## Formulation by Residual Product Limits

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## Overview

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.

## 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 display. This functionality is only available when formulating by Guaranteed Analysis such as formulating by the Ton, Tonne, or Acre.

When selecting the **Product Limits** button, 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**

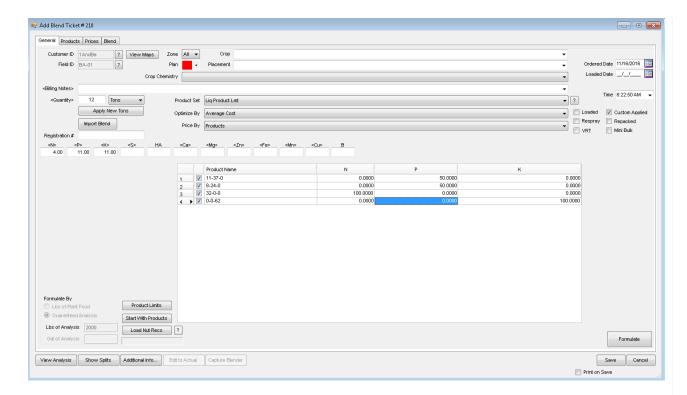
After the setup is complete, Agvance Blending or Planning is ready for formulation using Residual Product Limits.

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.



Upon formulation, the results are as follows.

