Advancements in Pesticide Labeling
Yesterday, Today and Tomorrow

AAPCO Annual Conference
March 5, 2019

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Outline

Past

1. Label **Process** Improvements
   a. Desktop Publishing
   b. Third-Party Label Vendors
   c. Electronic Document Comparison

2. Label **Content** Improvements
   a. Consumer Labeling Initiative
   b. Termite label improvements
   c. PPDC Workgroup on Environmental Hazard Labeling
   d. Pyrethroid Label Changes

Present

3. FIFRA 25(b) Workgroup
4. State Registrations – ALSTAR
5. NPIRS and NSPIRS
6. PPLS – Pesticide Product & Label System

Future

7. One Integrated Digital System
8. Automated Data Validation
9. Visionary Thinkers

Discussion
1. Label Process Improvements

a. Desktop Publishing
   • Paste-Up, Camera-Ready
   • 1980s and 1990s
   • PageMaker, QuarkXPress, Adobe In-Design
   • Fundamental to many parts of electronic label workflows -- especially on the container label side.

https://www.prepressure.com/prepress/history/events-1970
b. Third-Party Label Vendors

- Greenbook, CDMS (Crop Data Management Systems), and Agrian
- Structured Data
- Validated Application Recommendations
c. Electronic Document Comparison

- DocuComp
- Adobe Acrobat
- Microsoft Word
- DocsCorp compareDocs
- GlobalVision Text Inspection & Graphics Inspection (formerly DocuProof & ArtProof)

Significant label improvements have been made through collaborative efforts.

Many of these improvements implemented by EPA through PR Notices.

Efforts to note:
- Termiticide Labeling
- Consumer Labeling Initiative
- PPDC Workgroup
a. Consumer Labeling Initiative

• Launched by EPA in 1996 with the goal of making consumer pesticide labels more understandable by consumers and thus more easy to comply with

• Previously, many consumer labels were simply retail versions of agricultural or professional labels

• The CLI was a large multi-stakeholder effort, involving EPA, other Agencies, States, industry and others

• Involved focus groups, and comprehensive surveys to understand consumers’ understanding and preferences

• Effort was focused on three types of products (recognizing results could apply to other types as well): Indoor Insecticides, Lawn and Garden Products, Disinfectant Cleaners
a. Consumer Labeling Initiative (continued)

- Multiple Improvements came from recommendations of the CLI, some simply recommendations of format and language
  - Using numerated or bulleted use directions vs. block text
  - Summaries of usage information in a single table visible at purchase

- Other findings resulted in policy changes:
  - PR Notice 97-4: Consumer Access Phone Numbers
  - PR Notice 97-5: Use of Common Chemical Names
  - PR Notice 97-8: Use of the term “Other” instead of Inert Ingredients
  - Policy with regard to ingredient disclosure

- Probably most notable was PR Notice 2001-1 which changed “Statements of Practical Treatment” to “First Aid” and adopted current treatment practices
a. Consumer Labeling Initiative (continued)

STATEMENTS OF PRACTICAL TREATMENT
If In eyes: Hold eyelids open and flush with plenty of water. Call a physician if irritation persists. If swallowed, call a physician or Poison Control Center. Administer water freely and induce vomiting by giving one dose (112 oz or 15 mil of syrup of ipecac. If vomiting does not occur within 10 to 20 minutes, administer second dose. If syrup of ipecac is not available, induce vomiting by sticking finger down throat. Repeat until vomit fluid is clear. Never give anything by mouth to an unconscious person. Avoid alcohol. If on skin: Wash thoroughly with soap and water. Get medical attention if irritation occurs. If Inhaled, remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention. TO PHYSICIAN: No specific antidote is available. Treat the patient symptomatically.
a. Consumer Labeling Initiative (continued)

First Aid

If Swallowed:

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

In case of emergency call the medical emergency number 800-424-9300, a poison control center or doctor for treatment advice. Have the product container or label with you when call or going for treatment.
b. Termiticide Labeling

- An effort with EPA, ASPCRO and industry (registrants and users) to make labels for products used as termiticides more consistent and enforceable
- There were some contentious issues, but through discussion and understanding, general consensus was reached
- The result was PR Notice 96-7 issued by EPA (followed with a time extension in PR Notice 97-8)
- Standardization of use directions, definitions and terms, primarily for soil applied termiticides
- Also recognized State’s role in regulating applicators and applications
c. PPDC Workgroup on Environmental Hazard Labeling

• A PPDC Workgroup was organized under the auspices of the PPDC to continue the work of the CLI to continue and try to make language more understandable and easier to follow.

• The multi-stakeholder group met a number of times in 2005 and 2006. The group determined the focus should be Environmental Hazard labeling with the recognition that many people did not well understand current Environmental Hazard labeling for residential use products:

ENVIRONMENTAL HAZARDS This pesticide is toxic to fish. 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 aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters. Apply this product only as specified on this label.
c. PPDC Workgroup on Environmental Hazard Labeling (cont)

- Recognition was made that statements should differ for different types of formulation to add clarity as to what to do and why
- The work group made recommendations to EPA in July 2006 for changes to Environmental Hazard labeling for residential products
- The result was PR Notice 2008-1 recommending that labels be changed to the following:

<table>
<thead>
<tr>
<th>Type of Product</th>
<th>Label Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid Concentrate</td>
<td>To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.</td>
</tr>
<tr>
<td>Broadcast Granular</td>
<td>To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Sweeping any product that lands on a driveway, sidewalk, or street, back onto the treated area of the lawn or garden will help to prevent run off to water bodies or drainage systems.</td>
</tr>
<tr>
<td>Dust</td>
<td>To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area.</td>
</tr>
<tr>
<td>Liquid Ready-to-Use (RTU)</td>
<td>To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area.</td>
</tr>
</tbody>
</table>
d. Pyrethroid Label Changes

• Use Directions and Environmental Hazard Statements for Non-Agricultural Outdoor Pyrethroid Products

• Liquid Concentrates
• Broadcast Granules
• Dusts
• Liquid Ready to Use Products
d. Pyrethroid Label Changes (continued)

- **Outdoor Surface and Space Sprays (except Outdoor Fogging Devices)**
- All outdoor applications must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses:
  - Treatment to soil or vegetation around structures;
  - Applications to lawns, turf, and other vegetation;
  - Applications to building foundations, up to a maximum height of 3 feet.
- Other than applications to building foundations, all outdoor applications to impervious surfaces such as sidewalks, driveways, patios, porches and structural surfaces (such as windows, doors, and eaves) are limited to spot and crack-and-crevice applications, only.
d. Pyrethroid Label Changes (continued)

- Clarification Letter to California DPR from EPA
- Foundations
- One inch pin stream
- Eaves and soffits

CERTIFIED MAIL

October 25, 2011

Mr. Charles Andrews
Associate Director
California Department of Pesticide Regulation
1001 I Street, PO Box 4015
Sacramento, CA 95812-4015

Re: EPA’s Response to CDPR’s August 4, 2011 Letter Regarding the Agency’s 2009 Pyrethroid Labelling Initiative

Dear Mr. Andrews:

Thank you for your letter of August 4, 2011 requesting clarification on language used in the Environmental Protection Agency’s (EPA or the Agency) June 2009 pyrethroid labelling initiative “Environmental Hazard and General Labeling for Pyrethroid Non-Agricultural Outdoor Products Notification.” The Agency appreciates the California Department of Pesticide Regulation’s (CDPR) engagement in these issues and participation in a conference call on September 9, 2011 to discuss and clarify the questions raised in your letter. EPA seeks to respond formally to your questions while incorporating the discussions we had via conference call.

The main questions raised in CDPR’s August 4th letter focused on the following label statement the Agency requested pyrethroid registrants to incorporate onto all pyrethroid non-agricultural outdoor labels per the 2009 letter and notification.

“All outdoor applications must be limited to spot or crack-and-crevise treatments only, except for the following permitted uses:
(1) Treatment to soil or vegetation around structures;
(2) Applications to lawns, turf, and other vegetation;
(3) Applications to building foundations, up to a maximum height of 3 feet.

Other than applications to building foundations, all outdoor applications to impervious surfaces such as sidewalks, driveways, patios, porches and structural surfaces (such as windows, doors, and eaves) are limited to spot and crack-and-crevise applications, only.”

CDPR Question 1: “In California, many houses are built on a slab foundation typically about three to four inches above the grade level. DPR is proposing to reduce the 3 foot allowance to 2
d. Pyrethroid Label Changes (continued)

Challenges for PMPs

- Vertical Surface Treatment Limitations
- Impervious Horizontal Surface Prohibitions
- General Surface Applications
  - Stink bug, Ladybug, Boxelder bug, Kudzu bug
  - Spiders
  - Carpenter bee treatments
- Perimeter Treatments
  - Ants
  - Crickets, other occasional invaders
d. Pyrethroid Label Changes (continued)

EPA Workshop 18 September 2013
d. Pyrethroid Label Changes (continued)

Overwintering Pest Management
All outdoor applications must be limited to spot or crack and crevice treatments only, except for the following permitted uses:

1. Treatment of soil or vegetation around structures;
2. Applications to lawns, turf, and other vegetation;
3. Applications to the side of a building, up to a maximum height of 3 feet above grade;
4. Applications to the underside of eaves or soffits, and covered doors and windows;
5. A pin stream application, defined as one inch wide, or less; and
6. Applications made through the use of a coarse, low pressure spray to only those portions of surfaces that are directly above bare soil, lawn, turf, mulch or other vegetation, as listed on this label, and not over an impervious surface, drainage or other condition that could result in runoff into storm drains, drainage ditches, gutters, or surface waters, in order to control occasional invaders or congregating pests.
2 Label **Content** Improvements

d. Pyrethroid Label Changes (continued)

Overwintering Pest Management
d. Pyrethroid Label Changes (continued)

Overwintering Pest Management
EPA Letter to Registrants 10 January 2013

On September 18, 2012, members of EPA’s Pesticide Re-evaluation Division (PRD), Registration Division (RD), and Environmental Fate and Effects Division (EFED) attended a workshop facilitated by the National Pest Management Association (NPMA) and the Association of Structural Pest Control Regulatory Officials (ASPCRO) in conjunction with The State-FIFRA Issues Research and Evaluation Group (SFIREG), developed to discuss questions raised by professional pesticide applicators concerning revisions the 2009 pyrethroid non-agricultural language.

At the workshop, the biology and behavior of certain aggregating, overwintering pests was described, and various control strategies for treating the pests were discussed and demonstrated. PCOs demonstrated how the 2009 limitations on general surface applications to the outside of structures to areas less than three feet above grade, or to spot and crack and crevice treatments, impede PCOs’ ability to effectively control certain overwintering pests (or “occasional invaders”), such as brown marmorated stink bugs and kudzu bugs. The workshop facilitators explained that methods such as sealing of cracks and crevices, and targeting treatments to pest entry points via crack and crevice application is extremely labor intensive and a potentially ineffective means to control the extremely large populations of overwintering pests from seeking harborage locations inside structures.

NPMA, ASPCRO, and SFIREG suggested revisions to the directions for use on pyrethroid pesticide products intended to clarify potential ambiguity and enhance the capability of professional applicators to treat overwintering pests.
Workgroup Members

Label guidance for 25(b) products

25(b) Statement of Formula form:  [Word version](#), which will download and is fillable or [PDF’d form](#), which is easier to view

State Survey Results:  [25(b) Registration Requirements by state, with contacts](#) (this is an excel workbook, which will download to your computer to open up)

Learn more about 25(b):  [EPA’s Minimum Risk Pesticides webpage](#)
New Registration: 5813-111

Your state registration data contains the following products for EPA Registration Number: 5813-111

<table>
<thead>
<tr>
<th>EPA Reg No</th>
<th>State Product No</th>
<th>Brand Name</th>
<th>Reg Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>5813-111</td>
<td>2016080050</td>
<td>CLOROX REGULAR BLEACH2 CONCENTRATE</td>
<td>2019</td>
</tr>
<tr>
<td>5813-111</td>
<td>2018083425</td>
<td>CLOROX MOLD ELIMINATOR ANTIFUNGAL</td>
<td>2019</td>
</tr>
</tbody>
</table>

If the new registration is not listed above and you do not know the State Product No, you can leave it blank for now and continue to accept the product label for the new registration. Once the State Product No is assigned, you will need to select the Products option to Update Accepted Products and enter the assigned state product number in order to link the accepted label to your state data.

If known, enter the State Product No along with any corrections to the State Brand Name.

State Product No: 
State Brand Name: CLOROX DISINFECTING BLEACH2

To view a product label for the new registration, click on the Brand Name for that specific product. To view a product's supporting documents, click on the Document Type.
NPIRS

The National Pesticide Information Retrieval System (NPIRS) is a collection of pesticide-related databases. Some available only by subscription, some free to the public. Subscriptions provide access to all information on NPIRS including PDMS, Federal Product, and State Product information.

NSPIRS

The NPIRS State Pesticide Information Retrieval System (NSPIRS) is used for pesticide registration information and to identify products currently registered in states.
SEARCH INDIANA STATE PESTICIDE PRODUCTS

Search for pesticide products currently registered in Indiana using one of the following methods.

- **EPA Registration Number:**
  Search by the multi-part EPA registration number. You can copy/paste the complete EPA Registration Number into any of the boxes above.

- **State Product Name:**
  Search by the full or partial name of a product registered in a state.

- **State Company Name:**
  Search by the full or partial name of a company registering products in a state.

- **Active Ingredient:**
  Search by the PC code, Chemical Abstract Services Number (CAS) or the full or partial chemical name.

[Search]
Details for UTIKEM SUPER ALGAEATE

Company Name: QUALCO, INC.
Address: 225 PASSAIC ST
City, State Zip: PASSAIC, NJ 07055
First Registered Date: JANUARY 26, 1978
Current Status (Date): Active (JANUARY 26, 1978)
Restricted Use: NO

<table>
<thead>
<tr>
<th>Labels</th>
<th>Chemical</th>
<th>Alt Brand Name</th>
<th>Inactive Alt Brand Name</th>
<th>Transfer History</th>
<th>Site</th>
<th>Pest</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPA Reg. No.</td>
<td>Product Name</td>
<td>Accepted Date</td>
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</tr>
<tr>
<td>3525-66</td>
<td>UTIKEM SUPER ALGAEATE</td>
<td>January 26, 1978 (PDF)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
One Integrated Digital System

Key Label Data Stakeholders

Customers     EPA     Industry     States     Vendors

ALSTAR

NPIRS

BASF

Corteva

Corazon

CDMS

Data Logic Knowledge

ALSTAR

Kelly

USAPlants

FMC

Syngenta
Current Registration Data

Product Data
- Product Name
- EPA Reg. No.
- Pesticide Type
- Active Ingredients
- Label

Label Data
- Pests Controlled
- Use Site
- Pesticide Type
- Signal Word
- Health Hazard
- Environmental Hazard
- Mode of Action

Develop Standards & Guidelines for Data Transfer
Structured Digital Data Exchange

- Label registration information is now stored within points and hubs
- Partner to develop label registration data standards & guidelines
- Vision is real time exchange of registration & label data system wide
- One integrated data set of digital product label information
What’s Next in Labeling

- Visionary Thinkers
- Dialogue on Digital Data Standards & Guidelines
- Digital Registration Data
- Digital Labeling Information

Digital agriculture is the use of new and advanced technologies, integrated into one system, to enable farmers and other stakeholders within the agriculture value chain to improve food production.
Discussion

Need more information?

Questions on these presentations, contact:
  • Sarah Caffery: scaffery@purdue.edu
  • Jim Fredericks: jfredericks@pestworld.org
  • Tann Schafer: Tann.schafer@bayer.com
  • Doug Soper: dsoper@pbigordon.com
  • Julie Spagnoli: julie.spagnoli@jmspconsulting.com

Want to join the AAPCO Industry Relations Workgroup? Contact:
  • Derrick Lastinger: Derrick.Lastinger@agr.georgia.gov
  • Cristina Rodriguez: Cristina.Rodriguez@fmc.com