

Further development of web and print extension materials for nutrient management in Minnesota

2014-2015 Final Report AFREC E2014-26

3/31/2015

Daniel Kaiser – University of Minnesota

INTRODUCTION

Nutrient management decisions are getting more important each year because of increasing input costs and environmental concerns. Growers get their information from Agricultural Professionals. Most of the information is directly from or based on research and extension information from the Land Grant University, in this case the University of Minnesota. The information age should increase the availability of historical and the most recent research and extension information to growers and Ag professionals. The internet allows this access to occur. The University of Minnesota nutrient management website was launched September 30, 2011. As of October 2013 there have been over 45,000 page views to this website. This site was funded by AFREC. Information does not stand still. This project will add information to the website. This proposal is to improve the website by adding short videos about research conducted by the Nutrient Management Group at the University of Minnesota that has been and is being funded by AFREC, three new nutrient calculators, a nutrient smart phone application for soybean, and revision of the Understanding Nutrients in Minnesota Soils series.

Objectives and Goals: The goal of this project is to increase awareness of nutrient management information generated from the University of Minnesota research. The objectives of this project are:

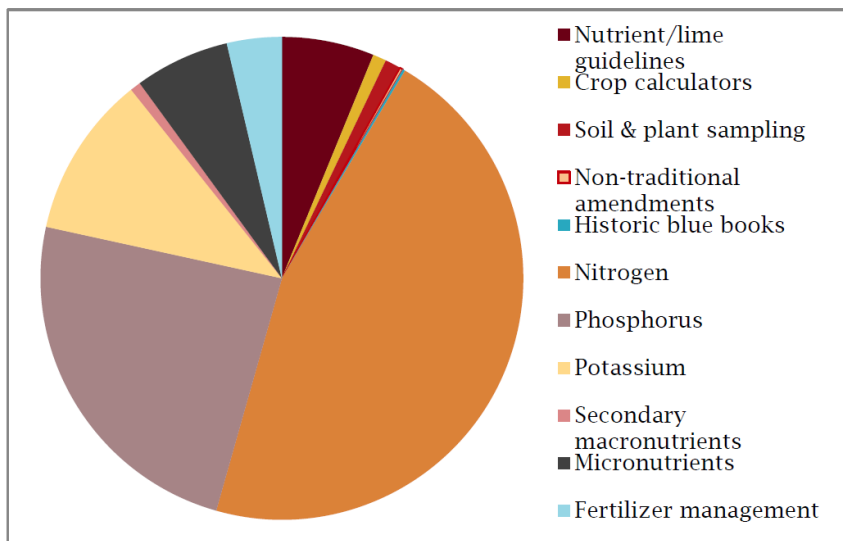
1. Continue to update and expand information available on the Nutrient Management Website
2. Develop a web based nutrient calculator for grass- and mixed grass legume pastures and wildlife food plots in Minnesota.
3. Develop a smartphone application for nutrient management of soybean, and
4. Revise the Understanding nutrients in Minnesota Soils series.

The goal of this proposal is to continue development of nutrient management tools for Minnesota Ag Professionals and agricultural producers. The additions to the nutrient calculators and the smartphone apps for nutrient management of corn will be based on the work on previous work funded by AFREC. Nutrient Management bulletins need to be revised periodically. One of the oldest current publications is understanding sulfur in Minnesota soils. New research is available to update the publications on various nutrients.

Progress Report: 2015

Website Maintenance and Updates: Our goal has been to provide updates to the website to continually provide new information for stakeholders on research and print materials. The nutrient management website is part of the commodity crops extension group of websites. During 2014 the website had 217,342 page sessions and 249,145 unique page views (roughly

56% of the total commodity crops page views). The majority of the page views were in the Non-traditional amendments area.



Distribution of page views in 2014 (graph prepared by Phyllis Bongard-Extension Educational Content and Development & Communications Specialist)

Phosphorus and potassium sections had the second and third highest page views for the site.

Revision of publications

Our plan was to revise several publications and release on print and/or web access. The following publications were updated as of March 2015

1. Fertilizer Corn Grown on Irrigated Sand Soils – Updated in 2015 and released via the web http://www.extension.umn.edu/agriculture/nutrient-management/nutrient-lime-guidelines/docs/AG_NM_1501.pdf
2. Understanding Nitrogen in Soils – Updated in 2014
<http://www.extension.umn.edu/agriculture/nutrient-management/nitrogen/understanding-nitrogen-in-soils/index.html>
3. Sulfur for Minnesota Soils – Updated in 2015
<http://www.extension.umn.edu/agriculture/nutrient-management/secondary-macronutrients/sulfur-for-minnesota-soils/index.html>
4. Banding Fertilizer with the Corn Seed – New Publication for 2015
<http://www.extension.umn.edu/agriculture/nutrient-management/docs/AGNM-1502-banding-fertilizer-on-the-corn-seed.pdf>

Understanding phosphorus in Minnesota soils was put together as a draft and will be released summer 2015. Due to time constraints we have not begun work on Understanding Potassium in Minnesota soils. This publication will be completed before the end of December 2015.

We have been studying other forms of material to release on the website. Our initial launch included several publications and presentations converted to PDF. One obstacle with releasing PDF materials, particularly presentations given at meetings, is that it is hard to discern the author's intentions and meaning of slides in presentations when they are not annotated. One method of data release we are investigating is narrated presentations. A narrated presentation file was added to the website as a test. This presentation was a report given for a current study funded by the Minnesota Wheat Research and Communication Council. This type of presentation may be a good way to highlight research as well as key soil fertility concepts. The major obstacle of this technology is viewing on handheld devices like the IPAD that may not support Flash presentations. We are looking into further options for this work. The presentation can be found online at

<http://www.extension.umn.edu/agriculture/nutrient-management/secondary-macronutrients/variety-x-sulfur-response-in-HRSW-2014-Report/player.html>

The nutrient management Facebook page was continued. We have struggled with keeping material current on the page though the winter but we have slowly gained followers for the page. The page can be found at.

<https://www.facebook.com/pages/University-of-Minnesota-Nutrient-Management-Group/275963965756114>