

Attendees: David Hardy, Colleen Hudack-Wise, Keith Larick, Deanna Osmond, Joseph Hudyncia, Jot Smyth, Natalie Woolard

Nutrient Management Software

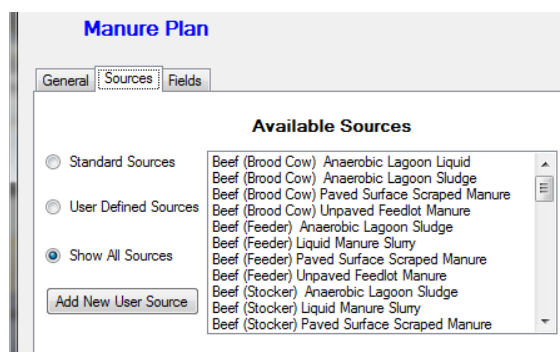
Committee reviewed the new version of the nutrient management software. It was decided to move forward without trying to add old tables to the software. With documentation of grandfather rates those exceptions can still be used. Keith offered to run a comparison of a couple of farms that may be in the situation of grandfathered rates.

In addition to the attached report that was submitted to the programmer the following questions were to be followed up on:

- SMU Table for Leaching Index so that it is not user defined. Natalie will check Dana if we can get this information. Is the temperature cut off a standard for each county? Can this be done so that we can standardize?
- Slope defaults to midpoint of SMU – still can be user defined.
- Make sure all 1217/INMC crops are included in appropriate tables

Nutrient Management Software Punch List

- NRCS may still have issues with Administrative privileges. Federal computers (and now County computers) have stringent IT Security measures in place. Updates to installed software will present challenges.
 - Can we get around this issue through location of the files? C: Nutrient Management vs. C:Program Files/Nutrient Management? Where is the best location for files on a user's computer that will not require special folder permissions? How do we avoid the current case-by-case assignment of folder permissions that depends on the mood and workload of the local IT person?
- Need New table for Available Sources – based on changes through INMC. Changes in content not programming.



- Add column in SMU Table for Leaching Index so that it is not user defined. This would change data content and add auto-population of dialog box data field (LI).

County: Wayne Tract: 9876

Field ID: 7

SMU: Go: Goldsboro loamy sand

Total Acres: 12

Useable Acres: 9.7

Slope: 1

Leaching Index: 0

P Assessment: [dropdown]

Waste Irrigation Properties

Maximum Application Rate (in/hr): [text box]

Maximum Amount/Irrigation Event (in): [text box]

OK Cancel Help

View of Current MUSYM Table in NCANAT: (just add a field for LI?)

View Tables: Soil_Mapunits.db

| mukey | key | AreaName | musym | muname |
|--------|-------|----------|-------|--|
| 111151 | 10974 | Alamance | AaB | Alamance silt loam, 2 to 6 percent slopes (Callison) |
| 111152 | 10974 | Alamance | AbB | Appling coarse sandy loam, 2 to 6 percent slopes |
| 111153 | 10974 | Alamance | AbB2 | Appling coarse sandy loam, 2 to 6 percent slopes, eroded |
| 111154 | 10974 | Alamance | AbC | Appling coarse sandy loam, 6 to 10 percent slopes |

View Tables: Soil_Mapunits.db

| SMG | Percent_Clay | DrainageFlag | P_Threshold | Tp_minus_12 | T30_over_Tp | WV_Factor | Surf_SoPEqNo | Subsoil_SoPEqNo | SubsoilSample | FePFactor | ETSoilGp |
|-----|--------------|--------------|-------------|-------------|-------------|-----------|--------------|-----------------|---------------|-----------|----------|
| 106 | 12 | 1 | 500 | 0.405 | 0.287 | 1.2 | 5 | 4 | N | 0.25 | C |
| 111 | 12.5 | 0 | 500 | 0.867 | 0.374 | 1.2 | 5 | 4 | N | 0.65 | B |
| 111 | 12.5 | 0 | 500 | 0.867 | 0.374 | 1.2 | 5 | 4 | N | 0.65 | B |
| 111 | 12.5 | 0 | 500 | 0.867 | 0.374 | 1.2 | 5 | 4 | N | 0.65 | B |

- New Field - Waste Irrigation Properties are not being populated. They need to be connecting to SMU.

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Slope: 1

Leaching Index: 0

P Assessment: [dropdown]

Waste Irrigation Properties

Maximum Application Rate (in/hr): [empty box]

Maximum Amount/Irrigation Event (in): [empty box]

OK Cancel Help

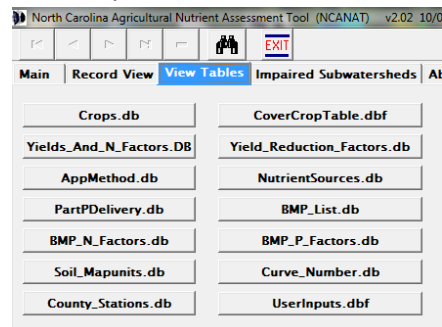
- Need a simple error message stating that there is missing information before proceeding.....(e.g. Manure Plan -add new field without irrigation data).
- Print and Print Preview Function
- Select a plan function
- Missing Recommendation and Reports on Manure Plan. Fertilizer only plan appears to have reports. Poultry Litter Plan has some reports, some incorrect (see below).

Data Tables

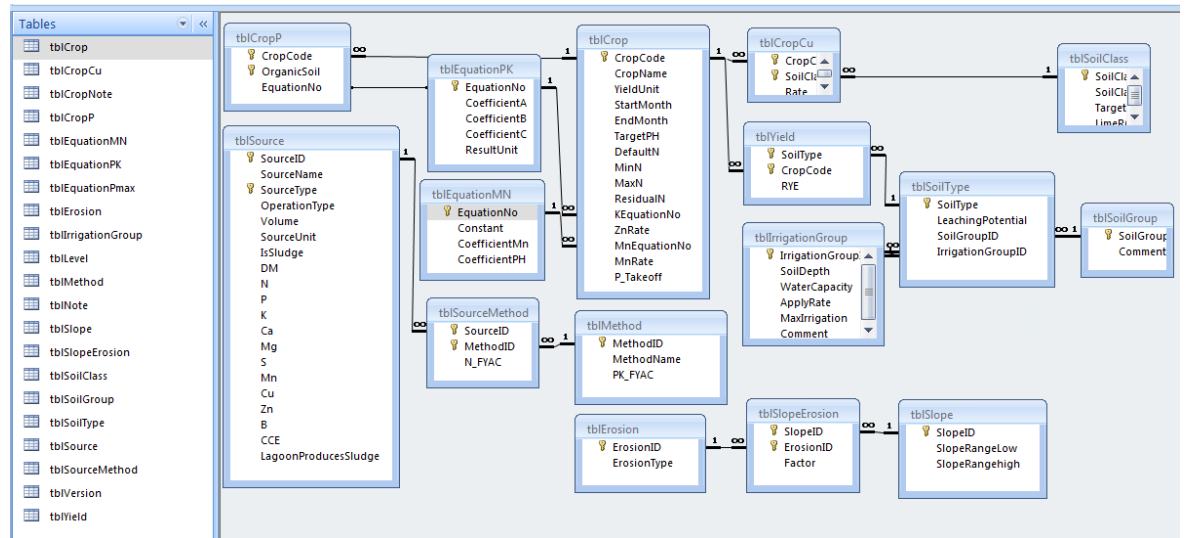
Make sure PLAT, NLEW and Nutrient Management are pulling from the same data tables. These are:

List of file/table names:

Currently in PLAT:



Currently in Nutrient Management:



Soil Sample Dialog Screen – see notes table below.

The **Soil Sample Dialog** screen is used for entering and managing soil sample data. It includes a table for listing samples and a detailed form for entering sample results and field information.

| Tract ID | Field ID | County | Total Acres | Useable Acres | Soil Mapping Unit | Slope | Soil Sample |
|----------|----------|--------|-------------|---------------|-------------------|-------|-------------|
| 9876 | 1 | Wayne | 12.3 | 12.3 | Select | | 10574 BC1 |
| 9876 | 2 | Wayne | 9.7 | 9.7 | Select | | 10574 LAG01 |

Sample Results:

- CEC: 17.6
- BS: 95
- Acid: 0.8
- P-I: 508
- pH: 6.6
- K-I: 125
- Ca: 70
- Mg: 22
- Mn-I: 386
- Zn-I: 1435
- Cu-I: 1117

Field Info:

- Sample List: 10574 LAG01
- Sample #: 10574 LAG01
- Sample Date: 11/8/2001
- Farm Name: Sycamore Farm
- Tract ID: 9876
- Field ID: 2
- Soil Class: Mineral-Organic

Applied Lime:

- Amount (T/A): 1
- Year (yyyy): 2001
- Month: 1

Buttons: New, Import, Save, Delete, Help, Exit

| Currently is: | Change to: | Additional Notes |
|---------------|--------------------------|---|
| Sample # | Sample ID | Same nomenclature should be used from soils lab |
| Not included | Add Sample Report Number | |
| Cu-I | Needs to be added | Not always bringing in this factor from the soils report. |
| Soils Class | Needs to be added | Not always bringing in this factor from |

| | | |
|-----------------|--|---|
| | | the soils report. |
| Acid | Change to Ac | |
| BS | Change to BS% | |
| Ca | Change to Ca% | |
| Mg | Change to Mg% | |
| Not included | Import name and contact information from soils report (Name, address) | This may be different than owner/manager or farm name already provided in the plan. Just used as reference to make sure planner has correct soils data. |
| Not included | Import weight/volume ratio from soils report. List it as W/V | This information will is also needed in the PLAT portion of the software. |
| Not Included | Import sodium rates from soils report. List as Na | |
| Not Included | Import sulfur rates from soils report. List as S-I | |
| Import function | | Determine what this does and if needed. We believe it is a remnant from previous draft versions from software and can be deleted. |
| Save | | Check save function. It isn't always saving the soils information after import. |
| Applied Lime | Delete entire box and import recommendation from soil test report – see notes first. | Double check and see how this is being used elsewhere in the software prior to changing. |

PLAT Screen - Overall it seems to be working properly. Several suggestions to improve and streamline (below).

| Currently is: | Change to: | Additional Notes |
|---------------------------------|----------------------------|---|
| Soil Test (P-Index, Mehlich 3P) | | This information should be importing the data from soils report |
| Weight/Volume | Remove the word “optional” | This information should be importing the data from soils report. |
| Save | | Make sure the saved sessions can be brought back up in the “session box” |
| Results | | Should automatically populate results (low, medium, and high) back to the Manure Plan (Field tab) |

NLEW Screen

- Make sure that the correct factors are being used for the BMP calculations.

| Buffer Width (feet) | % N Reduction Credit |
|---------------------|----------------------|
| 20 | 20 |
| 30 | 25 |

| | |
|------|----|
| 50 | 30 |
| 100+ | 35 |

Crop Rotation Screen

NCANAT_Web

Fertilizer Plan

Get New Plan.mdb
Get New NCANAT User Table

General Crops Fields Recommendations Reports

Crop List

- Annual Ryegrass - Hay
- Annual Ryegrass - Pasture
- Bahiagrass Hay
- Bahiagrass Pasture
- Barley, Grain
- Cabbage/Broccoli
- Caucasian/Old World Bluestem Hay
- Caucasian/Old World Bluestem Pasture
- Cereal/Annual Rye O/S, Hay-4/7 Harvest
- Cereal/Annual Rye O/S, Graze, 4/7 Harvest
- Common Bermudagrass Hay
- Common Bermudagrass Pasture
- Corn, Grain
- Corn, Silage
- Corn, Sweet
- Cotton
- Cucumbers (Fertigation)

Crops Selected

Start Date: 2/15

End Date: 6/30

Add the header
"Application Windows"
above Start Date and
End Date.

NCANAT_Web

Fertilizer Plan

Get New Plan.mdb
Get New NCANAT User Table

General Crops Fields Recommendations Reports

Tract: 4444-Avery New

Field: New

Copy Field Remove Field

| Tract ID | Field ID | County | Total Acres | Useable Acres | Soil Mapping Unit | Slope | Soil Sample | LI | NCANAT | PLAT Rating | Crops/Rotation |
|----------|----------|--------|-------------|---------------|-------------------|-------|-------------|-----|--------|-------------|----------------|
| 9876 | 1 | Wayne | 12.3 | 12.3 | Go | 1 | 10574 BC1 | 2.3 | Select | Low | View Crop List |
| 9876 | 2 | Wayne | 9.7 | 9.7 | Ln | 1 | 10574 LAG01 | 3.2 | Select | Low | Select |
| 9876 | 3 | Wayne | 3.1 | 3.1 | Lv | 1 | 10574 JWAE | 2.7 | Select | Medium | Select |

Crops/Rotation Column – cannot see the crops selected; unless open new screen (view crops)

Is there are way to expand the width of the column and see at least a portion of each crop. Similar to the Manure Plan below. Current display of selected crops is confusing, not

The crop tab is not listed in a manure plan. User would choose the crops in a different method than in fertilizer and poultry plans. Need to make sure the same process and screens are being used for each plan type. See the Manure Plan below.

These have always been dealt with differently and the resulting Plans look very different. Can it be standardized or do they need to be different? (Fertilizer & Litter Plans are more of a reference list, whereas Manure Plans are a rotation & year-by-year Waste Utilization Plan).

NCANAT_Web

Manure Plan

Get New Plan.mdb Available PAN Save

Get New NCANAT User Table

General Sources Fields

Tract 9876-Wayne New

Field New

Copy Field Remove Field

| Tract ID | Field ID | County | Total Acres | Useable Acres | Soil Mapping Unit | Slope | Soil Sample | NCANAT | PLAT Rating | Crops/Rotation | Edit Nutrients |
|----------|----------|--------|-------------|---------------|-------------------|-------|-------------|--------|-------------|------------------|----------------|
| 9876 | 1 | Wayne | 12.3 | 12.3 | Select | | 10574 BC1 | Select | Low | heat/Soybeans/Co | Select |
| 9876 | 2 | Wayne | | | | | | Select | Low | Lima Beans | Select |
| 9876 | 3 | Wayne | | | | | | Select | Medium | Select | Select |

Choose Crop or Rotation

Select Crop Select Rotation

Existing Rotations

Com/Wheat/Soybeans
Hybrid B.G. - SG Overseed
Wheat/Soybeans/Com

New Rotation

Natalie and Joe will provide an updated table with all crops referenced by the INMC included.

Edit Sources

NCANAT_Web

Manure Plan

Get New Plan.mdb Available PAN Save

Get New NCANAT User Table

General Sources Fields

Tract New

Field New

Copy Field Remove Field

| Tract ID | Field ID | County | Total Acres | Useable Acres | Soil Mapping Unit | Slope | Soil Sample | NCANAT | PLAT Rating | Crops/Rotation | Edit Nutrients |
|----------|----------|--------|-------------|---------------|-------------------|-------|-------------|--------|-------------|----------------|----------------|
| 9876 | 1 | Wayne | 12.3 | 12.3 | Go | 1 | 10574 BC1 | Select | Low | Com, Grain | Select |

On fields tab change edit nutrients to Edit Sources. Have the program go to Edit Sources dialog box first, then Edit Nutrients; currently it is working the opposite.

Edit Nutrients

Select Crop

Com, Grain

Crop Name: Com, Grain SMU: Go Field ID: 1

Prior Crop: Soybeans, Manu P Assessment: Low Tract ID: 9876

Number Of Sources: 1 P Removal (lbs/Ac): 57 Crop Year: N/A

RYE By User: 130 RYE Unit: Bushels Soil Sample: 10574 BC1

N Factor By User: 1.14 Default N: 0

Edit Sources

Field ID: 1 Crop: Com, Grain

Available Sources

Selected Sources

Selected Source Information

Source Name Source Type

Application Method Application Period

Start Date End Date

Amount of Source: Application Percentage

| (lbs/acre) | N | P2O5 | K2O | Ca | Mg | Mn | Zn | Cu | Lime |
|-------------|-----|------|-----|----|----|----|----|----|------|
| Recommended | 148 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Starter | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Residual | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Required | 128 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

8:04 PM 10/14/2013

| Currently is: | Change to: |
|--|---|
| Application Period | Application Window |
| Application Percentage - enter on keyboard works; tab to next box total calculates | Process is not intuitive total these information. Add an Apply button. |
| Can total more than 100% | Establish an error message for any totals over 100% |
| Remove Apply Even Spread button and formula | Change to the apply button as mentioned above. |
| Currently from Field tab it goes to Edit Nutrients screen then Edit Sources screen | Change order to Edit Sources screen then Edit Nutrients screen. Make sure applicable buttons are moved. |
| Amount of source | Change to nutrient/lb |

Edit Sources

| (lbs/acre) | N | P205 | K2O | Ca | Mg | Mn | Zn | Cu | Lime |
|-------------|------|------|-----|----|----|----|----|----|------|
| Recommended | 148 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Starter | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Residual | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Required | 128 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Source 1 | -148 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Balance | -276 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Make sure source name is listed in the Edit Nutrient table. Not just Source 1 and Source 2.

Source 1 auto-fills; two sources will not auto-fill but should. Default to equally partition Nitrogen among number of sources input?

Reports (Poultry Litter)

Report preview appears skewed. Should look more 'normal'. Printout needs to be 'dressed-up' to look more modern. Sources in Plan section is incorrect, appears to be Crop Nutrient section. Crop Nutrient section is blank.

Is there a new Job Sheet with the New 590 Standard?

Crop Notes should be fixed to address redundancy, i.e. notes are repeated for each crop field combination.

The screenshot shows a window titled "ReportViewer" with a tab labeled "Cover Sheet". The report content is as follows:

Nutrient Management Plan
10/15/2013

This plan has been prepared for: | This plan has been developed by:

| | |
|--|--|
| Big Farm Price, Fred L. 1605 Level Rd. Asheboro, NC 27128 (336) 112-3456 | Paul Planner NRCS 208 West Chestnut Street Goldsboro, NC (North Carolina) 27530 (919) 734-5281 |
|--|--|

Type of Plan: Poultry Litter Nutrient Management

Owner/Grower
I understand and agree to the specifications and the operation and maintenance procedures established in this nutrient management plan.

Signature (owner or manager if different from owner) _____ Date _____

Buttons at the bottom: Page Setup, Print Preview, Print, Save, OK.

Selecting an existing Plan should be more straightforward. 'Load Plan' vs. 'Select a Plan'?

The screenshot shows the "NCANAT Web" application. The main window is titled "Fertilizer Plan" and has tabs for "General", "Crops", "Fields", "Recommendations", and "Reports". The "General" tab is active, showing fields for "Plan Name" (1), "Date Created/Modified" (10/01/2009), and "FARM". Below these fields is a section for "Big Farm" with "Type: Existing" and "Producer/Owner: Price, Fred L.". There are "Edit" buttons for each of these sections. A "PlanSelectorDialog" window is open in the center, titled "Select a Plan", with a list of plans: "2. Source 1", "3. Source 2", "4. Source 3", "5. Source 4", "6. Source 5", and "7. Source 6". To the right of the dialog is a "DEVELOPER" section with contact information for Paul Planner, NRCS, 208 West Chestnut Street, Goldsboro, NC (North Carolina) 27530, (919) 734-5281. There is an "Edit" button for this section. At the top of the application window, there are buttons for "Get New Plan.mdb", "Get New NCANAT User Table", and "Save". A status bar at the bottom says "Make sure source name is listed in the Edit Nutrient table. Not just Source 1 and Source 2".