



Department of Agriculture Pesticide Applicator Update

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Private pesticide applicator RUP recordkeeping audits



Private and commercial pesticide applicators that apply restricted use pesticides (RUP's) are affected by USDA's RUP recordkeeping requirement, which took effect in May

of 1993. This law requires private applicators to keep and maintain records of all applications of RUP's.

The following information is required for each RUP application:

1. The brand or product name of the restricted use pesticide and its EPA registration number;
2. The total amount of pesticide applied;
3. The size of the area treated;
4. The crop, commodity, stored product, or site treated;
5. The location of the application;
6. The month, day, and year of application; and
7. The applicator's name and certification number.

Some commonly used RUP's include Atrazine, Bicep, Tordon, Bladex, Hoelon, Scout, Gramoxone, Lasso, Buctril, Bronate, Marksman, Counter, Ambush, Thimet, Parathion, Asana, Furan, Pounce, Dyfonate, Phorate, Dimilin, and many others. Private applicators must record the use of any RUP's they apply within 14 days of application and keep the records for two years.

Commercial applicators are already required to keep records of all their applications, but now must provide the producer with the required information within 30 days of the application.

One hundred eighty eight (188) randomly selected private applicators, from over 21,000 certified private applicators statewide, will be inspected this year to determine the level of compliance with the federal law.

Cyanazine rate limits. Applicators are reminded that rate limits for cyanazine-containing pesticides (like Bladex, Extrazine, Cy-Pro and Cynex) for the 1999-2002 Calendar Years are no greater than 1.0 pound active ingredient per acre per year. An enclosed cab is required before applying these products, and the product cannot be sold or distributed after September 30, 2002 and cannot be used after December 31, 2002.

Anhydrous ammonia used to generate methamphetamines

Anhydrous ammonia is a nitrogen-based fertilizer and a component in the manufacture of other fertilizer products. However, anhydrous ammonia is also used as a reactor in the manufacture of methamphetamines.

Dealers of anhydrous ammonia are asked to take necessary precautions to insure this illegal use of anhydrous ammonia is stopped. Some steps to help reduce anhydrous ammonia theft may include:

- 1) Increased lighting around tanks;
- 2) placing a fence around the tanks;
- 3) limiting the amount of time anhydrous ammonia is kept in nurse tanks;
- 4) using locking mechanisms or valves on tanks; and
- 5) increasing employee and public awareness of issue.

The American Retailers Association is currently reviewing options to prevent the abuse of anhydrous ammonia for methamphetamine production. These options include the addition of other additives, which would make the product unfit for use in methamphetamine production and placing restrictions on holding times of anhydrous ammonia in nurse tanks.

The overall impact to United States farmers from the loss of anhydrous ammonia is estimated at 441 million dollars. If you suspect anhydrous ammonia theft has occurred at your facility, contact your local law enforcement agency immediately.

Contents of this Issue

1999 pesticide container collection	2
1999 unusable pesticide collection	2
Who will take my old pesticides?	2
1999 pesticides in food project	3
Emergency Pesticide Exemptions	3
M-44 registration	3
Nitrogen management plan update	3
1999 BSE inspection summary	4
1999 enforcement trends	4
Protecting our water supply	5
Bulk fertilizer leak detection	6

Who will take my old pesticides?

It's an often asked question. But before answering, it's important to mention what *not* to do.

The "old stuff" should never be buried on your property. It is a certainty that you will be required to answer questions about your chemical disposal methods if you use the property as loan collateral or sell it. Burying pesticides is a no-win situation. If you bury them and claim on a financial instrument that you didn't, you could face federal charges. Answering truthfully would undoubtedly require that you pay for and pass an environmental audit before borrowing money against, obtaining insurance on, or selling the property. With so much at stake, don't make products disappear by burial.

Is It a Registered Product? The easiest way to determine whether pesticides are still registered is to get the EPA registration numbers from the product labels, call the South Dakota Department of Agriculture (SDDA) or visit the SDDA internet site at www.state.sd.us/doa/databases/index.cfm. If the product is still registered with EPA and SDDA, then it is your lucky day. The best option is to ask the chemical dealer from which you originally purchased the product to take back unopened products. If you're on a roll, you might even get a refund or credit on next year's pesticide bill. But the likelihood that the dealer will take back the product is slim to none if the pesticide is two years old or if the seal on the container is broken.

Older registered pesticides that your dealer will not accept should be mixed and applied according to the label. Some products may no longer be effective, but it is still legal to apply them to a labeled site, following label instructions. The exception to this is if the products have been adversely effected by the weather. The least favorable option is to give them to others who have use of them. If the product is restricted, make sure the recipient is certified to use it. Get a written release stating that you are not guaranteeing the product's effectiveness.

It's No Longer a Registered Product. Disposing of *unregistered* products used to be more complicated and expensive because application was not an option. However, these products can be disposed of through the SDDA Unusable Pesticide program. The SDDA will collect and dispose of your unusable products on an annual basis at no cost to you. A hazardous waste contractor will charge between \$500 - \$1000 just to drive onto your property plus the cost of packaging and disposal.

Do the Minimum While You Contemplate Your Options. Many of the older products left in long-term storage date back a quarter century or more, and sometimes old cans

leak. If that is your situation, it is important to place those containers into a larger container that will hold the entire volume plus the current container. Five gallon buckets usually work well for this purpose. Check around these containers for leaks and corrosion before you move them. Dry products whose bags have deteriorated should be placed in heavy plastic garbage bags to ensure containment. Remember that most products originally weighed at least 40 pounds. A single garbage bag may not be able to handle that much weight and may need to be doubled. **Always wear a minimum of rubber gloves and eye protection while handling these products.**

Think Smart About What You Purchase. Order what you anticipate needing for a single season, and make arrangements with the dealer to sell back to them any unopened containers at the end of the spray season. Shop around, because some pesticide dealers offer to deliver products as needed, to avoid the need to sell back. Use returnable mini-bulks whenever possible, because you may be credited instantly for any product left in the tank. A less desirable option is to use leftover products the following year, while they are still registered and effective.

Are there any regulatory consequences when participating in these collections? NO, ABSOLUTELY NOT! The Department is not concerned with whom has what material. Our only goal is to assist the user/holder in properly disposing of unusable pesticides in a safe, environmentally sound manner. The program has been in operation since 1993, and there has never been anyone who has experienced regulatory consequences as a result of participation in this program.

For more information or pre-registration forms contact your local extension educator, SDDA at 1-800-228-5254 or visit our internet site at www.state.sd.us/doa/das/hp-pest.htm#waste.

1999 Unusable Pesticide Collection

The 1999 unusable pesticide collection yielded 23,069 pounds of unusable pesticides from seven locations around the state. This total was down eighteen percent from the 1998 collection total of 28,283 total pounds. The Department encourages dealers to make their customers aware of this program.

1999 Pesticide Container Collection

Pesticide container collections were held during the last week of June and the entire month of July in 1999. At thirty-two collection sites throughout the state, 42,642 rinsed pesticide containers were collected.

M-44 Certification Update



In February of 1997 the Department began working on getting M-44, Sodium Cyanide devices registered for use by private and commercial applicators for controlling coyotes. The Department first attempted to get approval for the Wyoming Department of Agriculture to include South Dakota on their M-44 registration. This was turned down by the US Environmental Protection Agency (EPA).

In April of 1998 the Department submitted an application to US EPA to get their own M-44 registration. In September of 1998, the registration was granted.

Since that time, the Department has been developing training procedures for the use of the M-44 device. Currently, the Department is waiting for the US EPA approval of the certification plan submitted in December of 1999. Once the certification is approved, the Department will set the training dates and notify those interested in becoming certified to use the M-44 devices.

Pesticides in Food Project

Pesticide residues in food and feed products have been an ongoing food safety concern for a number of years. To help address that issue, in 1992 the South Dakota Department of Agriculture initiated a small project to sample and analyze food and feed products originating from the state for pesticide residues.



Since that time, we have analyzed 130 randomly collected samples. A wide variety of food/feed products were sampled, including fruits, vegetables, honey, grain, hay and processed foods such as wheat flour and potato products. Samples were analyzed for commonly used pesticides.

Of the 130 samples analyzed, residues were detected in 36 (or 28%) samples. Most residues were very low, and

no samples contained residues in excess of established tolerances. Four samples were considered violative because they contained trace amounts of pesticides for which there are no established tolerances. These products included one fruit sample, two vegetable samples and one hay sample. An example of this situation might be a tomato found to contain 0.01 parts per million (ppm)

of 2,4-D. There is no tolerance for 2,4-D in tomatoes (2,4-D is not labeled for tomatoes), but for comparison sake, the tolerance for 2,4-D in fresh sweet corn is 0.5 ppm.

No residues were detected in samples taken in 1998 and 1999. Our results are very similar to those found by federal government agencies in their monitoring programs.

Nitrogen Management Plan

The Nitrogen Management Plan is a component of the Fertilizer Management Plan that the Department began developing several years ago. Recommendations from members of groups involved in plan development led to a re-write of the initial draft Fertilizer Management Plan, dividing it into two components focusing on the management of nitrogen and phosphorus. The Department expects to deliver the draft Nitrogen Management Plan and accompanying Technical Bulletin to a designated group of individuals responsible for assisting the department in developing these documents some time this winter. It is anticipated that the Nitrogen Management Plan will be released for public review and comment in the spring or early summer of 2000.

In general, the focus of the Fertilizer Management Plan is to utilize existing programs to develop projects that will assist users of fertilizer and other plant nutrient

sources to increase efficiency of plant nutrient use, minimizing losses to the environment. Achieving maximum plant nutrient use efficiency results in the most effective use of fertilizer inputs and associated economic expenditures. Therefore minimizing losses of nutrients to the environment has a high degree of probability of maximizing crop production profitability over the long term. Environmentally, management of nitrogen and phosphorus in a manner that maximizes efficiency also decreases the potential of adverse effects to surface and ground water resources.

Emergency Pesticide Exemptions

During fiscal year 1999, the South Dakota Department of Agriculture received approval from EPA on five Emergency Pesticide (Section 18) Registrations. This represents a potential economic saving to South Dakota producers of over 15 million dollars.





Report on 1999 BSE Inspections

Bovine spongiform encephalopathy (BSE), also known as “mad cow disease”, is a chronic degenerative disease of the central nervous system of cattle. Although BSE has not been found in any cattle in the United States (US), the United States Department of Agriculture (USDA) and the Food & Drug Administration (FDA) have implemented rules designed to

minimize the possibility that BSE will become established here.

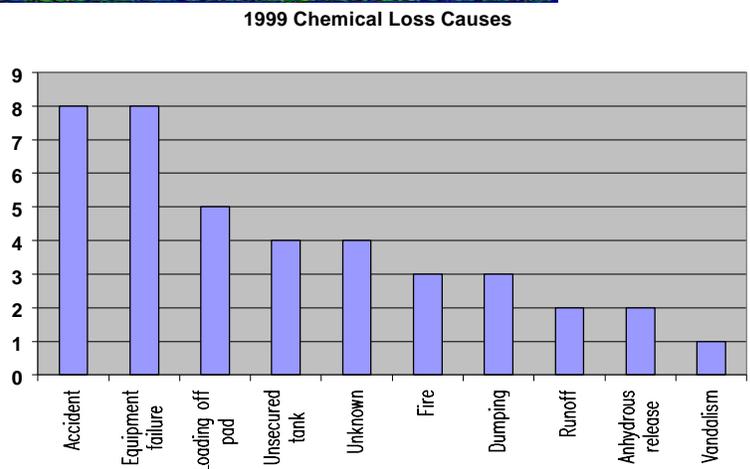
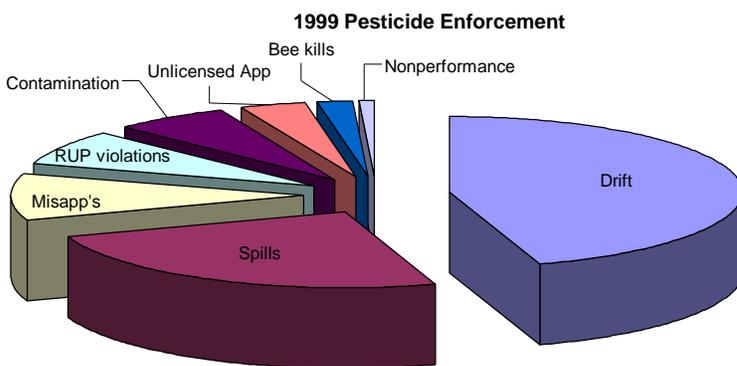
The USDA has restricted the importation of ruminant animals and products from countries where BSE is known to exist and has established a monitoring system to check animals from farms, ranches or slaughter facilities that are exhibiting neurological symptoms. The FDA has implemented rules prohibiting the use of mammalian proteins in feeds for ruminant animals. These rules are intended to help ensure that BSE does not spread through the feed supply to other animals.

To aid the FDA in educating the feed industry on the new rule, the South Dakota Department of Agriculture inspected approximately 180 feed manufacturing

facilities during 1999 to determine their level of awareness and compliance. Most facilities were aware of the rule and were trying to comply. Approximately 15% of the facilities were found in some degree of non-compliance, however. Common problems identified in these facilities were feed in inventory that had been manufactured and received prior to the implementation of the rules, feed that was not properly labeled with the warning statement “do not feed to cattle or other ruminants”, and facilities that had not established mixer cleanout procedures.

The feeding rules do not just apply to feed manufacturers, though; there are also a few rules that apply to livestock producers raising ruminant animals. Because of the large number of livestock producers in the state, it is difficult to gauge their degree of awareness and compliance with this rule. It is possible that FDA will initiate a survey to address this issue at some point in the near future. For this reason, as well as to minimize the possibility of BSE becoming established in the US, livestock producers are advised to familiarize themselves with the rules.

For more information about the BSE feeding rules, contact the South Dakota Department of Agriculture or visit our internet site (<http://www.state.sd.us/doa/das/hp-af-ar.htm>).



1999 Enforcement Trends

The above graphs depict trends observed during 1999 pesticide compliance inspections and investigations.

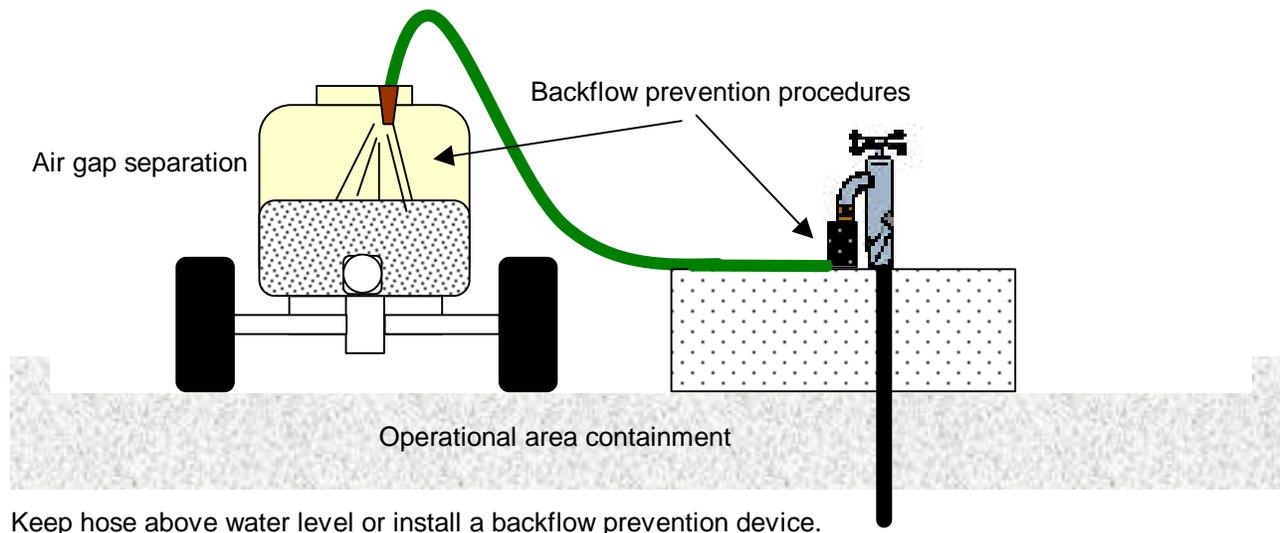
Compared to 1998, total investigations were similar in 1999. However, in 1999 there was approximately 12% fewer drift complaints reported. There also was a decreased incidence of human exposure and bee kills reported in 1999 than in 1998.

In 1999, there was an increased emphasis on monitoring pesticide and fertilizer facilities to determine if agricultural chemical contamination was occurring at

these sites. There was also more inspections targeting restricted-use pesticide (RUP) compliance in 1999.

The greatest number of pesticide and fertilizer spills reported to the Department were caused by equipment failures and accidents. Two other areas of concern for the Department were losses resulting from unsecured tanks and fertilizer off-loading away from load pads.

*Private and commercial applicator record-keeping violations are not included. Dealer recordkeeping violations are included in RUP violations.



PROTECTING OUR WATER SUPPLY

Approximately 78 percent of South Dakota citizens depend on ground water for their domestic water supply needs. The 1999 Groundwater Report to Congress by the Ground Water Protection Council indicates that "South Dakota is fortunate to have relatively large quantities of high-quality ground water."

The report goes on to mention that "...pesticide contamination is generally not a problem but nitrates can be present at concentrations greater than drinking water standards. However, in certain areas, elevated nitrate concentrations in the ground water have been determined to be naturally occurring."

What can we do to keep our water supply safe? There are many steps applicators can take to prevent chemical losses. Here are a few:

- 1) Don't leave sprayer unattended while filling;
- 2) Maintain equipment;
- 3) Implement backflow prevention procedures (required by rule);
- 4) Use Best Management Practices to avoid losses to leaching or runoff;
- 5) Practice spill procedures and have emergency information readily available;
- 6) Use lower rates and less leachable pesticides over shallow aquifers;
- 7) Observe all label setbacks;
- 8) Always read and follow label directions;
- 9) Store and handle ag chemicals over containment (required for bulk pesticide and fertilizer operations).

What are the benefits of operational area containment?

Operational area containment is a method of preventing pesticides spilled during handling from adversely impacting human health and the environment. Using containment may also reduce your financial liability when spills occur by pre-venting the need for cleanup costs.



Containment systems, impervious pads with berms or walls, are designed to prevent the escape of spilled product or rinsates into the environment. Use of containment may make your operation more efficient by offering equipment cleaning facilities on site rather than cleaning in the field and may help retain valuable pesticides.

Containment protects the health of yourself, family, employees, the public and the environment and may spare you the catastrophic expense of time and money involved in the clean-up of a contaminated operational area.

Backflow prevention.

South Dakota Pesticide Rules require that all areas where pesticides are handled or equipment is cleaned must utilize backflow prevention procedures.

Backflow prevention consists of a reduced pressure device or a physical separation between the free flowing discharge end of a water pipe and an open (nonpressurized) receiving vessel (air gap separation).

Do I need a pesticide handling and discharge response plan?

A written pesticide handling and discharge response plan is required of all certified applicators who conduct operational area activities. The plan must be kept current and available for use.

The plan must contain a description of methods and procedures for:

- handling of pesticides;
- inspection of equipment;
- rinsing, washing or cleaning of equipment and containers;
- transfer, handling, storage and disposal of rinsates; and
- include the identity and telephone numbers of emergency contacts.

Applicators are required to train employees, and those covered by the plan, regarding plan contents on an annual basis.



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BULK FERTILIZER LEAK DETECTION

Bulk fertilizer secondary containment must have a leak detection system located under the containment area. A sufficient number of slotted gravity collection pipes connected to monitoring pipes outside of containment must be used to detect possible leaks of the secondary containment system. The collection pipe can have no greater than a six foot span on either side and no greater than a twelve foot span between two pipes. Other methods of leak detection may be utilized if granted prior approval.

Leak detection systems must be monitored at least once a month. Upon detection of any liquid within the monitoring system, the operator of the bulk commercial fertilizer storage facility must immediately:

- (1) Notify the Department of Agriculture (605-773-4432) or Emergency Management (605-773-3231);
- (2) Obtain a sample of the liquid and submit the sample to a reputable laboratory for analysis to determine if the sample contains fertilizer, pesticide or both;
- (3) Take necessary action to determine the cause of the liquid entering the leak detection system and correct it; and
- (4) Provide the Department of Agriculture with a copy of the sample analysis results as soon as they are available.

Monthly monitoring records are required and must include:

- (1) Name of the person conducting the monitoring;
- (2) Day, month, and year monitoring was conducted; and
- (3) Time of day the monitoring was conducted.

These records must be maintained for the life of the facility at the office of the person responsible for the bulk commercial fertilizer storage facility.

