Pesticide Stewardship





Outline

- New C&T Rules
- Pesticide Storage Considerations
- Pesticide Spill Prevention
- Pesticide Drift Prevention
- Summary



New Certification and Training Rules (FIFRA)





The Issues

- First significant change to FIFRA.
- Need to standardize competency and applicator supervision.
- Human and environmental health and safety.



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Background

- Changes were proposed by US EPA in 2015.
- Comment periods were extended.
- Large number of comments were received.
- Comment periods ended start of 2016.







Significant Issues

- Large differences with the states C&T Programs.
- States concerned with costs associated with proposed rules.
- Many organizations concerned with affects on applicators.







Significant Areas for Change

- Private Applicator Competency Standards.
- Additional Certification Categories for Private and Commercial (Professional) applicators.
- "Limited Use" category.
- Predator Control category.
- Certification/Recert ID.

- Enhanced non-certified applicator/supervisor competency
- Recordskeeping for Professional Applicators
- Minimum age requirement
- Recertification requirements.
- Requirements for SLA and Dealers.

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Changes to Idaho's C&T Program

- Most changes proposed by industry and applicators previous to EPA rule changes.
- Program is consistent with most changes in FIFRA.
- Will need to change Idaho Law/Rule to accommodate some requirements.







Changes to Idaho's C&T





Additional Categories

- Most additional applicator categories currently exist.
- Aerial Applicator category will be added.
- Commodities Pest Control category will be necessary for Private/Professional applicators performing space fumigation (nonsoil).





Non-certified Applicators

- Non-certified applicators will need to be trained and the training will need to be verified.
- Must be done by a qualified trainer.
- Must be supervised by a qualified person.
- Minimum age requirements apply(18 or 16).



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Other Program Changes

 Other changes are the responsibility of the ISDA in regards to updating and maintenance of the program requirements to US EPA.







Pesticide Storage





Proper Storage Safeguards...

- Ground
- Water
- Yourself and Others







Considerations

- Applicable Law
- Generals Rules
- Type of Pesticide
- Location of Storage Area
- Safety





Best Storage - Don't Store!

- Determine the amount of pesticide needed for the application.
- Resist the urge to over purchase.
- Use all chemicals during one season.







Idaho Law

- Properly Marked
- Separated
 - -Food, Feed, Vet Supplies
 - -Humans
 - -Pets
 - -Livestock
 - $-\mathsf{PPE}$







Idaho Law

- Applicable Safety Equipment
- Secured from intrusion







Idaho Law

- Fire Extinguishers must be present when storing flammable formulations.
- Original container, original label.
- Containers sealed with container in good condition.



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Storage

• All Class I Storage Facilities must have:







Spill Prevention





Prevention



- Be prepared to handle a spill before you handle the pesticide.
- Develop Spill Prevention Guidelines.
 - –Where/How to load pesticides.
 - -How to transport pesticides.
 - -Equipment guidelines.





Pouring and Measuring





PSEP

High Risk Procedures



- Filling, mixing and loading operations performed away from a mix/load facility or done on-site.
- Transportation of concentrates or tankmix.
- Operations around water.
- Operations in urban or semi-urban areas.





Mix/load Operations



- Mixing, loading or transferring on site without a pad.
 - -Choose the appropriate location.
 - Use tarps or other materials to contain or soak up any spills.
 - Have water and cleaning materials on hand.



Transportation



- Choose route that are appropriate.
- Factor high-traffic roads or high-risk routes.
- Avoid high-density traffic areas and times.





Around Water

- Mix/load operations away from the water.
- Provide adequate buffer for the application.
- Use hand application to reduce large volumes of tankmix near the water.







Urban/Semi-Urban Areas

- Mix/load away from application site.
- Keep operations as small as possible.
- Plan the operations so that minimum time is on site.
- Keep people away from operations.





Minimizing Spray Drift and Spray Drift Damage





What is Drift?

 Movement of spray particles and vapors off-target causing less effective control and possible injury to susceptible vegetation and wildlife.



Adapted from National Coalition on Drift Minimization 1997 as adopted from the AAPCO Pesticide Drift Enforcement Policy -March 1991



Types of Spray Drift

- Vapor associated with volatilization, gases, fumes.
- Particle off-target movement of spray droplets.







Drift Concerns

- Spotty pest control.
- Wasted chemicals.
- Off-target damage.

Result -Higher Costs.







Drift Concerns

- Environmental impact. –Water, Soil and Air Quality
- Residential encroachment of farmland.
- Public more aware of pesticide concerns! (Negative!!!)





Misapplication Facts





Source: Farmland Insurance

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Contributions to Drift







Strategies to Reduce Drift

- Select nozzle to reduce fine droplets (driftable).
- Increase flow rates higher application volumes.
- Use lower pressures.







Strategies to Reduce Drift

- Use lower spray (boom) heights.
- Avoid adverse weather conditions.
- Consider using buffer zones.







Strategies to Reduce Drift

• Consider using new technologies:

- -drift reduction nozzles.
- -drift reduction additives.
- -shields, electrostatics, air-assist.







Products of Concern





Fumigants

- Are normally volatile liquids, liquids under pressure, or solids.
- Very hazardous.
- Gas must be contained.
- AIP, metam sodium, 1,3dicloropropene and chloropicrin are common.





Fumigant Concerns

- Sealing the soil is critical for fumigant containment.
- Location of fields buffers for sensitive areas.
- Fumigation Management Plans (FMP) required and do identify significant issues.







Insecticides

- Normally liquid concentrates
- Many work on the nervous system of insects and can affect human nervous systems.
- Many are flammable.
- Many contain solvents.

		For retail sale to and use only by Certified Applicators or persons under the direct supervision of a Certified Applicator, and only for those uses covered by the Certified Applicator's certification.			
		TEMIK	brand 15G ALDICARB PESTI	CIDE	
		ACTIVE INGREDIENT: A	in Insects, Mites, and Nematodes Aldicarb (2-methyl-2-(methylthio) propionaldehyde Q-(methyl	carbamoy()oxime]	
		INERT INGREDIENTS: .		85%	
		EPA Reg. No. 204-3		EPA ESL NO. 264-GA-UI	
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		~	DANGER POISON		
			PELIGRO		
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			FIRST AID		
		IF SWALLOWED:	Immediately call a potion control center or doctor for treatme Do not induce vomitting unless told to do so by a poison contr Have person sip a glass of water if able to swallow.	nt advice. Di center or doctor.	
		IF N EYES:	Do not give anything by mouth to an unconscious person. Hold eye open and rinee slowly and gently with water for 15-0 Remove contact lenses, if present, after the first 5 minutes, the second s	20 minutes. Ien continue rinsing.	
		IF ON SKIN OR Clothing:	Call a poison control center or doctor for treatment advice. Take off contaminated clothing. Plinse skin immediately with plenty of water for 15-20 minutes	L.	
		IF NHALED:	Call a poison control center or doctor for treatment advice. Move person to fresh air. H person is not breathing, call 911 or an ambulance, then di	ve artificial respiration, preferably mouth-to-	
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CLOTHING:	Rinse skin immediately	with plenty of water for	15-20 minutes.		
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	mouth if possible.				
	For MEDICAL Emer	mencies Call 24 Hours	A Dev 1-800-334-7577		
Have the prod	uct container or label with you	when calling a poiso	n control center or doctor or going for treatment.		
Contact a physician in COPY OF THIS LABE	mediately in all cases of susp L TO THE PHYSICIAN. If pois	ected poisoning. Tran oning is suspected in a	sport to a physician or hospital immediately and SHOW A nimals, contact a veterinarian.		
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RESTRICTED USE PESTICIDE





Insecticide Concerns

- Field location in relation to occupied buildings/sensitive areas.
- Pollinator protection.
- Water protection.
- Human/animal/wildlife protection.



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Herbicides

- Generally liquid concentrates
- Normally lower in toxicity
- Can be caustic or a strong irritant
- Can contaminate soil and water
- Will be a problem for plants

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Herbicide Concerns

- Secondary damage to sensitive vegetation.
- Damage to sensitive organisms (aquatic).
- Significant movement can occur with soil.







Drift Considerations

- Drift is a significant concern to applicator and public.
- Consider all factors before application.
 - -Environmental
 - -Equipment
 - -Chemical
 - -Formulation







Drift Considerations

- Newer technologies, adjuvants, and application techniques can significantly reduce drift.
- Environmental impact (Clean Water Act) can be costly.







Summary







Questions?

Thank You!



