Nutrient Management (590) Reference List
Monday, March 6, 2017
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Updated: 3/6/2017

Nutrient Management (590) Conservation Practice Standard. October 2013. USDA-NRCS.
The technical standard for nutrient management for Iowa NRCS. Outlines the nutrient
management process and specifies criteria to meet the standard.

Soil Sampling
CROP 3108: Take a Good Soil Sample to Help Make Good Fertilization Decisions. Iowa State University
Provides step-by-step soil sampling guidance. For of Iowa certified soil labs, see the Iowa Soil
Testing Laboratory Certification Program, Iowa Department of Agriculture and Land Stewardship's
Commercial Feed & Fertilizer Bureau website. Also, see Soil Sample Information Sheet for Field

PM 1310 Interpretations of Soil Test Results. March 2013. Iowa State University Extension.

4Rs of Nutrient Management

Iowa State University Extension and Outreach.
Provides recommendations for P and K for corn and soybeans in tables 3 and 4 and two-year
recommendations for a CS rotation in Table 5. Other crops provided as well as liming recs. Table 2
provides removal rates.

CROP 3073: Nitrogen Use in Iowa Corn Production. May 2015. Iowa State University Extension and
Outreach.
Good overview of nitrogen issues for corn. Guidance for MRTN for southeast Iowa. Corn following
alfalfa recommendations.

Extension.
This document provides standard nitrogen rate ranges as well as a methodology for in-season
adaptive management using the late Spring soil nitrate test. See CROP 3073 for updated
recommendations.

PM 2015: Concepts and rationale for regional nitrogen rate guidelines for corn. April 2006. Iowa State
University Extension.
Provides the theory behind the Economic Optimum Nitrogen Rate (EONR). Implemented as the
Corn Nitrogen Rate Calculator.

Provides information on in-season testing methods to adjust N fertilization. Updated in 2011.


Manure Management


PM 3014 How to Interpret your Manure Analysis. September 2011. Iowa State University Extension. Provides guidance to take the manure analysis results and determine the nutrient application rates.

Certified Manure Testing. See Minnesota Department of Agriculture's Manure Testing Laboratory Certification program (MTLCP).

Industrial Biosolids Testing. State Hygienic Laboratory at the UI maintains a IDNR Laboratory Certification database. Use labs certified for waste water (WW) and/or solid waste or contaminated sites (SW/CS),

Calibration

Provides guidance to properly plumb the applicator equipment. This is done instead of traditional calibration which is dangerous. The document is dated. Other effective manifolds are now available. See John Sawyer article Anhydrous application and dry soils for more information.


**AE 3601A: Calibrating Liquid Tank Manure Applicators.** December 2016. Iowa State University Extension. Formerly PM 1948. Also see **AE 3601B: Calibration Worksheet for Liquid Manure Tank Applicators**

**Resource Concern Risk Assessments**

**PM 2021: Data Collection Worksheet for RUSLE2 and Iowa Phosphorous Index.** November 2006. Iowa State University Extension.

This is an excellent tool to assist in collecting the data needed to run the PI. One major weakness is that it does not guide the user how to collect data and do the math to determine ephemeral and classic gully size and sediment delivery.

**10 Questions about the Phosphorus (P) Index in Iowa.** April 2005. Iowa State University Extension.

**Iowa NRCS Technical Note 25: Iowa Phosphorus Index.** August 2004. USDA Natural Resources Conservation Service

**Background And Basic Concepts of The Iowa Phosphorus Index.** June 2005. USDA Natural Resources Conservation Service.

A Support Document to the USDA-NRCS Field Office Technical Note 25

Iowa DNR 113. 2008. Separation Distances for Land Application of Manure. Des Moines, IA.


**Other NRCS Documents**

**Agricultural Waste Characteristics in Part 651 - Agricultural Waste Management Field Handbook, Chapter 4 in the National Engineering Handbook (H_210_NEH_651 - Part 651 - Agricultural Waste Management Field Handbook)**

**Agronomy Technical Note No. 3: Precision Nutrient Management Planning.** February 2010. USDA Natural Resources Conservation Service, February 2010

NRCS national office website.

Title 180, Part 600 National Planning Procedures Handbook
Provides guidance on how to accomplish the nine steps of conservation planning.

Other Resources
IMMAG - Iowa Manure Management Action Group
A comprehensive one-stop website for issues dealing with manure and nutrient management.

If you find errors or need more information please contact:
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