

Store farm chemicals with care

By Meryl Rygg McKenna

Fertilizers, fuels, chemicals and seeds: what can and must farmers do to minimize dangers and maximize benefits of these important agricultural components?

Keith Kennedy, a certified crop adviser in Laramie, Wyo., outlined some principles concerning storage and stewardship in farm operations. This article briefly summarizes what are generally considered to be good practices. Since the wide range of possible conditions you may encounter can't be addressed here, you should become familiar with the rules in your state. In all cases, read and follow the instructions on the product label.

Pesticide storage and use

Products are considered to be pesticides if they claim to control pests, have a signal word and have an Environmental Protection Agency (EPA) registration number. Signal words commonly found on pesticide products are poison, danger, warning, caution and/or a skull and crossbones symbol.

All pesticides should be stored in a secured area indoors, especially in light of their cost. Farmers, be sure your mixing area complies with state rules. Do not mix anywhere where pesticides could contaminate water wells. All water resources – surface and groundwater – should be considered when locating a mix/load site.

Make certain you are complying with the Worker Protection Standard. Most farmers are aware of the exemption for the generation above and for children, but exemptions do not apply to in-laws, nieces, nephews, and siblings. The exemption means that worker protection standards can't be enforced for those immediate family members; the precautions and personal protection equipment (PPE) requirements apply to everyone. For a sample label showing Agricultural Use Requirements for Worker Protection Standard, see pages 5 and 6 of <http://www.pesticides.montana.edu/Reference/PesticidelabelsMT199720AG.pdf> in the box entitled Agricultural Use Requirements. Be sure to post the appropriate Worker Protection Standard documents in a central location, accessible anytime workers are present on your farm. Note: if your farm is a corporation or LLC, all participants are technically its employees.

The pesticide label states the re-entry time for that product; if you enter the treated area earlier, it tells what PPE is required. Labels on 2,4-D, for instance, show a re-entry interval of 48 hours.

Pennsylvania State University has available a pesticide storage guide emphasizing safety; find it online at <http://pubs.cas.psu.edu/FreePubs/pdfs/uo216.pdf>.

Can chemicals that have frozen still be used? The answer depends on which product is in question, so pay close attention to the storage temperatures listed on your product's label.

MSU Extension's MontGuide MT8706 provides details about cold-weather storage of many farm chemicals by name, and specifies how to dissolve ingredients that have crystallized or coagulated. You can access the document online at <http://www.pesticides.montana.edu/Reference/Coldweatherstoragemt8706.pdf>.

Seed storage, seed stewardship

Agricultural workers need to be more careful with treated seeds than untreated seeds. Farms often have a bin dedicated to seed storage; it's wise to have that bin disconnected from other bins that will store grain you'll be marketing later.

Treated seed is used to combat negative impacts of diseases, insects, nematodes and other pests while minimizing impact to humans, animals and the environment. Read the Guide to Seed Treatment Stewardship at <http://seed-treatment-guide.com/>.

Labels tell how to properly dispose of excess treated seed; they might say to run the planter on fallow ground to empty it or to go back on the field just planted.

With treated seed, one hazard relates to calibrating your planting equipment correctly because of the dust that may be released by the planter seed metering mechanism. Be sure to vent equipment toward the ground. The use of graphite or talc-based lubricants with seed is common, and technology is being developed to help limit airborne dust from such treated seed. The operator may be protected by a cab, but dust can bring unintended exposure to beneficial insects. Upward venting of planters is a factor in some instances of bee deaths in the European Union, Kennedy said. Most planters in North America are vented downward, limiting this problem in the U.S.

As with pesticides, seed-treatment labels give information on worker protection such as re-entry times and required protective clothing. Precautions also apply when pesticides and fertilizers are used in off-farm places, such as electrical substations, roadsides, and farm yards. Plant nurseries and golf courses are considered agricultural use for purposes of the Worker Protection Standard.

Fertilizer storage and use

Bulk fertilizer must be stored indoors to prevent runoff and for application equipment to work correctly. If fertilizer absorbs moisture and becomes sticky or caked, you will spend considerable time and effort cleaning your storage and equipment.

Manure should be piled, stored and applied so runoff or leaching does not reach surface or ground water. Farmers, follow your conservation plan for deciding when to apply manure and what operations must be performed either before or after manure application.

To learn more about nutrient stewardship, read about the 4R Nutrient Stewardship initiative at <http://www.nutrientstewardship.com/>.

Fuel and oils

If you have more than 1,320 gallons of gasoline, diesel or oils on the farm, you must have a plan spelling out your spill prevention controls and how you would respond to a spill. If you have between 1,320 and 10,000 gallons of storage, you can self-certify, but if your on-farm storage is over 10,000 gallons, you must have a plan prepared by a professional engineer. The plan only needs to be filed in your office – the only time there would be an issue is if a spill is your responsibility and occurs in a reportable quantity. After a spill, regulatory authorities could ask for your plan.

“A spill prevention plan includes checking your storage once a month,” Kennedy said, “and with fuels at their current price, I don't know of many farmers who want to have a leak in their storage facilities.” If a reportable spill occurs, failure to have a SPCC plan could result in fines as high as \$10,000 per day.

You can develop your own Spill Prevention, Control and Countermeasures Plan (SPCC) at no cost using this website: <https://www.asmark.org/mySPCC/>.

For more information on certified crop advisers, go to <http://www.certifiedcropadviser.org>.