



Pesticide Labeling and Product Stewardship

The Pesticide Stewardship Alliance
Stewardship Directions for Reducing Pesticide Spray Drift
Symposium
February 26, 2007

~~~

Brian L. Bret, Ph.D.  
State Regulatory Manager  
Dow AgroSciences, LLC



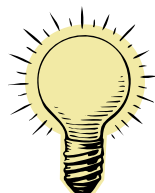


# Objectives

■ Labeling 101



■ When innovation & regulation collide



vs.



■ Stewardship



mrtech.com



# I. Labeling 101



What is a label?

- A legal document – “the label is the law”
- An instructional use guide – when? where? how?
- A marketing tool – why?
- A stewardship – do’s and don’ts

Extensive R&D is conducted that directly results in the language that appears on a label.



# ***FIFRA Section 3 Registration Data Requirements – Typical Submission***

**Typical  
submission  
fills 15-20  
cardboard  
boxes**





# ***FIFRA Section 3 Registration Data Requirements***

| <u>Study Areas</u>                    | <u>No. of Studies</u> |
|---------------------------------------|-----------------------|
| ■ Product Chemistry                   | 6                     |
| ■ Physical & Chemical Characteristics | 21                    |
| ■ Wildlife & Aquatic Organisms        | 22                    |
| ■ Toxicology                          | 28                    |
| ■ Plant Protection                    | 3 to 8                |
| ■ Reentry Protection                  | 4                     |
| ■ Non-target Insect                   | 3                     |
| ■ Environment Fate                    | 22 to 25              |
| ■ Residue chemistry                   | 18                    |
| ■ <u>Spray Drift</u>                  | 2                     |
| <b>Total</b>                          | <b>(~130-150)</b>     |





## *Range of Cost and Time for Developing One Compound*

| <b>Development Process Phase</b> | <b>Years</b>    | <b>Approximate Cost per Year (millions)</b> | <b>Total Cost</b> |
|----------------------------------|-----------------|---------------------------------------------|-------------------|
| <b>Discovery</b>                 | <b>2-4</b>      | <b>\$2-3</b>                                | <b>\$4-12</b>     |
| <b>Predevelopment</b>            | <b>3</b>        | <b>4-12</b>                                 | <b>12-36</b>      |
| <b>Development</b>               | <b>3</b>        | <b>4-12</b>                                 | <b>12-36</b>      |
| <b>Total</b>                     | <b>8-10 yrs</b> |                                             | <b>\$28-84</b>    |

**(Add  $\geq 1$  years for CA or NY registration)**



## *For example...*

- Residue Trials

- ↑ Maximum Use rate

- ↑ Minimum spray interval

- ↑ Minimum Pre Harvest Interval (PHI)

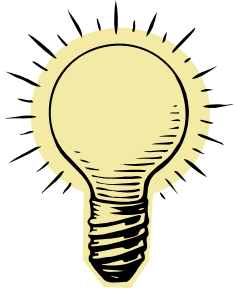
- Efficacy/Crop Safety Trials

- ↑ Minimum use rates

- ↑ Maximum spray interval

- ↑ Spray Volume

- ↑ Crop rotation intervals



## II. When innovation & regulation collide



- Innovative technologies to reduce drift, runoff, environmental exposure
- Precision applications, pinpoint placement, etc.
- Often result or claim to result in:
  - reduce spray volumes (environmental discharge)
  - reduce rates (reduce environmental load)
  - reduce drift





## *When innovation & regulation collide:*

What if new technology can...lower the spray volume?

- Impact on coverage? efficacy? crop safety?
- Mandatory vs. Advisory Language
  - ↑ Use minimum of 40 gpa
  - vs.
  - ↑ Recommend a minimum of 40 gpa





## *When innovation & regulation collide:*

**What if new technology can...lower the use rates?**

- Impact on efficacy? reliability? liability?
- Mandatory vs. Advisory Language
  - ↑ Use 1 pint product/acre
  - ↑ Do not use less than 1 pt product/acre
- Resistance Mgt;
- Prevent competitive tank mixing,





## *What to do....*

- ...when the greatest innovation meets the most restrictive label language?
- Change the label at USEPA, then all 50 states....
  - ↑ time consuming, less flexible
- State specific Section 24(c) Special Local Need registration.
  - ↑ quicker, local support, locally tailored



## **GUIDANCE ON FIFRA §24(c) REGISTRATIONS**

- **3. Issue:** Can states issue §24(c) registrations which negate or void voluntary or mandatory restrictions on §3 labels?
- **Response:** §24(c) of FIFRA allows states to amend federally registered products to meet specific local needs. Such amendments may take the form of new uses or new use directions which may differ from those on the §3 label. However, to the extent that such provisions negate or void provisions of the §3 label in a manner that could raise risk concerns, the use of 24(c) would be inappropriate unless the state has data to demonstrate that the proposed change will not cause unreasonable adverse effects to man or the environment. (*emphasis added*)



## III. Stewardship



nvtch.com

### Product Labeling

- Legally binding
- No need for extra manpower/resources
- One size-fits-all / inflexible
- Change requires fedl., then state, submission and approvals

### Stewardship

- Not legally binding
- Requires greater manpower/resources
- Flexible/adaptable to local situations
- Easier/quicker to change/improve





## *Stewardship Example #1*

### Stewardship **supplementing** labeling

- US EPA RED added buffer zones for ground, air blast, and aerial applications to all labels of a certain a.i.
  - ↑ Federal Regulatory Requirement
  - ↑ Registrant stewardship bulletins, training programs, grower/applicator awareness and education, articles in grower magazines.

## **Stewardship Example #2**

### Stewardship **supplanting** labeling

- Concerns over drift onto sensitive crops
- Current nozzles created high vortices at wing tips, high % fines, low VMD.
- Certain adjuvants exacerbated off target injury.
- Rather than specify changes to federal label
  - ↑ registrant required training sessions, hosted fly-in calibration day, and purchased new nozzle tips for all applicators.
  - ↑ registrant permitted only 1 approved adjuvant in training and literature.



# Summary

- Labeling critical for basic product stewardship.
  - ↑ Mandatory statements – greatest enforceability, but can constrain innovation
  - ↑ Advisory statements – greatest flexibility
- Stewardship Initiatives
  - ↑ Go above and beyond labeling
  - ↑ Most effective in addressing local needs/situations



## *Pesticide labeling and product stewardship*

Questions?  
Comments?  
Discussion?