



Cornell Cropware

Software for Nutrient Management Planning in New York State

Many farms are following nutrient management plans to make more efficient use of manure and fertilizer. These plans also satisfy regulatory requirements for surface and groundwater protection from nutrient runoff and leaching. Cornell Cropware is a software program that is used by New York farmers and their advisors to develop such nutrient management plans. Cropware is designed to develop plans in-line with the New York State Natural Resources Conservation Service (NYS NRCS) Nutrient Management Standard (590 Standard), making the output of Cropware a key component of Comprehensive Nutrient Management Plans in New York.

Background

Cropware development and support is performed by the Nutrient Management Spear Program (NMSP) in the Department of Crop and Soil Sciences, College of Agriculture and Life Sciences, at Cornell University. Cropware version 1.0 was released in August 2001 with funding from NYS NRCS, the NYS Department of Agriculture and Markets, and the NYS Department of Environmental Conservation. In recent years, new research updates were incorporated and with user input and NRCS funds, Cropware version 2.0 was released in July 2003. Currently, over 250 copies of Cropware are registered and a recent survey indicates that the software program is being used for planning on over 500 farms across New York State.

What can Cropware do?

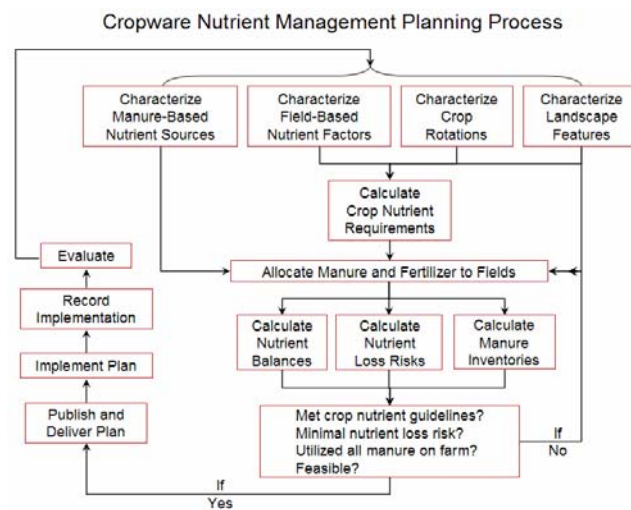
Cropware helps farms manage nutrients for crop production and environmental protection. The software allows users to:

- Apply the Cornell crop nutrient guidelines for a full range of field crops and vegetable crops.
- Convert the soil test values from laboratories other than the Cornell Nutrient Analysis Laboratory (e.g. A&L Laboratories Inc., Brookside Laboratories Inc., Spectrum Analytic Inc., and the University of Vermont)

into Cornell Morgan soil test equivalents in order to apply the Cornell crop nutrient guidelines.

- Account for manure quantities and nutrients from multiple sources on the farm (e.g. different barns, silage leachate, milkhouse effluent, etc.).
- Determine nutrient credits from manure, soil, and tilled sods to make the most of on-farm nutrient supplies.
- Assess the risk of runoff and leaching with the use of the New York State Phosphorus Runoff Index (Agronomy Factsheet #10) and the Nitrate Leaching Index (Agronomy Factsheet #11).
- Develop a manure and fertilizer application plan based on the information above and on-farm logistics, such as manure production, storage, and inventories.
- Generate reports to guide on-farm implementation of the nutrient management plan.
- Receive support for software and nutrient management planning questions through a comprehensive, built-in "Help" section and on-demand telephone and e-mail assistance.

The basic process of nutrient management planning with Cropware is diagrammed in the chart, below.



Obtaining Cropware 2.0

Cropware is available free of charge. It can be downloaded directly from the NMSP web site (<http://nmssp.css.cornell.edu>). The Cropware file is ~40 MB in size, so a fast internet connection is necessary (e.g. cable modem, T1, DSL, etc.). Otherwise a Cropware CD can be requested by contacting Caroline Rasmussen at cnr2@cornell.edu or (607) 255-2875.

Installing Cropware 2.0

- Back up all farm data files created with Cropware version 1; archiving files regularly is an important practice regardless of version or software.
- Uninstall Cropware version 1 by clicking on the Windows "Start" button, "Programs", "Cropware", and choosing "Uninstall Cropware". Version 1 and 2 can not be on the same computer at the same time.
- If you are currently using Cropware version 2.0.X and would like to update to 2.0.X+1, uninstall 2.0.X in the same method.
- If installing from the CD, choose "Software on this CD" from the self-start menu, then "Install Cornell Cropware", and follow the directions. If you downloaded Cropware from the NMSP, then unzip the file and double click on the Cropware setup file to install.
- Once installed, go to the Windows "Start" button and "Programs" to open Cropware. Once in "Programs", Cropware files can be found within the "Cornell University" folder.

Registering Cropware 2.0

For support purposes, Cropware will need to be registered after 30 trial uses. To register:

- Open Cropware and on the registration screen, enter your contact information and click on the "Copy Data to Clipboard" button.
- Paste (Ctrl-V) this information into an e-mail and send it to Caroline Rasmussen (cnr2@cornell.edu).
- Once you receive the registration number via e-mail, enter it in the appropriate box and click the "Complete Registration" button to finish the registration process.

Starting a New Plan

To start a new nutrient management plan:

- Open Cropware.
- Click on the "File" drop-down menu.
- Select "New Plan".
- Choose a folder for saving the plan.

- Name the plan and click "Save".
- Begin entering farm information.

Converting an Existing Cropware Version 1 File to Version 2 File Format

Cropware version 2 uses an Access database for improved data handling, but it is not necessary to have Microsoft Access installed on your computer to run Cropware. To use Cropware version 2, version 1 files (".cpw" files) will need to be converted to the version 2 format (".mdb" files):

- Within Cropware version 2, click on the "Tools" dropdown menu.
- From the dropdown menu choose "Convert version 1.0 Plan Files to Current Version".
- Choose the version 1 file to convert.

The new file name can be the same as the old file because Cropware will append the extension ".mbd" to the new version 2 file and not overwrite the original file. Version 2 files will be larger in size than and cannot be converted back to the version 1 file format.

Cropware Support

For Cropware support and/or training contact:

- Greg Albrecht – GLA1@cornell.edu or (607) 255-1723 *or*
- Caroline Rasmussen – cnr2@cornell.edu or (607) 255-2875.

Additional Resources

- Cornell Guide for Integrated Field Crop Management: www.fieldcrops.org
- Cornell Nutrient Guidelines for Field Crops: nmssp.css.cornell.edu/nutrient_guidelines
- Cornell University Agronomy Fact Sheet #10 (NYS Phosphorus Runoff Index) and #11 (NYS Nitrate Leaching Index): nmssp.css.cornell.edu/publications/factsheets.asp

For more information



Cornell University
Cooperative Extension

Nutrient Management Spear Program
<http://nmssp.css.cornell.edu>

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