

Ventura County Agricultural Commissioner

2011 PERMIT CONDITIONS

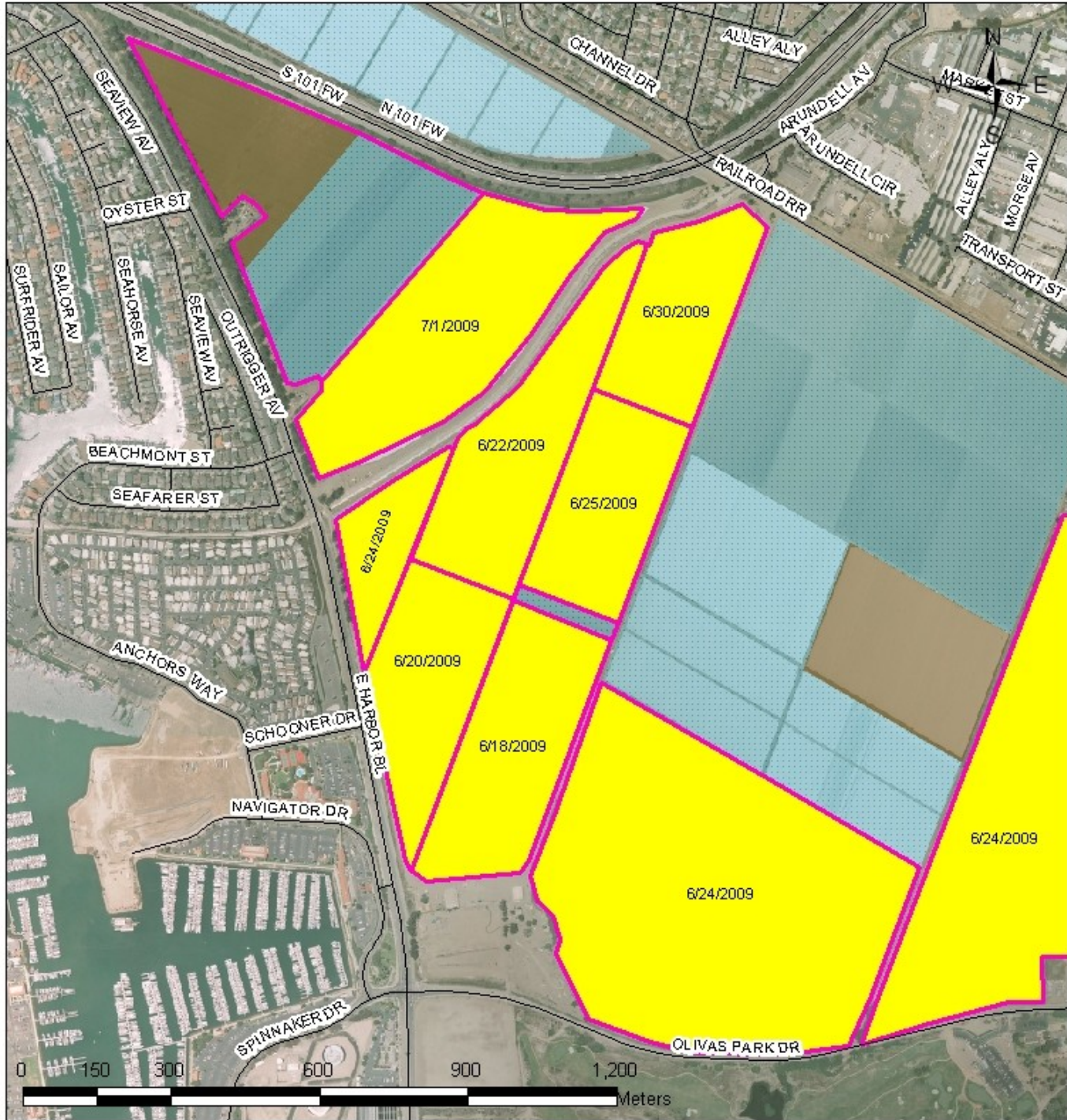
CHANGES 2011

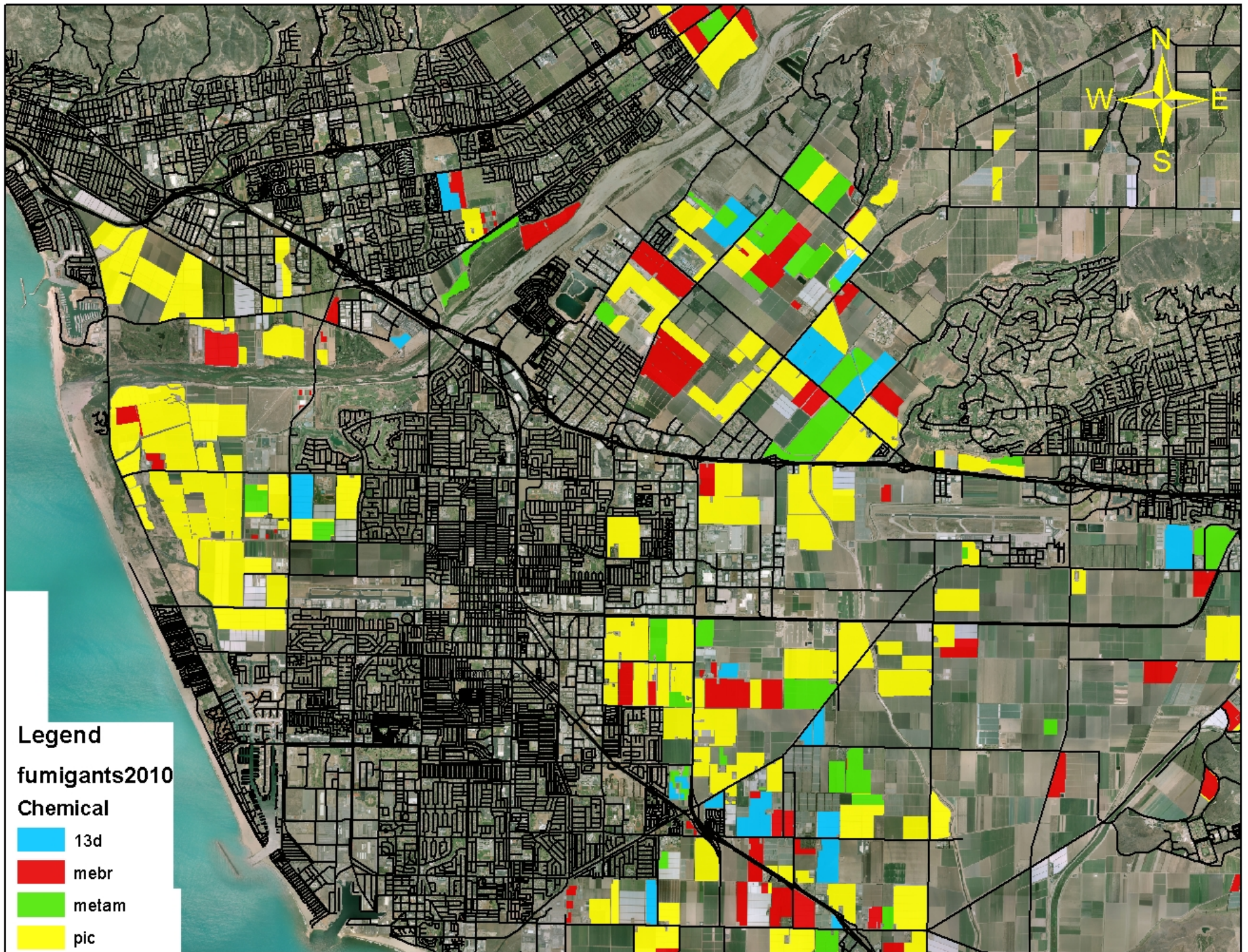
- ✘ School Buffer
- ✘ Chloropicrin
- ✘ Volatile Organic Compounds
- ✘ New Fumigant Labels

SCHOOL BUFFER

- ✘ Bans RM use within 1/4 - mile
 - ✘ *While School is in Session*
- ✘ When School IS NOT in Session:
 - ✘ Contact School
 - ✘ Report Activity on NOI
 - ✘ Ag Commissioner's Discretion







CHLOROPICRIN *-DRIP APPLICATION*

- ✘ Tarpaulins
 - + Limiting Embossed Polyethylene (PE)
 - + Encouraging Low-emission Tarps (VIF, TIF, 2-mil PE)
- ✘ Water Seals
- ✘ Acreage Limits

CHLOROPICRIN

Effective Rate of Chloropicrin (ER)

Within any 48-hr Period:

Effective Rate (ER) x Acres

- ✘ Must be < 8,000 lbs
 - + More than ¼ mi from any Occupied Structure
- ✘ Must be < 4,000 lbs
 - + Within ¼ mi of any Occupied Structure

CHLOROPICRIN



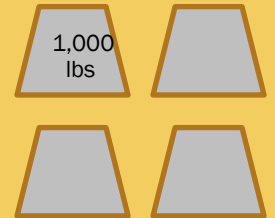
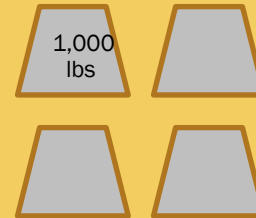
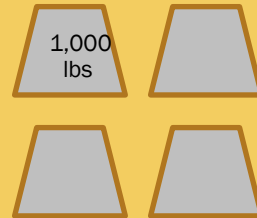
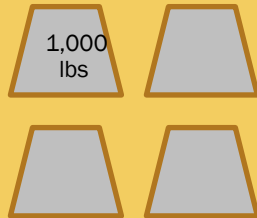
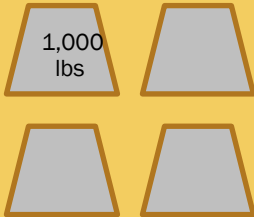
Mon

Tues

Wed

Thurs

Fri



Pic Job

Pic Job

Pic Job

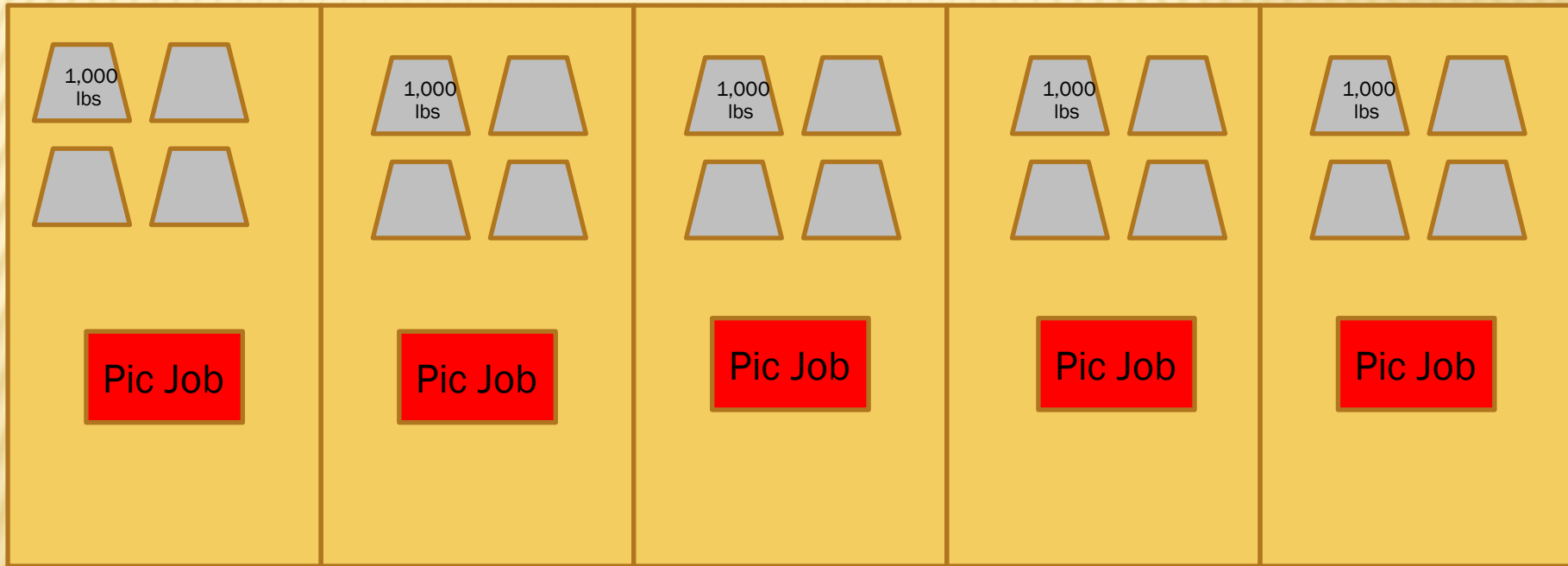
Pic Job

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CHLOROPICRIN

|—48 hrs—|

× Mon Tues Wed Thurs Fri



CHLOROPICRIN

48 hrs

×

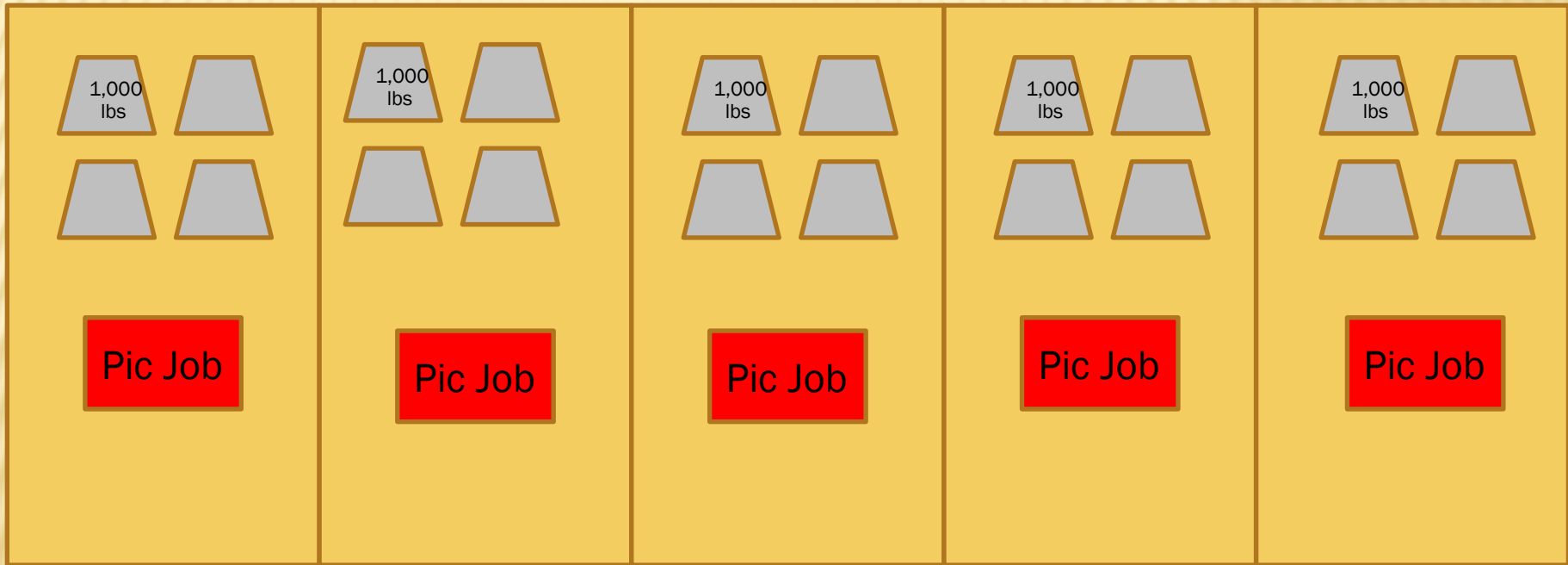
Mon

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CHLOROPICRIN

|——48 hrs——|



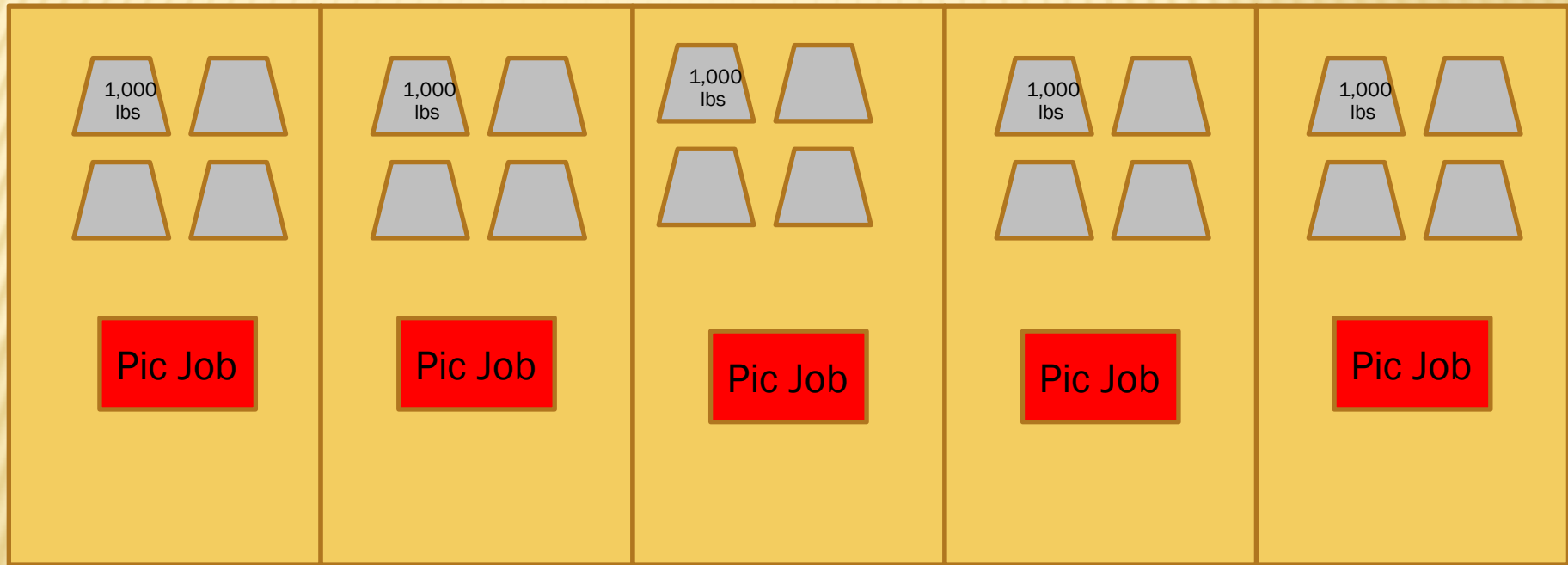
Mon

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CHLOROPICRIN

|——48 hrs——|



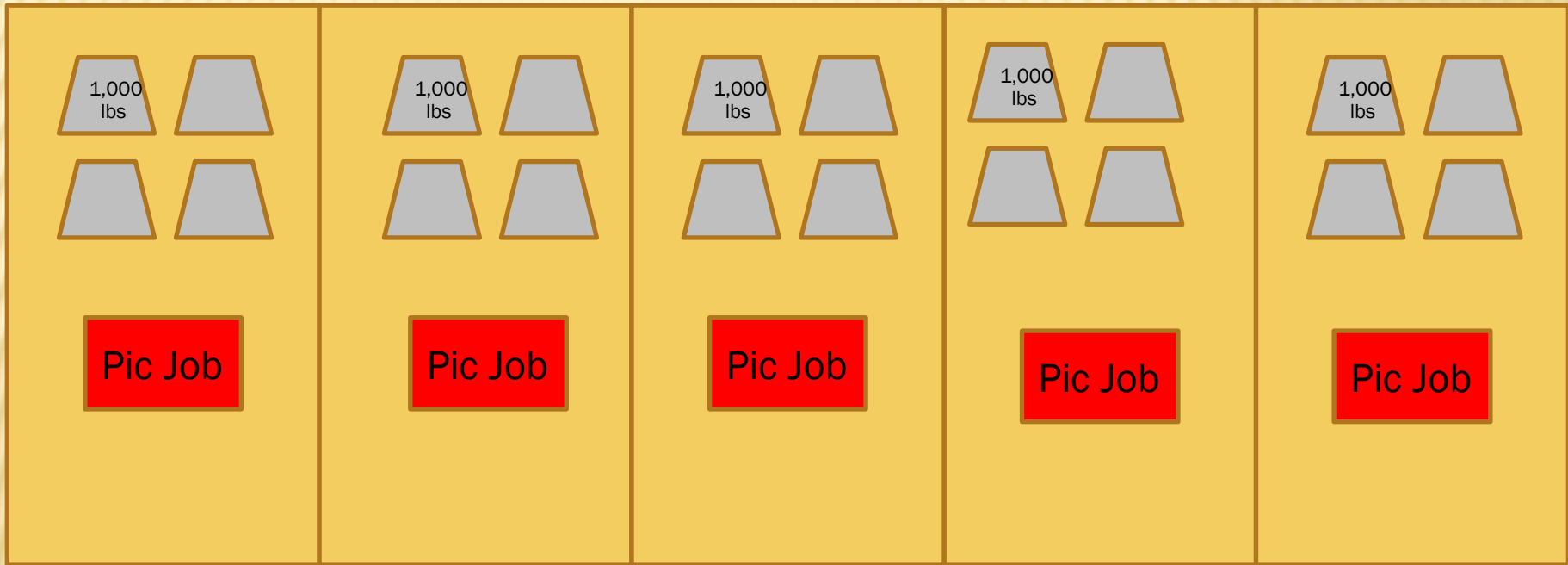
Mon

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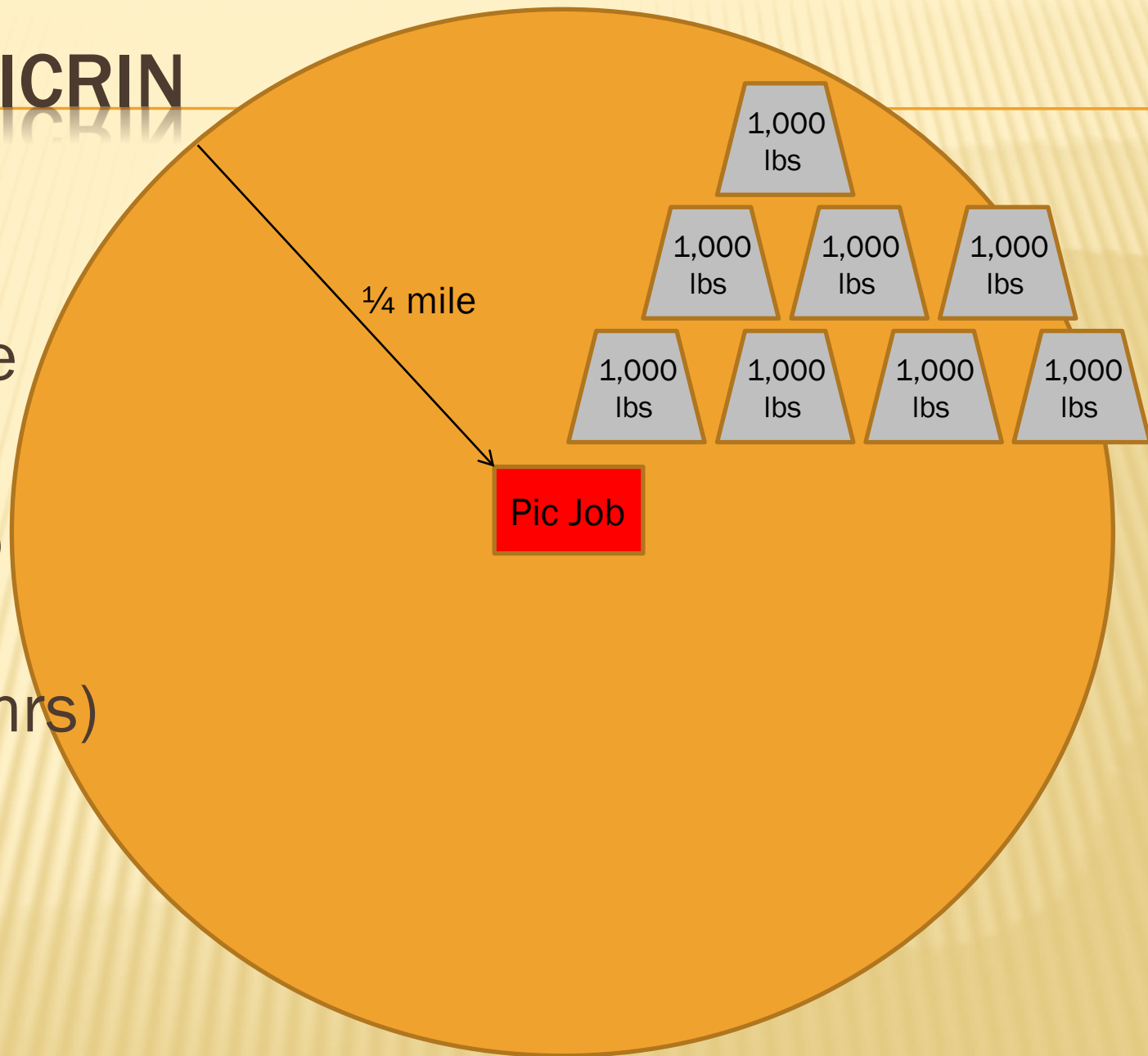
Thurs

Fri



CHLOROPICRIN

- ✘ Far from Sensitive Site
- ✘ 8,000-lb Limit (per 48 hrs)



CHLOROPICRIN

- ✘ Effective Rate (ER)
 - + Lbs Active Ingredient / Acre (AI)
 - + Tarp Factor (TF)
 - + Water Seal Factor (WSF)

- ✘ ER =

CHLOROPICRIN

- ✘ Effective Rate (ER)
 - + Lbs Active Ingredient / Acre (AI)
 - + Tarp Factor (TF)
 - + Water Seal Factor (WSF)

- ✘ $ER = AI$

CHLOROPICRIN

- ✘ Effective Rate (ER)
 - + Lbs Active Ingredient / Acre (AI)
 - + Tarp Factor (TF)
 - + Water Seal Factor (WSF)

$$\text{ER} = \text{AI} \times \text{TF}$$

CHLOROPICRIN

- ✘ Effective Rate (ER)

 - + Lbs Active Ingredient / Acre (AI)

 - + Tarp Factor (TF)

 - + Water Seal Factor (WSF)

- ✘ $ER = AI \times TF \times WSF$

CHLOROPICRIN

✘ TF (Tarp Factor)

+ = 0.5 TIF tarp

+ = 0.67 2-mil standard non-embossed PE

+ = 0.67 VIF tarp

+ = 1.0 All other tarps

CHLOROPICRIN

✘ WSF (Water Seal Factor)

+ = 0.5 3 water seals

+ = 0.65 2 water seals

+ = 0.8 1 water seal

+ = 1.0 No water seal

+ = 0.9 1-3 water seals & *TIF, VIF, or 2-mil PE*

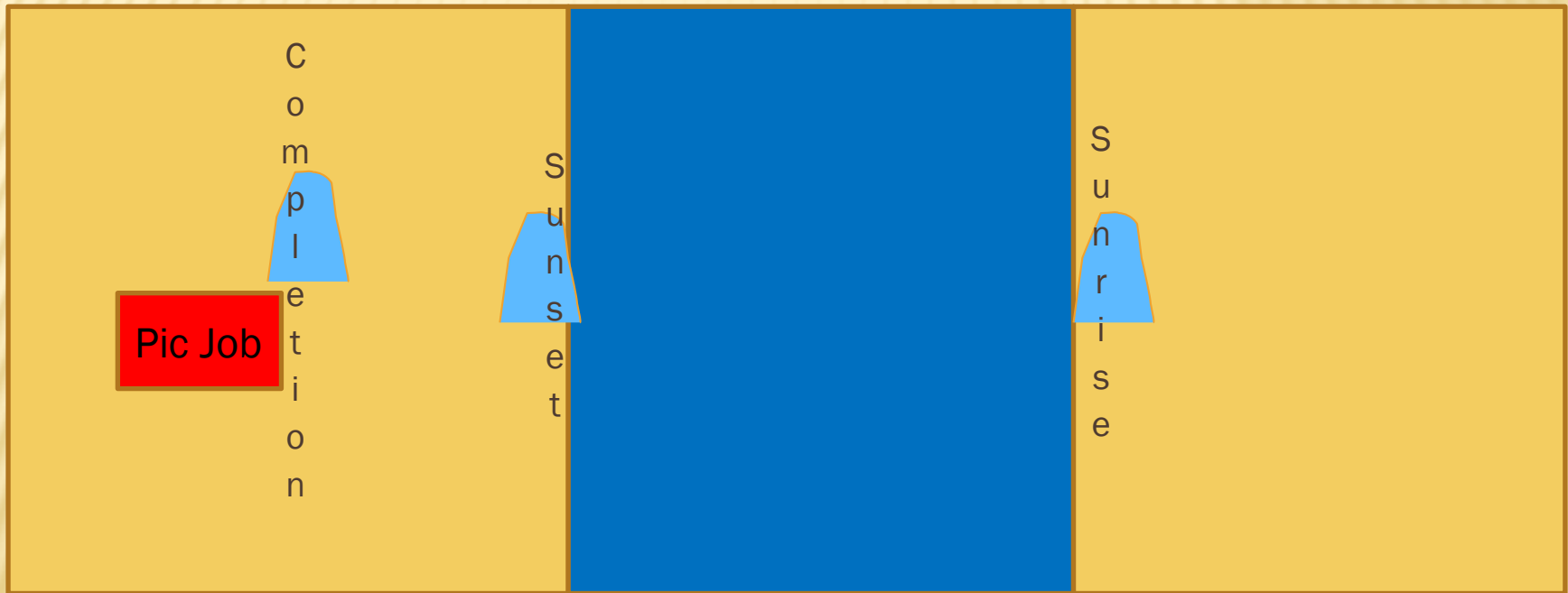
CHLOROPICRIN

Water Seal Schedule -15 minutes each

✘ Monday

✘ Mon Night

✘ Tuesday



1st Water Seal

3rd Water Seal

2nd Water Seal

CHLOROPICRIN

$$ER = AI \times TF \times WSF$$

- ✘ Pic-60 (62% Chloropicrin)
- ✘ 200 lbs/ acre
- ✘ 1.25-mil PE Tarp
- ✘ 2 Water Seals
- ✘ Within $\frac{1}{4}$ mi of an occupied structure
- ✘ = 200lbs/acre X 0.62 = **124 lbs/acre**
- ✘ = **1.0**
- ✘ = **0.65**
- ✘
- ✘ **ER = 124 X 1 X 0.65 = 80.6**

WSF (Water Seal Factor)
= 0.5 3 water seals
= 0.65 2 water seals
= 0.8 1 water seal
= 1.0 No water seal
= 0.9 *1-3 water seals*
& *TIF, VIF, or 2-mil PE*

TF (Tarp Factor)
= 0.5 TIF tarp
= 0.67 2-mil std PE
= 0.67 VIF tarp
= 1.0 All other tarps

CHLOROPICRIN

$$ER = AI \times TF \times WSF$$

- × Pic-60 (62% Chloropicrin)
- × 200 lbs/ acre
- × 1.25-mil PE Tarp
- × 2 Water Seals
- × Within $\frac{1}{4}$ mi of an occupied structure
- × **AI = 200lbs/acre X 0.62 = 124 lbs/acre**
- × **TF = 1.0**
- × **WSF = 0.65**

WSF (Water Seal Factor)
= 0.5 3 water seals
= 0.65 2 water seals
= 0.8 1 water seal
= 1.0 No water seal
= 0.9 1-3 water seals
& TIF, VIF, or 2-mil PE

TF (Tarp Factor)
= 0.5 TIF tarp
= 0.67 2-mil std PE
= 0.67 VIF tarp
= 1.0 All other tarps

- × **ER = 124 X 1 X 0.65 = 80.6 lbs / acre**

CHLOROPICRIN

$$\times ER = 124 \times 1 \times 0.65 = 80.6 \text{ lbs / acre}$$

Within $\frac{1}{4}$ mi of an occupied structure:

$$ER \times \text{acres} < 4,000 \text{ lbs}$$

$$\frac{80.6 \quad \times \quad \text{acres}}{80.6} < \frac{4,000}{80.6}$$

WSF (Water Seal Factor)
= 0.5 3 water seals
= 0.65 2 water seals
= 0.8 1 water seal
= 1.0 No water seal
= 0.9 1-3 water seals
& TIF, VIF, or 2-mil PE

TF (Tarp Factor)
= 0.5 TIF tarp
= 0.67 2-mil std PE
= 0.67 VIF tarp
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CHLOROPICRIN

$$\times ER = 124 \times 1 \times 0.65 = 80.6 \text{ lbs / acre}$$

Within $\frac{1}{4}$ mi of an occupied structure:

$$ER \times \text{acres} < 4,000 \text{ lbs}$$

$$\frac{\cancel{80.6} \times \text{acres}}{\cancel{80.6}} < \frac{\cancel{4,000.6}}{80.6}$$

WSF (Water Seal Factor)
= 0.5 3 water seals
= 0.65 2 water seals
= 0.8 1 water seal
= 1.0 No water seal
= 0.9 1-3 water seals & TIF, VIF, or 2-mil PE

TF (Tarp Factor)
= 0.5 TIF tarp
= 0.67 2-mil std PE
= 0.67 VIF tarp
= 1.0 All other tarps

CHLOROPICRIN

Chloropicrin Chemigation Acreage Limit Calculator

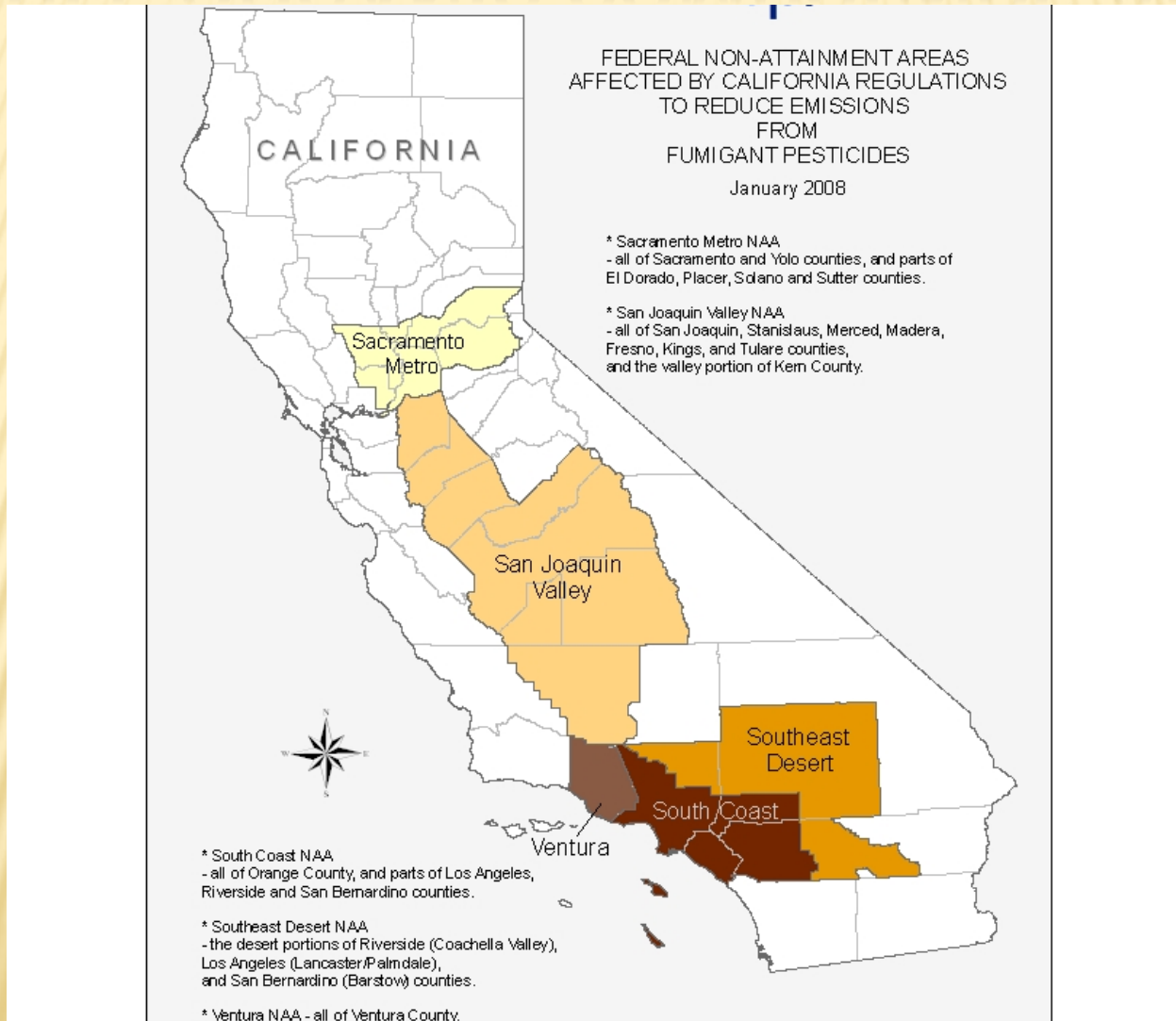


Instructions:

- Enter conditions into tan cells.
- Acres permitted per 48-hr period will appear at right.
- Enter rates as: *ga/acre* for InLine and Pic-Clor .
- For all others, enter: *lbs/acre* .

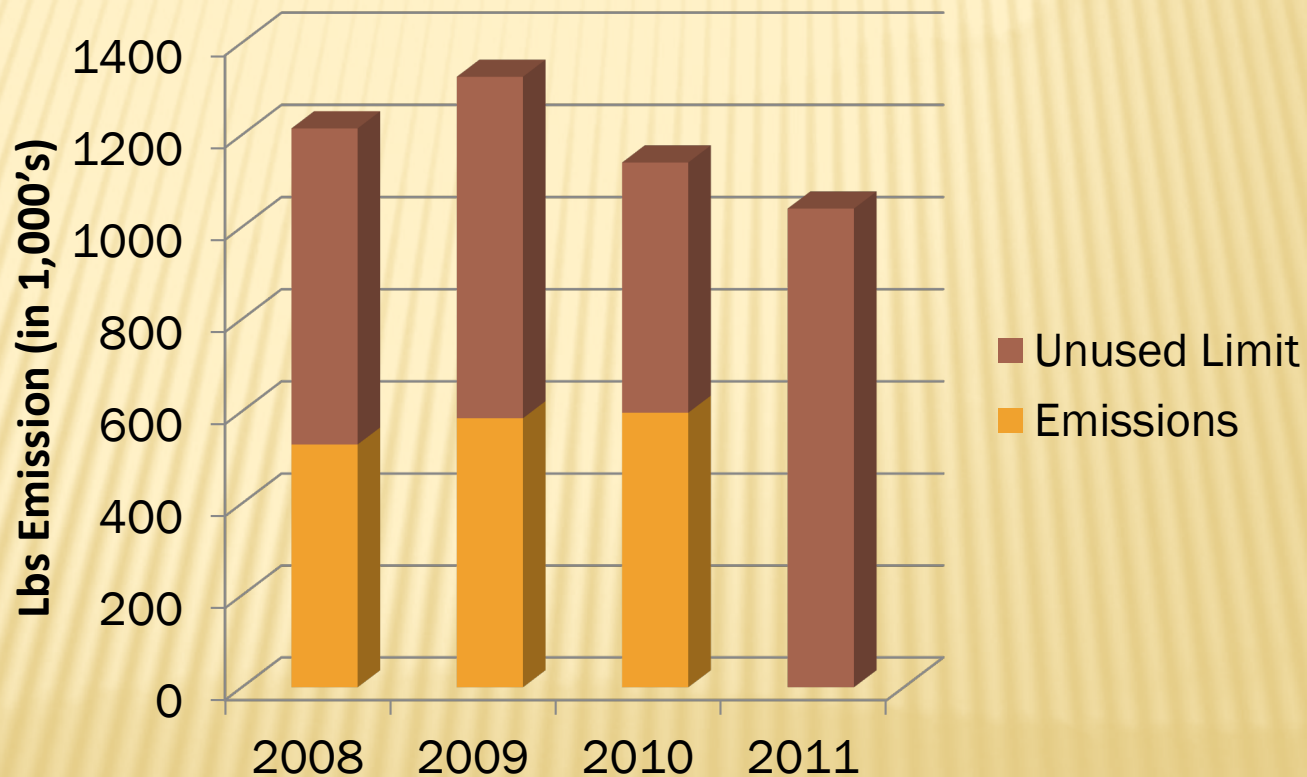
EPA Reg. No.	Rate/Acre	Tarp Type	Number of Water Seals	Within 1/4 mile of an <u>Occupied Structure</u>	Chloropicrin (Lbs/Acre)	Acres / 48-hr Period
66330-47	200	2-mil	1	no	199	67
Nutra-Pic	<i>lbs/acre</i>	TF = 0.67	WSF = 0.9	max 8000 lbs	ER = 120 lbs / acre	

VOLATILE ORGANIC COMPOUNDS (VOC)



VOLATILE ORGANIC COMPOUNDS (VOC)

✘ May-Oct VOC Emissions vs Emission Cap



VOLATILE ORGANIC COMPOUNDS (VOC)

Application to Obtain a Fumigant VOC Emission Allowance in Ventura County

Check here if this is a supplemental request

Date: _____

Page _____ of _____

Permittee / Business Name:					Operator Identification / Permit #:		Permittee Signature:			Phone #:		
Site Identification #	Commodity Treated	Section	Township	Range	Product EPA / CA Registration Number	Product Name	Application Rate/Acre*	Units (gals or lbs/ac)	Fumigation Method Code	Fumigated Acres*	Earliest Application Month	Latest Application Month
Additional Information Required for Supplemental Requests Only:						Permittee Comments:						
Pounds of additional emissions needed: _____												
CAC Comments:												

* For application methods that treat only a bedded area, the fumigated acreage is the sum of the bed area and the furrow area. The application rate is the total pounds of fumigant product applied divided by the fumigated acreage.

Application Reviewed By: _____

Date: _____

X N
E
X N

VOLATILE ORGANIC COMPOUNDS (VOC)

- ✘ *No Application to Obtain a Fumigant VOC Emission Allowance*
- ✘ No Emission Allowances

VOLATILE ORGANIC COMPOUNDS (VOC)

“Track and Stop”

Emission of 100 million lbs

Countywide

If an NOI is



NEW FUMIGANT LABELS

- ✘ Fumigation Management Plan (FMP)
- ✘ Label language:
- ✘ FMP must be “available on site”

- ✘ Permit Condition Clarifies to:
- ✘ FMP *must be on site prior to and during fumigation*

Andy Calderwood
Supervising Ag Biologist

Ventura County Agricultural Commissioner

2011 PERMIT CONDITIONS
