

Section D.5

Thiobencarb

**Mandatory
preseason
thiobencarb
stewardship
training by the
California Rice
Commission**

- Mandatory preseason thiobencarb stewardship training applies only to thiobencarb restricted material permit holders located in the Sacramento Valley rice-growing counties.
 - Restricted material permits shall not be issued to growers who have not received California Rice Commission certification that they attended a preseason thiobencarb stewardship training session that year.
 - The county agricultural commissioner may certify a grower that did not attend a thiobencarb stewardship training session by having them view a presentation of the current preseason thiobencarb stewardship training session.
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Drift Minimization

- I. All liquid formulations of Thiobencarb shall not be applied by air in Colusa and Glenn Counties starting North of Highway 20 and West of the Sacramento River.
- II. The use of Bolero 10G formulation is prohibited in the Sacramento Valley rice growing counties of Butte, Colusa, Glenn, Placer, Sacramento, Sutter, Tehama, Yolo, and Yuba.
- III. In the Sacramento Valley rice growing counties of Butte, Colusa, Glenn, Placer, Sacramento, Sutter, Tehama, Yolo, and Yuba, no aerial applications shall be made or continued within ½ mile of the Sacramento or Feather Rivers unless there is a continuous positive airflow away from the river.
- IV. In the Sacramento Valley rice growing counties of Butte, Colusa, Glenn, Placer, Sacramento, Sutter, Tehama, Yolo, and Yuba, no aerial application shall be made or continued within ½ mile of the Sacramento or Feather Rivers when the wind speed exceeds seven miles per hour.
- V. In Sacramento and Yolo Counties, no aerial applications shall be made or continued within ¼ mile of the Sacramento River unless they are made under the direct supervision of the county agricultural commissioner's representative.
- VI. In Sacramento and Yolo Counties, the maximum acres treated by air each day within ¼ mile of the Sacramento River shall not exceed 33 percent of the average acres treated per day by air within this area in each county during 2002.

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Thiobencarb, Continued

Water Management

I. The following water holding requirements apply to rice fields treated with thiobencarb in the Sacramento Valley (north of the line defined by Roads E10 and 116 in Yolo County and the American River in Sacramento County), except those treated with Abolish® 8EC:

A. Except as listed below, all water on treated fields must be retained on the treated fields for at least 30 days following application. When drainage begins, discharge must not exceed two inches of water over a drain box weir for seven additional days. Unregulated discharges from these fields may then begin after 37 days.

1. When water is contained within a tailwater recovery system, ponded on fallow land, or contained in other systems appropriate for preventing discharge, the water must be retained in the system for 19 days, unless:

(a) The system is under the control of one permittee, then water may be discharged from the application site in a manner consistent with product labeling (14-day water hold).

(b) The system includes drainage from more than one permittee, then water must be retained on the site of application for six days before being discharged from the application site into the system.

(c) Water is on fields within the bounds of areas that discharge negligible amounts of rice field drainage into perennial streams until fields are drained for harvest. Water-hold may be reduced to six days if the commissioner evaluates such sites and verifies the hydrologic isolation of the fields.

II. Rice fields treated with thiobencarb in the Sacramento/San Joaquin Valley (south of the line defined by Roads E10 and 116 in Yolo County and the American River in Sacramento County), except those treated with Abolish® 8EC:

A. Except as listed below, all water on treated fields must be retained on the treated fields for at least 19 days following application. When drainage begins, water discharge must not exceed two inches of water over a drain box weir for an additional seven days. Unregulated discharges from these fields may begin after 26 days.

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Thiobencarb, Continued

1. When water is contained within a tailwater recovery system, ponded on fallow land, or contained in other systems appropriate for preventing discharge, the system may discharge 19 days following the last application of thiobencarb within the system unless:
 - (a) The system is under the control of one permittee, then water may be discharged from the application site in a manner consistent with product labeling (14-day water-hold period).
 - (b) The system includes drainage from more than one permittee, then water must be retained on the site of application for six days before discharged from the application site into the system.
 - (c) Water is on fields within the bounds of areas that discharge negligible amounts of rice field drainage into perennial streams until fields are drained for harvest. Water-hold may be reduced to six days, if the commissioner evaluates such sites and verifies the hydrologic isolation of the fields.

III. All areas, fields treated with Abolish® 8EC:

- A. Except as listed below, all water on treated fields must be retained on the treated fields for at least 19 days following application. When drainage begins, water discharge must be released at a volume not to exceed two inches of water over a drain box weir for an additional seven days. Unregulated discharges from these fields may begin after 26 days.
 1. For water contained within a tailwater recovery system, ponded on fallow land, or contained in other systems appropriate for preventing discharge, the system may discharge 19 days following the last application within the system unless:
 - (a) The system is under the control of one permittee, then water may be discharged from the application site in a manner consistent with product labeling (14-day water-hold period).
 - (b) The system includes drainage from more than one permittee, then water must be retained on the site of application for six days before discharged from the application site into the system.
 - (c) Water is on fields within the bounds of areas that discharge negligible amounts of rice field drainage into perennial streams until fields are drained for harvest, then water-hold may be reduced to six days if the commissioner evaluates such sites and verifies the hydrologic isolation of the fields.

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Thiobencarb, Continued

IV. Emergency release requirements (Salinity damage):

The county agricultural commissioner may authorize the emergency release of field water after a minimum 19-day water-hold period after the last thiobencarb application, following the review of a written application that demonstrates salinity levels are damaging to the crop.

- A. Applicants for such emergency releases must provide the following information:
1. All information indicated on the emergency release request (Form A), including a description of the severity and extent of salinity damage.
 2. Electrical conductivity (EC) measurements, expressed as deciSiemens per meter (dS/m) or microSiemens per centimeter ($\mu\text{S}/\text{cm}$), from field water in each paddy suspected of having salinity problems. To most effectively demonstrate salinity problems, measurements should be taken wherever salinity problems are evident.
 3. The instrument (make and model) used to determine EC measurements. The instrument must have a sensitivity range that accommodates the full range of EC values in intake and paddy water (usually a range of 0-5.0 dS/m or 0-5,000 $\mu\text{S}/\text{cm}$ should be sufficient) and should have a resolution of not less than five percent. The instrument must be calibrated according to the manufacturer's instructions. The applicant must specify the method of temperature compensation (i.e., automatic, conversion table).
 4. Who made the EC measurements.
 5. The source of irrigation water (e.g., district supply canal, drainage canal, well, etc.).
- B. An emergency release may be granted only if all of the following conditions are satisfied:
1. All required information is provided.
 2. Water management requirements for rice pesticides other than thiobencarb are satisfied.
 3. EC of paddy water exceeds 2.0 dS/m or 2,000 $\mu\text{S}/\text{cm}$.
 4. The county agricultural commissioner or his/her staff inspects the site.
- C. Water may be released from paddies where EC measurements exceed 2.0 dS/m or 2,000 $\mu\text{S}/\text{cm}$ and from paddies down gradient from such paddies within the same field. Water shall only be released in an amount necessary to mitigate the salinity problem.
- D. Those issued an emergency release must submit to the county agricultural commissioner, a report (Form B) indicating the time and duration of the emergency release and data that can be used to calculate the total amount of water released during the emergency release.
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FORM A

RICE PESTICIDES WATER MANAGEMENT REQUIREMENTS, Emergency Release Request Form

Thiobencarb

Grower: _____ Permit No.: _____

Address: _____ Zip: _____

Field Location: _____ Site No.: _____

Chemical applied: _____

Chemical applied: _____

Rate of application: _____

Rate of application: _____

Date of application: _____

Date of application: _____

Average water depth
at time of application: _____

Average water depth
at time of application: _____

Starting date of emergency release: _____

Acres treated in field: _____ Laser leveled: Yes ___ No ___

Type of irrigation system: Flow through ___ Recycle ___ Static ___ Other ___

Date flooding began: _____ No. of days it takes to fill field: _____

Describe problem that led to emergency release: _____

Steps that can be taken to prevent emergency releases from this field in future years: _____

Recommendation by (attached): _____

Applications by: _____

Grower's signature: _____ Date: _____

Approved by: _____

Agricultural Biologist

FORM B

RICE PESTICIDES WATER MANAGEMENT REQUIREMENTS, Emergency Release Report Form

Thiobencarb

Grower: _____

Permit No.: _____

Address: _____

Zip: _____

Field Location: _____

Site No.: _____

Beginning date of release: _____

Ending date: _____

The grower must determine the amount of water discharged during the emergency release period. To do this, measure the width of each weir opened to allow the discharge. Then, on a daily basis, measure the height of water flowing over each weir. Record all information in the table below.

Weir 1		Weir 2		Weir 3	
Width:		Width:		Width:	
Date	Height of water	Date	Height of water	Date	Height of water

Table A

Note: Amended – deleted Bolero® 15 G (no longer registered in California) and added League® MVP.

Rice Pesticides Water Management Requirements Summary

Water must be held for the indicated number of 24-hour periods on the treated field, or within the containment area specified below before release into State waters.		Thiobencarb		Thiobencarb Plus Imazosulfuron	
		Bolero® UltraMax	Abolish® 8 EC	League® MVP	Malathion
		Hold	Hold	Hold	Hold
N O R T H S A C V A L L E Y	Single treated fields.	30	19	30	4 (b)
	Release into tailwater recovery system or ponded onto fallow land or contained in other systems appropriate for preventing discharge.	19	19	19	
	System controlled by one permittee, then water may be discharged into the system in manner consistent with product labeling.	14	14	14	
	System includes drainage from more than one permittee, then water must be retained on site.	6	6	6	
	Water on fields within bounds of areas that discharge negligible amounts of drainage onto perennial streams. Commissioner must evaluate such sites and verify the hydrologic isolation of the fields.	6	6	6	
	CAC may authorize emergency release of tailwater.	19	19	19	
S O U T H S A C & S J V A L L E Y (a)	All water on treated fields must be retained on the treated fields.	19	19	19	4 (b)
	Release into tailwater recovery system or ponded onto fallow land or contained in other systems appropriate for preventing discharge.	19	19	19	
	System controlled by one permittee, then water may be discharged in manner consistent with product labeling.	14	14	14	
	System includes drainage from more than one permittee, then water must be retained on site.	6	6	6	
	Water on fields within bounds of areas that discharge negligible amounts of drainage onto perennial streams. Commissioner must evaluate such sites and verify the hydrologic isolation of the fields.	6	6	6	
	CAC may authorize emergency release of tailwater.	19	19	19	

(a) – South Sacramento & San Joaquin Valley defined as: South of the line defined by Roads E10 and 116 in Yolo County and the American River in Sacramento County.

(b) – Voluntary hold.

YOLO COUNTY 2018 PROPANIL PERMIT CONDITIONS

ALL USE OF PROPANIL IN YOLO COUNTY, REGARDLESS OF LOCATION, SHALL REQUIRE A 48-HOUR NOTICE OF INTENT.

USE OF PROPANIL NORTH OF STATE HIGHWAY 16

In accordance with the regulations set forth in Sections 6462 of the California Code of Regulations, the following conditions shall be complied with when applying Propanil herbicides north of State Highway 16 in Yolo County:

1. Only non-emulsifiable formulations of Propanil (i.e., Super Wham!® CA, Wham! EZ® Ca) may be used. Emulsifiable formulations are prohibited.
2. **Aerial** (fixed-wing or helicopter) applications shall not be made within **4 miles** of prunes. No more than 720 acres per day shall be treated with Propanil. Each operating nozzle shall produce a droplet size, in accordance with the manufacturer's specifications not less than 600 microns volume median diameter (dv0.5) with 10 percent of the diameter by volume (dv0.1) not less than 200 microns.
3. **Ground** applications shall not be made within **one mile** of prunes. Ground equipment must be equipped as follows: Each operating nozzle shall produce a droplet size, in accordance with the manufacturer's specifications not less than 500 microns volume median diameter (dv0.5) with 10 percent of the diameter by volume (dv0.1) not less than 200 microns.
4. **All applications:** If the wind flow changes during an application, it must cease immediately. **NO WAIVERS SHALL BE ISSUED TO ALLOW USE WITHIN STATED BUFFERS.**
5. **No more than 720 acres of rice may be treated by air in Yolo County per day. Notices of intent must specify the intended day of application.** The commissioner's office will limit acreage as notices of intent are submitted.
6. Air movement must be away from sensitive crops at all times during an application.
7. No application shall be made when the wind velocity is less than 2 miles per hour or greater than 7 miles per hour.

Yolo County

Clincher® CA Permit Conditions for 2018

General Conditions:

- A permit must be obtained from the County Agricultural Commissioner for any use of Clincher® CA in Yolo County.
- A **48 hour Notice of Intent** must be filed with the Yolo County Department of Agriculture prior to the application of Clincher® CA.
- Only Adjuvants approved by Dow AgroSciences may be used with Clincher® CA. Clincher **MAY NOT** be tank mixed with any other products.
- All Requirements of the Food and Agricultural Code and Title 3, California Code of Regulations that apply to the use of restricted materials shall apply to the use of Clincher® CA under permit in Yolo County.

Aerial Application:

Aerial applications are allowed in Yolo County **south of State Highway 16 only.**

- Planes and pilots **shall be certified** through Dow AgroSciences prior to making applications of Clincher® CA.
- For all aerial applications of Clincher® CA, use only a spray adjuvant on the Dow AgroSciences approved list and water.
- Apply using fixed-winged aircraft only.
- Wet booms must be fitted with flat fan 4015 nozzle spray tips set at 0 (zero) degrees deflection. *The use of any other nozzle type must be approved by Dow AgroSciences.*
- Minimum wind speed restriction is 3 mph and maximum wind speed restriction is 7 mph, measured at 4 feet above the crop canopy.
- Maximum application height above the crop canopy shall be 10 feet.
- Do not apply when the temperature is greater than 85 degrees.

Ground Application:

- All Pest Control Operators (PCO's) and Private Applicators using ground application equipment must attend a Clincher® CA stewardship training program provided by Dow AgroSciences prior to any application of Clincher® CA.

Yolo County Clincher® CA Permit Conditions for 2018, continued

- Do not apply Clincher® CA when wind speeds are greater than 10 mph measured at four (4) feet above the crop.
- The following Distance Restrictions are required between sensitive crops and rice fields to be treated with Clincher® CA:
 - Within 660 feet of peaches and nectarines – **no application.**
 - At least 660 feet away from, and up to 1320 feet of peaches and nectarines – **Apply with wind away.**
 - More than 1320 feet away from peaches and nectarines – **no wind directional restrictions.**
 - Within 50 feet of non-target cereal and grass crops such as corn, sugar cane, sudangrass, sorghum, grass grown for seed, and sod farms – **no application.**
- Follow label requirements for ground application equipment specifications.

Yolo County Regiment® CA Permit Conditions for 2018

General Conditions:

- A permit must be obtained from the County Agricultural Commissioner for any use of Regiment® CA in Yolo County.
- A 24 hour Notice of Intent must be filed with the Yolo County Agricultural Commissioner prior to the application of Regiment® CA.
- All requirements of the Food and Agriculture Code and Title 3, California Code of Regulations that apply to the use of restricted materials shall apply to the use of Regiment® CA under permit in Yolo County.
- Pesticide Use Reporting of Regiment® CA is required.

Aerial Application:

- **Allowed only** within the area known as the Conaway Ranch.
- All aerial applications shall follow the 2008 Supplemental Label for Regiment® CA.
- Operators and pilots **shall attend an educational session** regarding proper application offered by Valent USA Corp.
- Valent USA Corp. **must certify each aircraft** prior to the application of Regiment® CA in Yolo County.

Ground Applications:

- **All ground applications of Regiment® CA shall be made with a minimum wind velocity of two (2) mph to a maximum wind velocity of eight (8) mph.** Wind measurement shall be made four (4) feet above the crop being treated. A 250-foot downwind buffer shall be maintained to other adjacent crops.

Labeled Water Hold Requirements and Pre-harvest Intervals for Pesticides NOT Included in the Rice Pesticides Program

Please remember that water holding requirements exist for most rice pesticides, and not just Bolero and Abolish (thiobencarb). The following table provides rice pesticide water holding requirements and the pre-harvest intervals (PHI) from product labels. **Please read and follow label directions and contact your county agricultural commissioner for label interpretations and permit conditions.**

COMMON TRADE NAME ¹	ACTIVE INGREDIENT	WATER HOLD TIME	PRE-HARVEST INTERVAL (PHI)
INSECTICIDES:			
Dimlin® 2L Insect Growth Regulator	Diflubenzuron	14 - days	80 - days
Mustang® Max Insecticide	(s)-cypermethrin	7 - days	14 - days
Warrior® Insecticide	Lambda cyhalothrin	7 - days	21 - days
FUNGICIDES:			
Quadris® Flowable Fungicide	Azoxystrobin	14 - days	28 - days
Stratego® Fungicide	Propiconazole/ Trifloxystrobin	7 - days	35 - days
HERBICIDES:			
Solution Water Soluble®	2,4-D	0 - days	60 - days
Londax® Herbicide	Bensulfuron-methyl	7 - days static	80 - days
Shark® H ₂ O Herbicide	Carfentrazone-ethyl	5 - days static 30 - days release: less if closed system	60 - days
Cerano® 5 MEG	Clomazone	14 - days	120 - days
Clincher® CA	Cyhalofop-butyl	7 - days	60 - days
Granite® SC & GR	Penoxsulam	0 - days	60 - days
Stam® 80 EDF	Propanil	7 - days: less if closed system	60 - days
Grandstand® CA Herbicide	Triclopyr TEA	20 - days: less if closed system	60 - days

¹Restrictions apply to all rice pesticides sharing the same active ingredient and are not exclusive to the common trade name.