

the



SCOOP on manure management

Summer is finally here, and among the summer scents is the aroma of manure. Manure accumulation is common on livestock properties. This situation can be viewed as both a problem and an asset. Manure can cause environmental problems if not disposed of and managed properly, but it can also be

used to fertilize plants and improve soil.

Manure Facts

There are several issues for land and animal owners to consider, including the nutrient content of the manure, the properties of the soil, and the possible weed seed content of the manure.

The type of feed will affect the nutrient level in the manure. An estimated 80 percent of the total nutrients in feeds are excreted by animals. If feeding a diet, for example, high in alfalfa, the animal may be consuming excess protein. The extra protein from the alfalfa will be excreted in the form of nitrogen, thereby elevating the nitrogen level in the manure over that produced by animals on a grass hay diet.

Nitrogen is a key plant nutrient, but it can be toxic to plants in excess or a potential pollutant if it finds its way into a water source. The University of Wyoming College of Agriculture's Soil Testing Laboratory (contact information below) can help determine the application rate of manure for your plant production goals.

Weed seeds may be in an animal's feed, and they can remain viable (still alive) when passed through the animal's digestive system. This could lead to weeds growing on your property and neighboring properties. Knowing the origin of the feed given to an animal helps ensure weeds won't be introduced to an area.

Manure should be composted prior to use as a fertilizer or soil amendment for gardens or flower beds. The high temperatures generated through composting can kill many potentially harmful organisms and weed

seeds. Composting can also reduce the levels of nitrogen and salts. Never use fresh manure as fertilizer; the manure should be aged at least six months.

For information on small-scale composting, see the University of Wyoming Cooperative Extension Service bulletin B-974R, *Backyard Composting: Simple, small-scale methods*, at <http://ces.uwyo.edu/pubs/b974R.pdf>.

After composting, till the material into a garden prior to planting. Fecal material from small pets (dogs and cats) should be disposed of along with household trash and not composted and used for fertilizer. Harmful parasites from pet waste can be transferred to humans.

Uncomposted manure is not recommended for use on any crops for human consumption. It presents a potential health problem due to harmful pathogens, such as *Salmonella* and *E. coli* that may be present.

Manure can be good for pastures as it provides an economical source of fertilizer. As the manure degrades, it can also improve the structure of the soil, increasing its capacity to absorb and retain moisture. Start a manure management plan with good background knowledge on the type, pH, and nutrient content of the soil. Do this by having the soil tested, a service provided by the UW Soil Testing Laboratory. Information is at http://ces.uwyo.edu/Soil_Main.asp, or call the lab at (307) 766-2135. The lab also tests for salt and nutrient content in manure.

Composting Benefits

All fresh manure has salt and too much readily available nitrogen, which could result in leaf burn (leaves having a scorched appearance) on the plants. Composting provides opportunity for salts to leach away, and excess nitrogen is employed by the composting microorganisms in the process of making nutrients more available to plants.

As mentioned earlier, proper composting can kill many of the weed seeds in manure; however, spreading manure that is aged but not adequately composted may cause weed problems. The best means to avoid weed problems from manure is to make sure animal feed is as free of weed seed as possible.

Be cautious of spreading manure on a pasture that is overgrazed or is not supporting a sustainable stand of grass. Manure spread on pastures in poor condition may wash or blow off and find its way into a nearby water source.

Manure application on farm and ranch operations in Wyoming should follow the *Wyoming Nutrient*

Management Plan Technical Standards, available on the Web at http://deq.state.wy.us/wqd/WYPDES_Permitting/WYPDES_CAFONutrients/4-0944.pdf. This guide helps calculate the appropriate rate of manure to use for agronomic production while preventing environmental contamination by nitrates and phosphates going into water sources.

Rachel Meador is a graduate research assistant in the University of Wyoming College of Agriculture's Department of Renewable Resources. She can be reached at rdmeador@uwyo.edu or (307) 766-5281. Jim Waggoner is an associate professor in the department and can be reached at jwags@uwyo.edu or (307) 766-2365, and Kelli Belden is the director of the UW Soil Testing Laboratory in the department and can be reached at soiltest@uwyo.edu or (307) 766-2135.

This column features questions from landowners submitted via the Web site. To submit a question to Small Acre Sam, visit BarnyardsandBackyards.com. If your question is featured, you will receive a free one-year subscription to *Barnyards and Backyards!*

question

ask Sam

What qualifies my small acreage for agricultural tax designation?

– John from Sheridan

answer

John, your question is a good one and a fairly common question. Wyoming property taxes are rooted in Wyoming law with rules administered by the Wyoming Department of Revenue. The entity that sets the value of property and levies the tax is your county assessor. Your question about agricultural tax designation for your small acreage really needs some background information. I'll borrow heavily from the Department of Revenue's Web site in the rest of the answer.

All property tax is based on the assessed value of the property, a percent of the fair market value of the property. The assessed or taxable value of non-mineral or non-industrial properties is set at 9.5 percent of the fair market value. Agricultural lands enjoy sort of an exemption in that their assessed value is set at the lower of either fair market value or productive value. Generally, agriculture lands have lower productive value than fair market value and thus there is considerable interest in gaining that status for high value small-acreage parcels.

To be considered "agricultural land," the parcel must currently and for the past two years have been used for the primary purpose of obtaining a monetary profit as agricultural or horticultural use unless legally zoned otherwise by a zoning authority.

Wyoming uses several criteria for determining suitability for inclusion in the agriculture land category:

1. The land is being used for an agricultural purpose, which includes: a.) cultivation of the soil for production of crops; or b.) production of timber products or grasses for forage; or c.) rearing, feeding, grazing, or management of livestock.
2. The land is not part of a platted subdivision.
3. If the land is not leased land, the owner has derived annual gross revenues of not less than \$500 from the marketing of agricultural products. If the land is leased, the lessee has derived annual gross revenue of not less than \$1,000 from marketing of agricultural products.
4. The land is being consistent with its capability to produce.

If you believe your land may qualify to be taxed as agricultural land (at its productive value) but is being taxed at fair market value, you must first visit with your county assessor. Your assessor will listen to your reasoning and make a decision. If that decision is not what you wanted, there is an appeals process through the county and state boards of equalization.

– Sam