KERN COUNTY PILOT PROGRAM TO PROTECT AGRICULTURAL WORKERS

Glenn Fankhauser
Agricultural Commissioner
Kern County, CA
Kern County Statistics/History

Stats

• Third largest county by size in California
• #1 Ag county by value in California/USA
• If Kern were a State we would rank #23 in Ag value in the country

GIS

• Began the process of creating a GIS layer using aerial imagery for the purpose of pesticide permit issuance in 1998
• In 2000 created unique polygons for each field site and began issuing real-time supplements
• Only county to have unique sites at any given time (due to multiple crops)
Inception

• 2003 – Large two-day leak of the soil fumigant Chloropicrin near Arvin, CA resulted in large number of illnesses to both agricultural workers and residents

• California has State regulations which must be followed but at this time there were no relevant buffer zones that would have mitigated the problem.

• Individual counties can implement ‘permit conditions’ to address local needs, but prior to 2008, our only buffer zone was ¼ mile by air for restricted materials around sensitive sites

  • Restricted materials are a designation for more harsh pesticides
    • Require a 24 hour Notice of Intent (NOI) before application
    • Account for approximately 15% of our total pesticide applications
Category I Restrictions

Restricted material applications by air are not permitted within 1/4 mile of the following sensitive area(s):

- RESIDENTIAL AREA
- FAIRVIEW ELEMENTARY
Notice of Intent To Apply Restricted Materials

<table>
<thead>
<tr>
<th>Permit No.</th>
<th>Site ID</th>
<th>Planted Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>11MMB</td>
<td>30 Acres</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Location</th>
<th>Block ID</th>
<th>Pre-Plant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Est. Application Time</th>
<th>Est. Treatment Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018-07-01 07:00:00</td>
<td>30 Acres</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Commodity</th>
<th>154-63</th>
</tr>
</thead>
<tbody>
<tr>
<td>OP-ROSE</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemic No</th>
<th>Product Applied</th>
<th>Total Product Used</th>
<th>Rate</th>
<th>Dilution</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NOT Dow</td>
<td>1005 ga</td>
<td>33.5 Ga/Acre</td>
<td>0 Ga</td>
<td>Nematode</td>
</tr>
<tr>
<td></td>
<td>Telone II (62719-32-ZA)</td>
<td>(97.50% - 1,3-Dichloropropene)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1,3-D Application Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method (Code): Tarpaulin/Shallow/Broadcast - with Tarp Eligible for 60% Credit (1242)</td>
</tr>
<tr>
<td>Tarp Information: Not Specified / Not Applicable</td>
</tr>
<tr>
<td>Available 1,3-D Amount (Before This Application): 26S 25E M: 45,162.88 Adjusted Pounds</td>
</tr>
<tr>
<td>1,3-D per Gallon: 9.91 Pounds (0.875)</td>
</tr>
<tr>
<td>Chloropicrin per Gallon: None</td>
</tr>
<tr>
<td>Total 1,3-D (TP): 9,960.43 Pounds</td>
</tr>
<tr>
<td>Application Factor (AF): 0.30</td>
</tr>
<tr>
<td>Adjusted 1,3-D (ATP): 2,988.13 Pounds</td>
</tr>
<tr>
<td>Application Depth: 18 in</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Re-Entry Interval</th>
<th>Pre-Harvest Interval</th>
<th>Applied / Supervised By</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 Days</td>
<td>0 Days</td>
<td>San Benito</td>
</tr>
</tbody>
</table>

Environmental Changes / Comments
See map for date and buffer zone | Restrictions: Avoid Drift — Certified Applicator Required — Closed Mixing System Required — Notice of Intent Required — Oral Notification Required — Posting Required — California Code of Regulations go into effect starting January 2018. In summary these codes state pesticide use within a quarter mile of a school site or day care facility is prohibited between the hours of 6 AM to 6 PM on days when school is in session. For details or exceptions to this general summary please reference the code or speak to your County Ag Commissioner for clarification.

Submitted By: Clyde
Date/Time: 2018-06-27 14:04:16
PCA Name & License: Clyde

Received By: Clyde
Box #: Date: Approved or Declined

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Process NOI's for Permit 1501510

Please use the mouse to select individual sites for processing Notice of Intent(s).

1
2
3
4
5
5N
6S
6S
Category I Restrictions

Restricted material applications by air are not permitted within 1/4 mile of the following sensitive area(s):

RESIDENTIAL AREA
NORRIS ELEMENTARY
NORRIS MIDDLE
Commodity: ALMOND
Quantity: 180.00
S: 9  T: 28S  R: 23E
General Condition: 0732 EXP. 2002
Non Ag Justification:

Office: (661) [ ]  Shop: (661) [ ]
Mobile: (661) [ ]  Fax: [ ]

Currently Permitted Materials:
1050  CARBARYL
16011  PARAQUAT
16891  SUPRACIDE
3140  AZINPHOS-METHYL
9801  2,4-D AMINE

Site Condition:

Valid from 0732 EXP. 2002 to [ ]

Permit Number 1500034
An act to add Section 105207 to the Health and Safety Code, relating to pesticide.

LEGISLATIVE COUNSEL'S DIGEST

SB 509, as amended, Florez. Pesticide; notification.

Existing law provides that pesticide applications on public property that take place on school grounds, parks, or other public rights-of-way where public exposure is foreseeable shall be posted with signs in English and Spanish that contain a warning that the area has been treated with a pesticide and that individuals are not to enter the area. Existing law provides that a local health officer may request assistance by the State Department of Health Services to conduct an epidemiologic investigation of serious pesticide poisoning, an outbreak in pesticide poisoning, or any disease or condition caused by pesticide poisoning.

This bill would require the county agricultural commissioner of a county in which property on which any aerial pesticide application operator of property on which any application of any pesticide listed on the California Restricted Materials list is to occur is located, to provide, with the assistance of the county agricultural commissioner, written notification, as specified, to all individuals who are at-risk of coming into contact with that pesticide at all locations within one mile from adjacent to the application site. This bill would require the
5,413 Different Sites With Aerial Applications Out of 12,745 Total Sites Permitted in 2004 (42%)
On 543 Out of 743 Different Permits (58%)
With 1 Mile Buffer in Place Each Application Affects an Average of 2,540 Acres

Total Area Affected for All 2004 Aerial Applications Equals Over 28,000,000 Acres
More Than 25,000 Mostly Residential Parcels In the Greater Bakersfield Area Alone Would Be Affected By This Proposal.
BILL NUMBER: SB 1229
INTRODUCED BY: Senator Florez
FEBRUARY 6, 2006

An act to amend Section 14007 of, and to add Article 5 (commencing with Section 14065) to chapter 3 of Division 7 of the Food and Agricultural Code, relating to pesticide.

LEGISLATIVE COUNSEL'S DIGEST

SB 1229, as introduced, Florez  Pesticide, notice of intent pilot program. Existing law provides that no person shall use or possess any pesticide designated as a restricted material for any agricultural use except under written permit of the county Agricultural Commissioner. Existing law provides that this permit may be issued for a one-year period and that the permittee must immediately report any change in the information submitted or pertinent to the issuance of the permit. This bill would also require Kern County permittees to indicate to the commissioner his or her preferred method of notification, as specified.

Existing regulatory law provides that an Agricultural Commissioner may require notice of intent by a permitted user at least 24 hours prior to commencing the application of a pesticide.

This bill would require, pursuant to a pilot program, that when property located in Kern County is to be treated with a pesticide listed on the California Restricted Materials list, the property operator, an authorized representative, or the licensed pest control operator who is to apply the restricted material, to submit notice of intent to the commissioner at least 48 hours prior to the intended application. This bill would also require the Kern County Agricultural Commissioner to then notify adjacent permittees that a restricted material is scheduled to be used or applied on an adjacent property.

This bill would require a permittee, after receiving the notice, to determine whether the application will create a health risk for any person employed on property under his or her control and to take all necessary steps to protect those workers from pesticide exposure. This bill would also provide that an adjacent permittee may also confer with the applicant to suggest an agreeable alternative application plan, as specified. This bill would provide that its provisions shall remain operative only until January 1, 2009.

Because this bill would require local officials to perform additional duties, this bill would impose a state-mandated local program. The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that, if the Commission on State Mandates determines that the bill contains costs mandated by the state, reimbursement for those costs shall be made pursuant to these statutory
PILOT PROJECT GOALS

- Reduce pesticide exposure risk to agricultural workers
- Improve communication in the farming community
- **Enhance emergency response**
  - Department of Agriculture
  - Environmental Health
  - Fire
PILOT PROJECT DETAILS

Concept

• Agricultural Commissioner’s Office serves as gateway for communication

• Notices of Intent processed through GIS interface (48 hour for all restricted materials)

• Each notified grower receives map, application details and contact information

• Agricultural Commissioner resolves conflicts through existing regulatory authority

Time Line

• Year 1 - Development and β Testing

• Years 2 & 3 - Implementation and Analysis
KERN COUNTY PILOT PROJECT TO PROTECT AGRICULTURAL WORKERS

- SE portion of valley floor
- Approximately 400 square miles
- Bounded by Highway 58 on the north and Freeway 99 on the west
• Approximately 20% of 900 Kern County growers
• Approximately 20% of 12,000 permitted sites
PILOT PROJECT REQUIREMENTS

• Networked PC running Windows XP

• E-Mail FreeWare
  - GhostScript
    Converts eps to pdf
  - Blat – SMTP Mailer
    Runs directly through the SMTP server and generates log
KERN COUNTY PILOT PROJECT TO PROTECT AGRICULTURAL WORKERS
APPROVED NOTICE OF INTENT TO APPLY RESTRICTED MATERIALS

PERMITTEE: [Redacted] FARMS
PERMIT: 47
SITE: 9101

COMMODITY: GRAPE
RESTRICTED MATERIAL: METHAM SODIUM

METHOD: DRIFT
PROPOSED APPLICATION DATE: 3 - 16 - 2008

CONTACT: MATTHEW

INFORMATION RELEVANT TO THIS NOI HAS BEEN GENERATED FOR 2 GROWERS.

1. ED (K3) ORANGE JACK 342 2.1564
2. [Redacted] FARMS (6261) GRAPE MATTHEW 725 9.6664
3. [Redacted] FARMS (6331) ORANGE MATTHEW 722 9.6664
4. [Redacted] FARMS (6581) GRAPE MATTHEW 725 9.6664
5. [Redacted] FARMS (6911) GRAPE MATTHEW 726 9.6664
6. [Redacted] FARMS (6922) GRAPE MATTHEW 725 9.6664
7. [Redacted] FARMS (6931) GRAPE MATTHEW 725 9.6664
8. [Redacted] FARMS (163) POTATO JOHN 854 2.6097
9. [Redacted] FARMS (185) PISTACHIO JOHN 854 2.6097
10. [Redacted] FARMS (164) POTATO JOHN 854 2.6097
11. [Redacted] FARMS (173) POTATO JOHN 854 2.6097
12. [Redacted] FARMS (201) POTATO JOHN 854 2.6097

PLEASE COORDINATE WORK ON YOUR FIELD(S) WITH NEARBY GROWERS.

Kern County Department of Agriculture and Measurement Standards March 14, 2008
KERN COUNTY PILOT PROJECT TO PROTECT AGRICULTURAL WORKERS
APPROVED NOTICE OF INTENT TO APPLY RESTRICTED MATERIALS

PERMITTEE: FARMER'S
COMMODITY: GRAPE
METHOD: DIP
CONTACT: MATTHEW

PERMIT: 15094
SITE: 9101
RESTRICTED MATERIAL: METAM SODIUM
PROPOSED APPLICATION DATE: 3-16-2008

SITES ON YOUR RESTRICTED MATERIALS PERMIT EE WITHIN 1/4 MILE OF THE REFERENCED NO.
THE APPLING GROWER HAS BEEN PROVIDED WITH THE FOLLOWING INFORMATION:

1. FARMER'S (165) POTATO JOHN 85 097
2. FARMER'S (165) PISTACHIO JOHN 85 097
3. FARMER'S (164) POTATO JOHN 85 097
4. FARMER'S (173) POTATO JOHN 85 097
5. FARMER'S (201) POTATO JOHN 85 097

PLEASE COORDINATE WORK ON YOUR FIELD(S) WITH NEARLY GROWERS.

Kern County Department of Agriculture and Measurement Standards March 14, 2008
KERN COUNTY PILOT PROJECT NOTIFICATION

Kern County Grower,

The attached map depicts an approved Restricted Materials application for a site on your Kern County Restricted Materials permit. Surrounding growers have been provided with information relevant to this application. Please work directly with any grower who contacts you to avoid a potential problem. If you are unable to resolve the conflict please contact our office at (661)868-6300 during regular business hours and we will assist you. For after hours, weekend, and holiday hours please contact Control 1 at (661)324-6551 and ask them to contact the County Agricultural Commissioner. A representative from our office will return your call and work with you to resolve any conflict.

If you are unable to open the map you will need to download and install the free Adobe Acrobat Reader:

http://www.adobe.com/products/acrobat/readstep2.html

Mark R Sabin
GIS Programmer/Analyst
Kern County Department of Agriculture and Measurement Standards
1001 South Mt. Vernon Avenue
Bakersfield, CA 93307
sabinm@co.kern.ca.us
(661)868-6300

This map is for informational purposes only. Kern County and the Department of Agriculture and Measurement Standards assume no responsibility for errors in content or from use of this document. Permitted location and contact information are current as of today’s date.
Start of Session

Read 1 TO addresses from L:\noi\send_que\to_file.txt
Read 2 CC addresses from L:\noi\send_que\cc_file.txt
Sending L:\noi\body_applicator.txt to

CVOSS@GRIMMWAY.COM
LLANG@GRIMMWAY.COM
MRIOS@GRIMMWAY.COM

Subject: PROJECT TO PROTECT AGRICULTURAL WORKERS
Login name is noi01@co.kern.ca.us
Attached binary file: L:\noi\send_que\1500006_9101_g.pdf

End of Session
2009 Statistics

- 23% - County Growers in Project Area
- 20% - County Permitted Sites in Project Area
- 27% - Project Area Sites With at Least One NOI
  - 1,883 - Application Grower E-Mails
  - 5,300 - Notified Grower E-Mails
  - 7,183 - Total E-Mails Sent
  - 3.5 – Average # Notified Growers/Application
ISSUES

• 48-Hour NOI in pilot project area (no waivers)

• Staffed 365 days/year

• Must run NOI’s for small adjacent sites treated at the same time

• New County-Developed Contact Database
  ➢ 18% - 2009 Project growers with no e-mail
  ➢ 01% - 2009 Project sites with no e-mail
  ➢ 07% - 2009 Project acres with no e-mail
• One grower has submitted dozens of NOI’s for the same site.

“... are there any limitations on the number of NOIs that can be filed for the same place for the same material in any time period? What they are doing seems totally unnecessary, and does not represent what is really going on ... Sooner or later neighbors to this type of approach do not pay any attention to what NOIs do come down the pike, which is just the approach we do not want.”

• Numerous attempts to address this have been ignored
EMERGENCY RESPONDERS

- County E-911 system includes proprietary GIS component that is too cumbersome to update regularly

- Internet web mapping not possible due to phone number privacy restrictions

- Intranet web mapping possible but too slow and patchy in rural areas

- On-vehicle mapping possible but can’t be reliably updated
RESULTS

• 1 request for assistance in resolving conflict

• Number of incidents in project area is down

• Concurrently
  ➢ Fines have increased
  ➢ Growers have empowered employees to make more decisions in the field

• 2018 Pilot Project was expanded county-wide
  • Annually Kern issues about 1,000 permits which contain roughly 13,000 separate sites

  • In 2017 - 12,717 pdf maps were sent via email

  • To date in 2018 - 16,578 pdf maps were sent which would project to approximately 33,000 emails by the end of the year
PILOT PROJECT FUTURE

• Kern considering expanding notification to potentially impacted schools using Superintendent of Schools e-mail database

• Could use assessor parcels to contact businesses, homes or other occupied areas through USPS mail

• Web based dissemination of data

Questions?
fankhauserg@kerncounty.com