trigger if the product container is equipped with a trigger applicator. If the container lacks a squeeze trigger, transfer the product to any pump-type sprayer equipped with a cone or flat fan nozzle. Adjust nozzle to obtain even coverage. Apply only to dry plants.

Hold spray tip 1 to 2 feet from plants to be treated and spray leaves, needles, buds, branches, and trunks subject to browsing by deer. Thoroughly wet treated surfaces but do not apply to the point of significant spray run-off. For small shrubs such as global arborvitae 20-24" high, approximately 4-5 plants can be treated with the contents of a 1-quart container. Less product per plant will be needed for treating smaller, or less densely foliated plants. Larger, heavily foliated plants will require greater amounts of product. Repeat treatment if deer damage resumes. For best results, apply to bare branches in fall after the first frost and to unprotected foliage in spring.

STORAGE AND DISPOSAL

STORAGE: Store only in original container, in a dry place inaccessible to children and pets at temperatures above freezing.

PRODUCT DISPOSAL: Wastes results from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Do not reuse container. Rinse thoroughly and wrap in several layers of newspaper before discarding in trash.

Notice: Becker Underwood, Inc. makes no express or implied warranties of fitness or merchantability or any other kind whatsoever, except that the product conforms to the specifications on the label. Becker Underwood, Inc.'s sole liability on the warranty is limited, at Becker Underwood's option, to replacement of the defective product or return of the purchase price paid for the defective product. Under no circumstances shall Becker Underwood, Inc. be liable for incidental, consequential, or special damages. The buyer assumes all risks and liability resulting from the use of this product, whether used singly or in the combination with other goods. Becker Underwood, Inc. neither assumes, nor authorizes any person to assume for it, any other liability in connections with the sale or use of this product.