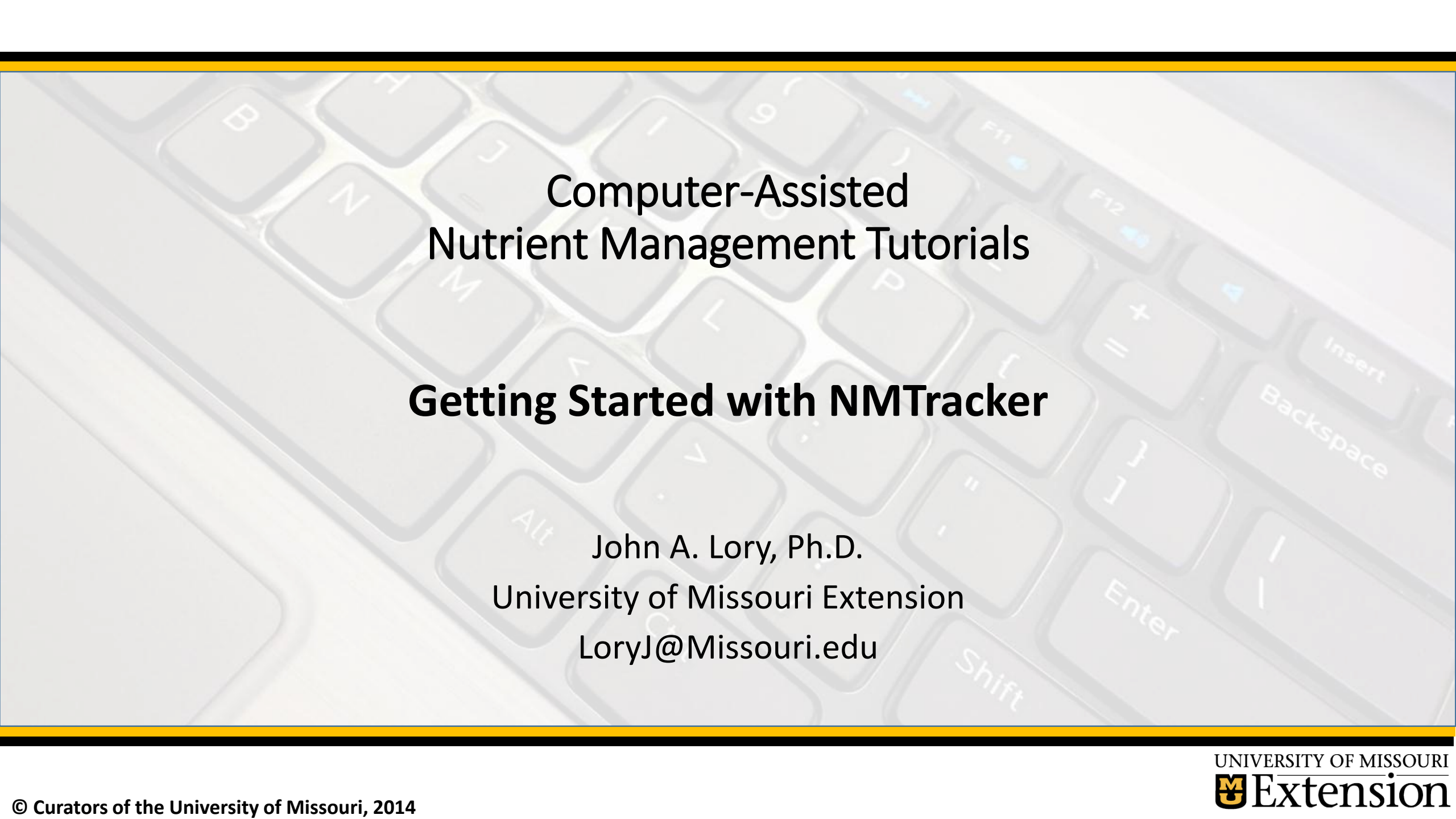


The background of the slide is a close-up, slightly angled photograph of a computer keyboard. The keys are light-colored with dark lettering. Visible keys include 'B', 'N', 'M', 'J', 'I', '9', 'F11', 'F12', '+', '=', '[', '}', ']', 'Backspace', 'Enter', and 'Shift'. The text is centered over this background.

Computer-Assisted Nutrient Management Tutorials

Getting Started with NMTracker

John A. Lory, Ph.D.
University of Missouri Extension
LoryJ@Missouri.edu



Getting started: Software Requirements

- Web browser
 - Internet Explorer 9 or higher.
 - Mozilla Firefox 28 or higher.
 - Tested with Chrome 34.0
 - Safari (Mac) will be tested.
- Version of NMTracker
 - Current version is 1.0.0.
 - Updates to NMTracker occur directly to website.
 - Compatibility with past NMTracker projects maintained.

NMTracker Homepage: at nmtracker.missouri.edu.

Firefox

NMTracker

nmtracker.missouri.edu

Google

Most Visited Getting Started

[ABOUT]

Log In

MAPPER PROJECT MGMT ABOUT

Welcome Demo Example ! Log Out

Location of MU_Dairy_Demo: MO, Boone County

Map View: On Off

On Off Mouse wheel zoom

On Off Labels

On Off Setbacks

On Off Administrative Boundaries

On Off Soils

On Off Weather

Zoom to all Features

FIELD TOOLS

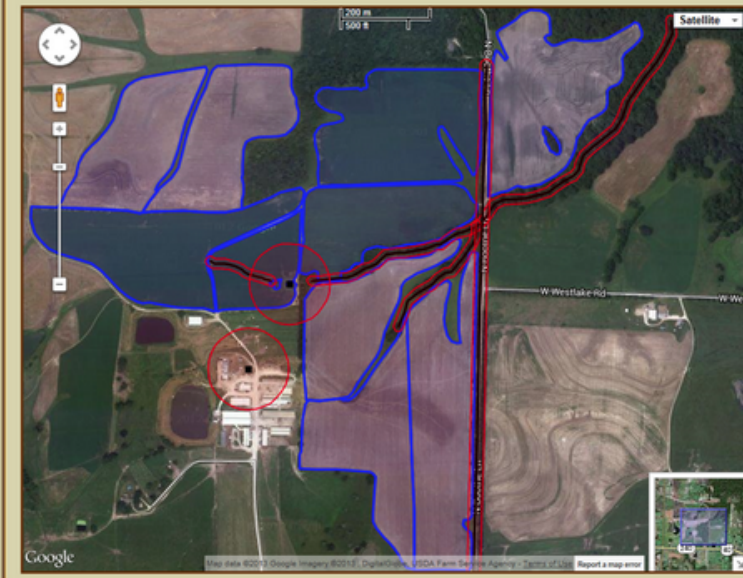
SETBACK TOOLS

MANURE STORAGE TOOLS

PRINT MAPS

Opens a printing interface in a new tab.

Print Map



NUTRIENT MANAGEMENT TRACKER, A.K.A. NMTRACKER

A suite of tools supporting strategic and tactical nutrient management planning.

Current key capabilities of NMTracker include:

- Password protected accounts for managing multiple projects.
- Feature delineation including fields, application setbacks and other farm features.
- Map creation as needed for nutrient management plans.
- Collected data exports to other programs including Purdue Universities Manure Management Planner (MMP). Exports can include shape files for use in GIS programs and supporting layers provided by the Missouri Clipper.

Current capabilities of NMTracker **replace Missouri's Spatial Nutrient Management Planner (SNMP)**.

We are working to expand the capabilities of NMTracker.

Please click on the About and News menu tabs for usage and contact information.

REGISTER FOR NMTRACKER

LOG IN TO NMTRACKER

UNIVERSITY OF MISSOURI Extension

This project was made possible, in part, by support from USDA-NRCS.

Copyright © 2014 — Curators of the University of Missouri. All rights reserved. [DMCA](#) and [other copyright information](#).

Step 1: Register as a user for NMTracker.

Firefox

NMTracker

nmtracker.missouri.edu

Most Visited Getting Started

[ABOUT]

Log In

MAPPER PROJECT MGMT ABOUT

Welcome Demo Example ! Log Out

Location of MU_Dairy_Demo: MO, Boone County

Map View: On Off

MAP CONTROLS

On Off Mouse wheel zoom

On Off Labels

On Off Setbacks

On Off Administrative Boundaries

On Off Soils

On Off Weather

Zoom to all Features

FIELD TOOLS

SETBACK TOOLS

MANURE STORAGE TOOLS

PRINT MAPS

Opens a printing interface in a new tab.

Print Map

Google

Map data ©2013 Google Imagery ©2013 DigitalGlobe, USDA Farm Service Agency - Topos of 1:250,000 Report a map error

NUTRIENT MANAGEMENT TRACKER, A.K.A. NMTRACKER

A suite of tools supporting strategic and tactical nutrient management planning.

Current key capabilities of NMTracker include:

- Password protected accounts for managing multiple projects.
- Feature delineation including fields, application setbacks and other farm features.
- Map creation as needed for nutrient management plans.
- Collected data exports to other programs including Purdue Universities Manure Management Planner (MMP). Exports can include shape files for use in GIS programs and supporting layers provided by the Missouri Clipper.

Current capabilities of NMTracker **replace Missouri's Spatial Nutrient Management Planner (SNMP)**.

We are working to expand the capabilities of NMTracker.

Please click on the About and News menu tabs for usage and contact information.

REGISTER FOR NMTRACKER

LOG IN TO NMTRACKER

UNIVERSITY OF MISSOURI Extension

This project was made possible, in part, by support from USDA-NRCS.

Copyright © 2014 — Curators of the University of Missouri. All rights reserved. [DMCA](#) and [other copyright information](#).

Step 2: Enter your account information.

[ABOUT] [Log In](#)

REGISTER WITH NMTRACKER

Use the form below to create a new account. Passwords are required to be a minimum of 6 characters in length.

Account Information

User Name:	Training_Account
First Name:	John
Last Name:	Lory
Display Name:	Training_Account
E-mail:	LoryJ@missouri.edu
Password:	••••••
Confirm Password:	•••••• *

When done...
"click" Create User

[Create User](#)

Copyright © 2014 — Curators of the [University of Missouri](#). All rights reserved. [DMCA](#) and [other copyright information](#).

Entry screen for a new NMTracker user account.



[PROJECT MGMT] [MAPPING] [NUTRIENT MGMT] [ABOUT] Welcome **Training_Account** ! [Log Out](#)

You don't have any projects created. Use the button to create a new project.

ACTIONS

Create a new project ...

Create New

... or select a project and use the following:

Open

Edit

Delete

Export

Duplicate

Users with an account: Use the “Log In” button.

Firefox

NMTracker

nmtracker.missouri.edu

Most Visited Getting Started

[ABOUT] [Log In](#)

MAPPER PROJECT MGMT ABOUT

Welcome Demo_Example | [Log Out](#)

Location of MU_Dairy_Demo: MO, Boone County

Map View: On Off

MAP CONTROLS

On	Off	Mouse wheel zoom
On	Off	Labels
On	Off	Setbacks
On	Off	Administrative Boundaries
On	Off	Soils
On	Off	Weather

Zoom to all Features

FIELD TOOLS

SETBACK TOOLS

MANURE STORAGE TOOLS

PRINT MAPS

Opens a printing interface in a new tab.

Print Map

NUTRIENT MANAGEMENT TRACKER, A.K.A. NMTRACKER

A suite of tools supporting strategic and tactical nutrient management planning.

Current key capabilities of NMTracker include:

- Password protected accounts for managing multiple projects.
- Feature delineation including fields, application setbacks and other farm features.
- Map creation as needed for nutrient management plans.
- Collected data exports to other programs including Purdue Universities Manure Management Planner (MMP). Exports can include shape files for use in GIS programs and supporting layers provided by the Missouri Clipper.

Current capabilities of NMTracker **replace Missouri's Spatial Nutrient Management Planner (SNMP)**.

We are working to expand the capabilities of NMTracker.

Please click on the About and News menu tabs for usage and contact information.

[REGISTER FOR NMTRACKER](#)

[LOG IN TO NMTRACKER](#)

UNIVERSITY OF MISSOURI Extension

This project was made possible, in part, by support from USDA-NRCS.

Copyright © 2014 — Curators of the [University of Missouri](#). All rights reserved. [DMCA](#) and [other copyright information](#).

Users with an account: Enter your credentials.

Firefox

NMTracker Login

nmtracker.missouri.edu/Account/Login.aspx

[ABOUT] [Log In](#)

LOG IN

Please enter your username and password. [Register](#) if you don't have an account.

Account Information

Username:
Training_Account

Password:
••••••••

☐ Keep me logged in

[Forgot Password?](#)

Log In

When done...
"click" Log In

Thank you for using NMTracker. We would appreciate your feedback, particularly about any problems you have while we release this new version. Contact [Kevin Atherton](#) with any comments.

Copyright © 2014 — Curators of the [University of Missouri](#). All rights reserved. [DMCA](#) and [other copyright information](#).



Notes about NMTracker accounts

- You can have multiple user-names resulting in multiple accounts.
 - A better approach is to have one account.
- Within an account you can have multiple projects.
 - More on this later.
- Account security.
 - Your password is your account security.
 - Your data resides on an MU server dedicated to CARES.
 - Server is behind the MU firewall.
 - Server hosting database separate from server hosting web pages increasing security.
 - CARES servers are backed up hourly.
 - We only encrypt passwords, your data on server is not encrypted.

Step 3: Create a new project.

[PROJECT MGMT] [MAPPING] [NUTRIENT MGMT] [ABOUT] Welcome **Training_Account** ! [Log Out](#)

You don't have any projects created. Use the button to create a new project.

"Click" Create New

ACTIONS

Create a new project ...

Create New

... or select a project and use the following:

Open

Edit

Delete

Export

Duplicate

Step 3: Complete the “Project” form.

Pointers:

- No spaces in Project Name.
- Use tab key to navigate.
- More detailed addresses improve automated navigation to locate farm.

When done...
click “Submit”

CREATE A NEW PROJECT

Please enter the following information.

Project Name (required):
34 characters remaining Name must begin with a letter and may contain letters, numbers, dashes and underscores.

State (required):

County (required):

Start Year:

Start Month:

Operation:

Address:

City:

Zip:

Contact:

Office Phone:

Home Phone:

Email:

Notes:
84 characters remaining

Step 4: "Open" the new project.

[\[PROJECT MGMT \]](#) [\[MAPPING \]](#) [\[NUTRIENT MGMT \]](#) [\[NEWS \]](#) [\[ABOUT \]](#) Welcome **Training Account** ! [Log Out](#)

▼ **PROJECT NAME:** **MU_EXAMPLE_FARM_** **OWNER:** **JOHN LORY**

Created: 5/3/2014 by John Lory

Security Role: Project Manager

Operation Name: University of Missouri

Contact: John Lory

Office Phone:

Home Phone:

Email: LoryJ@missouri.edu

Notes: Training example

Edited: 5/3/2014 by John Lory

Assigned by: John Lory

Plan Start: Oct., 2014

Address: Rt. 5

Columbia, MO 65202

County: Boone

ACTIONS

Create a new project ...

Create New

... or select a project and use the following:

Open

Edit

Delete

Export

Duplicate

Basic Layout: "Mapping" view.

Project Name Project Location

To Log Out and Exit

Your User Name

[PROJECT MGMT] [MAPPING] [NUTRIENT MGMT] [ABOUT]

Welcome **Training_Account** ! Log Out

Map View: ☒ On ☐ Off

Location of MU_Example_Farm: MO, Boone County

MAP CONTROLS

On	Off	Mouse wheel zoom
On	Off	Labels
On	Off	Setbacks
On	Off	Administrative Boundaries
On	Off	Soils

Zoom to all Features

FIELD TOOLS

Click a field in the map to select it.

Create New Field

Edit Field

Delete Field

Update Soils

Basic Layout: "Mapping" view.

Tools for working with maps.

Map of County You Selected...

The screenshot displays the NMTracker web application in the 'Mapping' view. The top navigation bar includes links for [PROJECT MGMT], [MAPPING], [NUTRIENT MGMT], and [ABOUT], along with a user welcome message 'Welcome Training_Account ! Log Out'. Below the navigation bar, the location is specified as 'Location of MU_Example_Farm: MO, Boone County'. The main area features a Google Map of Boone County, Missouri, with various towns and highways labeled. A red arrow points from the 'Map of County You Selected...' text to the map area. To the right of the map is a 'MAP CONTROLS' panel with toggle switches for 'Mouse wheel zoom', 'Labels', 'Setbacks', 'Administrative Boundaries', and 'Soils'. Below these are buttons for 'Zoom to all Features' and a 'FIELD TOOLS' section with buttons for 'Create New Field', 'Edit Field', 'Delete Field', and 'Update Soils'. A red arrow points from the 'Tools for working with maps.' text to the 'MAP CONTROLS' panel. The map includes a scale bar for 10 km and a 'Map data ©2014 Google' attribution.

Navigation in NMTracker is based on Google Maps.

Navigation.

Two ways to zoom in and out.

1. Use the Google magnification bar.

2. To turn on the ability to zoom with your mouse track wheel.
Click "on".

[PROJECT MGMT] [MAPPING] [NUTRIENT MGMT] [ABOUT] Welcome **Training_Account** ! [Log Out](#)

Location of MU_Example_Farm: MO, Boone County

Map View:

MAP CONTROLS

<input checked="" type="button" value="On"/> Off	Mouse wheel zoom
<input checked="" type="button" value="On"/> Off	Labels
<input checked="" type="button" value="On"/> Off	Setbacks
<input checked="" type="button" value="On"/> Off	Administrative Boundaries ?
<input checked="" type="button" value="On"/> Off	Soils ?

FIELD TOOLS

Click a field in the map to select it.

[?](#)

We want to navigate to the MU Dairy west of Columbia.

Navigation.

Pan by using your mouse

We want to be here.

“Grab” the screen by holding down the left button on your mouse.
Sweep the mouse to the SE.

The screenshot displays a web-based mapping application interface. At the top, a green navigation bar contains links: [PROJECT MGMT], [MAPPING], [NUTRIENT MGMT], and [ABOUT]. The [MAPPING] link is highlighted. To the right of the navigation bar, it says "Welcome Training Account ! Log Out". Below the navigation bar, the text "Location of MU Example_Farm: MO, Boone County" is displayed. The main map area shows a street map of Boone County, Missouri, with various roads and landmarks. A red circle highlights a navigation control in the top-left corner of the map, which includes a compass and a hand icon. A blue arrow points from the text "We want to be here." to this control. A large blue arrow points from the text "Grab" to the hand icon. The right side of the interface features a "Map View" section with "On" and "Off" buttons. Below this is a "MAP CONTROLS" section with several toggle buttons: "On" and "Off" for "Mouse wheel zoom", "On" and "Off" for "Labels", "On" and "Off" for "Setbacks", "On" and "Off" for "Administrative Boundaries", and "On" and "Off" for "Soils". There is also a "Zoom to all Features" button. Below the map controls is a "FIELD TOOLS" section with buttons for "Create New Field", "Edit Field", "Delete Field", and "Update Soils". The bottom of the map area shows "Map data ©2014 Google" and a scale bar for 500 m.

Navigation.

Pan by using your mouse

[PROJECT MGMT] [**MAPPING**] [NUTRIENT MGMT] [ABOUT]

Welcome **Training_Account** ! [Log Out](#)

Location of MU_Example_Farm: MO, Boone County

Map View:

MAP CONTROLS

<input checked="" type="button" value="On"/>	Off	Mouse wheel zoom
On	<input checked="" type="button" value="Off"/>	Labels
<input checked="" type="button" value="On"/>	Off	Setbacks
On	<input checked="" type="button" value="Off"/>	Administrative Boundaries
On	<input checked="" type="button" value="Off"/>	Soils

FIELD TOOLS

Click a field in the map to select it.

Navigation.

Switch to Satellite view.

Select Satellite.

[PROJECT MGMT] [**MAPPING**] [NUTRIENT MGMT] [ABOUT]

Welcome **Training_Account** ! [Log Out](#)

Location of **MU_Example_Farm**: MO, Boone County

Map View: **On** **Off**

MAP CONTROLS

On	Off	Mouse wheel zoom
On	Off	Labels
On	Off	Setbacks
On	Off	Administrative Boundaries ?
On	Off	Soils ?

[Zoom to all Features](#)

FIELD TOOLS

Click a field in the map to select it.

[Create New Field](#)

[Edit Field](#)

[Delete Field](#)

[Update Soils](#) [?](#)

For more information on NMTracker.

- NMTracker website at nmtracker.missouri.edu.
- NMTracker tutorials at <http://nmplanner.missouri.edu/software/nmtracker.asp>.
- For information on program development contact [John Lory](#).
- For information on software implementation contact [Kevin Atherton](#)
- Other Nutrient Management resources at nmplanner.missouri.edu.