

Reducing Pesticide Drift: *State Compliance Concerns*

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"Pesticide drift can result in lawsuits and unexpected visits from regulators."

– Gempler's magazine article on how to avoid drift



"University studies have shown that about one out of every four sprayers is miscalibrated by more than 10 percent..."

– DPR draft water quality management strategy, 2001



Drift Getting More Attention



California ground zero for drift concerns

■ Suburbs going into traditionally ag areas

■ Public generally more aware of-and concerned about-exposure to toxins

• Environmental groups call it "toxic trespass"

■ Problems and concerns have sharpened media, legislative, and regulatory focus



Drift Deserves More Attention



■ Drift incidents and illnesses account for high proportion of reported episodes and illnesses

• Drift episodes also tend to sicken more people

■ In California, from 1995 to 1999:

• Total illness episodes: 4,494

Episodes related to drift: 1,095 (24%)

• Total affected individuals: 6,691

Illnesses related to drift: 2,384 (36%)



Regulation of Pesticides in California



CA Regulatory History

- First laws: 1901 & 1911
- 1921: Registration required
- 1926: First residue monitoring
- 1940's: Regulations to limit drift
- 1950's: First limited use reporting
- 1970's: Worker protection rules
- 1980's: Risk assessment unit
- 1990: Full use reporting



California: The #1 Agricultural State

- In 1999, worth \$26.7 billion at farm gate
- Nearly 1/3 of CA's 100 million acres devoted to agriculture
 - Our 89,000 farms are 4% of the nation's total but produce 13% of farm receipts
- 350+ "crops," mostly dairy, fruit, flowers, vegetables and nuts
 - More than half of U.S. production



Breakdown of California Pesticide Use

- About 70% of California pesticide use is non-agricultural, including:
 - Business and institutional use
 - Home and garden use
- Half are chlorine-based products used for water treatment



Department of Pesticide Regulation

- Nation's most comprehensive pesticide regulatory program
- Our mission:
 - To protect human health and the environment by regulating pesticide sales and use and by fostering reduced-risk pest management.



DPR's Legal Mandates

- Proper, safe, and efficient use ... for public health and safety
- Protect the environment
- Assure safe pesticide workplace
- Competent users
- Product quality and truth-in-labeling
- Encourage pest management systems



An Integrated Network of Programs

- Product evaluation and registration, including risk assessment
- Environmental monitoring
- Licensing and permitting
- Use enforcement
- Residue testing
- Workplace safety



DPR: A Science-Based Program



- DPR charged with analyzing pesticide data and mitigating adverse effects
- With an extensive, science-based regulatory program, California:
 - ✓ routinely evaluates toxicology and other data as a requirement for pesticide registration
 - ✓ does comprehensive risk assessments, including assessment of dietary risk
 - ✓ monitors residues in water, air, food and occupational settings (foliage)



DPR Program and Staffing

- \$63 million budget, about 450 employees, including more than 30 toxicologists and more than 50 environmental scientists, including risk assessors and modelers
- Enforcement augmented by 325 biologists working for agricultural commissioners in all 58 counties



County-Based Field Enforcement

- Administered by County Agricultural Commissioners
- Specific pesticides restricted in regulation, then DPR recommends use practices to reduce risk
- Permit required for purchase and use
- County evaluates proposed application site for applicability, issues (or denies) permit
- Commissioner imposes site-specific restrictions



Dealing With Drift



Clarifying the Rules

- In a 1999 examination of DPR enforcement policies and procedures, drift was a consistent theme
- In response, DPR and the County Agricultural Commissioners developed a new Pesticide Drift Incident Response Policy
- Issued in September 2000, it details law and regulation regarding drift prevention
- Also focuses on how commissioners should respond to complaints



Clarifying the Rules

- State law requires applicators to use pesticides in a manner to prevent "substantial drift" to nontarget areas
- Determination of substantial drift depends not on quantity of pesticide but on whether applicator used "due care"
- Applicator must establish if there reasonable possibility of harm or damage before deciding whether to use pesticides,



Are Clearer Rules Enough?




Getting the Job Done



- Regulators: must have clear, consistent expectations
 - Enforcement must also be consistent
- Industry: must set its expectations high and follow through on them
 - Stewardship must be more than a motto
- And the toughie: applicator attitudes must change



What Regulators Must Do

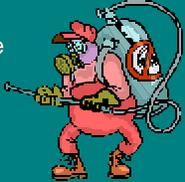


- We need label language:
 - That to the extent possible, lays out application scenarios
 - That is based on the best research and experience in the field
 - That is clear, easily understood and enforceable
- We need to have reasonable rules, that work in the field, consistently and strictly enforced



What Industry Must Do

- No room for mistakes, negligence or inattention to detail
- Equipment and technology aren't the heart of the problem
- Attitudes and judgement are




How Do We Change Attitudes?

- Everyone must accept that the good ol' days are gone
- Saying "drift is not that serious a problem" doesn't cut it
- Urbanization, "toxic trespass," demands from regulators, the public, and enviros, are all here to stay




The Little Things That Count



- Get rid of the "do it my way" attitude
- Nurture good communication between applicators, PCAs, farmers
- Don't let yourself be hurried by business pressures and mindless pursuit of maximal efficacy into bending the rules
 - The cost to you --and your industry--of mistakes is incalculable

