SnapPlus

Overview of changes for the 2015 590 Standard

New Compliance Checks

- Calibration method (checkbox)
- 12,000 gal/acre manure limit on tiled fields
- Gully erosion
- Only treated manure for 1000 ft municipal well zone
- In-season N requirements for highly permeable (P) soils (split applications, nitrification inhibitor or slow release fertilizer)
- Fall fertilizer N restrictions for 1000 ft municipal well buffer and 5 ft to bedrock soils
- Added fall N restrictions for P and R soils and for very liquid manure (<4% organic matter) on P,R,W soils
- Starter fertilizer – subsurface with planting

Replaced

- Check for 12,000 gallon/acre max rate in SWQMA
- Check for 300 ft winter conduit to groundwater buffer
- Check for winter spreading strategies

New guidance messages

- Avoid buffers for wells and direct conduits to groundwater
- Instructions for delaying applications until soils are cooler for fall manure applications
- No spreading in February or March
- Mitigating ephemeral erosion

New Documentation
Winter spreading report

- Manure production (14-day, 120-days)
- Storage
- Fields with winter applications:
  - Winter compliance/guidance issues
  - Other fields available if slope > 6%
  - Selected practices for fields > 6% slope, concentrated flow areas
- Suitable fields and acres with no winter applications planned

WPDES-Permitted Farms

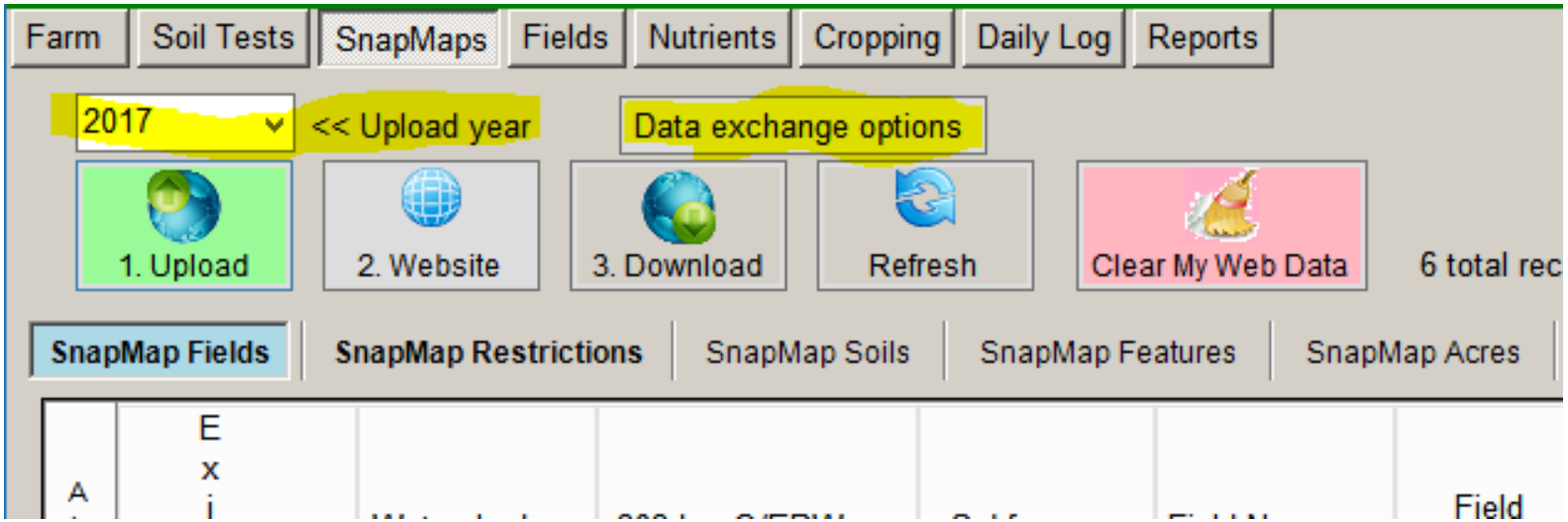
- Use new provisions of 2015 590 except retain SWQMA liquid manure rate limits based on soil texture and cover

- Software automatically determines appropriate SWQMA buffer based on application method and tillage
- All SWQMA, well, conduit to groundwater and other buffer acreage removed from spreadable acres
- Spreadable acres for each field used to calculate total planned manure application volume

SnapPlus

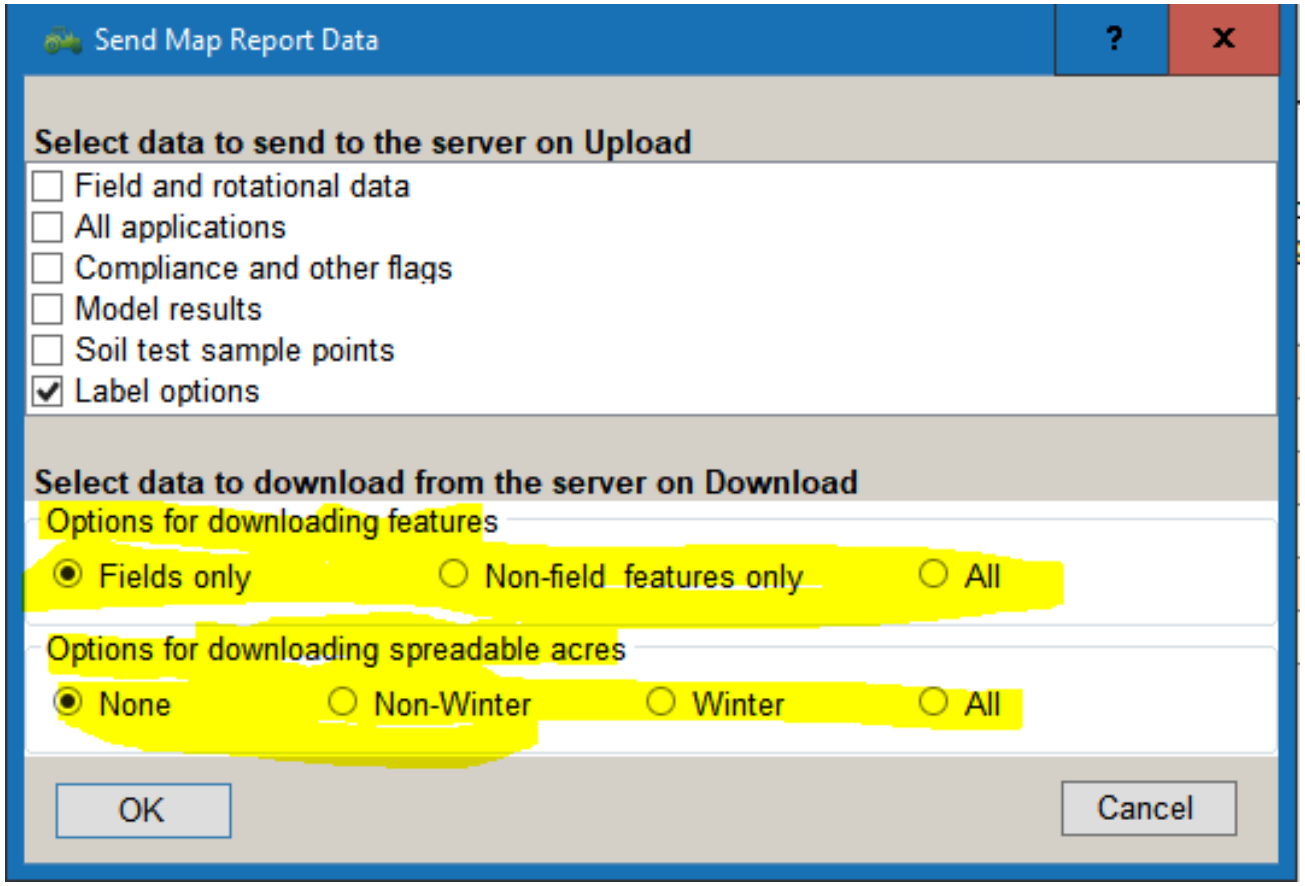
Overview of changes for the SnapPlus desktop

SnapMaps Screen



- Set upload year
- Data exchange

SnapMaps Data exchange



Farms Screen

- Farms
  - Annual notes
  - SWQMA spreading strategies

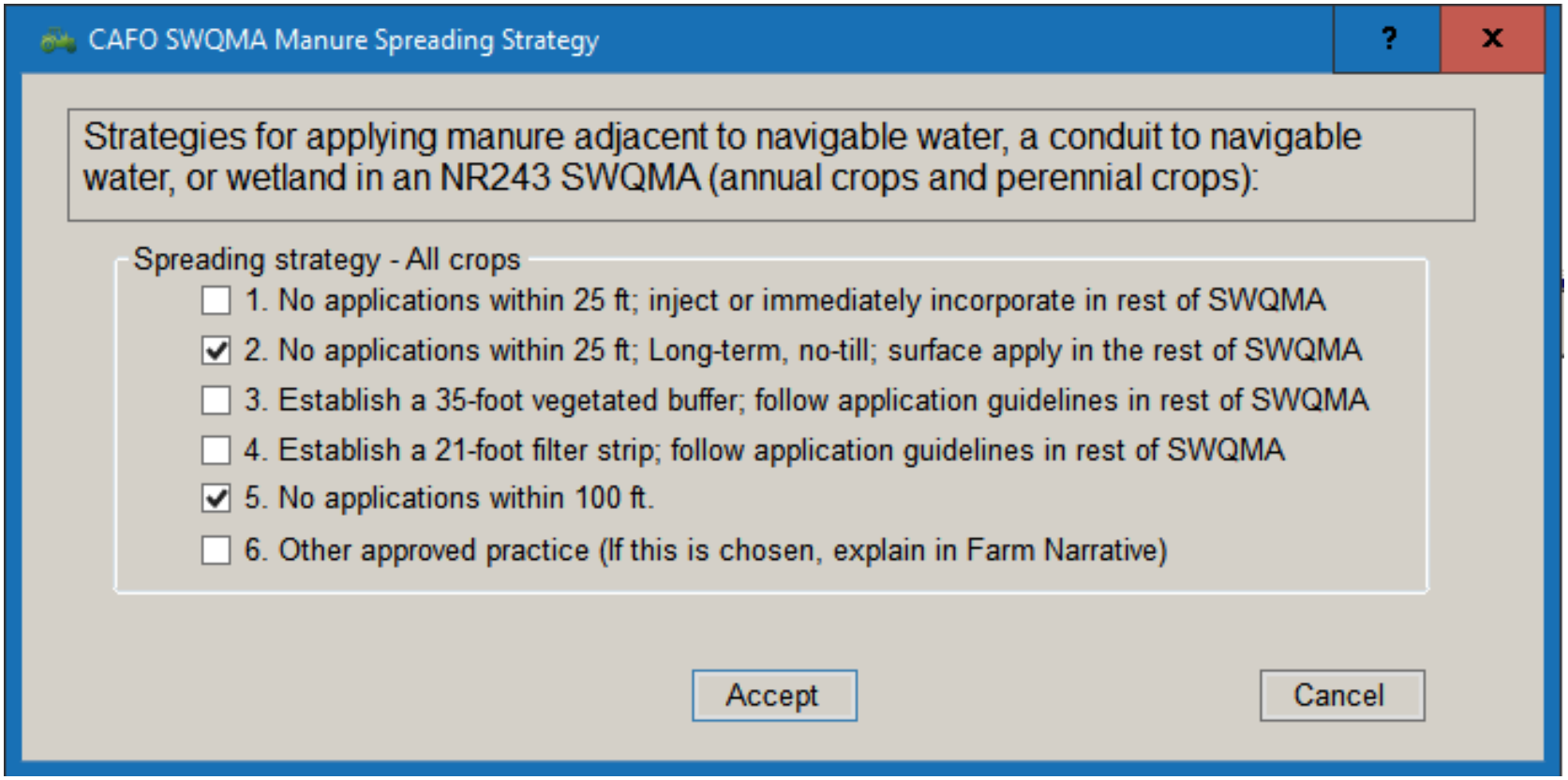
Farm Screen

- The concentrated flow notes have been moved to the Field Problems page. In its place, you may keep your annual farm notes.
- The Farm Narrative and Annual notes are rich text capable. That means that you can, in most cases, cut form a word processing document and paste it into the Farm Narrative and Annual notes.

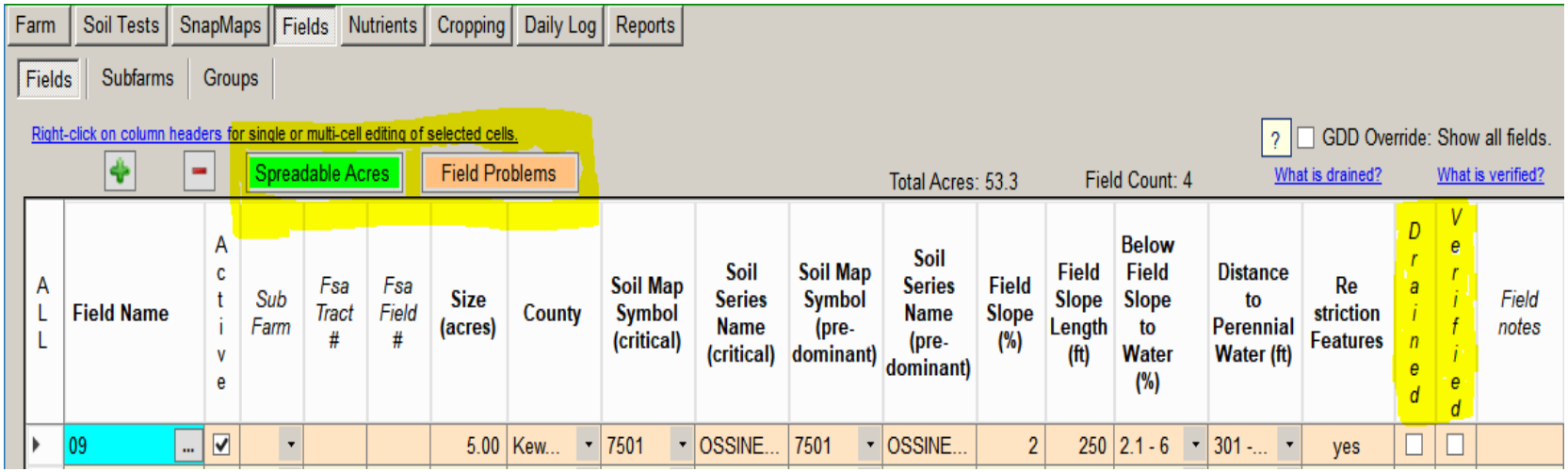
Farm Screen

Plan Completion / Update Date
2017-08-15
Farm Narrative:
Annual notes for crop year:
2017
Discovery farm field day

Farm Screen


CAFO SWQMA Manure Spreading Strategy
?
x
Strategies for applying manure adjacent to navigable water, a conduit to navigable water, or wetland in an NR243 SWQMA (annual crops and perennial crops):
Spreading strategy - All crops
1. No applications within 25 ft; inject or immediately incorporate in rest of SWQMA
2. No applications within 25 ft; Long-term, no-till; surface apply in the rest of SWQMA
3. Establish a 35-foot vegetated buffer; follow application guidelines in rest of SWQMA
4. Establish a 21-foot filter strip; follow application guidelines in rest of SWQMA
5. No applications within 100 ft.
6. Other approved practice (If this is chosen, explain in Farm Narrative)
Accept
Cancel

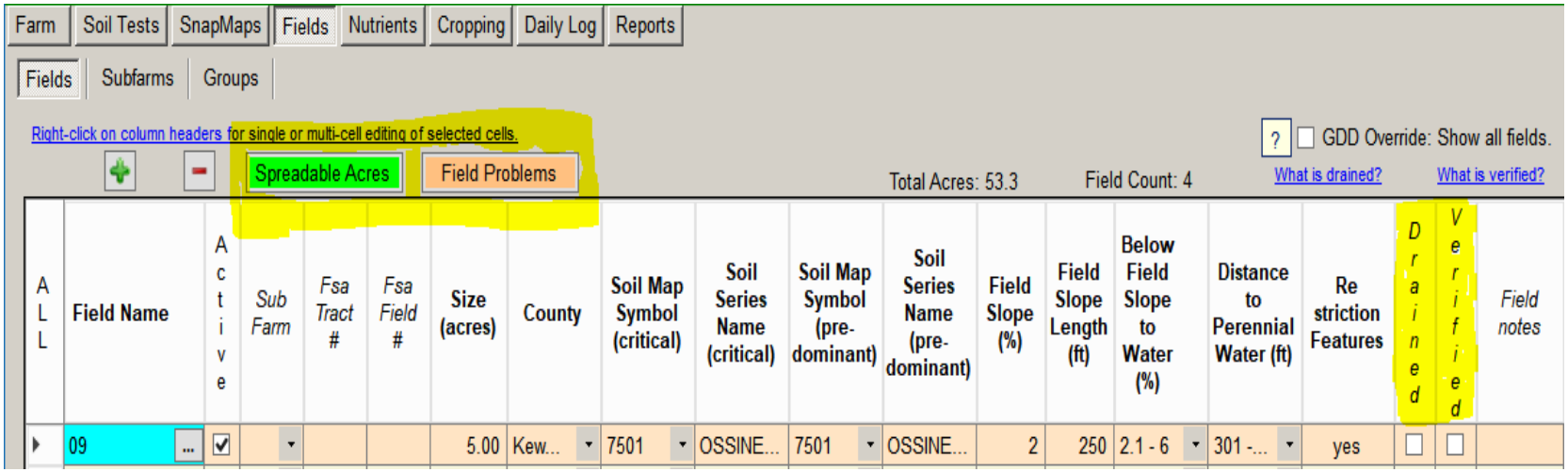
Fields Screen - Grid



ALL	Field Name	Active	Sub Farm	Fsa Tract #	Fsa Field #	Size (acres)	County	Soil Map Symbol (critical)	Soil Series Name (critical)	Soil Map Symbol (pre-dominant)	Soil Series Name (pre-dominant)	Field Slope (%)	Field Slope Length (ft)	Below Field Slope to Water (%)	Distance to Perennial Water (ft)	Re striction Features	Drained	Verified	Field notes
	09	☑				5.00	Kew...	7501	OSSINE...	7501	OSSINE...	2	250	2.1 - 6	301 -...	yes	☐	☐	

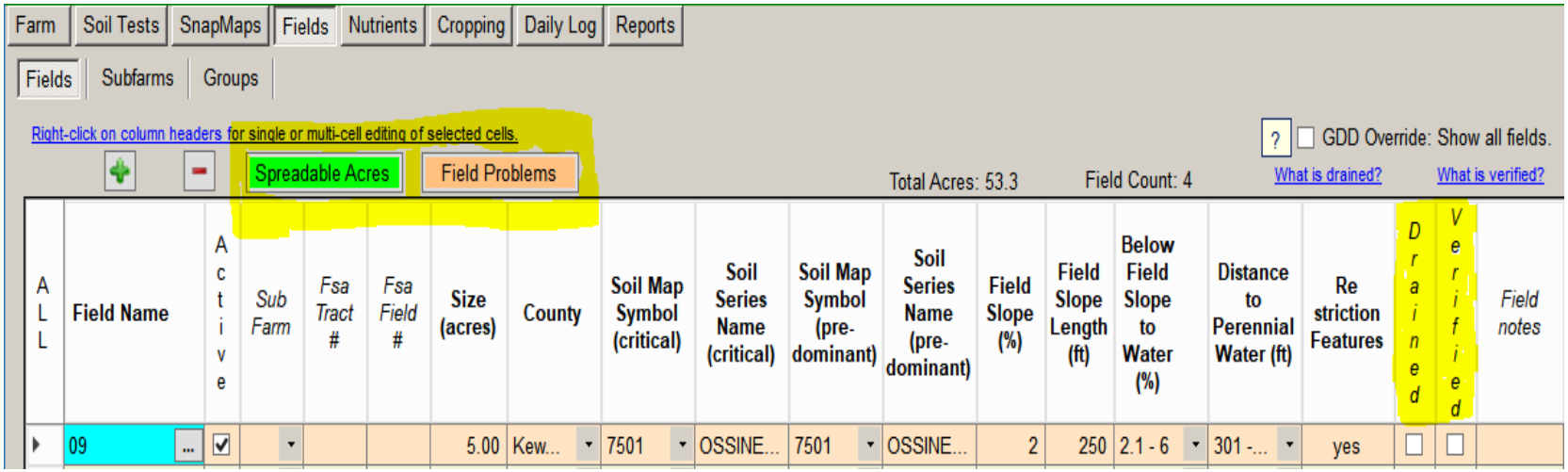
- **Drained** – was Tiled ?
- **Verified** – Check to prevent SnapMap imports from overwriting the data.
- **DNR Winter** – DNR approved for winter spreading

Fields Screen - Buttons



- The **Spreadable Acres** button will open a window where you may edit the various spreadable acres values.
- These acres are used in conjunction with the SWQMA spreading strategies

Fields – Spreadable Acres



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- These acres are used in conjunction with the SWQMA spreading strategies

Spreadable Acres

Manage Field Acres

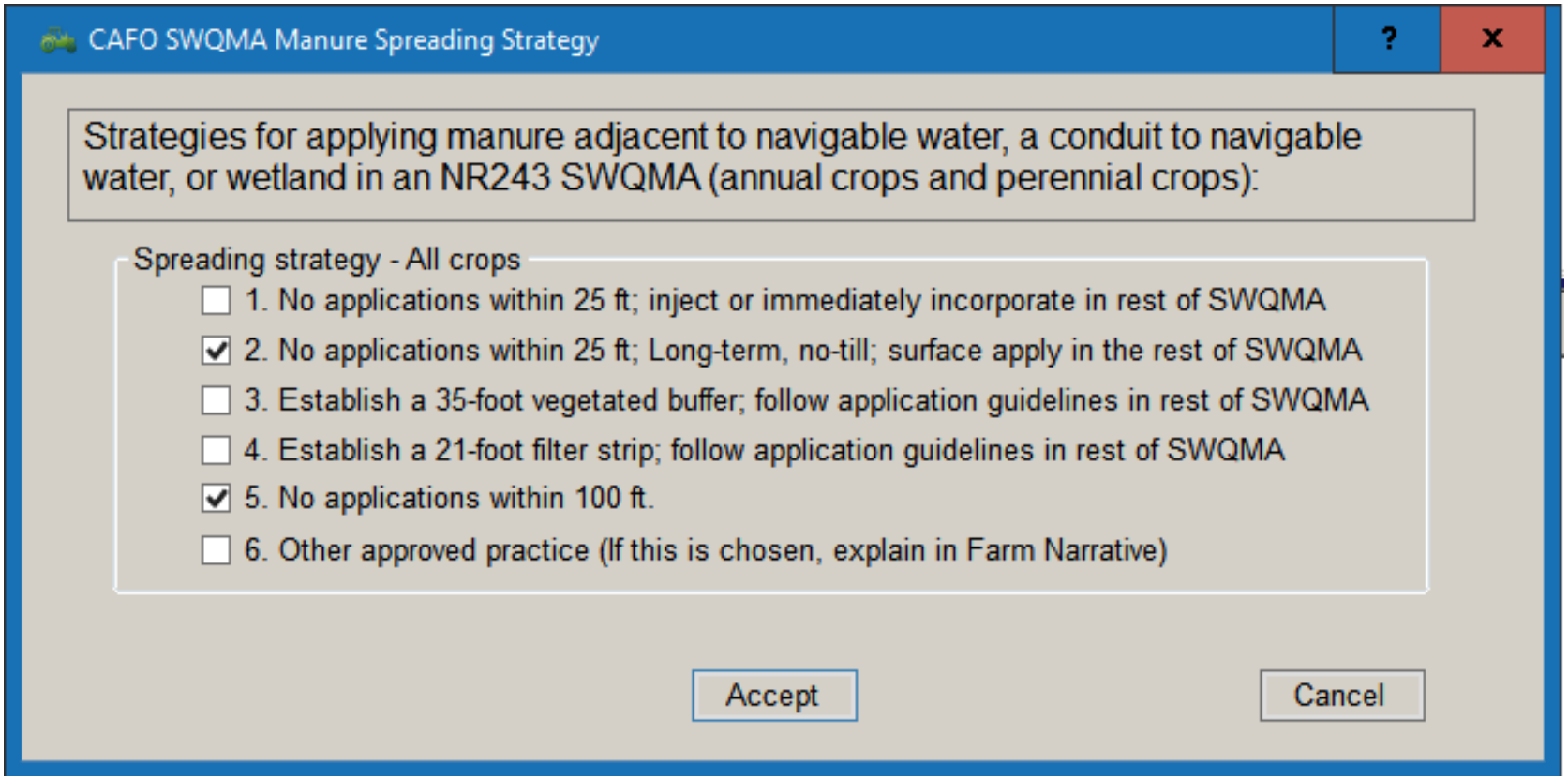
Field spreadable acres

What is verified?

Field Name	Field Acres	*Total Acres*	FSA Acres	Cropping Acres	Manure spreadable acres 25ft.	Manure prohibited acres 25ft.	SWQMA spreadable acres 25 ft	Manure spreadable 100ft.	Manure prohibited acres 100ft.	Manure spreadable acres Winter	Field Verified
09	5	5	5	5	5	0	5	5	0	NaN	☐
10	8.3	8.3	8.3	8.3	8.3	0	8.3	8.3	0	NaN	☐
Shallow silurian	38.6	38.6	38.6	38.6	38.6	0	38.6	38.6	0	NaN	☐
Well compensation	1.4	1.4	1.4	1.4	1.4	0	1.4	1.4	0	NaN	☐
Σ Totals	53.3	53.3	53.3	53.3	53.3	0	53.3	53.3	0	0	☑

Once you have edited them and feel they are correct, click in the **Field Verified** checkbox so future SnapMap imports won't overwrite these values.

Farm Screen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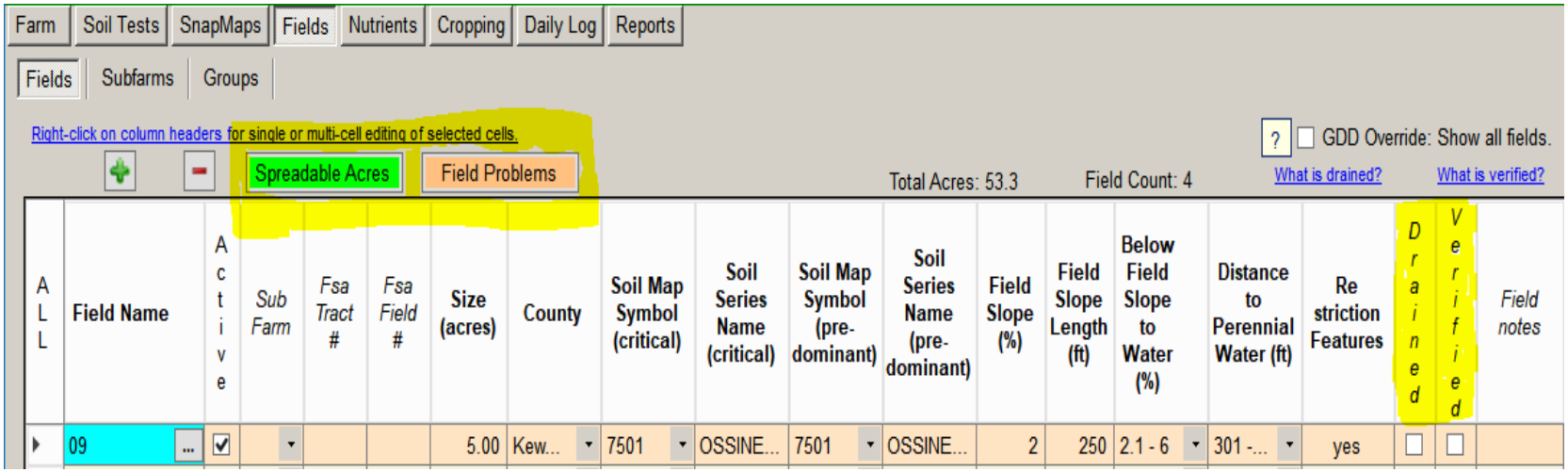
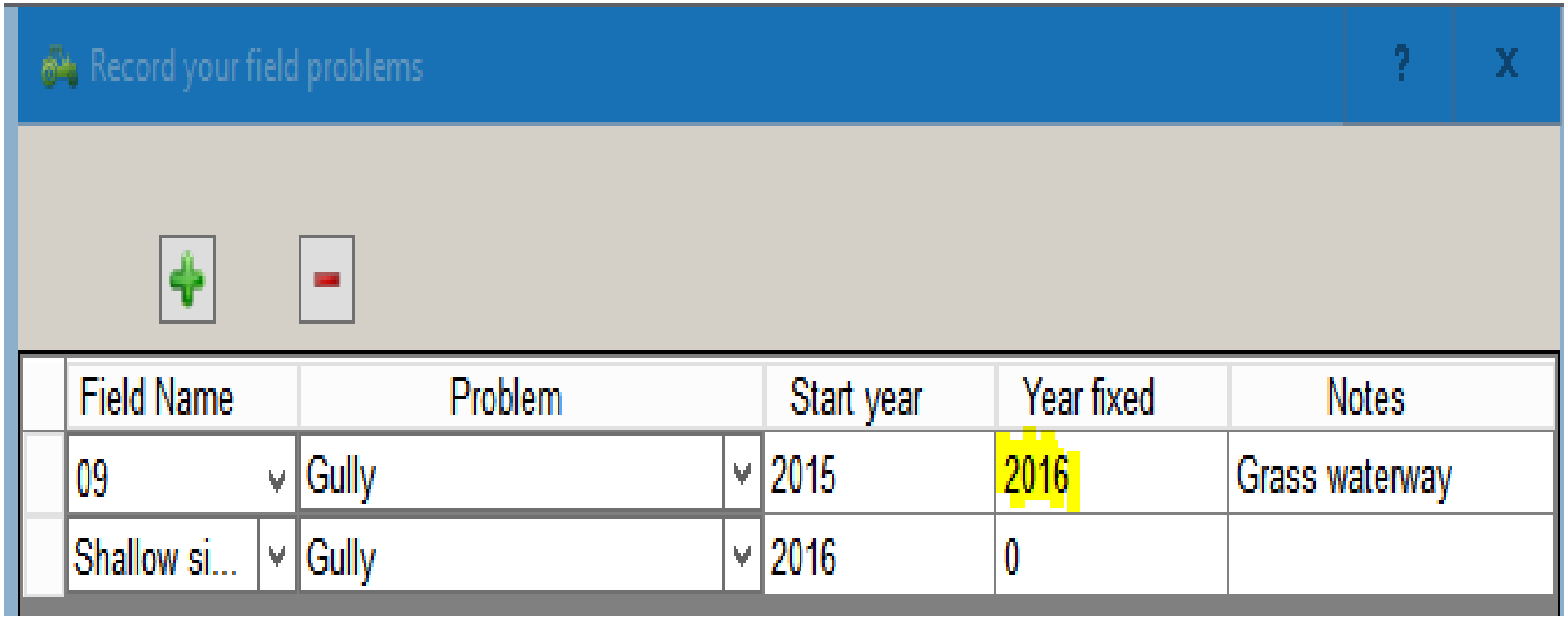
5. No applications within 100 ft.
6. Other approved practice (If this is chosen, explain in Farm Narrative)
Accept
Cancel

Fields – Problems



- The **Field Problems** button will open a window where you may log problems such as **ephemeral channels** and **gullies**.

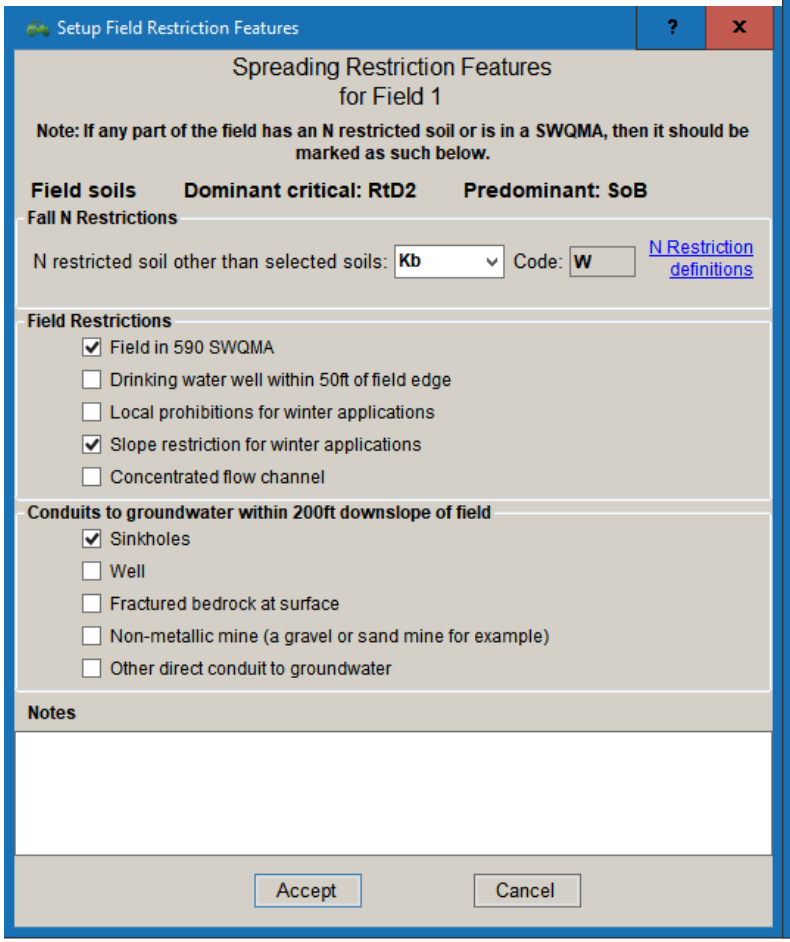
Field Problems

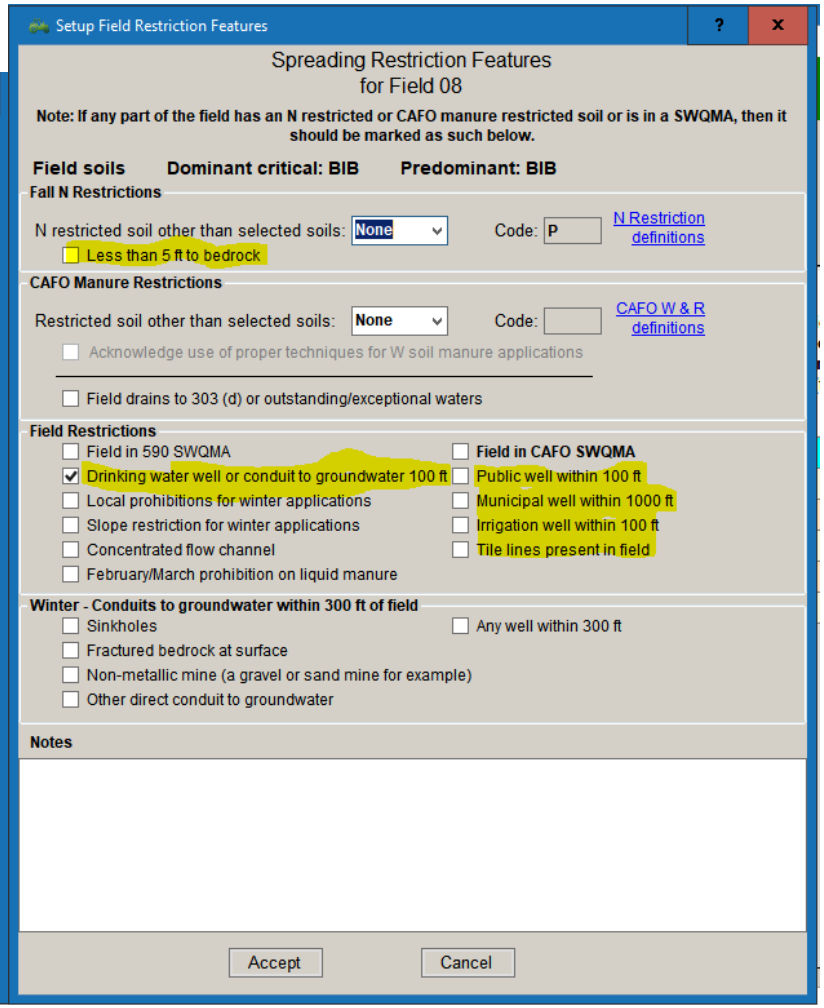


Field Name	Problem	Start year	Year fixed	Notes
09	Gully	2015	2016	Grass waterway
Shallow si...	Gully	2016	0	

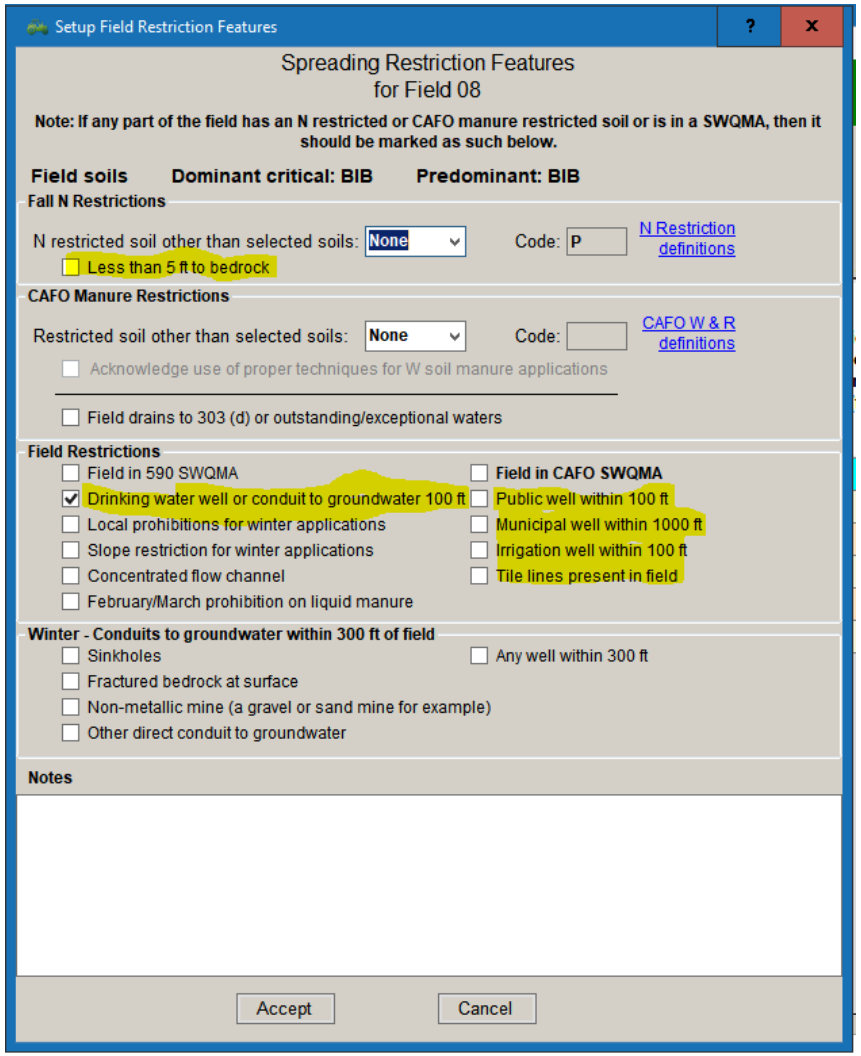
- Until you enter the **Year fixed** these problems will be compliance issues.
- This is where you should log your concentrated flow notes.

Field Restrictions

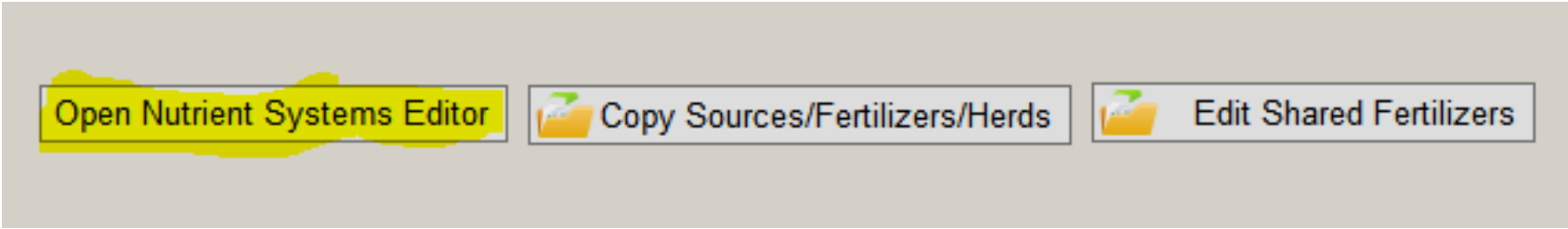




Field Restrictions



Nutrients Screen



The **Open Nutrient Systems Editor** – Will allow building application systems for particular situations or crops.

Nutrient Production

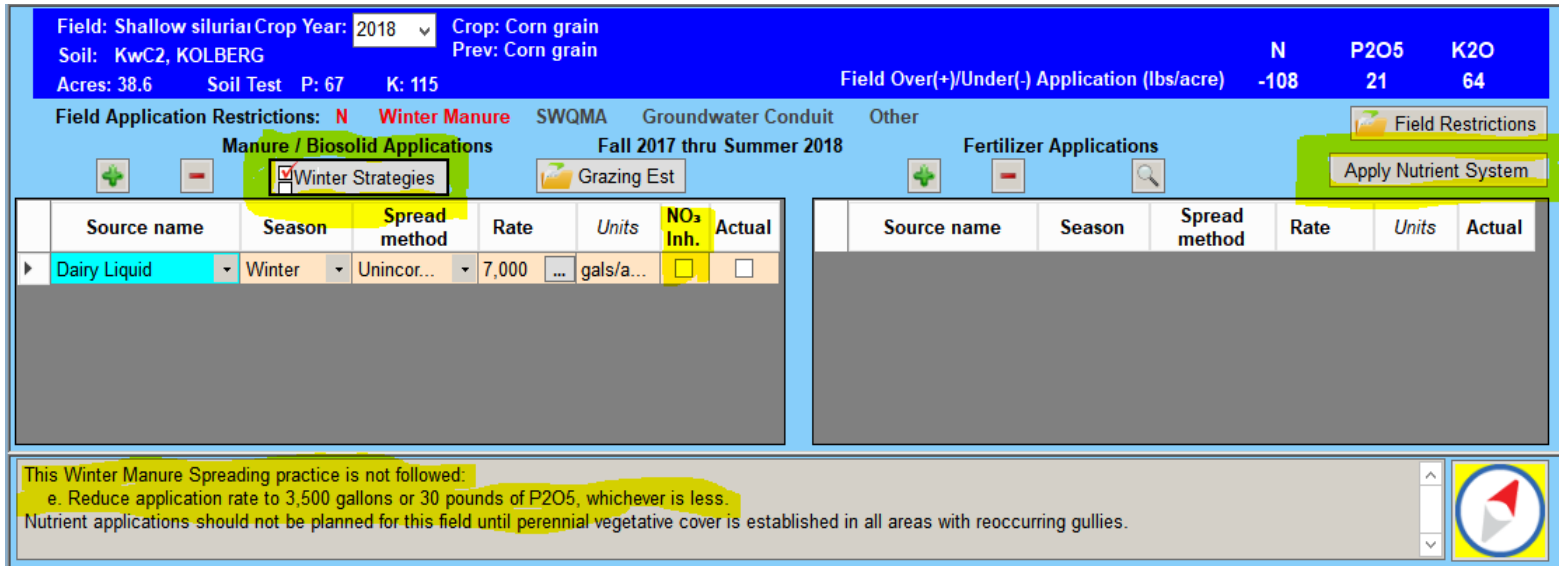
	Animal Type and Size	*Subfarm*	*Barn name*	Present In Winter
▶	Dairy Calf 150 lbs			☑
	Dairy Calf 250 lbs			☑
	Dairy Heifer 750 lbs			☑

The **Present In Winter** check is used for the Winter Spreading report.

Cropping Screen

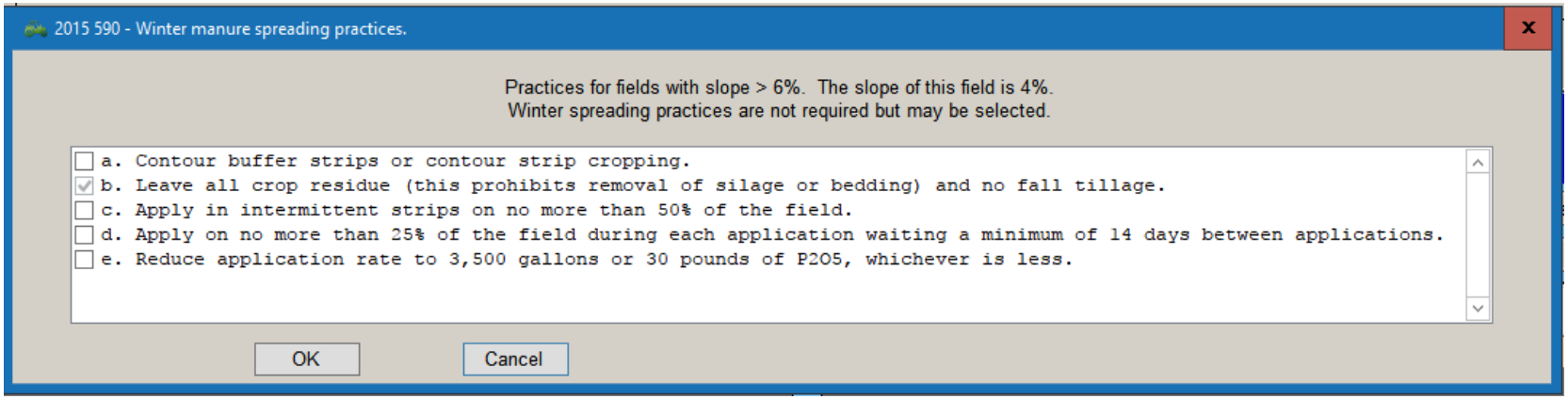
2019			2020			2021		
Corn silage			Corn silage			Corn silage		
20.1-25			20.1-25			20.1-25		
Spring Chisel, no disk			Spring Chisel, no disk			Spring Chisel, no disk		
2016-05-30			2016-05-30			2016-05-30		
NOT MET			NA			NA		
Irrigated	0.05/MRTN		Irrigated	0.05/MRTN		Irrigated	0.05/MRTN	
N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O
190	0	185	190	0	185	190	0	185
-	90	0	-	400	180	-	710	360
190	0	185	190	0	5	190	0	0
120	-	-	50	-	-	0	-	-
0	-	-	36	-	-	36	-	-
180	90	255	180	90	255	180	90	255
99	220	110	99	220	110	99	220	110

Cropping Screen - NAP

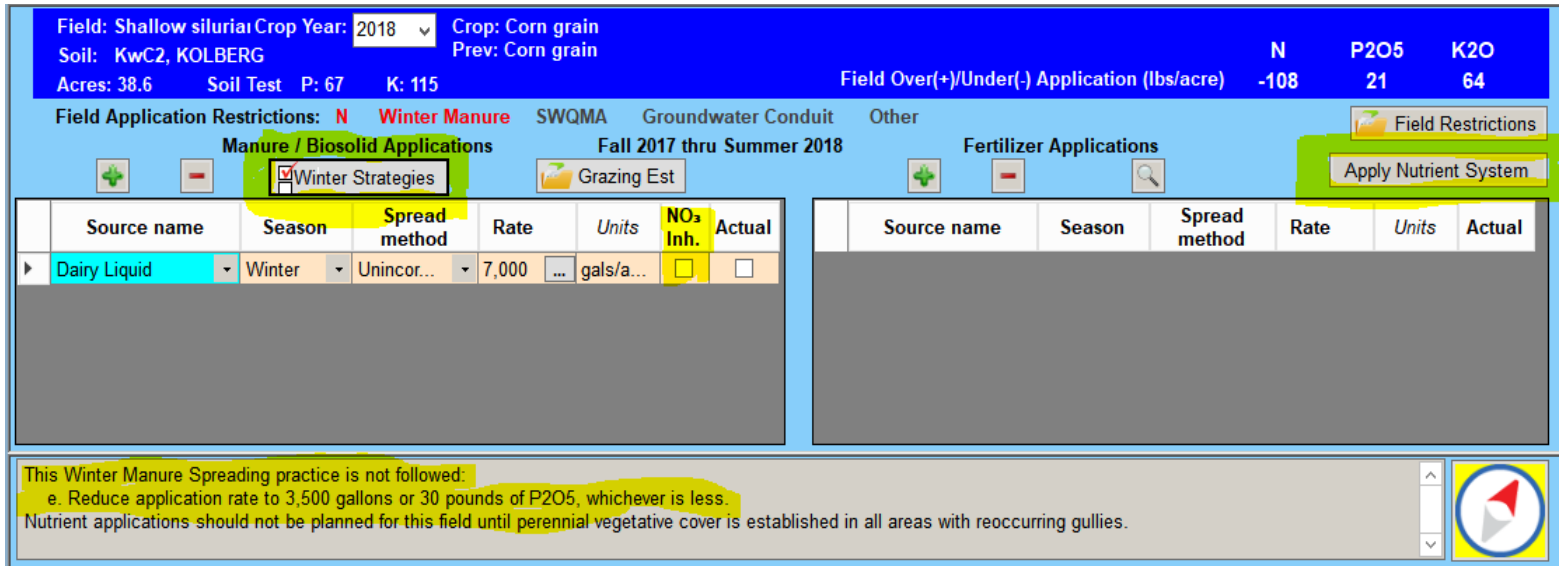


- With the new 590 you have to select your winter manure spreading strategies. You may do that by clicking on the **Winter Strategies** button.
- If you don't follow a selected strategy, will be compliance issues.

NAP – Winter Strategies

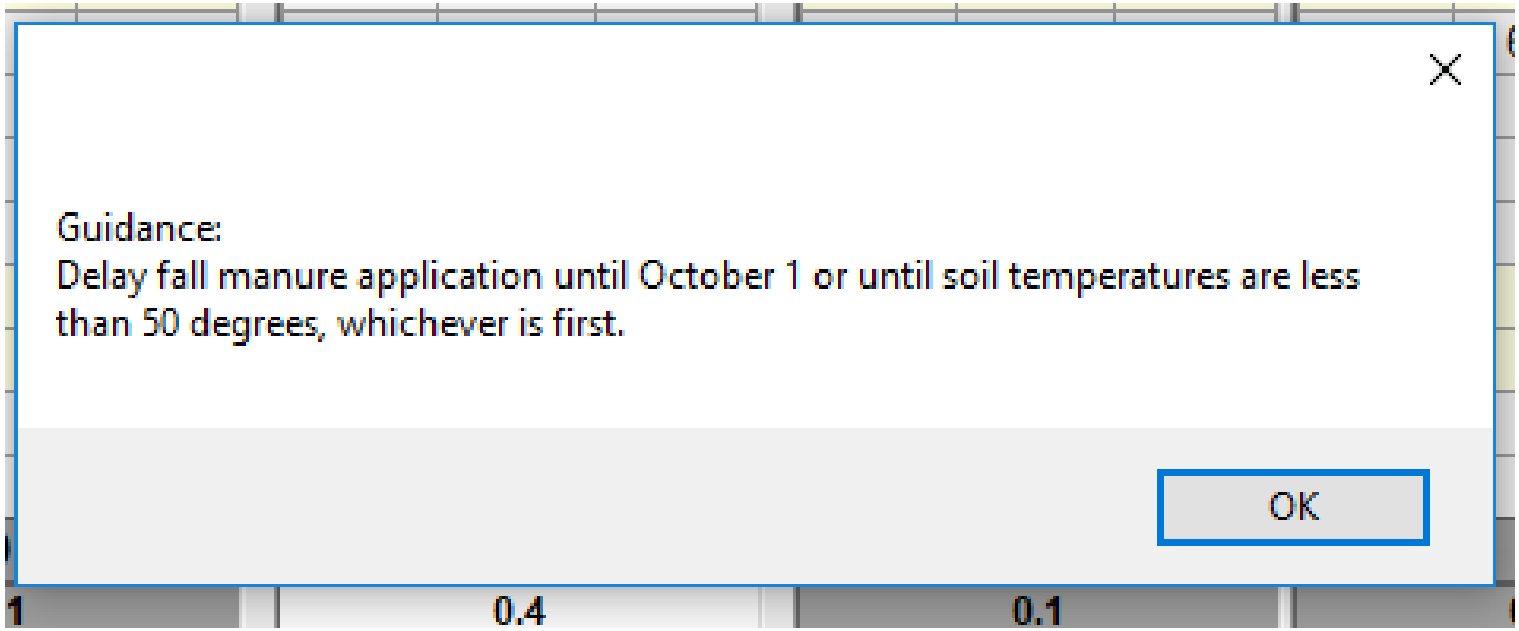


NAP (continued)



- **Add Nutrient System** button
- Manure NO_3 Inhibitor
- Guidance

NAP (continued)



Cropping Grid

	Field Name	Soil Symbol	Acres	Prev. Crop	Prev. Tillage	Prev. Yield Goal	Crop
▶	08	BlB	2.0	Alfalfa ...	Fall Ch...	1.0-2.5	Alfalfa
	09	BlC2	5.0	Alfalfa	None	4.6-5.5	Alfalfa
	10	BoB	8.3	Alfalfa	None	4.6-5.5	Corn silage
	11	BuA	8.7	Corn si...	Spring ...	20.1-25	Corn silage
	12	CkB	25.5	Corn si...	Spring ...	20.1-25	Corn silage
	13	BlC2	15.5	Corn si...	Spring ...	20.1-25	Alfalfa Seeding Spring

Daily Log

Select editing column: Loads / Rate

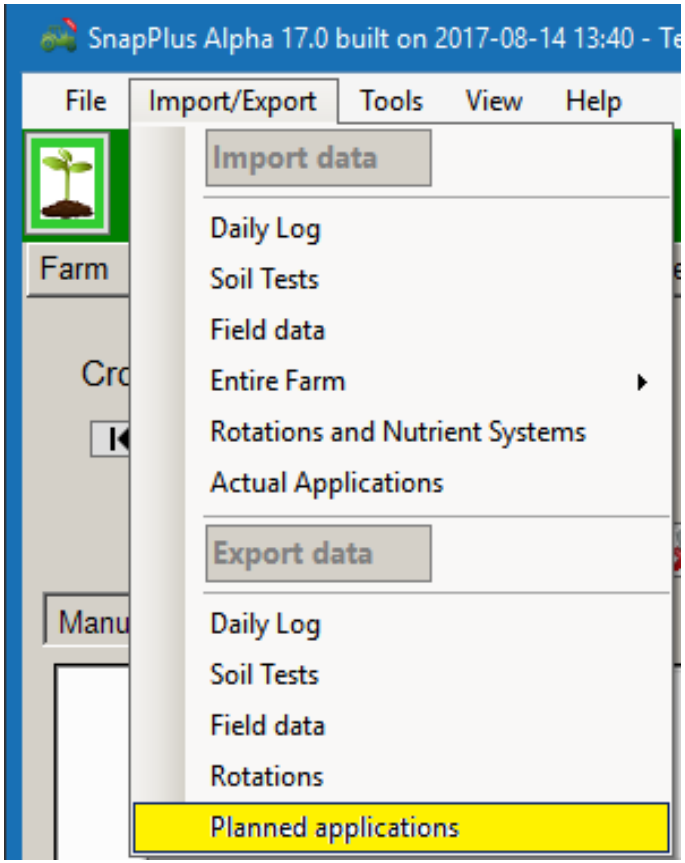
Delete all | drag hose

Manure | Fertilizer | Lime | Grazing

Added	Application Date	Crop Year	Season	Driver	Field Name	Acres Applied	Nutrient Source	*Nutrient Type*	Spreader Volume	*# Loads*	Spreader Rate	Soil Conditions	Wea Du ppl (te ecip
☐	2018-05-01	2018	Spring	JWW	09	5.00	Dairy Slurry	*Dairy, slurry*	20,000	*3.75*	**15,000**	satura...	Dry
☐	2018-05-01	2018	Spring	JWW	10	8.30	Dairy Slurry	*Dairy, slurry*	20,000	*6.23*	**15,000**	satura...	Dry
☐	2017-10-15	2018	Fall	JWW	11	8.70	Dairy Slurry	*Dairy, slurry*	20,000	*6.53*	**15,000**	satura...	Dry
☐	2017-10-15	2018	Fall	JWW	12	25.50	Dairy Slurry	*Dairy, slurry*	20,000	*19.13*	**15,000**	satura...	Dry

- **Rates** for partial field applications are used in the NAP.
- When using **Loads** the rate is calculated.

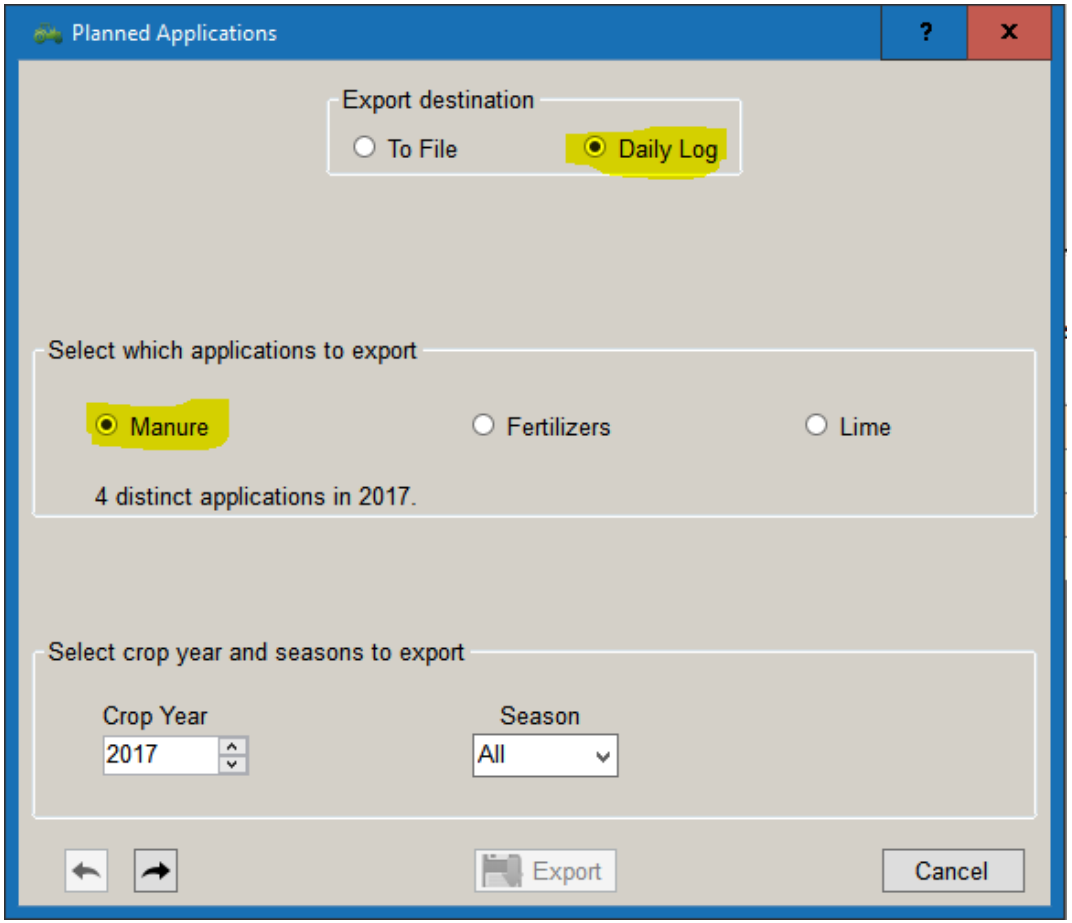
Export to Daily Log



Export planned applications: On smaller farms you may elect to export your planned applications to the daily log, make any edits necessary and then Import to update your actual applications.

There will be new Daily Log videos.

Export to Daily Log



SnapPlus Desktop

Any Questions ?

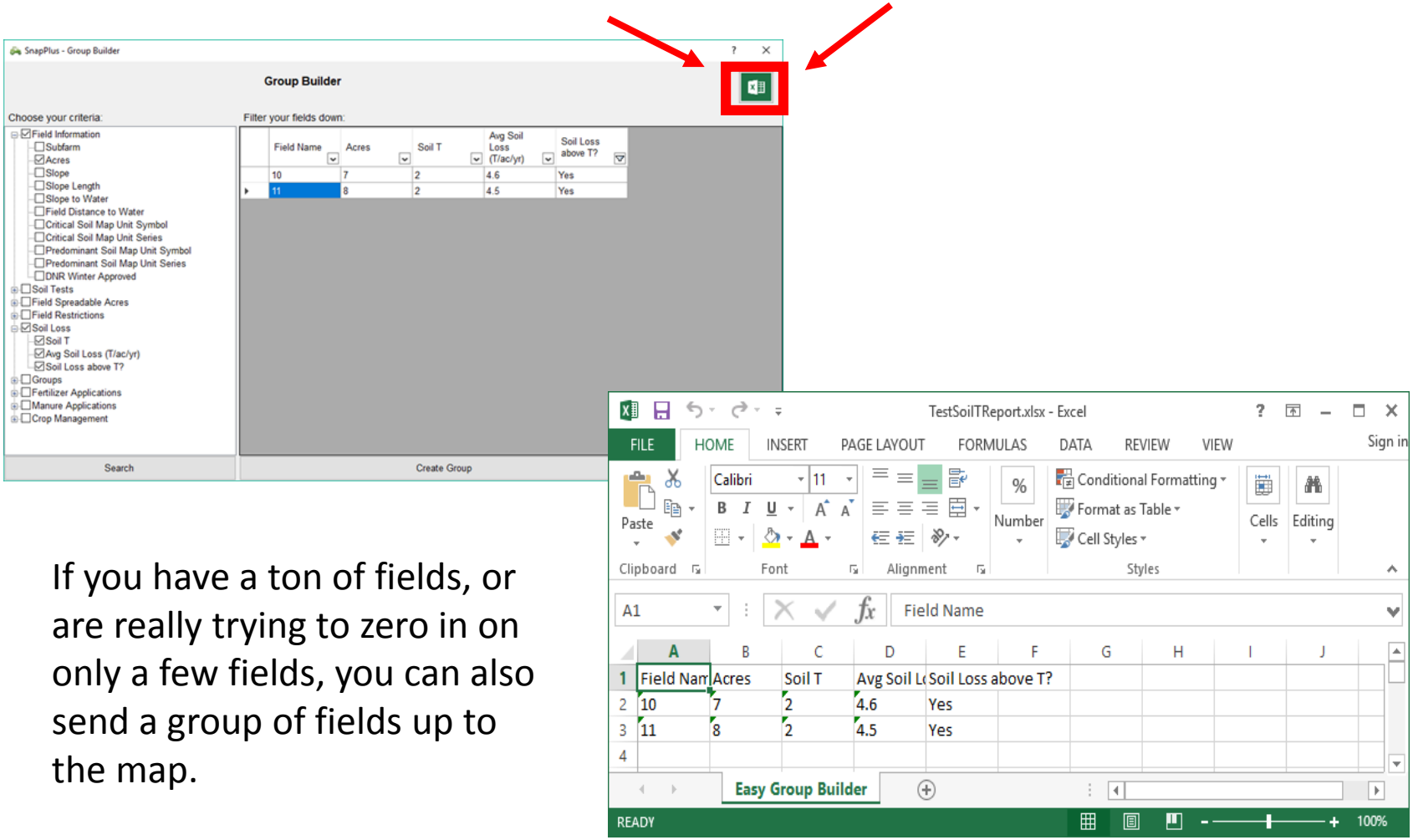
SnapPlus

Miscellaneous SnapPlus Desktop Updates and Reminders

SnapPlus

But WHEN?

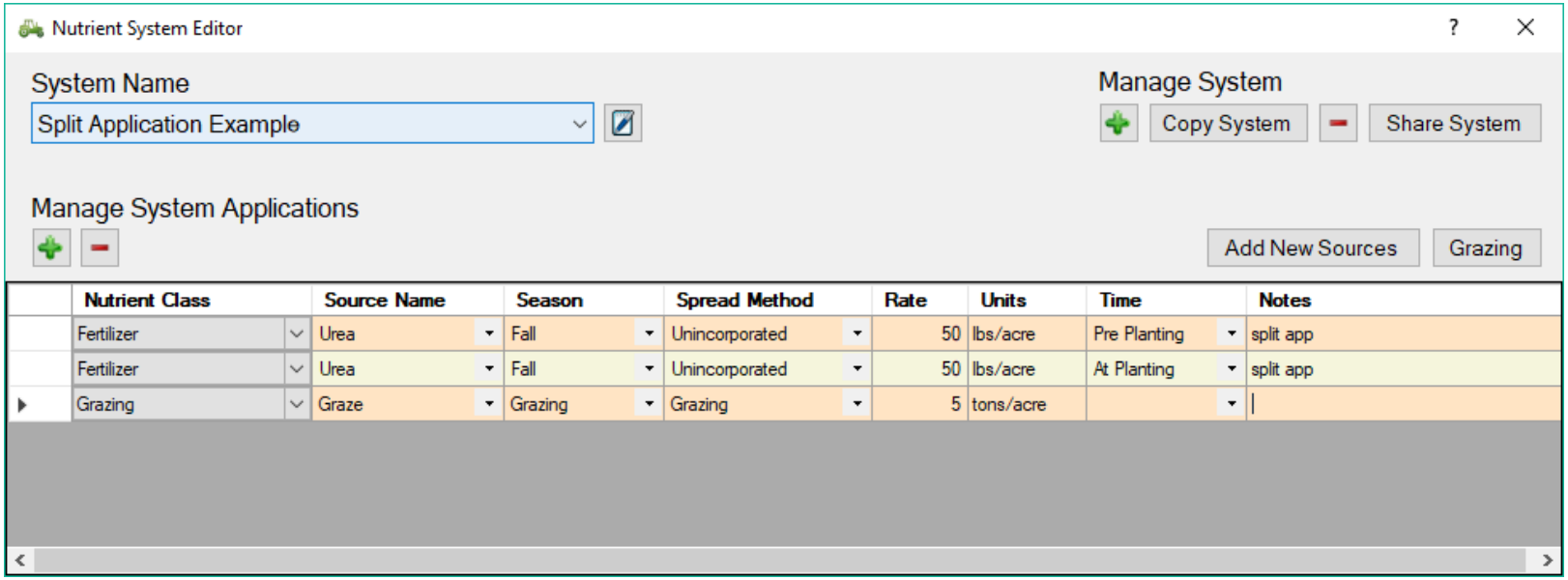
Easy Group Builder



If you have a ton of fields, or are really trying to zero in on only a few fields, you can also send a group of fields up to the map.

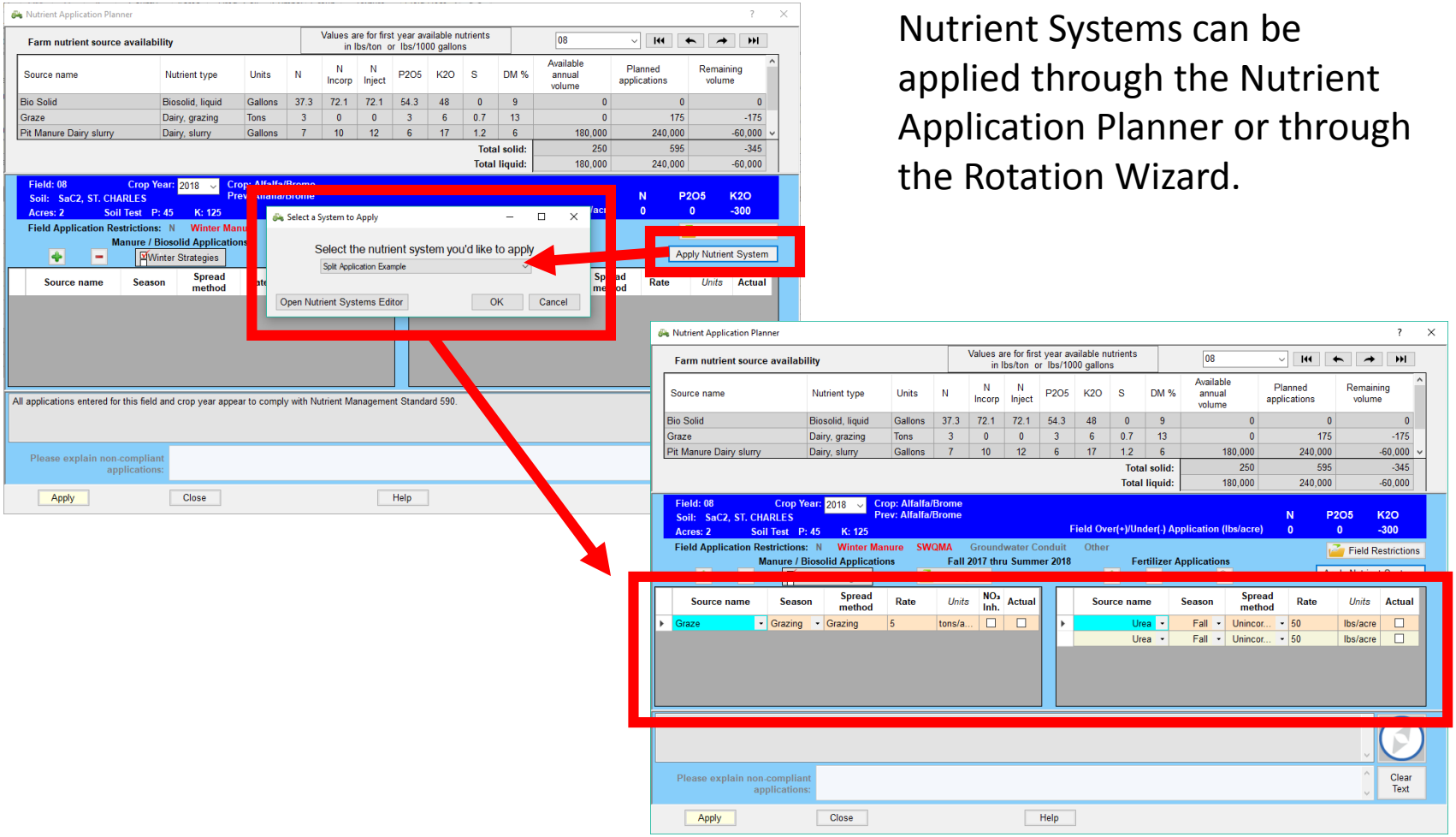
Nutrient Systems

- Groups nutrient applications for easier data entry
- A way of documenting split applications (now required for high permeable soils)



Nutrient Class	Source Name	Season	Spread Method	Rate	Units	Time	Notes
Fertilizer	Urea	Fall	Unincorporated	50	lbs/acre	Pre Planting	split app
Fertilizer	Urea	Fall	Unincorporated	50	lbs/acre	At Planting	split app
Grazing	Graze	Grazing	Grazing	5	tons/acre		

Nutrient Systems

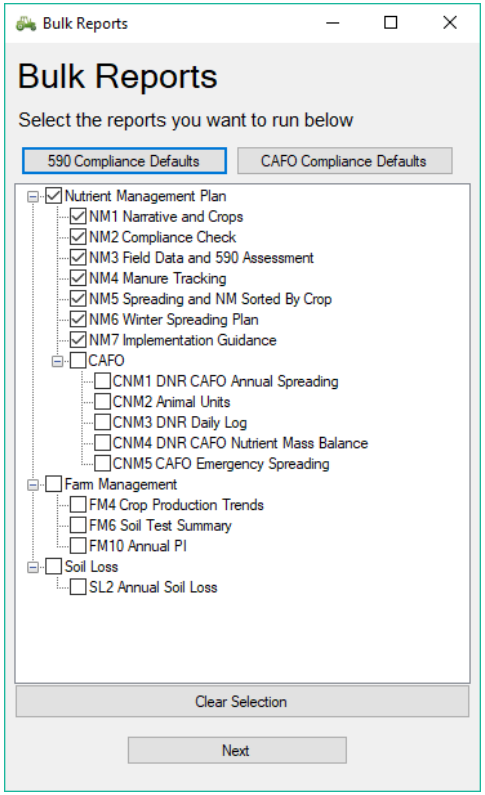


Nutrient Systems can be applied through the Nutrient Application Planner or through the Rotation Wizard.

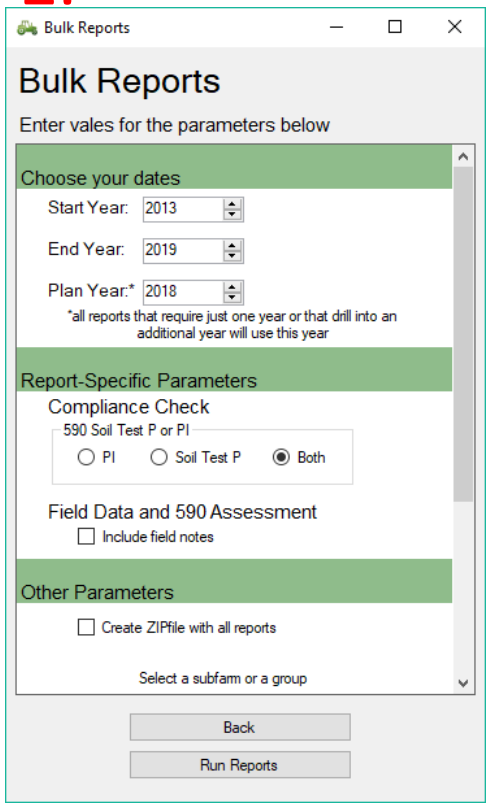
Bulk Reporting

- A faster way to run multiple reports

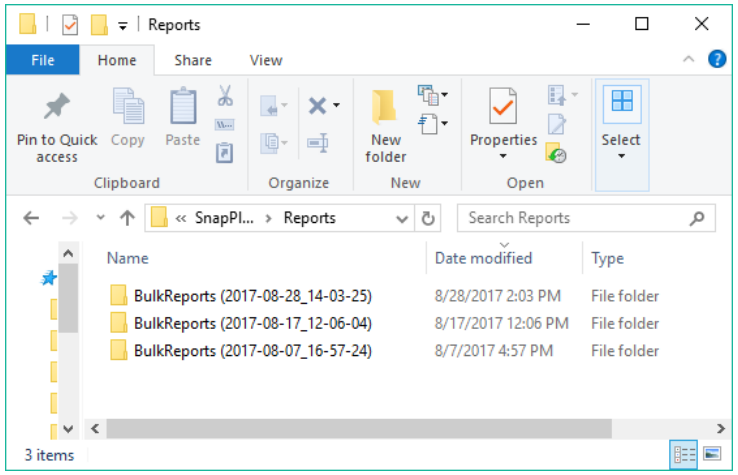
1.



2.



3.



Winter Spreading Report

Only includes animals that are marked as "Present in Winter" on the Nutrients tab

Checks for you to see if other fields are available to spread on if you've got a field slope > 6%

Fields physically OK for 14-day plan (if none, notes!)

Spells out your chosen winter application strategies and compliance problems

ColumbiaSampleFarm - Winter Spreading Plan Report 2018 08/28/2017

NM6 Winter Spreading Plan - 2018
All fields

Manure Production for 2018

Animal Type and Size	No. of head	lb/day per animal	Liquid gal/day per animal	14-day production as tons*	14-day production as gallons*	120-day production as tons*	120-day production as gallons*
Dairy Dry Cows 1400 lbs	5	115	25	4	1,750	35	15,000
Dairy Heifer 750 lbs	10	65	13.8	5	1,932	39	16,560
			Totals	9	3,682	74	31,560

* These are estimates of the total manure produced by all the animals on a farm for a 14-day and a 120-day period. The intent of this calculation is for comparison to planned winter spreading amounts. Total production is shown both in tons and in gallons to make it easier for planners to compare to whichever units are used on a farm. The 2015 590 standards requires all producers with livestock to plan for winter-spreading for a minimum of 14-days of manure production. The120-day manure production is shown because that is the approximate length of the frozen soil period in southern Wisconsin and is therefore the very minimum amount of days that should be planned for winter application or storage.

Manure Storage for 2018

Storage Name	Storage Source	Storage Type	Solid Storage (tons)	Liquid Storage (gallons)
Pit1	na	na	0	180,000
		Totals	0	180,000

Manure Spreading for 2018

Total planned winter mechanical applications on 16 acres: 160 tons and 0 gallons

Total planned winter grazing applications on 0 acres: 0 tons

All fields with Mechanical Spreading in Winter 2018

Field Name	Acres	Slope %	Other Field Avail. if Sl>6%*	Conc. Flow	Winter Application Strategies	Winter Compliance Prob.	Problem Explanation
13	16	9	yes		a. Contour buffer strips or contour strip cropping. b. Leave all crop residue (this prohibits removal of silage or bedding) and no fall tillage.	Chosen strategies not followed GW conduit	na

***Fields with no winter applications and no spreading restrictions in 2018 (29 acres): 09, 12**

Implementation Guidance Report

Any guidance messages will show up separated by season to make it easier for a farmer to keep track of the decisions that need to be made as the year progresses

ColumbiaSampleFarm - Implementation Guidance Report 2018 08/28/2017

NM7 Implementation Guidance Report - 2018

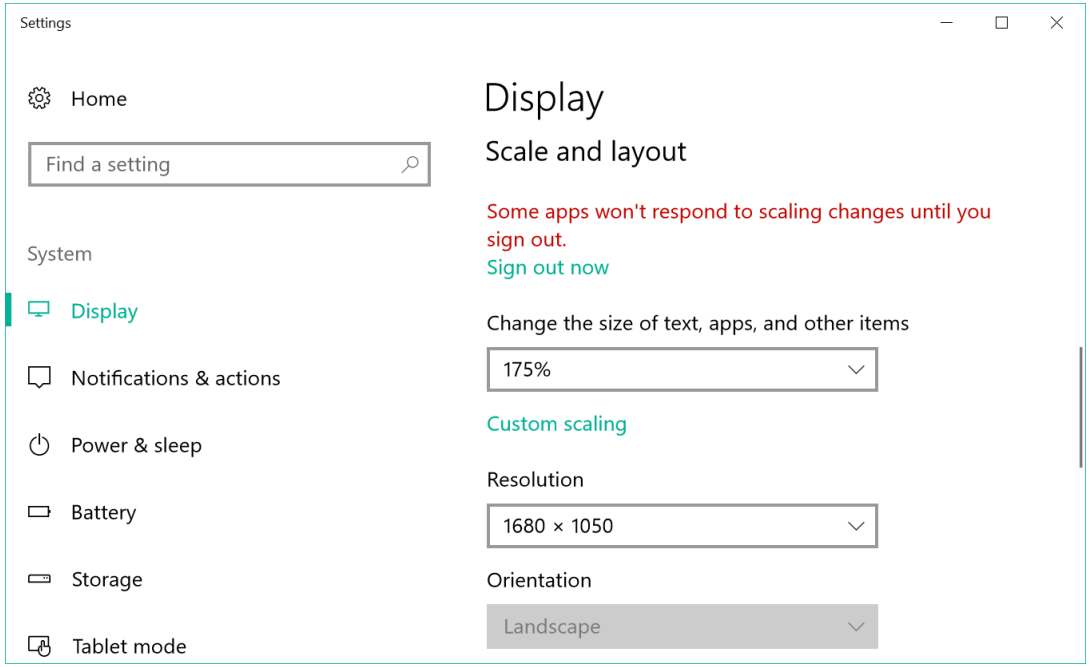
All fields

Guidance Messages for Winter 2018

Field	Guidance Messages
13	Winter - No manure within 300 ft of wells and conduits to groundwater.

Display Issues in Windows 8 & 10

- “High-dpi” causes spontaneous minimizing or strange-looking grids
- Change display settings to get around it



See FAQ for more in-depth info and two step-by-step workarounds

Exporting and Merging

- Exporting is the ONLY way to get a new farm for the SnapMaps website
- Merging should always be done on the desktop side first (demo)

Help Us Help You!

When emailing support@snapplus.wisc.edu, attach:

- Your .snapDb farm file (Ctrl-C, Ctrl-V)
- Screenshot, if needed (snipping tool)
- The Syslog (demo)

Website

- New videos! (Agronomist available!)
- Jim's handout
- "Display Issues"
- I PROMISE to post Sue's FAQ and all the rest of today's stuff

SnapPlus

Overview of Updates to Crops, Tillages, and Soils

v. 17 Crop Additions

- Diversified vegetables
- Corn silage to annual cover crop
- Pumpkin to small grain cover crop
- Barley grain + straw to annual cover crop
- Winter triticale to corn grain
- Winter triticale to corn grain, baled stalks
- Winter wheat to corn grain, baled stalks

v. 17 Tillage Updates

- More choices for pumpkin and squash
- More choices for snapbean
- Fall cultivation for pea crops

v. 17 Crop Management Updates

- Legume N removal
- Small grain straw removal corrected

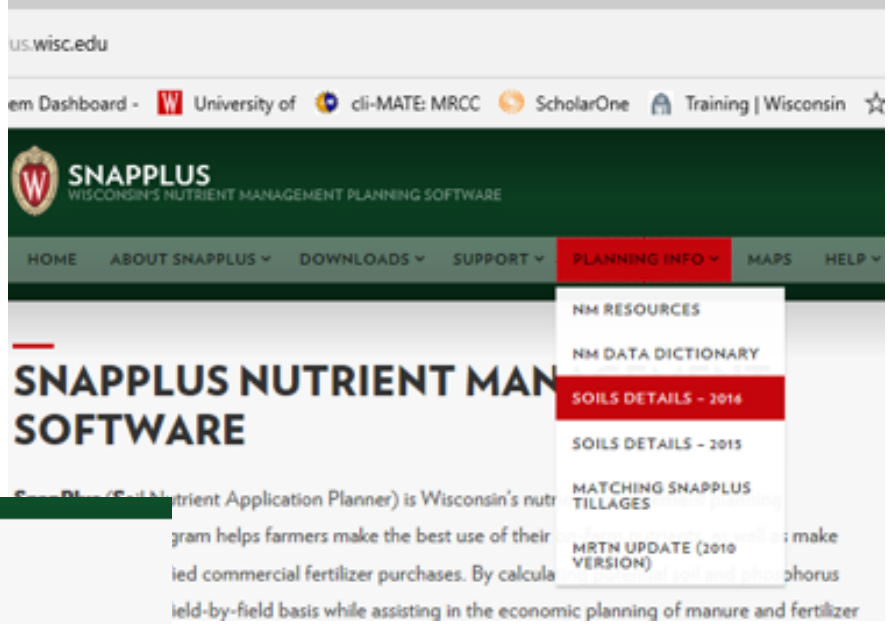
v. 17 Soil Database Updates

- Few changes in map units
- Series name change for some map units

  Ex. Dane Cty SnC2 Seaton variant now SnC2 Churchtown

- K change: 5% of map units
- T change: 2% of map units
- Fewer W soils (no perched water tables)
- No change to soil groups or N yield response

Soils Details -2017



PLANNING INFO

SOILS DETAILS – 2016

Soil survey and soil map unit information updated

Soil map unit names and classifications have been updated to correspond with October 2015 Soil Survey updates by the Natural Resource Conservation Service (NRCS).

Wisconsin soil map unit characterization changes for 2016

Wisconsin Soil Classifications for Nutrient Management Planning

- PDF
- Excel (filterable by county)

Soil Map Units with NR 243 Prohibitions on Manure Applications

590 Fall N restricted soils 2016 (WI 590 Tech Note 1 Appendix 1)

Will show all current map unit properties and changes