

CDQAP Ruminations:

Preventing Rural Crime on Your Dairy

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California farms lose up to half billion dollars to theft and other rural crime every year. Here are some steps you can take to make you facility less inviting...

Highlights: What You Need to Know About Rural Crime on Dairies

- California farmers lose tens of millions dollars to theft every year. Besides theft, producers face a host of other types of rural crime including illegal dumping, trespass, vandalism, clandestine drug labs and even assaults on employees.
- Always report rural crime, whether it's on your property or nearby. This helps Sheriff's Departments to identify crime patterns and active criminal groups.
- Train and empower your employees to investigate unfamiliar persons on your property and report suspicious people, vehicles and circumstances to you.
- Most thefts are "*Crimes of Opportunity*" and there steps you can take, many simple and inexpensive, to make your facility less inviting to thieves.

- **Unmarked equipment is only rarely recovered, but you can apply a unique, nationally traceable identification number to any of your equipment for free.**
- **Cooperative Sheriff / landowner programs like *Farm Watch*, modeled after popular *Neighborhood Watch* programs, can significantly curtail crime in a rural area.**

BACKGROUND: The Cost of Agricultural Crime in California

The cost of agricultural crime in California is staggering

No state or national database exists tracking rural crime statistics, making it difficult to estimate losses to farmers. Surveys in individual counties such as Tulare and Kern however typically report losses of \$3 to \$4 million every year. One estimate by the California's Rural Police Project put losses to California farmers at \$30 million per year. Because only about 10% of rural crime is actually ever reported, the real losses (which include not only replacement and repair but lost productivity as well) may be considerably higher, approaching half a billion dollars.

"Anything that's not nailed down."

There is enormous variability in the types of farm property stolen in California. In 1993 the San Francisco Chronicle tallied just some categories of farm theft: tractors and other equipment worth \$13 million, garlic worth \$11.5 million, avocados worth \$10 million, farm chemicals worth \$2 million, cattle worth \$1.9 million and aluminum irrigation pipe worth \$1.2 million. One disturbing trend in the Central Valley has been the increase in sophisticated, crime-ring cargo heists. An example is having a trucker company ID and shipping manifest counterfeited to allow pick up of truckloads of almonds, walnuts or pistachios each valued at between \$100,000 - \$500,000.

It's not just the theft...it's also the recovery.

The loss of property alone is frustrating enough, but recovery costs can significantly compound the total economic losses. Thieves may only take \$20 to \$30 of copper wire, but it can cost \$2,000 to \$6,000 to repair an irrigation pump. In addition, there can be lost productivity. It may take up to a week or more for a pump to be rewired, resulting in lost irrigation time. Recovery costs can vary from hauling off illegally dumped tires and sofas to cleaning up abandoned methamphetamine labs. The costs to clean-up a clandestine drug lab are frequently borne by the landowner and can range anywhere from \$2,000 to \$150,000.

It's not just property crime.

Crime is not limited to just property. A survey of Tulare farmers from 1992 to 1994 found that of approximately 5,000 agricultural crimes reported in the county every year, with about 80% involving property, but some 20% also committed against persons. A subsequent survey of Tulare County farmers in 1996 found that 50% had experienced rural crime, leading to their security priorities being 1) equipment theft, 2) crop and livestock theft and 3) personal assault.

Dairy producers are targets to.

These concerns were mirrored in a 2018 survey of CMAB producers. Of responding dairymen, 50% reported having experienced rural crime of some sort, with 35% experiencing theft, four

cases of trespass and one case each of activist activity, drone over-flights and armed robbery. In the CMAB survey, producers' priorities were general farm security, hiring practices and responding to and reporting criminal events.

Getting Started: Working with Neighbors and Local Law Enforcement



Each farm's security challenges are different. Work with your sheriff's office to determine what your greatest risk is and start there.

Determining your farm's greatest liability. Addressing farm security understandably begins with determining the facility's greatest security challenges: what type of theft is most likely and what type of theft would be costliest. Improvements in management procedures or infrastructure can be weighed against cost, allowing producers to select the greatest security "bang for the buck".

Some inexpensive management practices are as simple as not leaving keys in tractors, ATV's or trucks parked in low-traffic areas. Spot-welding bolts securing solar panels or installing good quality locks on fuel pumps can also deter a lot of theft. Training employees to snap cell-phone pictures of suspicious people or vehicles costs nothing and fosters a mindset or culture of security on your farm.

Becoming involved your local sheriff and neighborhood watch group (see below) can provide valuable information on what thieves, vandals or activists are targeting in your area. Sometimes the highest priority for a farm is obvious. You or your neighbors, for instance, may have experienced repeated, costly copper wire theft. Sometimes however your greatest security liabilities may not be immediately obvious and a fresh set of eyes can be enlightening. Most

rural Sheriff's departments in California have rural crime or ag crime divisions and are happy to provide a walk-through audit for the farmer.

Places to start improving security at little or no cost...





- Join local *Farm Watch*, start getting crime alerts.
- Review current security, determine those areas where theft is most likely and/or would be most costly.
- Start with simple, inexpensive practices or improvements specific for your farm:
 - *Train employees to approach or photograph visitors.*
 - *No trespassing signs from your Farm Bureau.*
 - *Not leaving keys in tractors, ATVs, trucks.*
 - *Getting Owner Applied Number (OAN) assigned.*
 - *Inexpensive but good quality locks on fuel tanks.*
 - *Spot-weld solar panels.*
 - *Whatever is greatest bang for your security buck on your dairy!*

Partnering with law enforcement: the Rural Crime Task Force. Most rural Sheriff's departments in California have rural crime or ag crime divisions that are part of *California's Rural Crime Prevention Task Force*. The [CRCPTF](#) is a non-profit, law enforcement / ag industry partnership whose mission is to develop solutions for rural crime. Industry organizations include county Farm Bureaus, the Harris Ranch, Zenith Insurance. The task force's activities include networking & information exchange between sheriffs, regular meetings, collaborative grants and providing a week-long [Rural Crime School](#), where officers learn about the spectrum of rural crime and how to investigate and prosecute cases. Most importantly as described below, local sheriff task force members help organize and train local *Farm Watch* groups.



CA Rural Crime Prevention Task Force (CRCPTD)

- Law & industry non-profit!
- Mission: develop solutions for rural crime.
- > 30 Sheriffs & DA offices (including not limited to):

 Riverside County	 Fresno County
 San Bernardino County	 Merced County
 Kern County	 Stanislaus County
 Tulare County	 San Joaquin County
 Kings County	 Humboldt County

Industry organizations including Farm Bureau, Harris Ranch, Zenith Insurance and more...



Most rural Sheriff's departments in the State are part of California's Rural Crime Prevention Task Force.

Partnering with neighbors: the Farm Watch Program Patterned after popular national *Neighborhood Watch* programs, local [Farm Watch](#) organizations are typically collaborations between local farmers and county sheriff. The partnership helps coordinate information exchange, actions and training in both directions. Producers are taught how to identify suspicious persons or circumstances, document & report incidents and identify equipment. Member also receive "Criminal Incidents" alerts. For persistent problem areas like metal theft or illegal dumping, local *Farm Watch* programs can organize "sting" operations with bait equipment or hidden video. Local *Farm Watch* organizations sometime set up on-line social media platforms (such as "Facebook" pages restricted to invited users) to exchange information on stolen property or suspicious persons. Organizations can even collaborate to promote new legislation, something the California Farm Bureau did to [curtail sale of stolen "scrap" metal](#). To learn more about joining or starting a local *Farm Watch* contact your county sheriff.



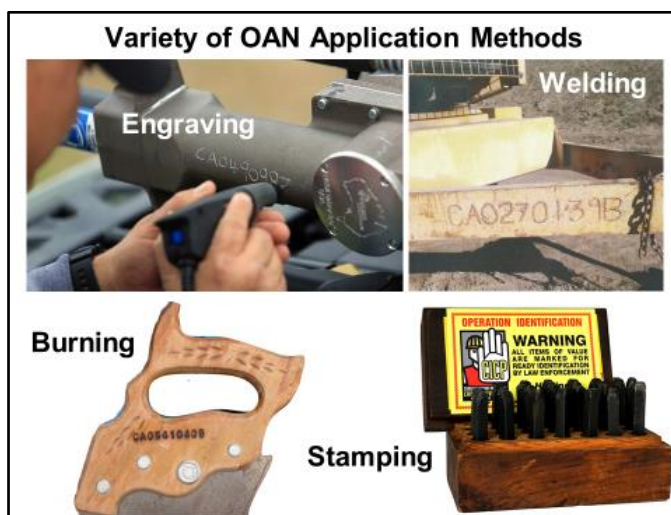
Camera can be useful in setting up “sting operations” for problem areas, metal theft, dumping.



Your local Farm Watch organization can work with the County Sheriff's Office set up a camera areas where theft or dumping is occurring.

Identifying your property Sheriff investigators have found that thieves are more hesitant to take items that can be readily identified. Placing signs, decals, and other visible information warning potential thieves that this equipment has been marked and registered with the local law enforcement officials helps to prevent theft.

The Owner Applied Number or [OAN](#) is a national registry that allows you to mark your equipment with a unique number traceable by county sheriffs, the California Highway Patrol and the FBI. Your local sheriff's office can provide you with an ORN specific for your operation. Marking applied variety of ways: decals, painting, stamping, engraving, welding or burning. Anything can be marked: tractors, ATVs, tools, tires, irrigation pipe, farm chemicals, even cow ears can be tattooed. The California Farm Bureau has provided [photos of various tools](#) producers can use to apply their unique numbers.



SmartWater Technology A new method of identifying farm equipment being tested in California is the [SmartWater](#) technology. *SmartWater* is a long-lasting, traceable liquid, unique to an individual farm that is only visible under an ultraviolet black light. Fresno County has been [testing the technology](#) in a pilot program and has already used it to prosecute criminal cases.



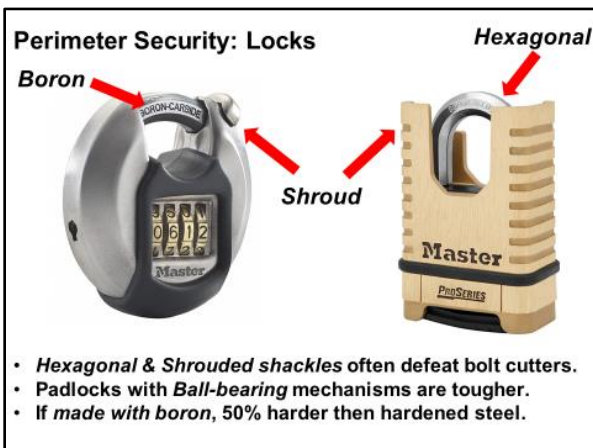
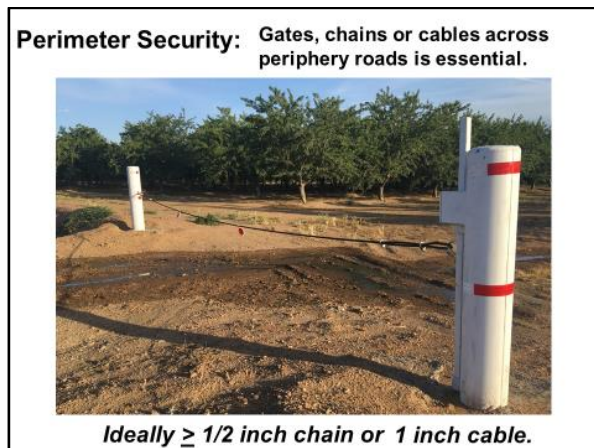
Always, always, always report rural crime! If a farmer takes no other action, reporting crime or suspicious people or vehicles is crucial to start addressing a crime problem. Alarming, one survey revealed that only 10% to 20% of rural crime is ever reported. Farmers are the eyes and ears of the sheriff's department and law enforcement can't take action unless they can investigate individual cases and identify patterns of crime. Photos from cell phones of suspicious people or vehicles and license plates are invaluable to investigators. Other information used by detectives include information on job applications or information supplied by your neighbors.



The Basics of Dairy Farm Security: Perimeters, Signage & Employees

1. Perimeter Farm Security

A common complaint from farmers worried about security is expressed as “*You can’t fence the entire property, so what’s the point?*”. The frustration is real of course, but it’s useful to remember that most thefts are “Crimes of Opportunity” and our primary job is to discourage the average thief so that he moves on to easier targets. Trenches are low-cost but effective alternative to fencing. When paired to sturdy but inexpensive gates, cables, or chains, the combination can be a powerful deterrent to thieves accessing dirt roads where harvested crop or equipment is located.



As to securing the entry point it’s good to remember that not all locks are created equal. Locks that have shackles that are hexagonal in shape and are shrouded can defeat all but the most massive bolt cutters. In addition, if the shackle is constructed with boron steel it is 50% harder

than usual hardened steel. Lastly, padlocks with ball-bearing mechanisms are tougher to break. Fortunately, such high-quality locks can be purchased for as little as \$20 to \$30.

2. Signage: *It's not just for "No Trespassing"*

Most California farmers are familiar with common practice of posting *No Trespassing* signs, three per mile and at all roads entering the property. Costs per sign can range from \$2 to \$40 depending on size and materials, but local county Farm Bureaus frequently make signage available to members at a reduced cost. The primary value of such signage is that it elevates trespassing from a parking-ticket like *Infraction*, a \$75 fine, to a *Misdemeanor*, punishable by up to a \$1,000 fine and 6 months in jail. Thus, *No Trespassing* signs for the most part keep honest people honest and allow law enforcement to more easily prosecute others when they're not.

Besides "No Trespassing" signage can convey a useful variety of messages. Many of these alternative messages may often make thieves think twice.

Signage can announce that equipment is marked with permanent identification or that property is under video surveillance (regardless of whether it is or not). Signage can communicate that the farmer is part of a *Neighborhood/Farm Watch* program and that suspicious people and vehicles will immediately be reported to the Sheriff. Signage can even alert criminals to the magnitude of penalties for say, illegal dumping or the existence of rewards for information leading to the conviction of persons committing agricultural theft. In California ideally warning signage is provide in both English and Spanish.



3. Employees: good hires & good training.

Already mentioned, training and empowering employees to politely but firmly approach unfamiliar visitors, or to record suspicious people or vehicles, costs nothing. Such training has the added benefit of impressing the importance that management places on farm security. Sadly, agricultural theft is often committed by one of the farm's own employees or employees from neighboring operations. Time invested in background checks and checking references can help prevent hiring employees with problematic histories such as theft, drug use or domestic abuse. Any hiring process must start with a written application, but never trust the information provided. *Always* check an applicant's references. Similarly, social media (Facebook, Twitter, LinkedIn, Instagram, websites/blogs) can offer an opportunity to locate questionable content or connections to activist organizations.

SPECIFIC FARM SECURITY PROBLEMS

While anything from hand tools to cows to milk can be stolen, there are some types of crime that are more frequent or costly for producers. The following list offers information and links for specific farm security problems.



Disclaimer: The following information is provided for general purposes only and will not necessarily prevent all ag crime. A determined thief with a cordless angle grinder or acetylene torch will eventually access your property. Our job is to frustrate and discourage the average thief to the point they move on, looking for easier targets.

- Metal Theft** Most farmers in California have either experienced [metal theft](#) or know someone who has. In some counties the majority of active ag theft cases are metal theft, including aluminum irrigation pipe, brass valves & especially copper wire. Copper theft has become so pervasive in fact, that the FBI has determined it to be a [threat to the critical infrastructure](#) of food production. One of the most frustrating aspects of this crime can be the amount of time and money it takes to recover. Thieves may strip less than \$100 worth of copper wire from an irrigation pump, but may cost \$4,000 to \$8,000 to repair and up to a week before crops can be irrigated. Each 3-inch brass valve may cost \$40 to replace, but repair costs with parts and labor may total \$150. As described in the “Perimeter Security” section above, ditches and cable/chain gates can limit access to roads leading to pumps or other electrical equipment. Signage announcing that equipment is marked with an Owner Applied Number (ORN) or the new “*Smart Water*” ID technology may be useful. If those efforts aren’t feasible or wouldn’t be effective, some producers are securing boxes with locks and surrounding insulated wire with steel conduits (see below). Although more expensive, some producers are putting entire pumps in steel cages. To prevent theft of aluminum irrigation pipe or brass valves some producers are moving to drip irrigation and PVC valves.

Metal Theft



- Farm Machinery Theft** Theft of agricultural equipment such as tractors, trucks, ATV's, utility trailers and farm implements can be particularly costly for producers. In the first half of 2018 Tulare County farmers and ranchers have reported approximately \$440,000 in heavy equipment theft. Locking up equipment in a close-up barn every night is most effective, but is rarely practical. While ignition key removal is a step in the right direction, the ease with which tractor keys can be purchased means key removal deters only some of the crooks. An installed key pad will be more effective but will be expensive. Removing and storing the battery is very effective but requires considerable employee time. Removal of fuses from the tractor is effective, but relevant fuses are not present all tractors or can difficult access. Relatively inexpensive options to secure motorized equipment includes chaining the steering wheel. Alternatively, a hidden battery "kill switch" with or without a key lock can be installed. Aftermarket "Universal lockdown" covers with keys unique to your facility can be added relatively easily. What about after the tractor is stolen? GPS locating devices are effective but expensive. Using an Owner Applied Number (OAN) will greatly increase the chance that your property will be recovered and returned.

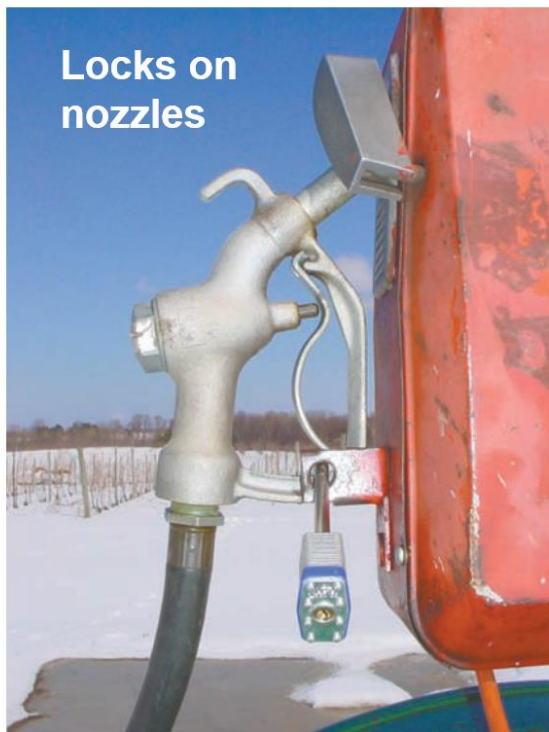


- Battery Theft** With a statewide metal theft law and county ordinances making it more difficult for crooks to collect cash for stolen metals, rural crime detectives have

noticed that [thefts of batteries](#) from agricultural vehicles and tractors for recycling cash has become rampant. Welding the battery's securing bracket of has been used but makes servicing much more difficult. As described in the Farm Machinery section above, using a highly visible Owner Applied Number (OAN) by stamping or engraving will deter some theft and will greatly increase the chance that your property will be recovered and returned.

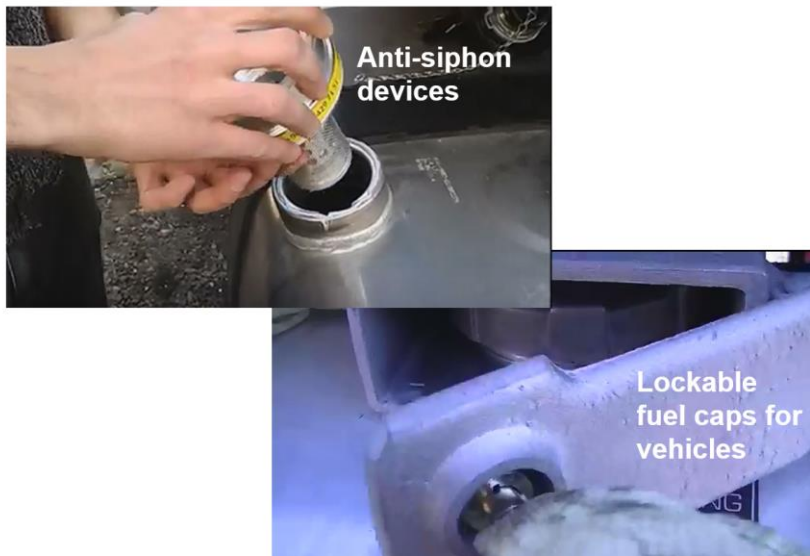
- **Fuel Theft** Theft of gasoline or diesel fuel often occurs by employees, so monitoring fuel usage is important. Security precautions can range from locating tanks in central, well-lighted area to lockable pump boxes or even electronic fuel management systems. For tanks with electric pumps, locks on nozzles and fill ports offer great security at little cost. Above-ground tanks can be a challenge to secure because, being gravity fed, the hose can be cut and fuel still emptied into a container. Locks on nozzles however can still help prevent casual theft. To help prevent fuel theft from vehicles after market anti-siphon devices can be installed. Lockable fuel caps are also available but have the disadvantage of employees having to keep track of the keys.

Prevention Diesel Theft – Stationary Tanks



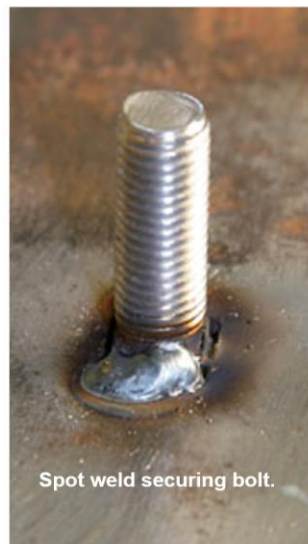
- **General:** central location, security/motion sensor lights, CCTV or game cameras, alarms.

Prevention Diesel Theft - Vehicles



- Solar Panel Theft** Solar panels, especially panels located in remote rural systems, are increasingly at risk. Marking panels with an Owner Applied Number (OAN), tamper-evident stickers or engraving will deter some theft, particularly if highly visible signage announces that the panels are traceable. The attachment of the panels to the frame can be made more tamper resistant through the use of unusual one-way or snake-eye screws or even spot welds. Before altering the method panels are attached however, it's important to check and make sure the new attachments do not void the solar system's warranty. The California Farm Bureau has provided [a list](#) of potential actions producers can take to help limit theft of solar panels.

Solar panel theft



- Illegal Dumping** The problem of [illegal dumping](#) has become so costly that many counties (such as Stanislaus) have established dumping task forces and hot-lines. Frequently the offender cannot be identified and the property owner is responsible for clean-up. If, however, the criminals can be identified (through [witnesses](#), game cameras or the use of discarded mail or receipts) the court can force them to clean the site and do community service in lieu of fines. The California Penal Code makes dumping of household waste (furniture, tires) as an infraction with a fine of up to \$1,500. Dumping “commercial quantities” (such as construction debris, but not household waste) however is a misdemeanor with criminal fines of up to \$10,000 and up to 6 month’s jail time. In addition, the California Vehicle Code makes vehicles used for illegal dumps subject to impoundment. Discourage allowing a dumping “hot-spot” to develop by promptly cleaning up new sites. If a site is already frequented by dumpers, there has been considerable success achieved by partnering with law enforcement to use video camera surveillance. Signage may also help keep an area from developing a reputation as a dumpsite: *“This area is video monitored. Dumping vehicles may be impounded.”*

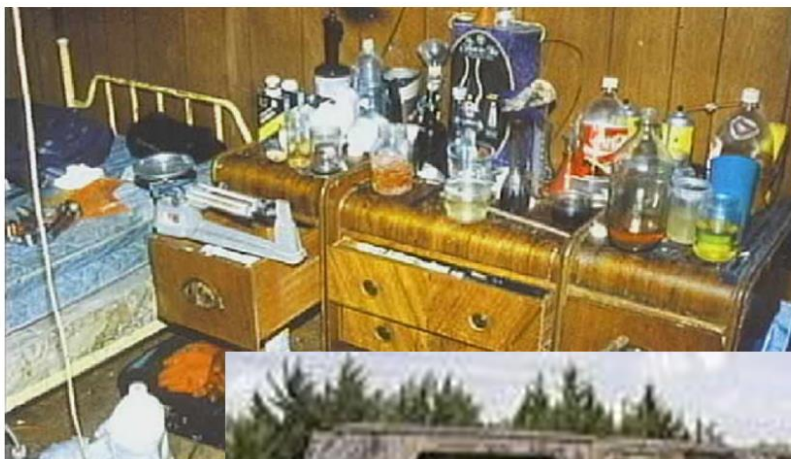
Illegal Dumping



- Drug Labs** Relative to producer and employee personal safety, potentially the most hazardous security issue is the fly-by-night methamphetamine laboratory. Rural locations preferred to avoid attention brought by the smell coming from the lab and massive amount of hazardous waste it produces. Waste potentially signaling a clandestine lab include Over-the-Counter drug packaging, discarded chemicals, coffee filters, hot plates, glassware, plastic bottles/tubing and used syringes. One estimate has 6 pounds of hazardous waste generated for every one pound of methamphetamine

produced. Labs can be set up in employee housing, barns, out-buildings or even as “rolling labs” in the back of vans parked in remote areas on a farm. According to the CFBF, cleanup costs can range \$2,000 to \$150,000 and are frequently borne by landowner. If you suspect that a drug laboratory may be operating on your property contact law enforcement immediately. Under NO circumstance should you approach a laboratory, which may be explosive, or suspects, who may be armed.

Methamphetamine Laboratories



Mobile meth lab after fire.

- Trespass, Activists & Drones** There has been an increase in incidents of unauthorized persons on dairies. These have included trespass (including photography and video recording), drone over-flights, fictitious applications for employment, requests for management information and overt protests. Relative to trespass a few easy steps can increase the general security of your dairy.

Signage: Post “No Trespassing” signs at all road entrances and at three signs per mile to include property corners. This elevates trespassing charges from a \$75 infraction to a misdemeanor (up to \$1000 fine/6 mos. of jail time) and may deter unwanted visitors. Many local Farm Bureaus have signs available.



Perimeter Gates: Other than the main gate, secure all perimeter roads with gates, chains or cables to hinder vehicle access. This will also help deter some property theft.

Employees: Train and empower employees to investigate anyone they don't recognize and immediately call the Sheriff's office. Trespass occurring in the presence of law enforcement is easier to prosecute. Recording on your cell phone, explain to trespassers that law enforcement is in route and ask them to leave, but do not otherwise engage.

***THE NEXT CDQAP RUMINATIONS WILL ADDRESS
TRESSPASS, PROTESTS AND ACTIVISTS IS GREATER DETAIL.***