

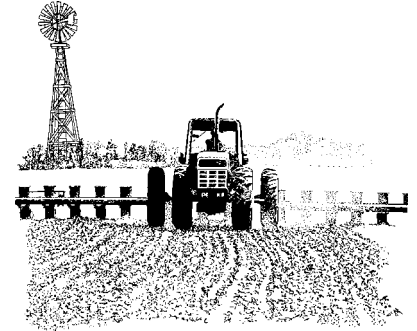
MANURE USE AND MANAGEMENT

The University of Arizona • College of Agriculture • Tucson, Arizona 85721

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FARM*A*SYST **Farm/Ranch Self-Assessment System** **for Arizona**

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This fact sheet is taken from the Arizona Farm*A*Syst workbook. Farm*A*Syst is a voluntary groundwater pollution prevention program designed for farmers and rural residents. The goals of the program are to help rural residents: understand potential causes of groundwater contamination, identify farmstead management practices that pose risks to groundwater, and develop a plan to reduce those risks.

Fact sheet number AZ1014, "Collection and Storage of Agricultural Animal Wastes and Wastewater," discusses the current laws that regulate Concentrated Animal Feeding Operations (CAFOs). These laws are in the form of Best Management Practices (BMPs), which are carried out through the use of Guidance Practices (GPs).

Arizona also has BMPs for the use of nitrogen fertilizer in agriculture. This worksheet covers information that will help you successfully apply manure and other organic wastes to cropland.

Livestock and poultry farms produce a lot of organic waste that can be recycled to enrich the soil. Some of these waste materials are high in nutrients. Livestock manure and milk parlor wastewater are especially high in nutrients.

Manure and other organic wastes are good for the soil if they are used properly. But they can cause pollution in the soil, water, and air if they are not managed wisely.

What can you do?

1. Follow the state-mandated BMPs (by using the GPs best suited to your operation) for the use and disposal of animal wastes.
2. Find out the nutrient content of manure and organic wastes before using them. Adjust the amount of fertilizer you use based on soil tests, nutrients supplied by the manure, irrigation water, and crop needs.
3. Learn how to apply manure and other organic wastes safely on your land.

Item	Question	Yes	No
1. Application rate for manure fertilizer.	a. Rate is based on BMPs for nitrogen management.		
	b. Rate is <u>not</u> based on BMPs for nitrogen management.		
2. Manure testing	a. Regular testing of manure to analyze for nutrients.		
	b. Manure is <u>not</u> tested.		
3. Timing of manure incorporation.	a. Manure incorporated into soil immediately after application.		
	b. Manure incorporated into soil 7 or more days after application.		
4. Proper irrigation scheduling to reduce downward movement of nutrients.	a. Operator understands principles for sound irrigation management (soil moisture and plant water stress), and puts the knowledge into practice.		
	b. Irrigation scheduling <u>not</u> based on plant needs.		

The questions listed above can help you determine whether manure use and management practices on your farm may pose a risk to groundwater.

Take a few minutes to complete the questions. If you answered **yes** to mostly "**a**" questions, your groundwater is probably safe from becoming polluted from the application of manure and other organic wastes on your cropland. If you answered **yes** to mostly "**b**" questions, then your groundwater may be at high risk of becoming polluted.

Worksheet number eight in the Farm*A*Syst book will give you a more complete assessment of the application of manure and other organic wastes on your cropland. If you are interested in obtaining a copy of Arizona's Farm*A*Syst workbook, please contact the College of Agriculture's Publications Distribution Center, 4042 North Campbell Avenue, Tucson, Arizona 85721. The office phone number is (520) 621-1713 and the FAX number is (520)795-8508. The cost of the workbook is \$5.00 plus shipping. Contact your county extension office or NRCS office if you have questions about how to use the workbook.