

A photograph of an irrigation canal. The canal is filled with water, and a concrete structure is visible on the right side. Water is flowing over a dam or weir, creating white foam. The surrounding area is dry and grassy.

IRRIGATED LANDS

Laws and Regulations

Yolo County Department of Agriculture

SURFACE WATER REGULATIONS

- Dormant Insecticide Contamination Prevention
 - CCR 6960
 - The operator of the property shall meet **at least one** of the following requirements when making dormant applications
 - 1) Only apply a dormant oil or a biocontrol agent; or
 - 2) Only apply to a hydrologically isolated site; or
 - 3) Divert any runoff with an on-farm recirculating system and/or contain and hold any runoff for 72 hours before releasing into a sensitive aquatic site

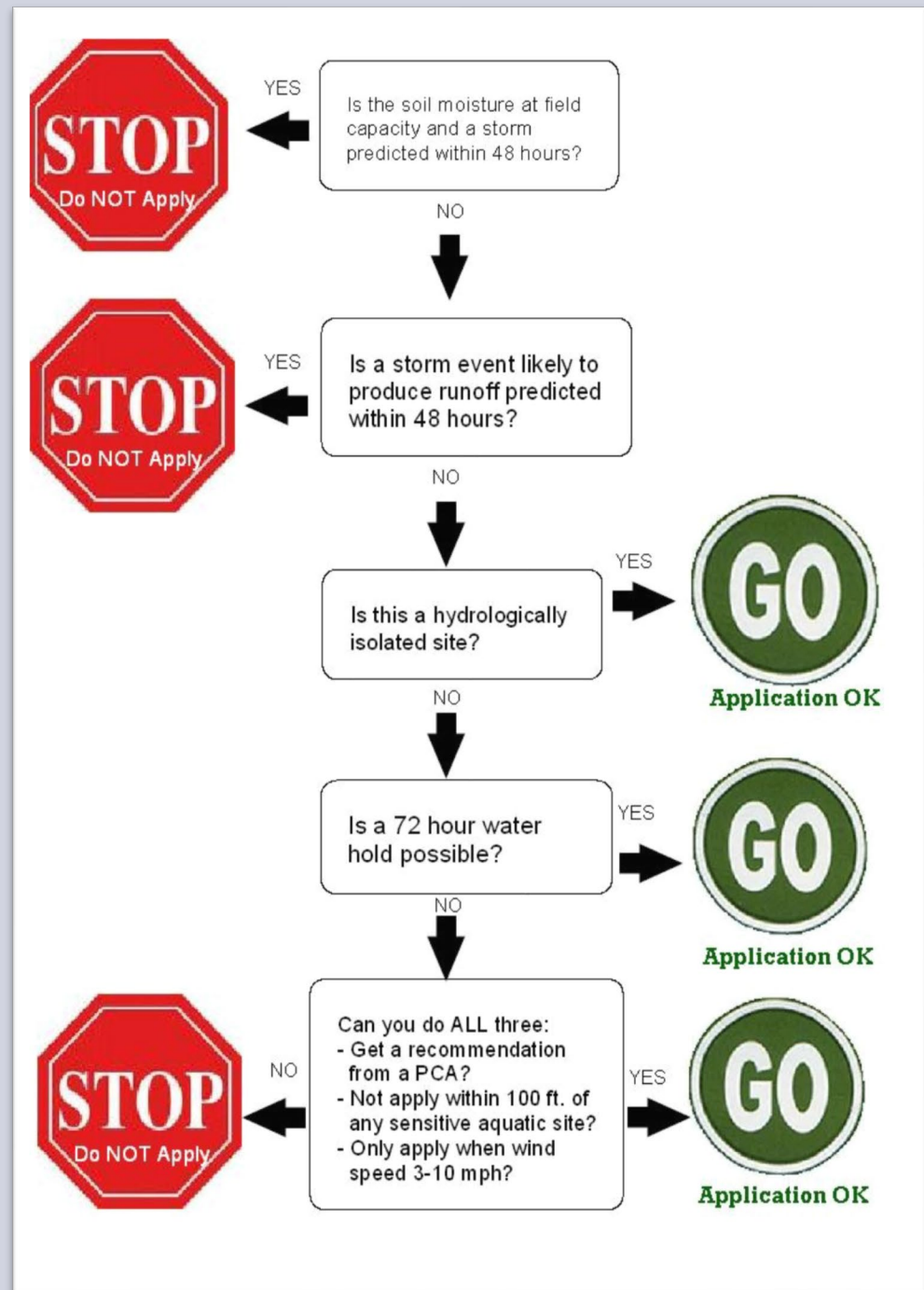
SURFACE WATER REGULATIONS

- Dormant Insecticide Contamination Prevention
 - CCR 6960
 - If **none of the requirements** in subsection (a) **can be met**, the following dormant insecticide application restrictions shall apply:
 - A **written rec** from a PCA
 - The application shall **not be made within 100 feet of any sensitive aquatic site**
 - The wind speed shall be **3-10 mph**

SURFACE WATER REGULATIONS

- Dormant Insecticide Contamination Prevention
 - CCR 6960
 - Aerial applications of dormant insecticides shall only be allowed if:
 - Soil conditions do not allow field entry
 - All items listed on the previous slide (subsection b) are met
 - **No dormant insecticide application shall occur if:**
 - Soil moisture is at field capacity and a storm event will occur within 48 hours; or
 - A storm event likely to occur within 48 hours and it will likely produce runoff

SUMMARY OF DORMANT REQUIREMENTS



CONDITIONS



- Dormant Applications- Condition #10
 - **Dormant or delayed dormant applications of insecticides which are toxic to honeybees** shall not be made after January 31
 - Exceptions must be authorized by the Ag. Commissioner.
 - No application of an insecticide which is toxic to honeybees shall take place if there are any **blooming plants in the orchard or in close proximity to the application site**
 - All label restrictions shall be followed
- Materials Harmful to Honeybees- Condition #9
 - New neonic regulations
 - CCR 6990-6996
 - **Prior to applying pesticides which are toxic to honeybees to a blossoming plant**, the person performing the pest control shall inquire with the Ag. Commissioner if apiaries are **located within one mile**
 - Person performing the pest control shall notify beekeepers at least **48 hours prior to the application**

Top Five Neonicotinoid Products for Each Active Ingredient Production Agricultural Use (excluding nursery stock) by Number of Applications, 2018-2022:

Note: The identification of these products is intended for educational purposes only to inform growers and applicators of the most commonly used pesticide products that would be subject to DPR's neonicotinoid regulations and was compiled using publicly available data.

Clothianidin

1. Belay Insecticide
(EPA Registration No. 59639-150-AA)
2. Nipsit Vegetables Insecticide
(EPA registration No. 59639-151-ZA)
3. Belay 50WDG Insecticide
(EPA Registration No. 59639-152-ZA)
4. Clutch 50 WDG Insecticide
(EPA Registration No. 59639-152-AA)
5. Belay 16 WSG Insecticide
(EPA Registration No. 59639-153-AA)

Dinotefuran

1. Venom Insecticide
(EPA Registration No. 59639-135-AA)
2. Scorpion 35 SL Insecticide
(EPA Registration No. 10163-317-AA)
3. Safari 20 SG Insecticide
(EPA Registration No. 86203-11-AA-59639)
4. Venom 20 SG Insecticide
(EPA Registration No. 33657-17-AA-59639)
5. Safari 2 G Insecticide
(EPA Registration No. 59639-149-AA)

Imidacloprid:

1. Admire Pro Systemic Protectant
(EPA Registration No. 264-827-ZA)
2. Wrangler Insecticide
(EPA Registration No. 34704-931-AA)
3. Leverage 360 Insecticide
(EPA Registration No. 264-1104-AA)
4. Nuprid 2SC Soil/Foliar Insecticide
(EPA Registration No. 228-572-AA)
5. Macho 4.0
(EPA Registration No. 42750-140-ZA)

Thiamethoxam:

1. Actara (EPA Registration No. 100-938-ZA)
2. Platinum 75SG
(EPA Registration No. 100-1291-AA and 100-1291-ZA)
3. Endigo ZC
(EPA Registration No. 100-1276-AA and 100-1276-ZA)
4. Agri-Flex Miticide/Insecticide
(EPA Registration No. 100-1350-AA and 100-1350-ZA)
5. Voliam Flexi

THE REGULATIONS — ORGANIZED BY CROP GROUPS

The regulations are organized based on crop groupings found in Title 40 Code of Federal Regulations section 180.41(c). The regulations are based on a crop group's relative attractiveness to pollinators and on agricultural practices, such as harvesting crops before bloom. Typically, pollinators are most attracted to crops when they are in "bloom." For most crops, "bloom" is defined in the regulations as the period from the onset of flowering until petal fall is complete. For citrus in a Citrus/Bee Protection Area (Fresno, Kern, and Tulare counties) the bloom period is defined in 3 CCR section 6984(b).

In general, each crop group has one to three types of restrictions proposed (e.g. prohibition of application, seasonal cap, and application rate and timing specifications).

Crops normally harvested <u>before</u> bloom	Crops normally harvested <u>after</u> bloom	Other crops where DPR was unable to determine applications that are low risk to pollinators
<ol style="list-style-type: none"> When the crop is harvested before bloom, the crop is not subject to the article. Follow label instructions. However, if the crop will bloom (e.g., for seed production), neonicotinoid use is prohibited on the crop. 	<ol style="list-style-type: none"> Use is prohibited during bloom. Additional use restrictions if multiple AIs or both soil and foliar application methods are used on the crop during the growing season. Additional use restrictions if managed pollinators will be used with the crop during the growing season. Additional restrictions for certain crops. 	<ol style="list-style-type: none"> Use is prohibited during bloom. Only one neonicotinoid AI is permitted per growing season. Only one application method (soil or foliar) is permitted per growing season. If managed pollinators will be used with the crop, neonicotinoid use is prohibited.

EXEMPTIONS FROM THE REGULATIONS – Section 6990(c)

1. An application made to an agricultural commodity grown inside an enclosed space, insect exclusionary structure/netting
2. An application made to address a local emergency or to control a quarantine pest
3. An application allowed under an active "Section 18" Emergency Exemption
4. An application authorized for research purposes to support a proposed amendment to these regulations

The product labeling must still be followed!

IRRIGATION PRACTICES AFTER PESTICIDE APPLICATIONS

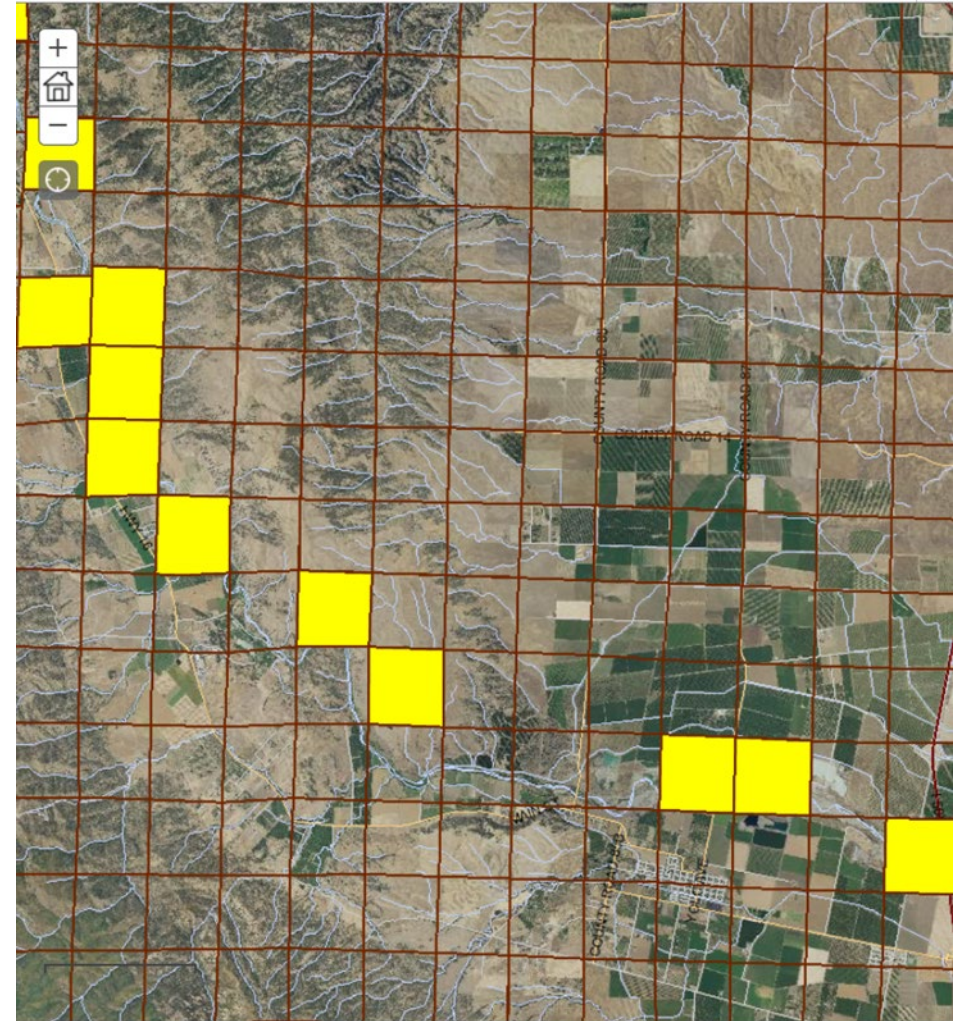
- Certain soil types increase the likelihood of leaching or runoff
 - Coarse soils- Leaching
 - Hardpan or fine texture- Runoff
- Mechanisms to groundwater pollutants are excess irrigation and rainfall
 - Watch for rainfall events
 - Do not over irrigate beyond field capacity
- IPM practices
 - Vegetative strips
 - Preventing runoff

GROUND WATER REGULATIONS

- CCR 6800- Groundwater Protection List (summarized)
 - Pesticides that contain any of the following chemicals are designated as having to pollute ground water (FAC 13149):
 - Atrazine
 - Simazine
 - Diuron
 - Other chemicals identified (FAC 13145 (d)) to pollute groundwater or soil - (Summarized List)
 - Carbaryl
 - Methomyl
 - 2,4-D (various formulations)
 - Dicamba
 - Triclopyr
 - Thiobencarb
 - Rimsulfuron

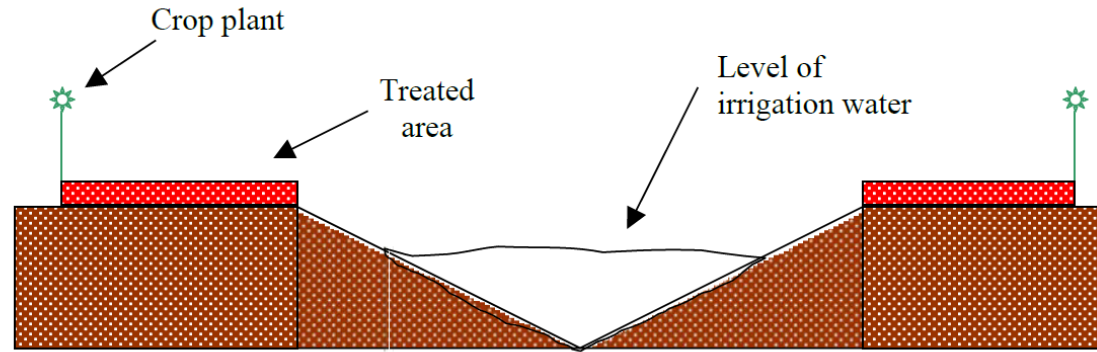
GWPA

- GWPA conditions for sites located within
 - Runoff
 - Leaching
 - Notified at permit renewal
 - Complete form and choose a management practice to comply with CCR 6487.4 & 6487.5



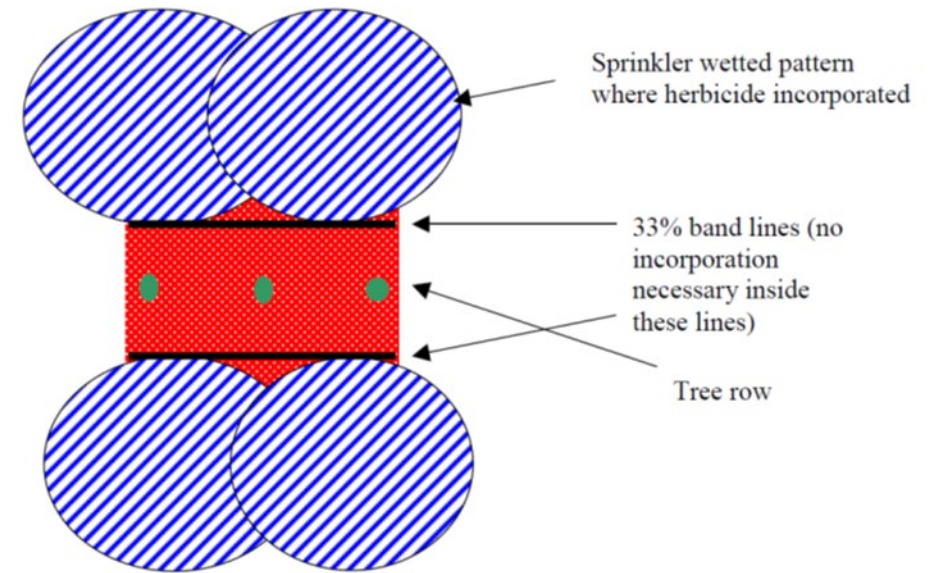
GWPA

- Chemicals listed on 6800(a)
 - Pre-emergent listed on previous slide
- Leaching
 - No irrigation water for 6 months
 - Bed or berm applications must be made above the level of irrigation water (furrow) for 6 months (pictured)
 - Irrigation shall be managed, ratio of irrigation water/net requirement is 1.33 or less, for 6 months



GWPA

- Chemicals listed on 6800(a)
 - Pre-emergent listed on previous slide
- Runoff
 - Soil disturbance, prior to pesticide application
 - Incorporation of the pesticide within 48 hours
 - Band treatment (pictured)
 - Applications between April 1-July 31
 - Irrigation and precipitation runoff retention, 6 months following the application
 - Runoff onto a fallow field, managed for 6 months



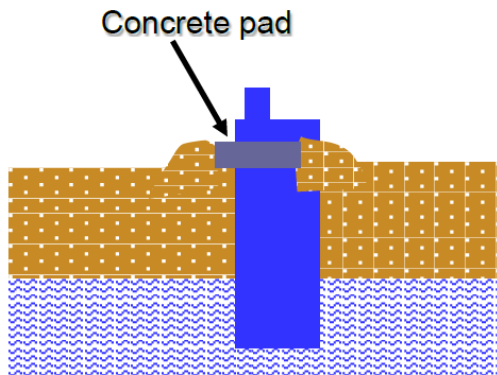
WELLHEAD PROTECTION CCR 6609

- Runoff should not contact or collect around the well
- Berms should be created to prevent surface water from collecting around the well

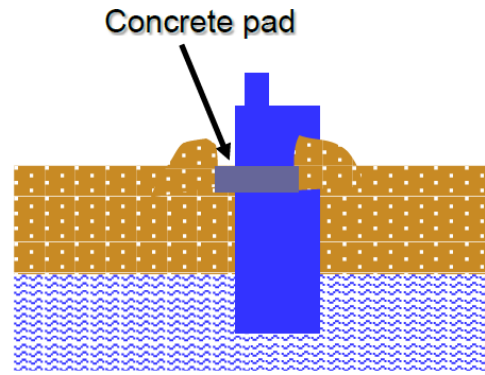


Examples of berms

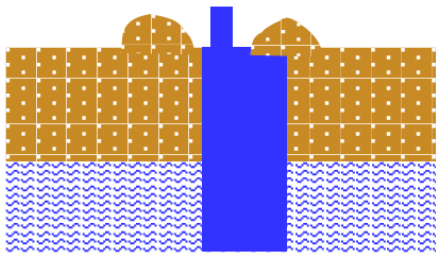
1. Concrete pad above soil level



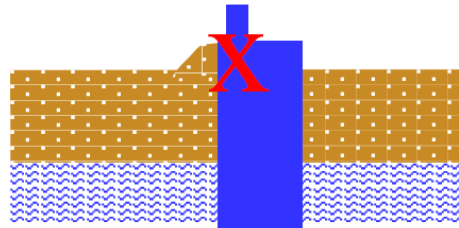
2. Concrete pad at same level as soil



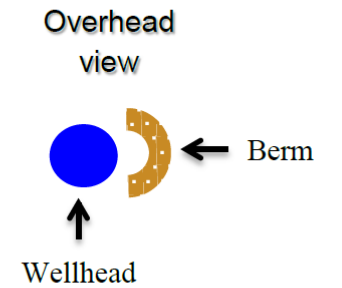
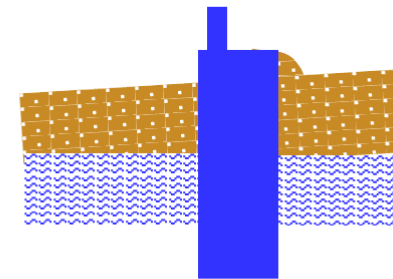
3. Berm with no concrete pad



4. Berm should not touch casing or pump.



4. On sloped ground, berm may only be needed on upslope side.



WELLHEAD PROTECTION

- If the wellhead is **not protected**
 - The owner shall not do any of the following within 100 feet
 - Mix, Load, and/or store pesticides.
 - Rinse spray equipment
 - Rinse pesticide containers
 - Maintain equipment in a manner that could cause a spill
 - Apply any pre-emergent listed in 6800



WELLHEAD PROTECTION

- Groundwater pollutant materials should not be applied within 100 feet of a wellhead
 - CCR 6800 (a) &(b)
 - Diuron, Atrazine, Simazine
 - (b)- commonly used RM chemicals
 - 2,4-D
 - Thiobencarb
 - Rimsulfuron
 - Dicamba
 - Carbaryl
 - Methomyl

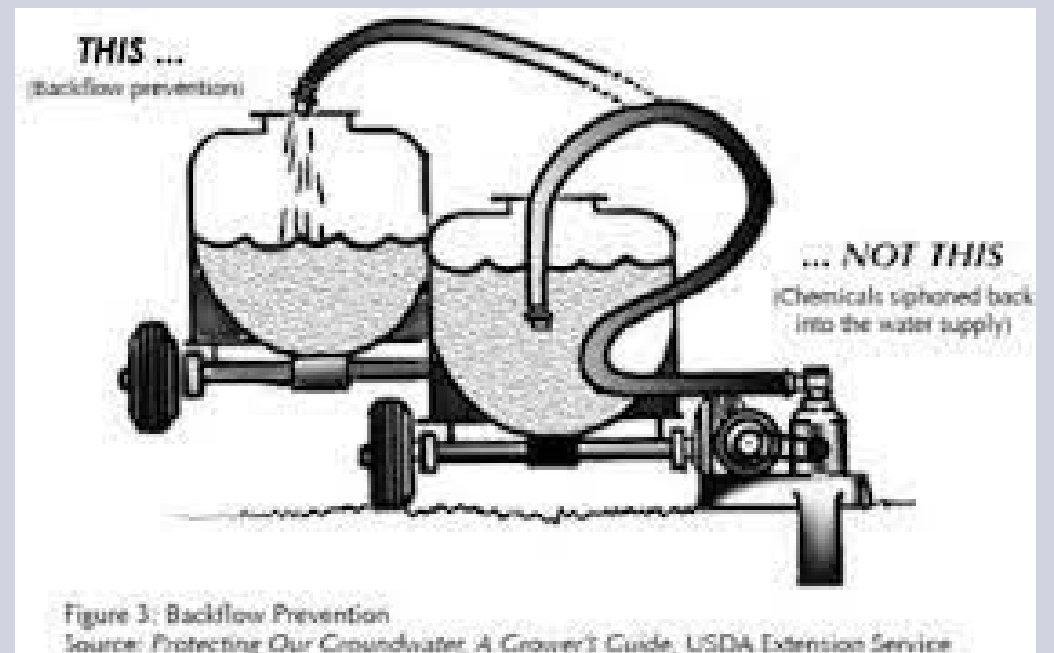


WELLHEAD PROTECTION

- Well owners may apply preemergent pesticides that are not included in the Ground Water Protection List between a berm and the wellhead or within 100 feet of an unprotected- these are not considered mobile or persistent:
 - Oxyfluorfen (**Goal** and **GoalTender**)
 - Pendimethalin (**Pendulum** and **Prowl**)
 - Flumioxazin (**Chateau** and **Payload**)
 - Prodiamine (**Barricade** and **Endurance**)
 - Oxadiazon (**Rhonstar** and **PrePair**)

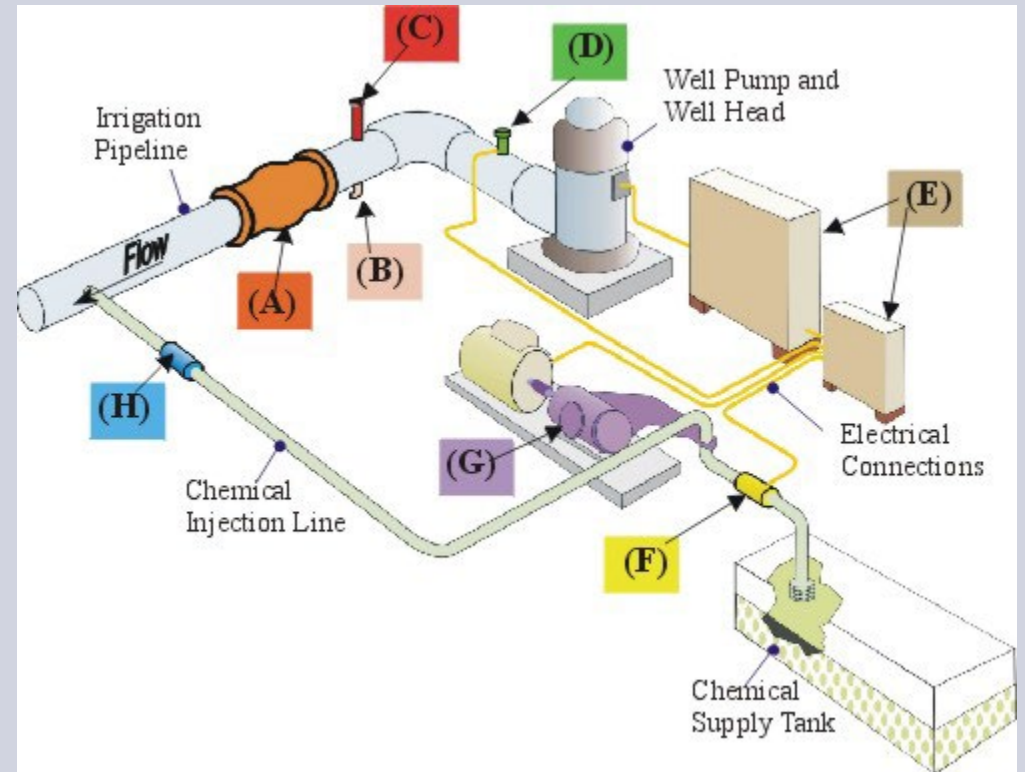
BACKFLOW PREVENTION CCR 6610

- Each service rig and piece of application equipment that handles pesticides and draws water from an outside source shall be equipped with:
 - an air-gap separation



BACKFLOW PREVENTION

- Backflow prevention device
- Double check valve assembly (A-Pictured)



PREVENTING DRIFT AND RUNOFF

- Drift- Movement of pesticide through the air away from the intended target
- Site Evaluation
 - Based on application equipment
 - Weather
 - Site to be treated
 - Surrounding area
 - Sensitive Site
- Violations
 - CCR 6614- Protection of persons, animals or property
 - Likelihood of harm or damage
 - Damage to nontarget crops, animals, public or private property
 - Creation of a health hazard
 - Contamination of bodies or clothing not involved in the application
 - FAC 12973
 - Label requirements
 - Wind speed
 - Environmental hazards

LABEL REVIEW- ENVIRONMENTAL
HAZARDS

Goal[®] 2XL

Herbicide

ACTIVE INGREDIENT:	
oxyfluorfen: 2-chloro-1-(3-ethoxy-4-nitrophenoxy)4-(trifluoromethyl)benzene.....	22.3%
OTHER INGREDIENTS:	77.7%
TOTAL:	100.0%

Contains 2 pounds active ingredient per gallon.
Contains petroleum distillates

KEEP OUT OF REACH OF CHILDREN
WARNING / AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand this label, find someone to explain it to you in detail.)

LABEL REVIEW- ENVIRONMENTAL HAZARDS

Hazards to Humans and Domestic Animals

WARNING

Causes Skin Irritation • Causes Moderate Eye Irritation • Harmful If Swallowed Or Absorbed Through The Skin

Do not get on skin or on clothing. Avoid contact with eyes.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category **G** on an EPA chemical resistance category selection chart.

Mixers, loaders and applicators using engineering controls (see Engineering Controls requirements below) must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves (such as Barrier Laminate, Viton) when mixing and loading
- Chemical-resistant apron when mixing and loading

All other mixers, loaders, applicators and other handlers must wear:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant footwear plus socks
- Chemical-resistant gloves (such as Barrier Laminate, Viton)
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when exposed to the product concentrate

- PPE
 - Coveralls
 - Chemical Resistant Footwear
 - Chemical Resistant Gloves
 - Chemical Resistant headgear for overhead exposure
 - Chemical Resistant apron when exposed to the concentrate (Mixing)

LABEL REVIEW- ENVIRONMENTAL HAZARDS

Environmental Hazards

This product is toxic to aquatic invertebrates and wildlife. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. See Directions for Use for additional restrictions. Do not contaminate water when disposing of equipment wash water.

- “Do not apply directly to water, to areas where surface water is present.....runoff from treated areas may be hazardous to aquatic organisms in neighboring areas”

Spray Drift Buffer Restrictions

- A 25 foot vegetative buffer strip must be maintained between all areas treated with this product and lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.
- Do not allow spray to drift from the application site and contact people, structures people may occupy at any time and the associated property, parks and recreation areas, non-target crops, aquatic and wetland areas, woodlands, pastures, rangelands, or animals.
- For ground boom applications, apply with nozzle height no more than 4 feet above the ground or crop canopy when wind speed is 10 mph or less at the application site as measured by an anemometer.
- Use coarse spray according to ASAE 572 definition for standard nozzles or VMD of 475 microns for spinning atomizer nozzles.
- The applicator also must use all other measures necessary to control drift.

- 25 foot vegetative buffer between treated areas and lakes, reservoirs, rivers, permanent streams, marshes or natural ponds..
- Ground boom- nozzle height no more than 4 feet above the ground or crop canopy when wind speed is 10 mph or less.

CONDITIONS



- Sensitive Site Buffers- Condition #1
 - Only RMs that are least toxic to humans, fish and wildlife, effective for the control of a given pest, may be allowed in close proximity to environmentally sensitive areas such as:
 - Residential
 - Schools
 - Playgrounds
 - Organic crops
 - Parks
 - Hospitals
 - Shopping centers
 - Occupied labor camps
 - Waterways: estuaries, reservoirs lakes, waterways
 - Air movement shall be away
 - Maximum wind speed of 10 mph
 - Buffer for ground rigs (not airblast)
 - Danger 100 feet
 - Warning/Caution 50 feet

CONDITIONS

Condition #1- CA RMs

- Pesticide Applications Near Schoolsites
 - Public schools and licensed daycares
 - Sites identified on your permit
 - Ground Applications:
 - No applications shall be made within $\frac{1}{4}$ mile of any school while that school is in session
 - Aerial Applications
 - No application shall be made within $\frac{1}{4}$ mile of any school at anytime
 - Regardless if the school is in session or not

APPLICATIONS NEAR SCHOOLS

CCR 6690-6692

- Pesticide application restrictions will apply Monday through Friday, from 6:00 a.m. to 6:00 p.m., within a specified distance of a schoolsite:
 - Two types of restriction distances: ¼ mile (1,320 feet) or 25 feet, depending on the type of application equipment used and type of pesticide applied (some application types are prohibited by labels or do not occur)

Application Equipment Type	Minimum Distance to Schoolsite by Equipment and Pesticide Type			
	Dust	Fumigant	Granule	All Other Pesticides
Airblast Sprayer	¼ mile	Prohibited	Doesn't occur	¼ mile
Aircraft	¼ mile	Prohibited	¼ mile	¼ mile
Backpack Sprayer	¼ mile	Prohibited	None	None*
Bait Station	None	Prohibited	None	None
Ground-Rig Sprayer	¼ mile	¼ mile	None	25 feet
Hand Pump Sprayer	¼ mile	¼ mile	None	None
Soil Injection	None	¼ mile	None	25 feet
Sprinkler Chemigation	Doesn't occur	¼ mile	Doesn't occur	¼ mile
All Other Equipment	¼ mile	¼ mile	None	25 feet

**Backpack sprayers that incorporate an airblast sprayer to apply "other" pesticides are prohibited within ¼ mile.*

PESTICIDE
USE
MONITORING
INSPECTION



- COMPLETE
- PARTIAL
- FOLLOW-UP INSPECTION

104- [REDACTED]

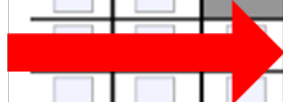
ORIGINAL INSP. # [REDACTED] - [REDACTED]

INSPECTING COUNTY

FIRM / PERSON INSPECTED		FIRM MAILING ADDRESS	
PROPERTY OPERATOR	SUPERVISOR	INTERVIEWED <input type="checkbox"/> YES <input type="checkbox"/> NO	BUSINESS TYPE <input type="checkbox"/> Property Operator
PROPERTY LOCATION / SITE ID		PERMIT / OPERATOR ID # [REDACTED] or <input type="checkbox"/> N/R	

- CCR 6434
 - 24 hours
 - 48 hours- 2,4-D, rice chems, fumigations
 - Submitted by the operator property or licensed pest control business

A. APPLICATION			B.	
COMPLIANCE			REQUIREMENTS	Section
YES	NO	N/A		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. PCB Licensed	11701
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. PCB Registered in County	11732
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. Labeling Available at Use Site	6602
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. Notice of Intent Submitted	6434
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5. Certified Applicator Sup RM	6406
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6. Complies w/Permit Conditions	12973
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7. Labeling - Site/Rate/Other	12973
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8. Labeling - PPE	12973
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9. Regulations - PPE	6738
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10. Respiratory Protection	6738



CCR 6434- NOI

- **CAC Perspective**

- Evaluate the proposed application to determine if any additional protection or requirements are necessary
- Pre-Site Evaluations- Inspection 102
 - **Irrigating**
 - Fieldworkers
 - Located near sensitive sites
 - Organic, Schools, Licensed Daycare, etc.
 - **Weather**

SERVICE CONTAINER LABELING



All containers that holds pesticides shall have the original label or service container labeling

Storage

Transport- when traveling on public road

Labeling

Name of the person or firm responsible

The identity of the pesticide container

The signal word

- Caution, Warning, or Danger

CCR 6724- HANDLER TRAINING

- Pesticide trainer must have QAC, QAL, PAC, or PCA license
- Employer must have a written training program
- Program must include:
 - Pesticide Labels
 - PSIS (Pesticide Safety Information Series)
 - SDS (Safety Data Sheets)

Maintain records for 2 years!

Pesticide Training
Employer's Written Handler Training Program (continued)
 Pursuant to 3 CCR section 6724

 (Name of Employer)

This WRITTEN PROGRAM went into effect on (date): _____

This WRITTEN PROGRAM was retired on (date): _____

- A copy of the training program must be maintained while in use and for two years after use, at a central location at the workplace.
- Employee training shall be in a manner the employee can understand, be conducted pursuant to this written training program, and include response to questions.
- Training shall be completed before the employee is allowed to handle pesticides, continually updated to cover any new pesticides that will be handled or training topics to be covered, and repeated at least annually thereafter.
- Training for employees handling pesticides used for the commercial or research production of an agricultural commodity must be at a location reasonably free from distraction and trainers must be present throughout the entire presentation.

The following topics are applicable to my employees handling pesticides and are covered in initial and annual training for each pesticide or chemically-similar group of pesticides handled:

Circle if applicable	Training Topic
Yes No	Format and meaning of information, such as precautionary statements about human health hazards, contained in pesticide product labeling
Yes No	Applicator's responsibility to protect persons, animals, and property while applying pesticides, and not to apply pesticides in a manner that results in contact with persons not involved in the application process
Yes No	Need for, limitations, appropriate use, removal, and sanitation of any required personal protective equipment
Yes No	Safety requirements and procedures, including engineering controls (such as closed mixing systems and enclosed cabs) for handling, transporting, storing, disposing of pesticides, and spill clean-up
Yes No	Where and in what forms pesticides may be encountered, including treated surfaces, residues on clothing, personal protective equipment, application equipment, and drift
Yes No	Hazards of pesticides, including acute, chronic, and delayed effects, and sensitization effects, as identified in pesticide product labeling, Safety Data Sheets, or Pesticide Safety Information Series leaflets
Yes No	Routes by which pesticides can enter the body
Yes No	Signs and symptoms of overexposure
Yes No	Routine decontamination procedures when handling pesticides, including that employees should: <ul style="list-style-type: none"> A. Wash hands before eating, drinking, using the toilet, chewing gum, or using tobacco; B. Thoroughly wash or shower with soap and water; C. Change into clean clothes as soon as possible; and D. Wash work clothes separately from other laundry before wearing them again.

Continued on next page

(Rev. 6/2018)

THANK
YOU

Questions?

Molly Mathews

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