



PESTICIDE CONTAINER RECYCLING SCHEDULE:

The South Dakota Department of Agriculture and the Cooperative Extension Service have set the following dates and locations for the 2001 container recycling collection program.

Containers eligible for the program will consist of high density polyethylene plastic 2 1/2 gallon and smaller containers that have been triple or pressure rinsed. Also eligible to be recycled are triple or pressure rinsed 30 and 55 gallon HDPE plastic and steel containers.

| <u>CITY:</u> | <u>DATE:</u> | <u>LOCATION:</u> | <u>TIME:</u> |
|--------------------|--------------|------------------------|--------------|
| Timber Lake | 7-09-01 | Kraft Aerial | 9:00-12 pm |
| Bison | 7-09-01 | Perkins Co. Fair Gr. | 2:00-5 pm |
| Belle Fourche | 7-10-01 | Southwest Grain | 8:30-12 pm |
| Rapid City | 7-10-01 | Ce. States Fair Gr. | 2:00-5 pm |
| Pierre | 7-11-01 | SDDA Recycle Ce. | 9:00-2 pm |
| Philip | 7-12-01 | Farmers Union Oil | 9:00-1 pm |
| Chamberlain | 7-16-01 | SDWG | 9:00-12 pm |
| Murdo | 7-16-01 | SD DOT | 2:00-5 pm |
| Winner | 7-17-01 | Tripp Co. Recycle Ce. | 9:00-2 pm |
| Wagner | 7-18-01 | Crosstown | 9:00-12 pm |
| Corsica | 7-18-01 | Corsica Co-op | 1:30-4:30 pm |
| Wessington Springs | 7-19-01 | American Legion | 9:00-12pm |
| Huron | 7-19-01 | SD State Fairgrounds | 1:30-4:30pm |
| Selby | 7-23-01 | Walworth Co. Hwy. shop | 9:00-3pm |
| Sisseton | 7-24-01 | Country Partners | 9:00-3 pm |
| Aberdeen | 7-25-01 | Cenex Express | 9:00-2 pm |
| Redfield | 7-26-01 | Spink Co. Fairgrounds | 9:00-12pm |
| Miller | 7-26-01 | Nelson`s Seed Ser. | 1:30-4:30 pm |
| Martin | 8-08-01 | Bennett Co. Fair Gr. | 9:00-1 pm |
| Howard | 8-14-01 | Cenex | 9:00-12 pm |
| Madison | 8-14-01 | Lake Co. 4-H Gr. | 1-4:30 pm |
| Brookings | 8-15-01 | Brookings Landfill | 9:00-3 pm |
| Flandreau | 8-16-01 | Moody Co. Fair Gr. | 9:00-12 pm |
| Renner | 8-16-01 | Renner Fire Hall | 2:00-5 pm |
| Renner | 8-17-01 | Renner Fire Hall | 9:00-3 pm |
| Tyndall | 8-22-01 | Bon Homme Co. 4-H | 9:00-12 pm |
| Olivet | 8-22-01 | Hutchinson Co. Ct.Hou | 1:30-4:30pm |
| Clark | 8-27-01 | Firehall | 9:00-1pm |
| Watertown | 8-27-01 | Codington Co. Ext. | 1:30-4:30pm |
| Watertown | 8-28-01 | Codington Co. Ext. | 9:00-3 pm |
| Mitchell | 8-29-01 | Davison Co. Ext. | 9:00-2pm |
| Hurley | 8-30-01 | Terra | 9:00-12pm |

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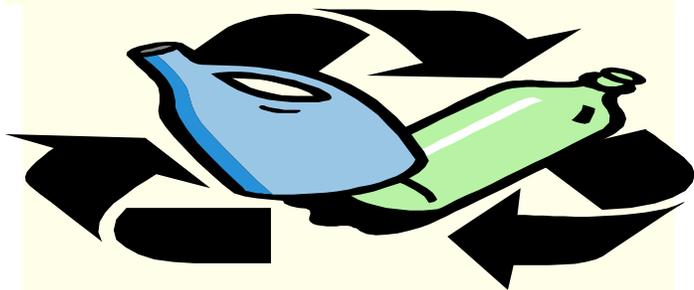
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SD DEPT OF AGRICULTURE
 523 E CAPITOL AVE
 PIERRE, SD 57501-3182
 TELEPHONE: 605-773-4432
 FAX: 605-773-3481
 INTERNET:
www.state.sd.us/doa/das

INSPECTION CHECKLIST FOR RECYCLING PESTICIDE CONTAINERS



To be eligible for recycling, plastic crop protection product containers that are EPA registered products which include agricultural, turf, forestry, vegetative management, specialty pest control (excluding consumer packages). Also eligible for the recycling program are adjuvant, crop oils and surfactant containers.

The following steps are needed to be taken for containers to be acceptable for the recycling program.

EMPTY: Plastic containers must be empty to be recycled.

CLEAN: Pressure or triple-rinse the container as soon as it is emptied. Container must be cleaned or they will not be accepted. Add rinse water to the spray mixture.

INSPECT: Check the inside and outside of the container after rinsing to insure that no formulation residue is present.

DISCARD CAP: Caps are usually made of a different kind of plastic and can't be recycled.

KEEP CONTAINERS DRY: The cleaned container must be kept out of the rain. Even if it appears to be clean, the container will be rejected. The recycler has no way to dispose of the liquid. Store cleaned containers in a roofed building or enclosed trailer.

LABELS: There is no need to remove labels from cleaned containers.

STAINS: Containers that originally held products known to stain plastic (Treflan, Sonalan, etc) are acceptable for recycling if the container is otherwise cleaned out.

CHILDREN INJURED IN FARM ACCIDENTS RAISES SAFETY ISSUES

Nationally in 1999, the last year for which there are complete statistics available, 104 children died in farm-related accidents mostly involving machinery, according to the National Children's Center for Rural and Agricultural Health in Minneapolis.

Ensuring the safety of children on farms is a matter that the law leaves mainly to the discretion of the families. Farm safety experts agree that parents need to keep their youngest children away from farm machinery.

The U.S. Labor Department classifies farming as a hazardous occupation, which bars children who have not reached their 16th birthday from operating machinery on farms not owned by their families. But no similar restrictions are imposed on children working on their own families farms, nor are there limits on the number of hours that they may work there.

No other industry besides farming and ranching allows anyone under 18 to be onsite where machinery and moving parts are operating.

The National Institute for Occupational Safety and Health gathered information from a review of 50,000 farm operations in 1998, estimated that there were 32,800 incidents in which teen-agers and younger children suffered injuries that incapacitated them for at least four hours. Forty percent of the injuries were suffered by children 10 years old or younger.

People living on a farm or ranch need to use common sense and good judgement when it comes to where children should or shouldn't be on a farm, even though people live there, it's a work setting and it is tough to draw the line.



NATIONAL PESTICIDE TELECOMMUNICATIONS NETWORK (NPTN)

The National Pesticide Telecommunications Network (NPTN) is a toll-free information service sponsored cooperatively by Oregon State University and the U.S. Environmental Protection Agency.

NPTN provides objective, science-based information on a wide variety of pesticide-related subjects, including: pesticide products, pesticide poisonings, toxicology, and environmental chemistry training needed to help callers interpret and understand scientific information about pesticides. NPTN also provides referrals for laboratory analysis, investigation of pesticide incidents, emergency treatment information, safety information, health and environmental effects, and cleanup and disposal procedures. NPTN is staffed by highly qualified and trained pesticide specialists who have the toxicology and environmental chemistry training needed to assist callers.

NPTN receives more than 20,000 calls per year. Most callers are homeowners concerned about their family's health when pesticides are being used in and around their home for the control of ants, cockroaches, termites, fleas, or garden and lawn pests. NPTN can provide information on specific pesticides used in these situations and on methods to reduce exposure. Although NPTN does not make recommendations about which pesticides to use for control of pests, NPTN can direct callers to local resources for products available in their area.

If people call with pesticide emergencies, the NPTN staff can connect them directly to the Oregon Poison Control Center or the National Animal Poison Control Center. Additionally, NPTN staff can refer calls requiring a medical background to a medically trained clinical toxicologist. They can also direct callers to appropriate agencies for assistance with pesticide incident investigations, safety guidelines, clean-up and disposal and laboratory analysis.

NPTN utilizes a variety of information sources including EPA documents, USDA Cooperative Extension publications, current scientific literature, and pesticide product databases.

Non-copyrighted materials can be mailed or faxed to callers for the cost of postage and handling. The NPTN is a source of factual chemical, health and environmental information about more than 600 pesticide active ingredients incorporated into over 50,000 different products registered for use in the United States since 1947.

Also at NPTN the **National Antimicrobial Information Network (NAIN)**, is a toll-free telephone service provided by the National Pesticide Telecommunications Network. NAIN responds to information requests about antimicrobial products-- sanitizers, disinfectants, and sterilants-- by phone or mail.

Specialists refer requests that are outside the expertise or authority of NAIN to more appropriate agencies. NAIN also processes complaints about the efficacy of antimicrobial products and then forwards them to the U.S. EPA, the antimicrobial regulatory agency.

NPTN is a toll-free telephone service that provides pesticide information to any caller in the United States, Puerto Rico, or the Virgin Islands.

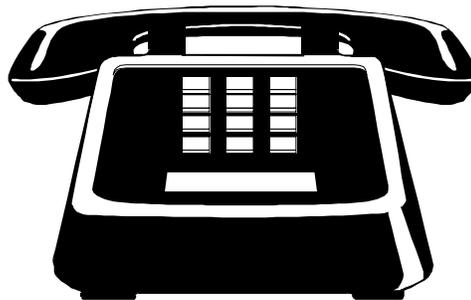
NPTN operates 7 days a week, excluding holidays, 6:30 a.m. to 4:30 p.m. Pacific time.

PHONE : 1-800-858-7378

FAX: 1-541-737-0761

TDD: 1-541-737-1197

E-mail : nptn@ace.orst.edu



REPORTING A PESTICIDE/FERTILIZER SPILL

In the event that you are involved in a pesticide or fertilizer spill this season, remember that you are required to report the spill if more than five gallons of liquid was spilled or more than 50 pounds of dry material was lost.

The spill needs to be reported within 12 hours of the time the spill occurred to one of the following agencies. The agency you notify will contact the remaining agencies so you can be provided with assistance and guidance regarding proper procedures, based upon the amount and type of substance involved.

SD Division of Emergency Management
24 hours 605-773-3231

SD Department of Agriculture
8:00 am to 5:00 pm Central 1-800-228-5254

SD Department of Environment & Natural Resources 8:00 am to 5:00 pm **605-773-3153**

The Department of Agriculture and/or the DENR will provide assistance with cleanup and disposal procedures according to the type of product that was spilled, the quantity involved and other relevant factors. The recovered material needs to be stored in a drum or on plastic, covered with plastic, to prevent further contamination of the environment until proper disposal is possible. Whenever possible, spilled material should be used as originally intended. If reuse according to the product label is not possible either because of excessive contamination or cross-contamination with an incompatible material, the material must be disposed of in accordance with the South Dakota Department of Agriculture (SDDA) requirements. Depending upon the chemical involved, disposal options may include a local landfill permitted to accept the material, a hazardous waste landfill, or land application. **Do not dispose/use spilled or contaminated material until the SDDA grants approval.**

If you require additional information you may call the SDDA at 1-800-228-5254 for further clarification on the proper procedures to follow in the event of a spill.

OLD PESTICIDES--OK TO USE?

Many growers may hold to the philosophy that as long as the crop is stated on the pesticide label-that pesticide is legal to use on that crop. While using this reasoning in the past rarely posed problems, it may now put your crop at risk, especially when using older pesticides.

The concern stems from the fact that a **tolerance** for that pesticide on that crop may no longer exist. A tolerance is the amount of pesticide residue allowed to remain in or on a treated food commodity at the time of harvest. In contrast to years past, the EPA has been revoking tolerances much faster once an active ingredient is no longer registered for use on certain crops. A revoked tolerance makes any remaining pesticide residue illegal. Thus growers may be gambling with their crop if they apply outdated pesticides and are unsure of the status of the tolerances.

How do growers, commercial applicators or others determine if a tolerance is still in effect?

This information is accessible on either one of the following **EPA WEB Sites**:

<http://www.epa.gov/opprd001/tolerance/tisinfo/>.

http://www.epa.gov.pesticides/tolerance/pdf_files/revoked_tolerances.PDF



FACTORS WHICH EFFECT DRIFT

There are many factors which affect the drift of pesticides. It is vital that applicators have a good knowledge of these factors in order to minimize the potential for drift. While some of these factors will be under the control of the applicator, others will not. Those factors not under the control of the applicator will require an on-site judgement on the part of the applicator.

FACTORS UNDER APPLICATOR CONTROL

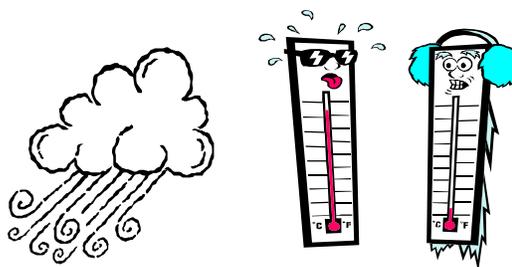
1. **Droplet Size:** Droplet size is the primary factor in minimizing the potential for drift because it interacts with many of the other factors which affect drift.
2. **Nozzle Type and Size:** The discharge of a nozzle is made up of numerous size droplets which are measured in microns. It is vital that the applicator choose the correct type of nozzle suitable for the application work to be performed and then operate the nozzle at the manufacturers recommended pressure and release height.
3. **Operating Pressure:** Nozzles will have an operating pressure range from low to high. Attempt to select the lower operating pressure range for that particular nozzle while still providing for adequate coverage. Remember for any given nozzle size, the higher the pressure, the greater the number of driftable droplets generated.
4. **Release Height:** Some applicators will attempt to increase swath width and discharge rate by raising the height of the nozzle while increasing pressure. This is a prescription for drift. Follow the manufacturers recommended release height and pressure for the particular nozzle.
5. **Nozzle Orientation:** This is the angle at which the nozzle is held in relation to the targeted surface. The primary reason for canting the nozzle is that it exposes a greater surface area of the target and permits a slight lowering of the nozzle.

6. **Ground Speed:** Excessive speed can result in bouncing of the booms, which results in poor coverage and increased drift potential.

FACTORS NOT UNDER APPLICATOR CONTROL:

1. **Wind Speed:** Wind is simply the lateral movement of air over the area to be treated.
2. **Wind Direction:** The applicator must always be aware of wind and the direction in which it is moving to be able to determine where drift will be deposited. Also to prevent contamination of the applicator.
3. **Air Inversions:** Normal atmospheric conditions result in air being warmed at the grounds surface and rising to higher altitudes. This normal vertical mixing of air permits a high percentage of the fine droplets to be lifted to high altitudes and dispersed over a large area, resulting in off-target injury.
4. **Temperature:** The effect of temperature on liquid spray applications is its ability to provide energy for evaporation and or volatilization. The higher the temperature the more energy is generated thus the increased potential for volatilization.
5. **Humidity:** The effect of humidity on liquid spray applications will be to slow down the evaporation of spray droplets while airborne thus increasing drift potential.

The conscientious applicator needs to consider all of this items before making the decision to spray, proving the point that the applicator is the most important component in the pesticide application process.



2000 GROUND WATER MONITORING DATA

Year 2000 ground water monitoring data has been supplied to the Department of Agriculture by the Department of Environment and Natural Resources, Geological Survey Program. The State Health Laboratory did the sample analysis. The county and the aquifer are listed for each detection. Pesticides are listed by active ingredient. Detected levels are shown in parts per billion. An advisory level is listed as either a Maximum Contaminant level (MCL) or a Health Advisory (HA). A different set of pesticides was tested for at each location in an effort to hold down laboratory costs. Pesticide Management Plan (PMP) pesticides were tested for each location. The PMP pesticides are atrazine, alachlor, cyanazine, metolachlor, and simazine.

The Statewide Ground Water Quality Monitoring Program was designed to look at the general health of shallow South Dakota aquifers. No pesticide use data was collected around the well site. In general contaminate levels were low but widespread, with pesticide contamination being found in all areas of the state. Individual contaminate amounts vary by location with some approaching MCL or HA maximum levels, while others may be at levels below human health concerns but at levels that may impact the environment. None of the samples in the report were above advisory levels.

| County | Name | Detected Level (ppb) | Advisory Level | | Aquifer |
|-----------|-----------------------|----------------------|----------------|----------|--------------------|
| | | | MCL (ppb) | HA (ppb) | |
| Bennett | Picloram | 4.930 | | 500 | Ogallala |
| Brookings | Desethyl Atrazine | 0.212 | 3 | | Big Sioux |
| Brookings | Bentazon | 2.210 | | 200 | Big Sioux |
| Brookings | Bentazon | 1.740 | | 200 | Big Sioux |
| Codington | MCPA | 2.670 | | 4 | Big Sioux |
| Codington | Picloram | 3.31 | | 500 | Big Sioux |
| Clay | Atrazine | 0.374 | 3 | | Missouri |
| Douglas | Bentazon | 1.260 | | 200 | Delmont |
| Douglas | Dicamba | 2.730 | | 200 | Delmont |
| Douglas | Picloram | 9.470 | 500 | | Delmont |
| Douglas | Desethyl Atrazine | 0.218 | 3 | | Delmont |
| Douglas | 2,4 D | 1.070 | 70 | | Delmont |
| Douglas | MCPA | 2.730 | | 4 | Delmont |
| Douglas | Picloram | 1.930 | | 500 | Delmont |
| Hamlin | Picloram | 1.030 | | 500 | Big Sioux |
| Hamlin | MCPA | 2.670 | | 4 | Big Sioux |
| Hamlin | Picloram | 1.560 | | 500 | Big Sioux |
| Hamlin | Picloram | 1.380 | | 500 | Big Sioux |
| Hamlin | Atrazine | 0.572 | 3 | | Big Sioux |
| Hamlin | Desisopropyl Atrazine | 0.684 | 3 | | Big Sioux |
| Hamlin | Atrazine | 0.425 | 3 | | Big Sioux |
| Hamlin | Desisopropyl Atrazine | 0.849 | 3 | | Big Sioux |
| Hamlin | Atrazine | 0.396 | 3 | | Big Sioux |
| Hamlin | Desethyl Atrazine | 0.295 | 3 | | Big Sioux |
| Hamlin | Desisopropyl Atrazine | 0.627 | 3 | | Big Sioux |
| Hamlin | Atrazine | 0.504 | 3 | | Big Sioux |
| Hamlin | Desethyl Atrazine | 0.397 | 3 | | Big Sioux |
| Hamlin | Desisopropyl Atrazine | 1.010 | 3 | | Big Sioux |
| Hughes | Atrazine | 0.197 | 3 | | Highmore-Blunt |
| Lawrence | Bentazon | 1.110 | | 200 | Alluvium-Spearfish |
| Meade | Picloram | 1.330 | | 500 | Alluvium-B. Butte |
| Mellette | MCPA | 3.140 | | 4 | Arikaree |
| Mellette | Picloram | 5.670 | | 500 | Arikaree |
| Mellette | MCPA | 2.700 | | 4 | Arikaree |
| Mellette | Picloram | 2.580 | | 500 | Arikaree |
| Minnehaha | Picloram | 1.360 | | 500 | Big Sioux |
| Minnehaha | Picloram | 2.070 | | 500 | Big Sioux |
| Minnehaha | Atrazine | 0.182 | 3 | | Skunk Creek |
| Minnehaha | Atrazine | 0.115 | 3 | | Skunk Creek |
| Moody | Picloram | 2.270 | | 500 | Big Sioux |
| Moody | 2,4 D | 1.280 | 70 | | Big Sioux |
| Moody | Picloram | 5.520 | | 500 | Big Sioux |
| Moody | Picloram | 2.650 | | 500 | Big Sioux |
| Tripp | Carbofuran | 0.534 | 40 | | Ogallala |

PESTICIDE USE

GUIDELINES FOR THE APPLICATOR

The first step in determining if it is necessary to make a pesticide application is to make a positive identification of the pest. Sources of information if you are unsure of the pest include reference books, county extension educators and your local pesticide dealer.

You next need to determine if the extent of the infestation warrants applying a pesticide, and if so, determine if the whole area needs to be treated or you can get by with a spot spray application.

The next step is to decide if you want to make the application yourself or hire it done professionally. If you choose to make the application yourself, be sure you are properly certified to purchase and apply pesticides. Restricted use pesticides are more toxic and require special training to buy or apply them. Depending on what product you intend to use, a private applicators certification card may be needed. You can obtain a card by going to your local county extension office and successfully passing an open -book exam or if you have access to a computer, you can take the exam on the internet. The internet address to access the private applicator exam site is as follows <http://www.state.sd.us/doa/das/pwt>.

Now that you have identified your pest and determined that the levels of infestation require a pesticide treatment your next step is to choose a pesticide product to use. Read labels on the products you are considering to determine what the active ingredient is and if it is toxic to the surrounding environment, such as nearby water, plants and animals. Narrow your choices, then choose the product with the appropriate active ingredient formulation, target pests and sites where it can be used. Try to purchase according to the amount you will use in the current season, thus avoiding having to store leftover pesticides. At this point you will need to determine if the product you have chosen requires you to obtain a private applicators card . If you are unsure if you need to obtain a license you can call the Department of Agriculture at **1-800-228-5254** for additional information.

Before you make your pesticide application you need to thoroughly read the label of the product that you purchased. The label will indicate when to apply the pesticide and what the application rate should be. If dilution is required, do it outdoors and mix only the amount needed for the area to be treated. Mixing stronger than the label rates does not make the pesticide work better, but it could result in harm to yourself, others and the area you are applying it to.

Follow the label instructions for climatic conditions during application (wind speed, temperature, etc). Drift may harm or destroy surrounding plants, insects, animals or humans. **Never** apply pesticides, of any kind, if the wind is stronger than that allowed on the label.

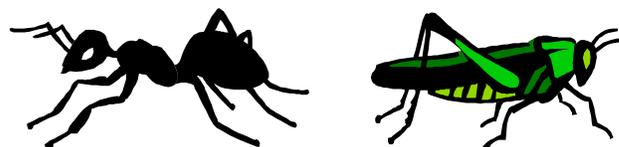
When mixing or applying a pesticide, wear rubber gloves and other items of protective clothing as required by the product label. Also be aware of first aid instructions on the label in case of an accidental exposure.

Next make sure that your application equipment is properly calibrated and in good working condition. Over application may cause runoff or seepage and contaminate water supplies or leave harmful residues on the application area.

Keep records of the pesticide applications you make in the event a problem arises after the application is made. Include date and time of application, weather conditions, what pesticide was applied, target pest, area treated and other pertinent information.

Inform neighbors of when and what pesticide you will be using so that they may act accordingly. Keep children and pets away during the application and for the required time, as stated on the label, after the application.

Always practice the most appropriate Integrated Pest Management method. Biological control uses natural enemies to target the pest. Cultural control could include mowing high and dethatching the lawn. And, chemical control involves the use of pesticides.





PESTICIDE APPLICATOR NEWSLETTER

Issue: 22 - Summer 2001

DEPARTMENT OF AGRICULTURE
Division of Agricultural Services
Foss Building, 523 East Capitol
Pierre, South Dakota 57501-3188

Bulk Rate
U.S. Postage
PAID
Permit #1209
Sioux Falls, SD

ENFORCEMENT CASE UPDATE

Northeast SD- A \$ 440 civil penalty to a certified commercial applicator for drifting pesticides onto adjacent trees during an application to a cornfield.

Northeast SD- A \$550 civil penalty to a certified commercial applicator for letting an unlicensed minor apply pesticides.

Central SD- A commercial applicator paid a \$ 450 civil penalty for applying a pesticide in conditions that endangered the surrounding fields.

Southcentral SD- A \$ 385 civil penalty for making a pesticide application with no commercial applicators license.

Southeast SD- A \$ 400 civil penalty to a certified commercial applicator for negligent actions leading to the spilling of a pesticide.