

# Phosphate to Aqua Ammonia Ratio Blend

Last Modified on 12/12/2024 11:58 am CST

When creating liquid Blends for Tobacco, for example, there may be a need to formulate based on a ratio of one part Aqua Ammonia to three parts Phosphate.

To accomplish this ratio in Agvance Blending, set up the Nitrogen form breakdown on the *Blend Setup* tab of the Product to fulfill the 33.34% Nitrogen needed to satisfy the request. This Product may not be the cheapest Product available; therefore, through Least Cost Formulation, the remaining Nitrogen request will be fulfilled by the cheapest Nitrogen source.

In this example, a one ton request of 4-4-10-1S-2Cl will be used. Aqua Ammonia is the Nitrogen Product that will fulfill the one part Nitrogen for three parts of Phosphorus. Edit the Product, and navigate to the *Blend Setup* tab. In the *Nutrient Contributor Information* area, Aqua Ammonia is set up at 24.6 units of Nitrogen. Select the **Details** button. On the *N* tab, the Nitrogen form is set up as 100% Ammoniacal Nitrogen.

When adding a Blend Ticket, in the *Formulate By* area, select *Guaranteed Analysis*. Enter the request for the Blend, such as 4-4-10-1S-2Cl, then double-click *N*. In the *Set Nutrient Source Constraints* window, set the *% Ammoniacal Nitrogen* to  $\geq$ , and enter 33.34. Choose **OK**.

**Note:** The following is the formula used to arrive at the value entered for *% Ammoniacal Nitrogen* in this example.

$$4 \text{ (the Phosphorus request in the Blend)} * 33.34\% \text{ (1/3 of the Phosphorus request to be fulfilled by Aqua Ammonia)} = 1.3336$$
$$1.3336 / 4N \text{ (the Nitrogen request in this example)} = 33.34\%$$

Select **Formulate** and review the results.

Add Blend Ticket # 559

General Products Prices Blend

Tons 1 Set 00-TobaccoLiq Target lbs of Analysis 2000 Reorder Products

	<Product Name>	Rate/Ton	Unit	Total Product	Unit	Blended	Blended Unit	Scale	DeptID
1	0-54-0 Phos Acid	148.148	Lbs	148.148	Lbs	148.000	Lbs	3	LFrt00
2	0-0-62.41 - 48Cl / Sol Mur Pot	69.287	Lbs	69.287	Lbs	69.000	Lbs	3	LFrt00
3	12-0-46 -2Cl - Potassium Nitrate	337.114	Lbs	337.114	Lbs	337.000	Lbs	3	LFrt00
4	Aqua Ammonia 24.6N	107.140	Lbs	107.140	Lbs	107.000	Lbs	3	LFrt00
5	Water	1257.444	Lbs	1257.444	Lbs	1257.000	Lbs	3	LFrt00
6	32-0-0	3.944	Lbs	3.944	Lbs	4.000	Lbs	3	LFrt00
7	Anthio Sulf - 12% N 26% S	76.923	Lbs	76.923	Lbs	77.000	Lbs	3	LFrt00

View Analysis

	<N>	P	K	S	Cl	Ca	Mg	Zn	Fe	Mn	Cu	B
Ordered	4.00	4.00	10.00	1.000	2.0000							
Blended	80.00	80.00	200.00	20.000	40.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Analysis	4.00	4.00	10.00	1.000	2.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Close

Recalc using Rate/Ton Recalc using Total Product Recalc using Blended Recalc using Scale

Density 4.566 % Water 62.872 % Clay 0  
 Gal/Ton 437.993 Total Gal Est Salt Out Temp N/A  
 Lbs/Ton 2000 Total Lbs 1999 Est Temp Change 0

View Analysis Show Splits Additional Info... Edit to Actual Capture Blender Save Cancel

Print on Save

**Note:** This N request is finished by other sources with Nitrogen contributors that are cheaper than the Aqua Ammonia.