



360 COMMANDER™ UPDATES –
NITROGEN FUNCTIONALITY

Within the “Add Nitrogen” tab, you can now specify nitrogen forms and select if you used a nitrogen stabilizer.

Add Nitrogen

Step 1:

- Select a Growth Stage -

- or -

Select an application date

Step 2:

☒ Use Flat Rate

Enter Pounds of N

lbs

- or -

☐ Use Solver

of

- Select a Nitrogen Product -

☐ With Nitrification Inhibitor

Step 3:

Set Nitrogen

Select the product form.

Add Nitrogen

Step 1:

- Select a Growth Stage -

- or -

Select an application date

Step 2:

☒ Use Flat Rate

Enter Pounds of N

lbs

- or -

☐ Use Solver

of

Step 3:

✓ - Select a Nitrogen Product -

Nitrate

Anhydrous Ammonia

Urea

UAN

Ammonium Sulfate

Previous Crop

NITROGEN FORM



If you used a stabilizer, select the “With Nitrification Inhibitor”.

Add Nitrogen

Step 1:

- Select a Growth Stage -

- or -

Select an application date

Step 2:

☒ Use Flat Rate

Enter Pounds of N

lbs

- or -

☐ Use Solver

of

- Select a Nitrogen Product -

☒ With Nitrification Inhibitor

Step 3:

Set Nitrogen

NITROGEN FORM



View Form in Worksheet.

Field Projections Worksheet

Solver Advantage: 56 bpa

AAS Generic Seeds - XXX EXPERIMENTAL

Planting Date: 05/01/2016

Forecast: IL WC 2010to2014 Avg

345.12 Acres	Seeding Rate	Projected Yield	Limiting Factor	Planting
Average	34	200.4 bpa	Water	<div> <div>225</div> <div>225</div> <div>225</div> </div> <div> <input type="checkbox"/> Straight rate? <input type="checkbox"/> Remove pass? </div> <div> ✓ ✗ i </div>
100.10 ac / 50A /	34	201.8 bpa	Water	225N
72.51 ac / 46A /	34	198.4 bpa	Water	225N
32.50 ac / 46A /	34	198.4 bpa	Water	225N
17.37 ac / 46A /	34	198.4 bpa	Water	225N
16.10 ac / 50A /	34	201.8 bpa	Water	225N
Show all zones...				

**Solver
nitrogen
rates**

Product:
Anhydrous
Ammonia
With Stabilizer:
no
Min: 0N
Max: 350N

Rainfall

- All previous N applications are in the nitrate form.
- NH_3 in the fall and pre-plant should be REMOVED and added back in with the correct N form.
- This function allows for a more precise representation of nitrogen loss from fall applications.
- The nitrogen curve represents the total nitrogen available in the soil. With these updates, you may see changes in the nitrogen curve. Shifts in the curve may occur in scenarios when you may have had nitrogen tied up in crop residue following corn-on-corn crop rotation.
- Prescriptions are still Shapefiles that include all forms in gallons, pounds, etc.

PREVIOUS CROP



Within the “Previous Crop” tab, you can now select previous crop, harvest date and tillage practice.

Previous Crop	
Material:	<div>- Select Previous Crop -</div> <div>- or -</div> <div>C:N Ratio</div> <div>lb C : 1 lb N</div> <div>Tons of material</div> <div>tons</div>
Harvest date:	<div>Select the harvest date</div>
Tillage Practice:	<div>Conventional Tillage</div>
<div>Add to Plan</div>	

PREVIOUS CROP



Select from several common practices to pre-populate C:N and tonnage values.

Previous Crop	
Material:	<div><div>✓ - Select Previous Crop - Rye/Wheat/Oat Straw Corn 140 bpa Corn 160 bpa Corn 180 bpa Corn 200 bpa Corn 220 bpa Corn 240 bpa Rye Cover Crop (mature) Rye Cover Crop (vegetative) Soybeans Legume Cover Crop</div><div>C : 1 lb N ns</div></div>
Harvest date:	
Tillage Practice:	
Add to Plan	

PREVIOUS CROP



If you don't know your carbon-to-nitrogen ratio and tonnage, leave the default values as they are.

Edit C:N ratio to match your practices as best you can.

Edit tonnage based on your practices as best you can.

Previous Crop

Material:

Corn 200 bpa

- or -

57

lb C : 1 lb N

5

tons

Harvest date:

Select the harvest date

Tillage Practice:

Conventional Tillage

Add to Plan

Then, "Add to Plan" to save carbon application.

Select your harvest date
(date material came in contact with the soil).

Previous Crop

Material:

Corn 200 bpa

- or -

57

lb C : 1 lb N

5

tons

Harvest date:

Select the harvest date

Tillage Practice:

Add to Plan

Current Plans

10/15/2015

October 2015

Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

ns/acre

Conventional Tillage

Remove from Plan

Configure the type of annual tillage practiced (will be applied from time of first carbon application).

Previous Crop					
Material:	<div>Corn 200 bpa</div> <div>- or -</div> <div>57</div> <div>lb C : 1 lb N</div> <div>5</div> <div>tons</div>				
Harvest date:	<div>Select the harvest date</div>				
Tillage Practice:	<div>✓ Conventional Tillage</div> <div>Minimal Tillage</div> <div>No Tillage</div>				
<div>Add to Plan</div>					
Current Plans					
10/15/2015	Soybeans	30 lb C : 1 lb N	2 tons/acre	Conventional Tillage	<div>Remove from Plan</div>

Add multiple for cover crops or manure. Remove and add to change previous crops.

Previous Crop					
Material:	<input type="text" value="Corn 200 bpa"/>				
	- or -				
	<input type="text" value="57"/>	lb C : 1 lb N			
	<input type="text" value="5"/>	tons			
Harvest date:	<input type="text" value="Select the harvest date"/>				
Tillage Practice:	<div>✓ Conventional Tillage Minimal Tillage No Tillage</div>				
<input type="button" value="Add to Plan"/>					
Current Plans					
10/15/2015	Soybeans	30 lb C : 1 lb N	2 tons/acre	Conventional Tillage	<input type="button" value="Remove from Plan"/>

- The model was C:N neutral before. With this new feature, 360 COMMANDER will better calculate immobilization and the release of nitrogen based on timing of residue contact with the soil.
- This feature offers a more robust description of when previous crop, cover crops and other biological material becomes available nitrogen and better measures the potential loss of available nitrogen.
- All fields will be set to soybeans as the previous crop.
- There is not a standard soybean credit or additional N recommendation for corn-on-corn. It depends on N timing in the model.