DATE: October 2, 1980

SUBJECT: Turf Builder Plus 2 for Iron Deficient Soils
EPA Registration No.: 538-93

FROM: Sherell A. Sterling
PHB/TSS

TO: Richard Mountfort
Product Manager (23)

Applicant: O.M. Scott & Sons, Co.
Marysville, OH 43040

Active Ingredients:

2,4-D ........................................... 0.75%
MCPA .......................................... 0.75%
Inert Ingredients .............................. 98.50%

Background: Data were submitted to support a change in signal word from CAUTION to WARNING. An Eye Irritation study was submitted and is under Accession No. 243007. The method of support is "alternate." Raltech Scientific Services of Madison, Wisconsin conducted the study.

Recommendations:

1. The study does not identify the test substance "F8596" chemically; therefore, the data are considered supplementary and not acceptable.

2. If the test substance is identified as an EPA-accepted formulation for this product, the data would be acceptable; the proposed change from CAUTION to WARNING would also be acceptable. The proposed labeling would be acceptable.

Review:

1. Primary Eye Irritation; Raltech 772286; Acc. No. 243007; March 19, 1980.

Procedure: Nine New Zealand white rabbits received a 0.1 g sample of "F8596" in one eye of each animal. Three eyes were subjected to a wash for one minute with lukewarm water, 30 seconds after treatment. Draize scoring at 24, 48, 72, 96 hours; 7 and 14 days.

Results: The unwashed eyes at 24 hours exhibited corneal opacity in 1/6 = 7.5, 1/6 = 10, 1/6 = 15; corneal epithelial peeling in 1/6 = 10% and 2/6 = 25%; iris irritation and injection in 5/6 = 1; redness in 4/6 =2, 1/6 = 2.5, 1/6 = 3; chemosis in 2/6 = 1, 3/6 = 2, 1/6 =3; purulent discharge in 2/6 = 0.5, 1/6 = 1, 1/6 = 1.5, 1/6 = 2.5. All opacity in unwashed eyes cleared by
96-hours; only slight redness observed at seven days; all clear at 14 days. For the washed eyes at 24-hours, corneal opacity in $1/3 = 5$ with 10% corneal epithelial peeling; no iris irritation; redness in $1/3 = 1$, $1/3 = 1.5$, $1/3 = 2.0$; chemosis in $1/3 = 1$, $2/3 = 1.5$; purulent discharge in $1/3 = 0.5$. All clear by day seven.

**Study Classification:** Core Supplementary Data. Since test sample was not identified chemically, study is not acceptable. If substance is identified chemically as an EPA-accepted formulation for this product, the study would be considered Core Guideline and the toxicity category would be II - WARNING.
TURF BUILDER
plus 2 (R) BRAND
weed control plus lawn fertilizer for iron-deficient soils

(Illus.)

Clears out dandelions—and other weeds listed on other side.

Apply when weeds are in active growth.

Gives complete feeding of Scotts long-lasting fertilizer for developing thick, green lawns.

NET WEIGHT 20½ LBS (9.30 kg) 22-3-3
KEEP OUT OF REACH OF CHILDREN
WARNING
PRECAUTIONARY STATEMENTS

Hazard to Humans and Domestic Animals: Causes eye irritation. Do not get in eyes, on skin, or on clothing. In case of contact immediately wash eyes or skin with plenty of water. Get medical attention if irritation persists. Harmful if swallowed. Do not contaminate feed or foodstuffs.

Environmental Hazards: Do not contaminate water used for irrigational or domestic purposes. Do not use on creeping bentgrass, carpetgrass, St. Augustinegrass, dichondra or clover lawns. Avoid application on garden plants, flowers and shrubs.

Storage and Disposal: Do not reuse empty container. Wrap container and put in trash container.

ACTIVE INGREDIENTS:
2,4-Dichlorophenoxyacetic acid 0.7%
2-(2-Methyl-4-chlorophenoxy) propionic acid 0.7%
INERT INGREDIENTS:
Total 98.5%

EPA Reg No 538-93 EPA Est 538-OH-1
Turf Builder plus 2 for Iron Deficient Soils 22-3-3
Guaranteed Analysis

Total nitrogen (N) .................................. 22%
  0.7% ammoniacal nitrogen
  14.4% water soluble nitrogen
  6.9% water insoluble nitrogen
Available phosphoric acid (P₂O₅) ........... 3%
Soluble potash (K₂O) ......................... 3%
Iron (Fe) ........................................... 1.10%
Derived from: monoammonium phosphate, urea, methylene ureas, muriate of potash, ferrous sulfate.

The O M Scott & Sons Company

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2247 (Scotts (R)) TURF BUILDER
   plus 2 for iron-deficient soils

weed control
plus lawn fertilizer
(Scotts (R)) TURF BUILDER weed control for iron-deficient soils plus 2 plus lawn fertilizer
**WEEDS CONTROLLED**

<table>
<thead>
<tr>
<th>Weed</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>aster</td>
<td>English daisy</td>
</tr>
<tr>
<td>bittercress</td>
<td>eveningprimrose</td>
</tr>
<tr>
<td>black medic</td>
<td>filaree</td>
</tr>
<tr>
<td>bullthistle</td>
<td>fleabane</td>
</tr>
<tr>
<td>buttonweed</td>
<td>hawkweed</td>
</tr>
<tr>
<td>carpetweed</td>
<td>healall</td>
</tr>
<tr>
<td>chicory</td>
<td>henbit</td>
</tr>
<tr>
<td>cinquefoil</td>
<td>horseweed</td>
</tr>
<tr>
<td>cudweed</td>
<td>knotweed (seedling)</td>
</tr>
<tr>
<td>curly dock</td>
<td>lambsquarters</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weed</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>dandelion</td>
<td>chickweed</td>
</tr>
<tr>
<td>buckhorn</td>
<td>lippia (matchweed)</td>
</tr>
<tr>
<td></td>
<td>mallow</td>
</tr>
<tr>
<td></td>
<td>moneywort</td>
</tr>
<tr>
<td></td>
<td>morningglory</td>
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<tr>
<td></td>
<td>mustard</td>
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<tr>
<td></td>
<td>pennywort</td>
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<tr>
<td></td>
<td>pepperweed</td>
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<tr>
<td></td>
<td>pigweed</td>
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<tr>
<td></td>
<td>prickly lettuce</td>
</tr>
<tr>
<td></td>
<td>puncturevine</td>
</tr>
</tbody>
</table>

**directions for use**

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

- **DO** use when weeds are actively growing, but not before dandelion blossom time.
- **DO** apply only when lawn is wet from dew, rain or thorough watering (very important so that the Turf Builder Plus 2 particles will stick to the weed leaves instead of falling to the soil).
- **DO** withhold watering lawn for at least 24 hours after application (to avoid washing particles off the weed leaves).
- **DO** apply on a calm day.
- **DO** apply at Scotts Spreader (Standard, Automatic or Precision Flow Control Model) setting... $\frac{6}{3}$ (treats 4,500 sq ft)
- **DO** slightly overlap spreader's wheel tracks or you may have "stripes" of untreated lawn.
- **DO** sweep particles off walks and driveways promptly to avoid possibility of staining.

- **DON'T** use when rain is expected within 24 hours.
- **DON'T** use in a period of extreme heat and humidity.
- **DON'T** use when grass is so tall it touches bottom of spreader (mow lawn first in such situations).
- **DON'T** use on a newly seeded or sodded lawn until the new grass has been mowed at least four times. If seeding in late spring, delay the weed control application until early fall. If seeding in the late fall, delay weed control application until spring.
- **DON'T** seed right after using Turf Builder 2. Wait at least one month.
- **DON'T** use on flowers, shrubs, turf, vegetables, or on lawns of creeping bent, clover, dichondra, St. Augustine or carpetgrass.
- **DON'T** apply with a rotary-type spreader.
What to expect

This product does not work overnight. It is designed to provide slow, steady controlled action. Stems and leaves of weeds may begin to twist and curl in a few days, but a month or more may be required for complete control, especially when weather is dry or cold.

It is not necessary to rake out dead weeds. They will eventually disintegrate and disappear.

This product works only through the growing leaves of plants. It does not prevent weed seeds from producing new plants, whether such seeds are on the surface or buried in the soil.

If particles become washed off weed foliage within 24 hours after application control may be less effective. If there is no indication that it is working after 3 or 4 weeks of good growing weather another treatment may be needed.

A few weeds may be resistant to control. If this happens, please forward specimens so we can identify them and advise you further.

After weed control is achieved, you are urged to follow through on the basic needs of every lawn—fertilizer, water and regular mowing.

Free bulletin service

As a Scotts user, you are entitled to a free subscription to Lawn Care, which has been helping lawnmowers for over 50 years.

(ILLUS.)

Unless you already receive Lawn Care, send us this coupon and we'll mail you the seasonal issues prepared especially for your region.

Cut out and mail to SCOTTs, Marysville, Ohio 43041

Scotts Policy
No-Quibble Guarantee

If for any reason you are not satisfied with results after using this product, you are entitled to get your money back. Simply send us evidence of purchase and we will mail you a refund check promptly.

SCOTTs...the lawn people
Marysville, Ohio 43041

2247 TURF BUILDER
plus 2 for iron-deficient soils

weed control
plus lawn
fertilizer