Accurate Density Calculation and Estimated Salt Out

Last Modified on 05/31/2024 1:27 pm CDT

The process for setting a specific gravity value on dry Products routinely added into liquid blends in order to receive an accurate Blend Density calculation and Estimated Salt Out Temperature.

Part 1: Agvance Accounting Setup

- 1. Edit the Product at Accounting / File / Open / Products and go to the Blend Setup tab.
- 2. Enter 2 in the Specific Gravity field.

Note: Agvance Blending uses the *Specific Gravity* value when the dry Product goes into a liquid blend. If no *Specific Gravity* is entered, Blending will use the value entered in *Product Density* which will result in calculated blend densities that are not as accurate.

Product Information for Dry Fert -00 / Potash (0-0-60)	
Profile Safety Blend Setup Pricing Sales Activity Tier II Seed / Lots Mapping Recs Interfaces	
Consistency Rate to Blending Ratio 1 Specific Gravity 2 Solid (dry) Liquid Blend to Inventory Ratio 1 1 Product Density 72 Lbs/Cubic Foot % Solid Material 1	
Rate/Acre Units Lbs % Water Blending Units Lbs % Clay Recommended Rate/Acre 0 Blender Factor 5	
Nutrient Contributor Information N P K 60 S UD Ca Mg Zn Fe Mn Cu B Details	
Fertilizer Ingredients N P K S UD Ca Mg Zn Fe Mn Cu B UD2 UD3 1 Muriate of Potash	~
Threshold Ratio Wizard Manufactured Formula	Save Cancel

3. Choose Save.

Part 2: Agvance Blending Setup

- 1. Go to Blending / Setup / Location Preferences / Print Prefs.
- 2. Check Print Salt Out on Blend.

Field Plan Blend Ticket Print Company Heading Regular Font Size Large Font Size Calculated Lbs. Adi Scale Start Print Satt Out on Blend Print Container ID Print One Ticket Per Load Print on Collated Paper 	Crea Bler F	ate Automated Ider File Print From Add Print From Edit Print From Dispato	ch	Consolidated Blend Ticket Print Department ID Suppress G. Analysis Suppress Density Print Tech Lic # Print Field Directions Print Lot # Print Lot # on Product Row Print Control # Print Print Control # Print Print Control # Print Print Control # Print Print Print Print Control # Print	
State Fertilizer Tag	Guar	ranteed Analysis	Deci	mal Accuracy Save of Blend Ticket	
Review Tag Numbers		Accuracy		Tolerance	^
Tag Review - Perform CI Warning	N	Whole	\sim	0	~
Suppress Zeros On Tags	P	Whole	~	0	
Manufacturer License	к	Whole	\sim	0	~
Fertilizer Tag Heading Manufactured By A Distributed By	S	Whole	\sim	0	~
Pertilizer rag heading Manufactured By V Distributed By V		Whole	\sim	0	~
Use AAPFCO Format as Default Tag Layout	Mg	Whole	\sim	0	~
Alt. Location Name to Print	Zn	Hundredth	\sim	0	~
agation's Address to Print ODMAIN	Fe	Hundredth	\sim	0	~
	Mn	Hundredth	\sim	0	~ ~
Field Plan Order Commer Print \$/Acre Print Rate/Acre Commer Print Unit Price Combine Dollar Values Print \$/	nts V				

3. Choose Save.

Note: When formulating blends, Agvance will now result in an accurate calculated Density and Estimated Salt Out Temperature. The following example is for a Blend Ticket for an Agvance formulated 9-18-9 analysis mix for 78.8 acres.

	Acres 78.8 Set 00-Bas	icLiquid		Target lbs of Analys	sis 1	00	Reorder Produc	cts
	<product name=""></product>	Rate/Acre	Unit	Total Product	Unit	Blended	Blended Unit	Scal
1	KTS 0-0-25-17s	3.273	Gal	257.912	Gal	258.000	Gal	3
2	Clay	4.484	Lbs	353.339	Lbs	353.000	Lbs	3
3	Water	21.993	Lbs	1733.048	Lbs	1733.000	Lbs	3
4	28-0-0	1.261	Gal	99.367	Gal	1043.000	Lbs	3
	10.34.0	4 525	Gal	366 670	Gal	357.000	Gal	3
4	10-54-0	1.020	<u>o</u> u	550.570		337.000	ou	
4 <	10-54-0	1.020	our	300.010		337.000		
4 «	Recalc using Rate/Acre	Total Product	Reca	Ic using Blended		Recalc using Sca	le	
4 < R	tecalc using Rate/Acre Recalc using	Total Product	Reca	Ic using Blended		Recalc using Sca	le % Clay	0.697
<	tecalc using Rate/Acre Recalc using Apply Location>	Density Gal/Acre	Reca 10.6 12.0	Ic using Blended		Recalc using Sca 19.882 949.855 Est Sa	le % Clav	0.697

Part 3: Enable a Salt Out Temperature to be Included and Printed on a Blend Ticket

- 1. Go to Blending / Setup / Product Sets and edit a Liquid Type Product Set.
- 2. Choose Suspension as the Type.

Note: This allows a maximum salt out temperature to be set.

3. Choose Advanced.

Edit	a Prod	uct B	lend Set							:
Gener	al Ble	nder I	nterface / Print I	Preference						
Set	Descrip	ption Type	00-BasicLiquid		~	Water Rate/Acre		w	/ater %	
Blend	ler Capa	acity	1200	Gal/CuFt	~	Minimum Gal/Acre	10	lr	nactive	
Key Inventory Items				LFrt	00 Water	Batch Defaults				
	<clay></clay>	Clay			LFrt	00 Clay	O	Partial Ba	ased on Cap	acity
<dry< td=""><td>/ Filler></td><td>Dry I</td><td>Filler</td><td></td><td>DFrt</td><td>00 Filler</td><td colspan="2">Location 00MAIN</td><td>~</td></dry<>	/ Filler>	Dry I	Filler		DFrt	00 Filler	Location 00MAIN		~	
	Visible to Dispatcher Only				Ship Fro	om Locatio	n		~	
	W Nutrie	P [Run Over ☐ K ☑ S		Ca	Mg Zn	Fe	Mn Active	Cu Cu] B 、 ▲
4	12-0	-0-26	·		201	4			Set Limit	
2	10-3	4-0				3			Set Limit	
3	10-3	0-0				3	I	V	Set Limit	s
4	28-0	-0				2	~		Set Limit	s
5	Wate	er				1	V	V	Set Limit	s
6	32-0	-0				0	~	V	Set Limit	s
7						0			Set Limit	<u> </u>
Ins	Insert Row Tag All Untag All									
					4	Advanced		S	ave	Cancel

- 4. Choose 55% Poly UAN under the System drop-down.
- 5. Check Formulate to a given Salt Out Temp.

Advanced Setup		
General Add On Products		
Salt Out Parameters	Base Grade>	17
Use Equations System	Maximum Salt Out Temperature	20
55% Poly UAN \sim	Supension Blend Target %	38
	P% Guarantee Limit (999 = Off)	999
	% Chlorine Warning (0 = Off)	0
	% Water to Preload	0
	% of Base to Preload	0
		ОК

Note: Checking this box allows the program to verify the salt out temperature during formulation and adjust if needed. This checkbox is only available for the *Suspension* Product Sets when *Use Equations* is not checked. One of the *Salt Out Parameter Systems* must be set to formulate to a salt out temperature. If formulating to a given salt out temp, then set the *Suspension Blend Target* % to *999*.

6. Enter 20 as the Maximum Salt Out Temperature.

Note: This is the maximum temperature to be used for a Suspension Product Set. *Use Equations* must not be checked for this option to be enabled. The *Max Salt Out Temperature* value can be adjusted to the time of the season.

7. Choose OK.

Additional Information - Explanation of Advanced Setup Window Options

Salt Out Parameters System Options

- No Poly UAN For solutions that contain Urea Ammonium Nitrate (UAN) solution and no ammonium polyphosphate.
- **55% Poly UAN** For solutions that use standard quality polyphosphate and UAN solution as their primary ingredients.
- **70% Poly UAN** For solutions that use higher quality polyphosphate with UAN solution as their primary ingredients.
- No Poly Urea For solutions that use Urea solutions and no ammonium polyphosphate solution.
- **55% Poly Urea** For solutions that use standard quality polyphosphate and Urea solution as their primary ingredients.

- Base Grade This is a Product that can be pre-loaded. This inventory item must be listed in the Product Set and have the percentage filled out to preload. For this to show up on a Field Plan, there must be a % of Base to Preload figure other than zero. This Product is listed at the top of a Blend Ticket (just under water if water is also preloaded) regardless of its Blend Order status in the list of Products.
- Suspension Blend Target % The total analysis % (sum of the nutrients' percent concentration) that the
 guaranteed analysis cannot exceed when formulating a Suspension blend. If the percentage is higher than this
 number, a prompt appears for the blend operator to decide if water is to be added to the blend until the total
 of the nutrients' guaranteed analysis is at or below this setting.
- P% Guaranteed Limit This upper limit setting for the P2O5 Guaranteed Analysis adds water to the blend until this blend's P2O5 guarantee is at the upper limit entered here. This is used by companies when the amount of a Product should be limited, such as Acid, to keep the fertilizer mixture from getting too hot. A setting of 999 deactivates this checking (999 = Off).
- % Chlorine Warning The percentage at which a warning is displayed after formulating a blend. If set to zero, the warning is disabled (0 = Off).
- % Water to Preload If completed, the percentage of water is listed first on the Blend Ticket regardless of its Blend Order.
- % of Base to Preload If completed, the percentage of the Base Grade Product is listed first on the Blend Ticket regardless of its Blend Order.