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# A Top Ten List: Preparing for Fall Manure Application

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# A Top Ten List: Preparing for Fall Manure Application

## **Abstract**

Prior to land application, review your manure, nutrient, or comprehensive nutrient management plan, make any necessary updates such as adding new fields. Review the plan, application methods and separation distances with employees and/or commercial manure applicators. Also consider evaluating fields for application. Because winter application of manure is prohibited for confinement feeding operations with liquid manure, plan ahead in the event you may have to apply manure under emergency situations in the winter. Save fields with the flattest slopes and P-Index ratings of 2 or less for emergency application.

## **Keywords**

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## **Disciplines**

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## A Top Ten List: Preparing for Fall Manure Application

By Angela Rieck-Hinz, Department of Agronomy

**1. Review manure management plans.** Prior to land application, review your manure, nutrient, or comprehensive nutrient management plan, make any necessary updates such as adding new fields. Review the plan, application methods and separation distances with employees and/or commercial manure applicators. Also consider evaluating fields for application. Because winter application of manure is prohibited for confinement feeding operations with liquid manure, plan ahead in the event you may have to apply manure under emergency situations in the winter. Save fields with the flattest slopes and P-Index ratings of 2 or less for emergency application.

**2. Know and follow land application separation distances.** Confinement site operators are subject to land application separation distances to neighbors and public use areas, but all animal feeding operations, regardless of size, are subject to separation distances from designated areas (water sources). Get a copy of an aerial photograph of your fields and the neighbors' field to which you apply manure. Map out neighbors' houses, churches, businesses, school, cemeteries and other public use areas as well as all designated areas such as sinkholes, wells, including abandoned wells, cisterns, designated wetland, water sources, high quality water resources, ag drainage wells, and tile inlets to ag drainage well. Identify all other sources of concern for manure application. Sketch out separation distances. Train your employees to read the maps and stay away from areas where manure is not allowed to be applied. If needed, flag out the areas in the field. Share copies of the maps with your commercial applicator. Make sure you understand the definitions for incorporated and injected manure. Make sure you understand separation distances for designated areas (water sources) must have the manure injected or incorporated on the same date it was applied. For more information see [DNR 113 Separation Distances for Land Application of Manure](#) and DNR 117 [High Quality Water Resources](#).

**3. Make sure manure applicator certification is current.** If you are required by law to be certified to handle, haul, transport or land-apply manure make sure you certification status is current. Contact your [local ISU Extension office](#) to schedule an appointment to attend training. For more information see the ISU [Manure Applicator Certification](#) web page. If you are not sure of your current applicator certification status please contact the DNR Licensing Bureau at 515-281-5918.

**4. Develop an emergency action plan.** Manure spills happen, so plan accordingly. Train employees in manure spill response. Ask your commercial manure applicator if they have a plan of action in the event of a spill. If they don't have a plan, demand it. Keep important phone numbers and contact information for excavators, neighbors with pumps and tractors, and local officials and emergency response units up-to-date and posted where everyone knows where to find them. Be aware of safety issues regarding

gases when pumping and agitating manure. NEVER enter a building or manure storage when pumping or agitating manure. See the following resources for emergency action plans and safety related to manure gases.

- [PM 1859 Emergency Action Plans](#)
- [IPPA's Emergency Action Planning](#)
- [Iowa Farm\\*A\\*Syst Assessing Your Emergency Response Planning for Manure Spills](#)
- [Safety in Swine Production Systems](#)

**5. Take manure samples.** Taking manure samples prior to land application will give you nutrient analysis results for planning application rates this fall. Sampling during land application or manure agitation may provide better results to use in future planning, but will not provide nutrient analysis results to use in planning application rates for this fall. It is important to build a history of nutrient analyses for manure sampling to help better manage the nutrients in manure for crop production. For more information, see [PM 1558 How to Sample Manure for Nutrient Analysis](#).

**6. Sample soil.** Will you need to update an MMP in the next year or two where you need soil samples to re-do your P-index? If so, taking the required soil samples this fall will keep you from getting caught needing to update the MMP at a time you can't get soil samples taken. Samples should be taken prior to manure application. For a MMP, one soil sample can't represent more than 10 acres unless you are updating an existing P-index and have been applying manure at less than the P removal rate of the crop, then one soil sample can be taken for up to 20 acres.

**7. Calibrate your application equipment.** When the co-op applies fertilizer for crop production do they know how much they are spreading? Yes! Why not do the same for your manure nutrient source? Calibrating manure application equipment takes a little time, but in the long run it will help you meet the correct application rate and make better use of your manure nutrients. Available resources include [PM 1948 Calibrating Liquid Tank Manure Applicators](#) and [PM 1941 Calibration and Uniformity of Solid Manure Spreaders](#).

**8. Think timing, timing, timing.** A new law has been passed prohibiting the application of liquid manure from confinement facilities on snow-covered or frozen ground during certain times of the year. However, regardless of the source of manure, or the size of operation, application of manure under these conditions is not recommended due to the increased risk of nutrient loss and movement to surface waters. [IMMS Vol. 3 Winter Manure Application](#)

**9. Consider the neighbors.** There is no doubt about it, the number one complaint about manure application is the odor. Right or wrong there is a perception of "if I can smell it, someone must be doing something wrong." Work with your neighbors to let them know about your manure application plans. If possible, tell them how long it might take, how you plan to apply the manure, and how long they might expect to smell the manure. Inquire about any outdoor events in the neighborhood such as weddings, Friday night football games, cookouts and such to avoid manure application prior to those events. Good communication is the key.

**10. Be safe.** Fall is a busy time of year for farmers and commercial manure applicators. The last two falls in Iowa have been really short seasons of work due to long rainy periods, early snowfall and the ground freezing earlier than normal. Many manure spills happen because people are in a hurry or are tired from long hours of application work. Get plenty of rest, take breaks and slow down. Take time to inspect equipment. This will help protect employees and reduce the chances of equipment malfunction. Observe all laws of the road and watch out for the "other driver". They may not realize you are moving at a much slower rate of speed or how long your tractor and tank wagon are when they go to pass you on the road. Check "slow moving vehicle signs" and replace as needed. Check lights to make sure they are working and are visible. Install additional lights as needed to improve your visibility and to help people see you.

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