

# Formulate a Nutrient Request at a Given Ratio of Products by Weight

Last Modified on 01/09/2023 1:45 pm CST

**Q. Can a formulation in form-U-net be setup to meet a given nutrient request by supplying equal weights of two different products?**

**A.** Navigate to *Material Groups / Edit Selected Material Groups / Edit Data.*

In the following example, a request of 40 lbs of Nitrogen per acre is requested, and it needs to be supplied using 50% Urea and 50% Ammonium Sulfate.

**Note:** This assumes the least cost source of Nitrogen in this group is Urea.

Right-click on a cell in the *P* column, and select **Insert Custom Column**. Enter a descriptive *Name*, such as 'AMS-Eq'. Set the *Input Scale* to '100', and choose **Insert Column**.

Enter '-2000' in the *Urea* row of the new custom column and '2000' in the *Ammonium Sulfate* row of the same column. Select **Save Changes**.

Formulation
Material Groups
Item Information
Customer Information
Administration

**Material Group Selection:**

MYBLEND ▼

Material Groups Setup ▼
Edit Selected Material Group ▼

**Material Group MYBLEND: Edit Full Data**

Mix Name:	Restriction Info:					Data Value:				
Mix Name	N	01_RES	02_RES	03_RES	P	K	S	Mg	Zn	
DAP (18-46-0)	18.00	0.00	0.00	0.00	46.00	0.00	0.00	0.00	0.00	
Urea (46-0-0)	46.00	46.00	0.00	-2000.00	0.00	0.00	0.00	0.00	0.00	
Ammonium Sulfate (21-0-0)	21.00	0.00	21.00	2000.00	0.00	0.00	24.00	0.00	0.00	
Muriate of Potash (0-0-60)	0.00	0.00	0.00	0.00	0.00	60.00	0.00	0.00	0.00	
Sulfate of Potash-Magnesia	0.00	0.00	0.00	0.00	0.00	22.00	22.00	11.00	0.00	
Zinc Sulfate (36% Zn)	0.00	0.00	0.00	0.00	0.00	0.00	20.00	0.00	36.00	
Borate (14%B)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Limestone	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Product	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Save Changes
Reset Grid

Select *Edit Selected Material Groups / Edit Restrictions*. Double-click in the newly created custom row, and change the restriction name, similar to 'AMS-Eq (0=Yes)'. Optionally, change the restriction code in the *Code* column to reflect the name in the *Edit Data* table. Select **Save Changes**.

Restriction Name	Code	Min	Price
Nitrogen	N	0.0000	\$0.0000
AMS-Eq (0=Yes)	AMS-Eq	0.0000	\$0.0000

The *Formulation* window now contains the AMS-Eq nutrient. For a formulation resulting in half Urea and half Ammonium Sulfate to supply the Nitrogen request, enter '40' in the *Nitrogen* restriction and '0' in the new restriction, and select **Submit Request**.

Formulation Request				Formulation Results														
		Per Acre	Analysis	Mixed Fert	\$430.00 / Ton	\$430.00												
Nitrogen	>	40.00	Lb. 33.50	Spreading		\$0.00												
N from I460000	>	--	Lb. 23.00	Mixing Charge		\$0.00												
N from I210000	>	--	Lb. 10.50	Applied	\$430.00 / Ton	\$430.00												
AMS-Eq(0=Yes)	>	0.00	Lb. 0.00	Other		\$0.00												
Phosphate	>	--	Lb. 0.00	Total		\$430.00												
Potash	>	--	Lb. 0.00	16.8 Acres	\$25.67 / Acre													
Sulfur	>	--	Lb. 12.00	1.000 Ton	1 Batch													
Magnesium	>	--	Lb. 0.00	16.8 Acres/Batch														
Zinc	>	--	Lb. 0.00	119 Lbs/Acre														
Boron	>	--	Lb. 0.00	2.33 CuFt /Acre														
Calcium	>	--	Lb. 0.00	51.3 Lbs/CuFt		39.0 CuFt												
<p>Acres: <input type="text" value="16.750"/> Rate Per Acre: <input type="text" value="119"/></p> <p>Batches: <input type="text" value="1"/> Max Lbs/Batch: <input type="text" value="2000"/></p>				<p>Mix Results</p> <table border="1"> <thead> <tr> <th>Item Mix Name</th> <th>Per Batch</th> <th>Unit</th> </tr> </thead> <tbody> <tr> <td>UREA (46-0-0)</td> <td>1000</td> <td>Lb.</td> </tr> <tr> <td>AmmoSulf 21-0-0</td> <td>1000</td> <td>Lb.</td> </tr> <tr> <td>Product</td> <td>2000</td> <td>Lb.</td> </tr> </tbody> </table>			Item Mix Name	Per Batch	Unit	UREA (46-0-0)	1000	Lb.	AmmoSulf 21-0-0	1000	Lb.	Product	2000	Lb.
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