

# Formulating a Percentage of Slow Release Nitrogen

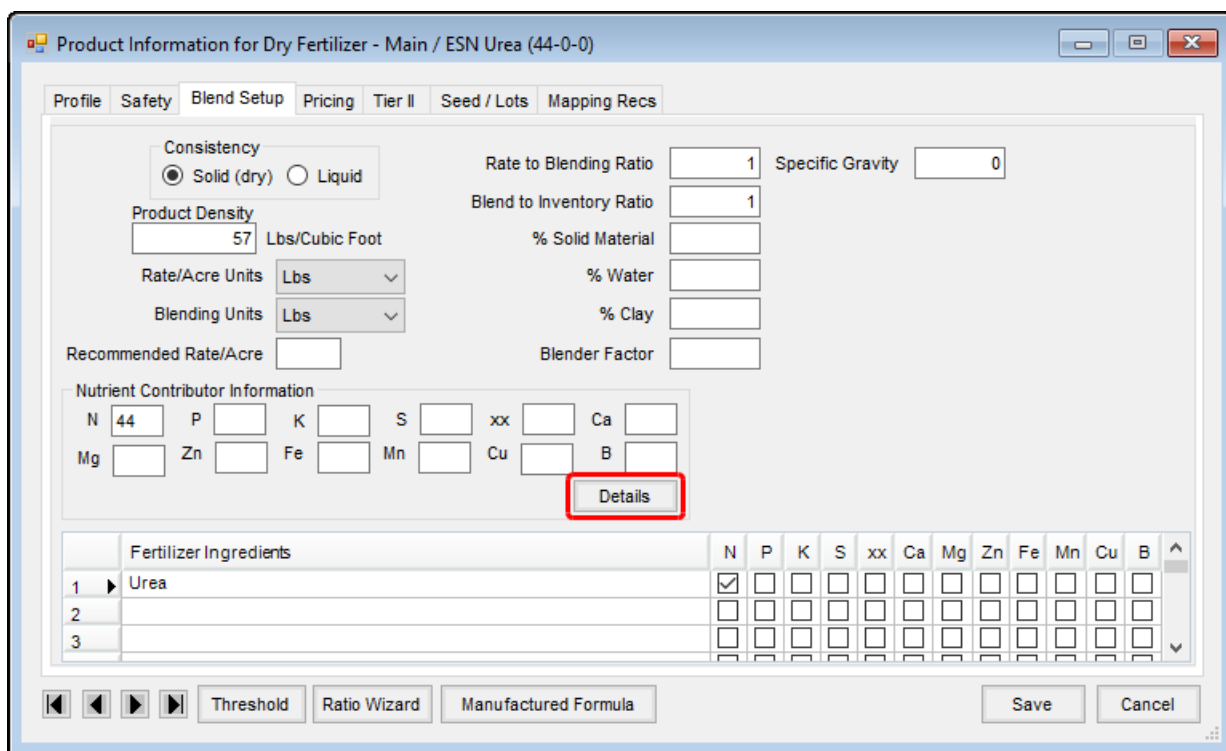
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**Q. How do I formulate for a certain percentage of Slow Release Nitrogen when making a Blend Ticket?**

A. Agvance Blending has the tools built into the formulation process to calculate the desired quantity of Slow Release Nitrogen when formulating a blend.

To begin the process, the percentage of Slow Release Nitrogen needs to be set up on the product.

Edit the product to be used to fulfill the Slow Release request. On the *Blend Setup* tab, click the **Details** button in the *Nutrient Contributor Information* to open the *Chemical Composition* window.



On the *N* tab, enter the percentage of Nitrogen for the product that is Slow Release. This example uses ESN Urea as 100% Slow Release Nitrogen.

Chemical Composition

N P K Mg Mn Zn Fe Cu S Ca Lime Info Gen

	<u>% of Total N:</u>	<u>% Slow Release:</u>	<u>Slow Release Derived From Product List:</u>
Ammoniacal N:	0	0.0	
Nitrate N:	0	0.0	
Other / Water Soluble N:	0	0.0	
Urea N:	100	100	Polymer-coated Urea
Water Insoluble N:	0	0.0	
Total Slow Release N:	100		

Other / Water Soluble and Water Insoluble:

OK

In the Blending module, verify the Slow Release Nitrogen product and any other products needed to formulate the desired analysis are in the product set. Navigate to *Blending / Setup / Product Sets*, and edit the product set that will be used to formulate. In this example, the *Basic Dry* product set is used with ESN and Urea available to fulfill the Nitrogen requested.

**Edit a Product Blend Set**

General **Blender Interface / Print Preference**

Set Description: Basic Dry  
 Type: Dry  
 Blender Capacity: 16000 Lbs  
 Water Rate/Acre:  Water %:   
 Clay Rate/Acre:  Clay %:   
 Minimum Gal/Acre:  Inactive:

Key Inventory Items  
 <Water> Water LiquiM Water  
 <Clay> Clay LiquiM Clay  
 <Dry Filler> Dry Filler DryM Filler

Batch Defaults  
 Equal Load Amounts  
 Partial Based on Capacity  
 Location: Main  
 Ship From Location:

Visible to Dispatcher Only

Allow Nutrient to Run Over  
 N  P  K  S  HA  Ca  Mg  Zn  Fe  Mn  Cu  B

	<Product>	BO (Blending Order)	Invoice	Active	Set Limits
1	Sulfur 90	6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Set Limits
2	Potash (0-0-60)	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Set Limits
3	Dap (18-46-00)	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Set Limits
4	Urea (46-0-0)	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Set Limits
5	Dry Filler	8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Set Limits
6	11-52-0 MAP	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Set Limits
7	Zinc Sulfate (17.5 S - 35 Zn)	7	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Set Limits
8	ESN Urea (44-0-0)	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Set Limits
9		0	<input type="checkbox"/>	<input type="checkbox"/>	Set Limits
10		0	<input type="checkbox"/>	<input type="checkbox"/>	Set Limits
11		0	<input type="checkbox"/>	<input type="checkbox"/>	Set Limits
12		0	<input type="checkbox"/>	<input type="checkbox"/>	Set Limits
13		0	<input type="checkbox"/>	<input type="checkbox"/>	Set Limits

Insert Row Tag All Untag All

Advanced... Save Cancel

Add a new Blend Ticket utilizing the product set containing the Slow Release Nitrogen product. Enter the desired analysis on the *General* tab, and double-click the *N* column heading to open the *Set Nutrient Source Constraints* window. Enter the percentage of Slow Release Nitrogen to be used in the blend, and set the dropdown to greater than or equal to (as ESN is more expensive than Urea in this example).

This example requests 120 pounds of Nitrogen per acre with at least 75% coming from Slow Release Nitrogen.

The screenshot shows the 'Add Blend Ticket # 274' application window. The 'General' tab is selected, displaying various input fields and buttons. A modal dialog titled 'Set Nutrient Source Constraints' is open, showing a table of nutrient constraints for Nitrogen (N). The constraints are as follows:

Nutrient	Constraint	Value
% Ammoniacal Nitrogen	<=	
% Nitrate Nitrogen	<=	
% Other/Water Soluble Nitrogen	<=	
% Urea	<=	
% Water Insoluble Nitrogen	<=	
% Slow Release Nitrogen	>=	75

Buttons for 'Load Defaults', 'Save Defaults', 'OK', and 'Formulate' are visible at the bottom of the dialog. The main window also shows buttons for 'View Analysis', 'Show Splits', 'Additional Info...', 'Edit to Actual', 'Capture Blender', 'Save', and 'Cancel'. A 'Print on Save' checkbox is checked at the bottom right.

When the desired percentage of Slow Release Nitrogen has been entered, select **OK** on the *Set Nutrient Source Constraints* window. Select the **Formulate** button on the *General* tab of the Blend Ticket.

Verify the desired products have been used to fulfill the request on the *Products* tab.

This blend requested 120 pounds of Nitrogen with a minimum of 75% being from Slow Release Nitrogen, which calculates to be 90 Lbs of N per acre ( $120 * .75 = 90$ ). The blend required Urea at 65.217 pounds per acre (30 Lbs of N per acre) and ESN Urea at 204.545 pounds per acre (90 Lbs of N per acre), so the 90 pounds were fulfilled by ESN Urea, and the remaining 30 pounds were fulfilled by Urea.

Add Blend Ticket # 274

General Products Prices Blend

Acres 97.980 Set Basic Dry Target lbs of Analysis 100 Reorder Products

	<Product Name>	Mix Group	Recommended Rate/Acre	Rate/Acre	Unit	Total Product	Unit
1	Urea (46-0-0)			65.217	Lbs	6389.962	Lbs
2	ESN Urea (44-0-0)			204.545	Lbs	20041.319	Lbs
3	Blend Fee			269.762	Lbs	26431.281	Lbs

View Analysis

	<N>	P	K	S	HA	Ca	Mg	Zn	Fe	Mn	Cu	B
Ordered	120.00											
Blended	120.00	0.00	0.00	0.000	0.0000	0.000	0.000	0.0				
Analysis	44.48	0.00	0.00	0.000	0.0000	0.000	0.000	0.0				

Density 57.697  
CuFt/Acre 4.675  
Lbs/Acre 269.762

Apply <Ship From Location>

View Analysis Show Splits Additional Info... Edit to Actual Captu

Print on Save

Nitrogen Breakdown

Nitrogen Breakdown

- % Ammoniacal Nitrogen 0.00
- % Nitrate Nitrogen 0.00
- % Other/Water Soluble Nitrogen 0.00
- % Urea 44.48
- % Water Insoluble Nitrogen 0.00
- % Slow Release Nitrogen 33.36

Close