

Formulation by Residual Product Limits

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There are fertilizer mixes where the Guaranteed Analysis request is known as well as the specific percentages of Products to fulfill the request. In some cases, it may be important to formulate in this manner to achieve a specific salt out temperature for liquid mixes that may utilize standard Least Cost Formulation.

When requesting an analysis, the K request is filled first based on the percentage of each Product indicated. Any contributing nutrients for N or P from Products fulfilling K are subtracted from the original request. Next, P is fulfilled using the same method, and then N. This functionality is shared for both Blend Tickets and Field Plans utilizing the same setup.

To turn on this functionality for the Blend Ticket formulation process, go to *Blending / Setup / Location Preferences*. On the *Blend Setup* tab, select the *Allow Formulation By Residual Product Limits* option.

When adding a Blend Ticket or Field Plan, a **Product Limits** button will be displayed. This functionality is only available when formulating by Guaranteed Analysis such as formulating by the Ton, Tonne, or Acre.

Upon selecting **Product Limits**, all *Active* Products in the selected Product Set with a nutrient contributing value of N, P, and K display in the *Product Limits* grid.

If there are specific situations where this functionality will be used, it may be best practice to create a new Product Set containing only the Products for this scenario.

Process

After the setup is complete, Agvance Blending or Planning is ready for formulation using Residual Product Limits.

In this example, a 12-ton request for a 4-11-11 liquid blend will be fulfilled using the following parameters:

- 100 percent of the K request will be fulfilled by 0-0-62.
- 50 percent of the P request will be fulfilled by 11-37-0.
- 50 percent of the P request will be fulfilled by 8-24-0.

The contributing N from both 11-37-0 and 8-24-0 will be subtracted from the requested N, and the remaining N will be fulfilled 100% by 32-0-0.

Below is an example of how the *General* tab of the Blend Ticket would be filled out for this scenario.

Add Blend Ticket # 559

General Products Prices Blend

Customer ID AndBa ? View Maps Zone All <Crop>
 Field ID BA-01 ? Plan Plan Placement
 Blend Type Calculated Analysis <Crop Chemistry>
 <Billing Notes>
 <Quantity> 12 Tons Product Set 00-Liquid Product Limit
 Apply New Tons Optimize By Average Cost
 Agrian Rec Import Blend Price By Products
 Registration #
 <N> 4.00 <P> 11.00 <K> 11.00 <S> HA <Ca> <Mg> <Zn> <Fe> <Mn> <Cu> B
 Formulate By
 Lbs of Plant Food
 Guaranteed Analysis
 Lbs of Analysis 2000
 Gal of Analysis
 Product Limits
 Start With Products
 Load Nut Recs ?
 Formulate
 View Analysis Show Splits Additional Info... Edit to Actual Capture Blender
 Save Cancel
 Print on Save

	Product Name	N	P	K
1	<input checked="" type="checkbox"/> 11-37-0	0.0000	50.0000	0.0000
2	<input checked="" type="checkbox"/> 8-24-0	0.0000	50.0000	0.0000
3	<input checked="" type="checkbox"/> 32-0-0	100.0000	0.0000	0.0000
4	<input checked="" type="checkbox"/> 0-0-62	0.0000	0.0000	100.0000

Upon formulation, the results are as follows:

Add Blend Ticket # 559

General Products Prices Blend

Tons 12 Set 00-Liquid Product Limit Target lbs of Analysis 2000 Reorder Products

	<Product Name>	Rate/Ton	Unit	Total Product	Unit	Blended	Blended Unit	Scale	Lot#	<Crop Cod	Container
1	Water	856.307	Lbs	10275.684	Lbs	10276.000	Lbs	3			
2	11-37-0	297.291	Lbs	3567.492	Lbs	3567.000	Lbs	3			
3	8-24-0	458.343	Lbs	5500.116	Lbs	5500.000	Lbs	3			
4	32-0-0	33.220	Lbs	398.640	Lbs	399.000	Lbs	3			
5	0-0-62	354.839	Lbs	4258.068	Lbs	4258.000	Lbs	3			

View Analysis

	<N>	P	K	S	HA	Ca	Mg	Zn	Fe	Mn	Cu	B
Ordered	4.00	11.00	11.00									
Blended	80.00	220.00	220.00	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Analysis	4.00	11.00	11.00	0.000	0.0000	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

<Ship From Location> Density 9.851 % Water 42.815 % Clay 0
 Gal/Ton 203.02 Total Gal 2436.24 Est Salt Out Temp N/A
 Lbs/Ton 2000 Total Lbs 24000 Est Temp Change 0

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