

SPREADING LOG

The Professional Nutrient Applicators Association of Wisconsin Newsletter

August 2008

Inside this issue:

- New Incentives for Nutrient Management Planning
- Annual Meeting
- June Rains and Late Summer and Fall Applications
- Road Weight Study Update
- Conserving Fuel on the Farm

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New Incentives for Nutrient Management Planning

**Scott Sturgul—UW-Extension
Sue Porter & Jim Vanden Brook—DATCP**

Starting in July 2008 significant new funding will be available to Wisconsin farmers (and their advisors) for the development and implementation of nutrient management plans. As you all know, farm nutrient management plans are basically a defined strategy for obtaining the best economic return from commercial and on-farm fertilizer resources in a manner that protects the quality of water resources.

In the last State of Wisconsin budget session, the legislature approved an annual allocation of nearly \$6 million per year to provide cost-share incentives to farmers for nutrient management planning. These funds are administered by the Wisconsin Department of Agriculture, Trade & Consumer Protection (WDATCP) and are available to producers through their county Land Conservation Departments. It is anticipated that these funds will be available for at least the next three years.

This legislative action was prompted in part by revised administrative rules for the WDATCP and the Wisconsin Dept. of Natural Resources (WDNR) that can require any farmer who mechanically applies manure or commercial fertilizer to cropland to have a nutrient management plan after January 1, 2008. Enforcement of these revised rules is contingent upon the availability of cost-share funds for producers. Funding for the development and implementation of nutrient management plans is available at a rate of \$7 per acre per year for a four year period (\$28/acre total).

Under the new WDATCP and WDNR rules, a nutrient management plan is required when producers:

- 1) are offered or accept cost-share dollars for nutrient management;
- 2) accept cost-share payments for the installation of manure storage;
- 3) participate in the Farmland Preservation Program;
- 4) are required to obtain a WDNR pollution discharge elimination (WPDES) permit – which applies mostly to farms over 1,000 animal units;
- 5) are regulated under a county manure storage or livestock siting ordinance.

Presently, the Farmland Preservation Program requirement for nutrient management plans is getting the greatest amount of attention from farmers. Approximately 18,000 Wisconsin farms participate in the program.

All NM plans developed with state cost-sharing are required to comply with the September 2005 USDA-Natural Resources Conservation Service's Nutrient Management Standard 590 and the associated Conservation Planning Technical Note. Copies of both these documents can be found at <http://datcp.state.wi.us/arm/agriculture/land-water/conservation/nutrient-mngmt/planning.jsp>. The 590 Standard defines the minimum requirements and components of an acceptable nutrient management plan.

Annual Meeting - Hold The Date

The PNAAW, WCO, MFA conference is set for January 26-28 at Chula Vista in Wisconsin Dells. The PNAAW Level 1 certification training will be held on the 26th, and the Wisconsin Custom Operators/Midwest Forage Groups coming in on day 2 and 3 for the typical 3-way meeting. We are trying the new arrangement this year to give both WCO and our members to attend more of the breakout sessions. Suggestions for topics/presentations are still welcome, and can be made to president Dave Eisentraut.

June Rains and Late Summer and Fall Applications

A word of advice for those applying in areas of the state that received the heavy rains this spring: When similar conditions existed in 2004, large, deeper than usual cracks in the soil occurred when the soil dried out in late summer. In some cases (mainly soils with some heavy clay), these cracks opened up to depths of 15 feet or more. Given past experience, the risk of surface applied or injected manure reaching groundwater or tile lines may be higher than usual.

Recommendations for reducing the risk include:

- Pre-work fields to close cracks (remember to check farm's conservation plan to make sure this is ok)
- Reduce application rates
- Use toolbars with more shanks (i.e. narrower space between shanks) as the weight of soil from wide sweeps pushes manure down)
- Apply thickest manure on fields with cracks or suspected problems--risk is less if manure is >5% solids (excluding sand)



Road Weight Study Update

The second round of the road weight study (featuring tankers larger than 6,000 gallon) will start in Mid-August. Chris Lindstrom is coordinating the testing this fall, and is looking for volunteers to help drive and provide equipment. Chris's cell phone is 715.279.5550



Conserving Fuel on the Farm

* Original Source: Outagamie Co UWEX Newsletter

Saving Fuel Cuts Costs

There are many simple and easy steps you can take to reduce fuel usage—some are in how you operate the equipment, others are in how you manage fuel (color of fuel tank in back of pickup, for example).

Fuel Saving Tips

Minimize idling, which can account for 15 to 20 percent of total fuel used. Letting an engine idle for 10 minutes during an average day, or 61 hours a year, will use about 31 gallons of fuel on a 75-horsepower diesel tractor.

Avoid quick starts—they waste fuel and are hard on equipment.

Perform maintenance. Keeping your farm vehicles and equipment in top operating condition will save fuel and money, help reduce repair costs, improve reliability, and minimize harmful exhaust emissions. Common maintenance measures include getting regular tune-ups; replacing air, oil and fuel filters routinely; changing oil as recommended by manufacturers; and using the proper grade of oil. Refer to your owner's manual for specific maintenance measures for your equipment

- One fouled spark plug or one stuck valve lifter can increase fuel use by 10 to 15 percent.
- Blocked air filters can increase fuel consumption by as much as 20 percent.

Ensure that gas caps fit properly. Caps that are damaged, loose, or missing altogether will cause fuel to vaporize.

Reduce excess weight on vehicles. Lighter loads consume less fuel than heavier ones.

Keep your tires properly inflated. Having just one tire under-inflated by six pounds per square inch (psi) can increase fuel consumption by three percent, not to mention reducing the tire's life. Cold temperatures decrease the air pressure in tires, so check tire pressure regularly when tires are cold. Check your owner's manual for information on correct inflation pressure.

Upgrade to more fuel-efficient models. When it's time to replace your equipment, compare fuel requirements of different makes and models. A higher purchase price can be partially offset by lower fuel costs. The Nebraska Tractor Test Laboratory conducts performance tests of tractors, including fuel performance. Test reports for many tractor makes and modes are available online at <http://tractortestlab.unl.edu>.

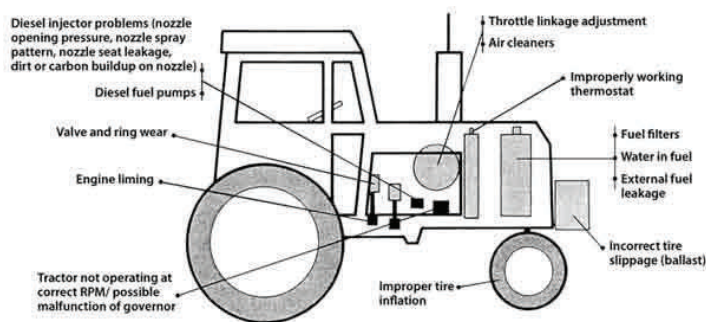
Before You Start an Engine

Use the recommended grade of fuel. Buying a better grade of diesel than you need can be a waste of money. Most owners' manuals specify a No. 2-D fuel for warm weather operation and No. 1-D for extreme cold weather work.

Use the right fuel for the season. Winter fuels are lighter to improve viscosity but have less energy per gallon, resulting in less fuel efficiency. Winter diesel has around 154,000 BTUs per gallon, while summer diesel has around 159,000 BTUs per gallon. ***This means that the same amount of winter fuel gives about 3% less power than summer fuel.***

Getting the Most Out of an Engine

Make sure your thermostat works properly. A properly working thermostat saves energy. Most engines run most efficiently when water temperature is between 165 and 180 degrees F. Fuel consumption increases by approximately 25 percent when the engine is operating at 100 degrees F, instead of 180 degrees F. Check your owner's manual for more information.



Tractor Operation

Operate at the recommended speed. Power requirements increase with increased speed, resulting in greater fuel use. Consult your owner's manual for speed recommendations

Conserving Fuel on the Farm—Continued

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Tractor Operation

Use the correct size equipment for the job. Choose the smallest, lightest tractor appropriate for the job to get the best fuel mileage. If you use equipment with too much or too little horsepower for the job, your fuel efficiency will decline dramatically.

Avoid unnecessary driving. Technologies such as cell phones and radios can be used to solve problems from the field, rather than driving.

Use effective travel patterns. Lay out your fields to minimize turns and to keep the track on a level path (keeping erosion-control practices in mind). Coordinate livestock grazing location with field application to minimize idling time when opening and closing gates. Installing cattle guards can eliminate stopping and idling time.

Estimating Diesel Fuel Use

By using a "consumption factor" developed by the University of Nebraska and plugging in your figures, you can estimate your annual tractor diesel use:

Annual Consumption = Hours Use × Rated Horsepower × Consumption Factor

Diesel consumption factor: 0.054 gal/hp hr

EXAMPLE:

Approximate annual hours of use = 700

Tractor's maximum rated horsepower = 66

Annual diesel consumption = $700 \times 66 \times .054 = 2,495$ gallons.

Fuel Storage

Storage tanks can lose a considerable amount of fuel due to evaporation and leaks. A 300-gallon storage tank, for example, can lose about 120 gallons each year from evaporation. You can reduce that loss to about 15 gallons per year by following these steps:

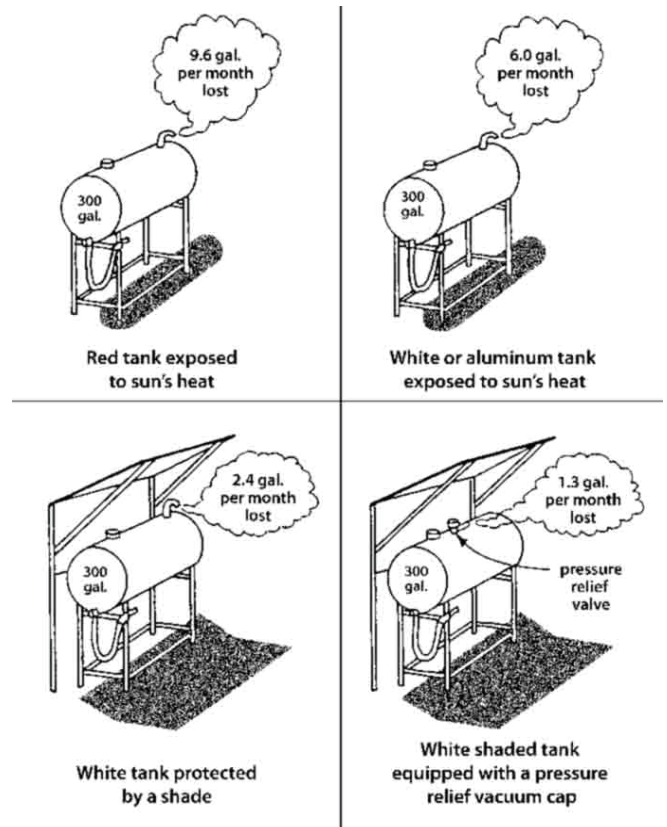
*Keep fuel tanks well-shaded.

*Paint tanks white or aluminum to reflect the sun's heat. Light colors reduce evaporation losses. To discourage thieves mark tanks with the words "Red Diesel." Diesel fuel for off-road use is dyed red to indicate it is exempt from highway tax. Further discourage thieves by installing motion-sensor lights and quality locks.

*Use pressure-relief vacuum caps rather than conventional gas caps.

*Lock unattended fuel tanks.

*Regularly inspect your tanks for leaks. During those inspections, tighten connections between the storage tank outlet and the pump, check valve packings, and check for seepage at the nozzle.



Fuel Storage Safety Considerations

* Label gasoline and diesel storage tanks to prevent mistakenly filling a diesel tractor with gasoline, which can ruin the diesel injection pump and nozzles.

* Locate storage tanks at least 50 feet from any building, preferably downwind or downhill from the buildings.

* Keep a dry chemical fire extinguisher handy in case of fire.

* Don't smoke around fuel tanks.

