

The background image shows an outdoor agricultural or industrial facility. In the foreground, there are large, white, cylindrical tanks or silos. A network of white pipes and hoses is connected to these tanks. One of the tanks has the word "AKOS" written on it in blue. To the left, there is a small, tan-colored building with a brown roof. In the far background, a windmill is visible against a clear blue sky. The overall scene is brightly lit, suggesting a sunny day.

**Report on the California Department of Pesticide Regulation
Chemigation Focused Activity and Survey of
County Chemigation Activities**

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Background

The California Department of Pesticide Regulation (DPR) provides monetary support to County Agricultural Commissioners (CAC) for regulation of pesticide use at the local level. In previous years, the support was administered through a negotiated workplan. Activities related to identifying and inspecting chemigation sites were proposed as an addition to the workplan in 2002 where an activity directed towards chemigation was offered as one of the performance measures (Available at:

<http://www.cdpr.ca.gov/docs/enfcmpli/penfltrs/penf2002/2002atch/atch2001.pdf>).

In the next funding year, chemigation was offered as a specific focused activity that counties could perform as part of each negotiated workplan (Available at:

<http://www.cdpr.ca.gov/docs/enfcmpli/penfltrs/penf2003/2003atch/attach23.pdf>)

The purpose of the activity was for participating counties to develop a method to identify chemigation sites and then to conduct some inspections on a portion of the sites. Staff from the Environmental Monitoring Branch developed a form to assist in grower interviews and site inspections (Available at:

<http://www.cdpr.ca.gov/docs/enfcmpli/penfltrs/penf2002/2002atch/attach31.pdf>)

County Response to Focused Activity and Survey

Eleven counties agreed to participate in the chemigation focused activity for FY03/04 (Table 1). Nine of the counties submitted final reports of the results of their activities with two counties, Alpine and El Dorado, submitting a joint report of their combined activities. Two counties reported their observations during telephone interviews.

Table 1. Summary of county response to focused chemigation activity for FY 2003/2004

	Total	Site ID Efforts			Performed Site Inspections	Counties With No Chemigation Sites
		None	NOI Only ^a	Other Methods ^b		
Counties participating in focused activity	11	0	1	10	10	0
Counties reporting but not formally participating	40	26	10	4	12	14
TOTALS	51	26	11	14	22	14

^a NOI is a notice of intent that a grower must file with the local CAC when using a restricted use pesticide.

^b Other processes would include interviews during issuance of site identification numbers or from surveys.

For the counties not conducting the focused activity, 40 additional counties were surveyed by telephone to determine if they had activities related to chemigation site identification and monitoring (Table 1, Counties reporting but not formally participating). Counties were asked to provide the method used to identify chemigation sites, the number of sites identified, site inspections and enforcement actions, their perceived role of the educational program, and any additional observations. The questions and form used during the interview are given in Attachment A.

The specific response for each county is reported in Table 2. There were unique responses from the counties because of the range in level of chemigation activities. The level of chemigation was reflected by the predominant cropping patterns in the county, the cost of water used for irrigation in a county, and unique agricultural projects using chemigation. For example, some counties reported no chemigation activities so there was currently no need for additional regulatory action. In contrast, some counties such as San Luis Obispo indicated a much higher level of activity because crops such as strawberries and carrots were grown utilizing their irrigation systems for chemigation, and the use of chemigation was expanding to other crops such as grapes, nursery, and row crops.

As might be expected, use of chemigation appeared more frequent in counties located in areas where water costs were higher, specifically the counties located in Southern California such as Riverside, Orange, Ventura, and Los Angeles and in the Central Coastal counties of Monterey and San Luis Obispo. There was a greater opportunity for chemigation because higher water costs encourage growers to adopt pressurized irrigation systems, such as low flow microsprinkler or drip systems, where they have better control over spatial application of water and greater potential for water use efficiency. Growers using these systems usually develop a greater level of expertise because they apply water using sophisticated measurements of crop water need. To these growers, adoption of chemigation technology is a logical extension of the use of the irrigation system. Counties experiencing a high level of chemigation activities had developed staff positions with specific expertise in chemigation to assist growers. Chemigation systems were less common in areas where surface irrigation such as furrow was a predominant method of irrigation and the source of water was supplied from canals.

Other factors play a role in the adoption of chemigation. Some counties indicated the presence of a USDA sponsored program to eradicate the glassy winged sharpshooter (GWSS). This program supports the use of imidacloprid, which is a systemic insecticide, applied through chemigation. Owing to the widespread use and knowledge of this program, county staff was able to identify sites even though imidacloprid was not a restricted use pesticide.

Chemigation Site Identification

When growers use a pesticide that has restricted use status, they must file a Notice of Intent (NOI) for use with the CAC. This is a logical time for CAC staff to question the grower whether or not they intend to apply pesticide by chemigation and to determine if they are aware of backflow safety requirements. Since many pesticides that are labeled

with chemigation as a method of application are not listed as restricted use pesticides, chemigation sites could be missed because the grower is not required to notify the CAC. Ten of the counties that conducted the focused activity indicated that they used additional methods besides the NOI process to identify chemigation sites (Table 1). These included grower and applicator surveys, interviews when growers or operators were establishing a site identification number, and participation in other programs, such as the USDA GWSS program, that allowed the county to identify non-restricted use pesticide applications.

Additional information on chemigation activities was provided from forty counties, i.e. counties that agreed to provide information through telephone interviews (Table 1). Fourteen of the 40 counties indicated that there were no chemigation applications in their county and 10 other counties reported that they had fewer than 5 growers equipped to conduct chemigation. Twenty-six counties reported that they did not have a method to determine chemigation sites, ten responded that they identified sites during issuance of NOIs, and 4 other counties used additional methods such as grower surveys from previous years or other means to identify chemigation sites.

Sonoma County reported an interesting situation where there were a number of chemigation sites but these were operated by only a few vineyard management companies. So although only a small number of individuals would theoretically require specific training in actual chemigation operation, site visits were still conducted by the county staff (Table 2).

Monitoring and Enforcement Actions

With respect to enforcement actions, 10 of the counties participating in the focused activity conducted field inspections of chemigation sites (Table 1). The one county that did not conduct inspections had a unique situation where around 15 growers were identified as conducting chemigation but their water source was described as “project water”. This water supply had requirements, one of which was the use of a double check valve.

The counties not formally included in the focused activity also reported conducting site inspections. Thirteen of the counties received notification of chemigation applications through NOIs with 12 of the counties conducting site inspections. Most were pre-site inspections. And most problems discovered in the pre-site inspections were easily fixed prior to the application by the grower or applicator, usually involving the low pressure drain or vacuum relief valve.

Some counties conducted both pre-application and application site inspections. But many counties, including those not participating in the focused activity, mentioned the difficulty of differentiating a chemigation application from a normal irrigation while doing field surveys. One county mentioned that during a drive by inspection, an inspector only noticed an application because Tyvek® suits were worn by the workers conducting the chemigation.

The comments provided by Santa Cruz staff provided an example of the potential for the existence of devices that meet the intended safety action but that were not originally listed by U.S. EPA as an acceptable alternative device. Staff reported the existence of an alternative interlocking device for chemigations conducted at sites located at remote distances from the wellhead. A hydraulic device was used as an interlock to sense irrigation water pressure and cut off pesticide injection when an abnormality was sensed in irrigation pressure. The CAC initially approved the use of the device, a decision that staff at DPR agreed with. Staff at DPR are now working on a policy to include the device as used in the remote set-up as a suitable alternative interlocking device.

Importance of Education

When asked whether there were any changes in compliance rates for those counties conducting inspections, all counties with a record of inspections responded that the grower training, outreach and previous inspections had raised compliance rates among growers and applicators to over 80%. Some counties were expecting a growth in the use of chemigation due to greater acceptance of this method and to greater awareness of a larger number of products labeled for use through irrigation systems. Owing to the combination of success in raising the level of compliance and perceived growth in the use of chemigation, counties felt that it was very important to continue the educational and outreach program in order to maintain a high rate of compliance.

Summary

The focused activity was developed as a method to introduce counties to the need for identifying chemigation sites and as a tool to promote site inspections. These goals were achieved because participating counties conducted follow-up site inspections based on the methods each one developed to identify chemigation sites in their county. The focused activity promoted greater interaction between the CAC staff and DPR staff. The experience reported by Santa Cruz illustrated the cooperation where expertise developed at the local level, gained through site inspections, resulted in greater awareness of alternative devices by DPR staff. Subsequently, the devices observed by Santa Cruz staff will be added to the list of accepted alternative devices.

More importantly, the impact of the educational and demonstration program was illustrated by the anecdotal information provided by the counties, even from counties that did not formally participate in the focused activity such as Monterey, Napa, San Luis Obispo, and Ventura. The educational program was instrumental in raising the awareness of CAC staff as to the required backflow prevention devices. Co-inspections with DPR and Center for Irrigation Technology staff reinforced the education component and eventually provided the CAC staff with local expertise in recognition of backflow prevention devices. Counties with chemigation sites would like continuation of the education and demonstration program because they feel it is essential in maintaining staff's expertise and in promoting high rates of compliance.

The variety of devices viewed by enforcement staff was an indication of the continual evolution of available technology to provide the required level of backflow protection. The detection of new devices during inspections is a measure of the actual incorporation and use of new technology by chemigators. This dynamic nature indicates a need for continued oversight and analysis of the suitability of new backflow prevention devices.

Lastly, many counties also supported the addition of a chemigation indicator to the pesticide reporting system. This would be a key aid in identifying sites for inspection.

Abbreviations: CAC, County Agricultural Commissioners (CAC); Site ID, Site Identification; NOI, Notice of Intent; GWSS, glassy winged sharpshooter; USDA, United States Department of Agriculture; U.S. EPA, United States Environmental Protection Agency; DPR, California Department of Pesticide Regulation; FY, funding year, FA, Focused Activity.

Table 2. Summary of actions reported by each county for chemigation focused activity and from a survey.

County	Method to Identify Chemigation Sites	Chemigation Sites Identified	Enforcement Activities	Comments
Alpine	Focused Activity report in conjunction with El Dorado County	See El Dorado entry	See El Dorado entry	See El Dorado entry
Amador	No Focused Activity. No effort to identify or inspect sites	None	None	County reported only a small handful of growers are doing chemigation.
Butte	No Focused Activity. No effort to identify or inspect sites	None	None	County is not aware of any chemigation sites.
Calaveras	No Focused Activity. No effort to identify or inspect sites	None	None	County is aware of some fertigation sites but no chemigation sites.
Colusa	No Focused Activity. No effort to identify or inspect sites	None	None	County reported very little chemigation use.
Contra Costa	No Focused Activity. No effort to identify or inspect sites	None	None	County not aware of any chemigation sites.
Del Norte	No Focused Activity. No effort to identify or inspect sites	None	None	County not aware of any chemigation sites.
El Dorado	Growers using chemigation identified through a survey conducted when growers came in to take the Private Applicator exam or when they attended the restricted materials update meetings. A Restricted Materials permit was conditioned to require a Notice of Intent for chemigation applications. Report in conjunction with Alpine County	A total of 124 growers surveyed and 10 responded that they used chemigation devices. 4 had permanent systems, four had portable systems, and 2 had devices loaned from a company	Three inspections were conducted targeting growers that had designed their own chemigation system. One of these was conducted for a grower who had a Restricted Materials Permit and was required to submit a NOI 24 hours prior to the application allowing an inspection during application.	County felt the activity was a success because it met the goals of creating a list of sites in the county, conducted grower interviews with site inspections, received a notice of intent with respect to a chemigation, and an inspection was conducted at the site of the restricted materials permit. The staff will continue the program by surveying growers with restricted materials permits when they come in to take the exam or renew their permit, and they will initiate new outreach to include surveys of growers requesting Operator Identification Numbers.
Fresno	No Focused Activity. Sites identified only through NOIs.	Restricted Material Sites Identified through NOIs	"Many" sites inspected, usually for NOI identified sites.	County reports only 10% of the growers are set up for chemigation. Most Nema-cur and metam sodium applications are through chemigation. Many more chemigations occur for other chemicals but those are not identified. Strawberries and citrus (Admire) are the largest chemigators.

Table 2. Continued.

County	Method to Identify Chemigation Sites	Chemigation Sites Identified	Enforcement Activities	Comments
Glenn	No Focused Activity.	No chemigation sites known.		County not aware of any chemigation sites or any chemigation in the county.
Humboldt	No Focused Activity. No effort to identify or inspect sites	None	None	County not aware of any chemigation sites.
Imperial	No Focused Activity. Sites identified only through NOIs.	Restricted Material Sites identified through NOIs	20 to 30 sites inspected, many use gravity flow from irrigation canals.	County reports limited well use due to salty groundwater. Most irrigation and chemigation is done using surface canal water. The county is thinking about doing a focused activity for some of the sprinkler applications that do not require NOIs. Chemigation is often done using a "battery box", a pesticide reservoir tub with a valve to regulate pesticide flow into the stream.
Inyo	No Focused Activity. No effort to identify or inspect sites	None	None	County reports no current chemigators. One grower did previously but has since left. However, more growers should adopt the practice in the future.
Kings	No Focused Activity. No effort to identify or inspect sites	None	None	County has not done any chemigations. Vapam is shanked in. Very few growers or crops, mostly onion and garlic, are set up for chemigation.
Lake	No Focused Activity. No effort to identify or inspect sites	None	None	County indicated that there were no growers using chemigation.
Lassen	No Focused Activity. No effort to identify or inspect sites. No NOIs this year.	None	None	County reports only 2 growers, both nurseries growing strawberries, are set up for chemigation
Los Angeles	Chemigation application monitoring was planned for restricted and non-restricted pesticides. Restricted pesticides applications could be identified by the NOIs filed with the county. Non-restricted pesticide applications were identified through grower contacts.	A total of 15 sites were identified.	Thirteen sites were monitored during applications. Seven of these were for non-restricted pesticides. One site was found to lack the interlock shutoff device required on the label.	The outreach and inspection process is having an effect. There were 11 inspections for the previous year and there were three instances of noncompliance with label requirements compared to one out of 13 this year.

Table 2. Continued.

County	Method to Identify Chemigation Sites	Chemigation Sites Identified	Enforcement Activities	Comments
Madera	No Focused Activity. No effort to identify or inspect sites. No NOIs this year.	None	None	Only 5% of the growers are set up to chemigate. These grow strawberries, grapes or onions.
Mariposa	No Focused Activity. No effort to identify or inspect sites.	None	None	County reported no NOIs or known chemigation sites now. Some use in previous years.
Mendocino	No Focused Activity. Sites identified only through NOIs.	3 Sites, 1 Namacur and 2 Vapam drips	For NOI sites, 3 pre-application and application inspections. No non-compliances noted that were not quick fixes.	County reports most vineyards are set up to chemigate, unsure on how many do and how often.
Merced	No Focused Activity. Sites identified through NOIs and field inspections.	115 sites have been identified	Monitored 10 applications, 2 had problems that required fixing prior to application.	County indicated that most chemigation was on strawberry and sweet potato crops. They are seeking to educate the growers in proper chemigation equipment and procedures.
Modoc	No Focused Activity. Sites identified only through NOIs.	"a few"	Inspections are "low key"	County reports most chemigation in the Tule Lake area using canal water. More wells are being installed. About 10% of the growers now have wells. Much of the land is USFS leased so they cannot "store" pesticides there. Potatoes and onions are the main chemigated crops.
Monterey	No Focused Activity. Sites identified only through NOIs.	Approximately 15 sites were identified (estimated 2-3 a month) through NOIs	100 % of NOI sites receive a pre-site inspection. All problems are addressed/fixes in the presite inspection.	County reports most of the strawberry growers are set up for chemigation and apply vapam and telone by that method.
Napa	No Focused Activity. Sites identified only through NOIs.	NOIs identified 2 Namacur application sites.	One site was rejected due to soil type. The other site was field checked and certified for namacur application.	County did additional training. They estimate that 20% of the growers use some chemigation. Grapes are the primary chemigated crop. Most setups checked are OK as is or easily fixed.

Table 2. Continued.

County	Method to Identify Chemigation Sites	Chemigation Sites Identified	Enforcement Activities	Comments
Nevada	No Focused Activity. No effort to identify or inspect sites. No NOIs this year.	None	None	County indicated that there may be some chemigation of grapes.
Orange	Orange county has a specialist in fumigation and chemigation that works with the growers and PCOs and is very familiar with their operations. The concentration was on application of soil fumigants through drip systems. Due to the sensitivity of field fumigations, a supplemental permit and an NOI are required prior to application.	A total of 48 sites were identified that applied fumigants through a drip system.	48 questionnaires were completed and 48 field inspections of equipment were conducted. Results indicate a high degree of compliance.	Due to the sensitive nature of any pesticide application, especially fumigant application, in a county with extensive urban-agriculture interface, the agricultural staff maintains a close watch on all such activities. The increasing use of chemigation increases the potential for contamination of water sources so it is important to continue the existing chemigation program of informing the agricultural industry of the legal and proper application of pesticides through chemigation and inspections to ensure compliance.
Placer	No Focused Activity. No effort to identify or inspect sites. No NOIs this year.	None	None	County indicates that a few small grape growers may apply imidacloprid by chemigation.
Plumas	No Focused Activity. No effort to identify or inspect sites. No NOIs this year.	None	None	No chemigation sites known
Riverside	Restricted use pesticide sites identified from NOIs (mostly for fumigants), non-restricted pesticide sites identified because they fall in special management zones, (i.e. GWSS) Specifics of identification not provided but did provide a summary table of a check list taken at 14 sites.	A total of 16 sites, 8 restricted use pesticide sites and 8 non-restricted use pesticide sites were identified.	Field inspections were conducted at sixteen sites. Any grower/PCO that intends to chemigate with restricted materials must attend stewardship training.	Chemigation is an increasingly popular method of application for pesticides in the county. More growers are using chemigation as labels are changed to allow it. It is estimated that 20% of the county growers, especially the larger growers, use chemigation. There have been no incidents related to chemigation in the last two years. The training and inspections are a large part of this record.

Table 2. Continued.

County	Method to Identify Chemigation Sites	Chemigation Sites Identified	Enforcement Activities	Comments
Sacramento	Sites identified through a survey conducted when issuing restricted materials permits, operator identification numbers, or registering a pest control business. A chemigation survey form was filled out.	A total of 390 users were surveyed including growers, government agencies, pest control businesses, and water reclamation districts. 3 sites were identified with the possibility of a fourth. None of the sites had a permanent installation.	Submitted a report of a pre-application site inspection for a Vapam application. Indicated the need to install a low pressure drain on the system.	Low number of sites precluded development of a data base.
San Benito	New pesticide applicators were asked about chemigation when they applied for permits. This data was added to previous survey data.	About 15 growers are known to use chemigation.	No inspections of chemigation systems were reported. However, a few "project water" sites were noted.	About 15 growers are equipped for chemigation mostly for bell peppers and lettuce. Many growers use chemigation techniques but use "project water" which has a requirement for double check valves.
San Bernardino	No Focused Activity. No effort to identify or inspect sites. No NOIs this year.	None	None	The county knew of only one company set up to do chemigation but had no information on actual applications. There may be some greenhouses equipped for chemigation.
San Diego	# No Focused Activity. No effort to identify or inspect sites.	None	None	Awaiting response to information request
San Luis Obispo	# No Focused Activity. Added to a survey done in a previous year with new applicants. Also used NOIs	Not reported	100% of restricted material applications received pre-site and application inspections. No inspections of non-restricted applications.	The county reported most strawberry and carrot growers are set up for chemigation. They have also seen set ups for grapes, nursery and row crops. They are finding far fewer non-compliances in their pre-site inspections than in previous years. They attribute this to the education program. The county anticipates reducing the number of pre-site inspections in the future because of this.
San Mateo	No Focused Activity. Did a survey a couple of years ago and found no chemigation activity.	None	None	No current Focused Activity. Did a survey a couple of years ago and found no chemigation activity. They still believe there is none in the county.

Table 2. Continued.

County	Method to Identify Chemigation Sites	Chemigation Sites Identified	Enforcement Activities	Comments
Santa Barbara	Located sites based on information from Western Farm Service	Unspecified number of sites identified by NOIs and Western Farm Service	Did an unspecified number of pre application inspections and required several system to be brought into compliance prior to application.	Did not complete a final report.
Santa Clara	Site selection based on NOI for a restricted use pesticide (Vapam).	Six sites were selected. Three were pre-application site inspections, and three were field fumigation application inspections.	One pre-application inspection found the site missing backflow prevention requirements. One field fumigation inspection found the site with numerous system discrepancies. The application was stopped and the system fixed and reinspected the same day.	The need for further training of the pesticide applicators is indicated. County inspection staff training is helping to find chemigation system deficiencies before there are problems.
Santa Cruz	Added chemigation information to grower information sheets used during the issuance of permits and operator identification numbers. Two chemigation sheets were developed where one was specific to nurseries and transplant growers using a dosatron or dosamatic proportional injector and the other a more generic questionnaire.	Identified 79 irrigation and/or potable wellheads. In 2004 the sites were identified as 42 with chemigation valves in compliance, 30 with chemigation valves not in compliance (5 corrected as of June 30, 2004), 1 abandoned wellhead, 7 potable well sites, and 1 not inspected.	Performed 21 grower chemigation site inspections, 4 sites failed inspection. Inspected 7 PCO applications, 2 correctable noncompliances were noted. Enforcement of chemigation valves, interlocks, injection equipment, and irrigation check flow valve. Updated Notice of Intent requirements as a regulatory tool.	Santa Cruz provided an evaluation of the chemigation requirements as it pertained to devices encountered in the field. Devices were described that did not meet the letter of the law but that did meet the intent of the law. These devices were allowed by the County and subsequently submitted them as potential alternative to CDPR. County staff designated one inspector as a chemigation specialist.

Table 2. Continued.

County	Method to Identify Chemigation Sites	Chemigation Sites Identified	Enforcement Activities	Comments
Shasta	No Focused Activity. Did a survey in past years. No NOIs reported.	Identified 1 or 2 sites visually by noticing people in Tyvek® suits.	Site inspections showed no non-compliance issues.	The previous survey found only 4 or 5 growers using chemigation. These applications were on strawberries for transplant. This number seems stable.
Sierra	No Focused Activity. No effort to identify or inspect sites. No NOIs this year.	None	None	No chemigation sites known
Siskiyou	No Focused Activity for 03/04 but submit a FA report for fy02/03. No effort to identify or inspect sites. No NOIs this year.	None	None	The county reported only 18 permittees out of 300 growers (6%) were set up for chemigation. These were mostly alfalfa (pivot arm) and strawberry (for transplant) sites.
Solano	No Focused Activity. No chemigation activity known. One grower has inquired about setting up a system.	One site	None	Historically, 2 growers did chemigate but no longer do. A third grower (grapes) has just set up a chemigation system but has not applied pesticides through it yet.
Sonoma	Attempted to focus on identification of sites especially for non-restricted materials. Collected information during the permit season.	6 sites were identified on a log sheet.	Inspected 3 sites.	Many applications are performed by vineyard management companies. Staff attempted to visit different grower sites rather than repeating inspections on the same management company.
Stanislaus	No Focused Activity. Sites identified through NOIs.	Estimated that there were 80 pre-site evaluation/inspections for restricted material chemigations	No application inspections were reported however, there were two denials for metam sodium based on pre-site inspections noncompliance issues.	The county reported that over half of all growers were equipped for chemigation. 80-90% of them are thought to be fully compliant. Compliance rates increased after pre-site inspectors denied some metam sodium applications. Typical problems noted involve low pressure drains and vacuum relief valves. Strawberries, rowcrops, grapes and preplant orchards are the primary crops that are chemigated.

Table 2. Continued.

County	Method to Identify Chemigation Sites	Chemigation Sites Identified	Enforcement Activities	Comments
Sutter	No Focused Activity. No effort to identify or inspect sites. No NOIs this year.	None	None	The county did not think that many growers were set up for chemigation however fertigation setups not uncommon.
Tehama	No Focused Activity. No effort to identify or inspect sites. No NOIs this year.	None	None	County reports chemigation is very rarely used. Some chemigation has been reported for strawberries and nurseries.
Tulare	No Focused Activity. No effort to identify or inspect sites. There were some NOIs this year.	Very few based on NOIs, mostly for nemacur.	None	The county reported NOIs were filed for nemacur on oranges.
Tuolumne	No Focused Activity. No effort to identify or inspect sites. No NOIs this year.	None	None	County reported no NOIs for chemigation.
Ventura	No Focused Activity. There is a USDA project studying Admire on citrus (GWSS). Many growers were involved along with the county. NOIs	Unspecified number of sites identified through NOIs and the Admire study.	Previously did 10-15 inspections per year. This has slowed down recently due to budget cuts. After initial outreach, most growers now have excellent systems.	County has done extensive training with CIT to assure growers chemigate properly. Chemical company is also involved with the study. Most growers that chemigate now have excellent systems and most of those use one of 5 PCOs in the county for applications.
Yolo	No Focused Activity. No effort to identify or inspect sites. There were some NOIs this year.	Unspecified number of NOIs for Vapam.	Performed pre-site inspections for Vapam drip applications. Most	County reported that few growers were currently equipped for chemigation. Of those few, most were strawberry or grape
Yuba	No Focused Activity. No effort to identify or inspect sites. No NOIs this year.	None	None	County reported no NOIs for chemigation.

ATTACHMENT A

**Form and questions used during telephone interview of County Agricultural
Commissioner staff to inquire about the use and regulation of backflow
requirements in each county.**

Focused Activity -- Cold Calls

County:

Contact Name:

Phone #:

Date:

1. Has the county attempted to identify sites where growers are using chemigation as a method of pesticide application?

 2. Has the county conducted inspections of chemigation systems to check for compliance with label instructions or per the Pesticide Use Enforcement Letters?

 3. If possible, do you have a count of the number of chemigation sites versus total number of pesticide application sites? Or do you have a count of the number of growers using chemigation versus the total number of growers? Or in your opinion, could you provide an estimate of the number or percentage of growers utilizing chemigation as a method of application?

 4. Can you list crops where chemigation is used and do you have an estimate of the percent of applications using chemigation in those crops?

 5. In your opinion, has the educational program impacted the perceived need for or use of backflow prevention equipment in your county?

 6. Do you have any additional comments or observations you would like to make regarding either the potential for use of chemigation or future enforcement activities in your county?
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