



Setting up blend types from scratch can be a little daunting so we've added some basic blend types to your agrē database that you can use as a 'template' to modify or copy.

Caution	Once you've used a blend type to make a blend there will be some fields that cannot be changed, so taking a few extra minutes up front to make sure everything is setup the way you want it may save you quite a bit of time later.
Tip	If you aren't using <b>blend charges</b> now but think you may in the future, Tronia recommends setting up blend types with a blend charge product priced at \$0. You can change the price of a product at any time, but agrē won't allow you to add a blend charge to a blend type that's already been used.

#### What you'll find:

Blend Nutrients	2
Dry Blends (scaled and volumetric)	2
Setting Up Dry Blend Products	2
Setting Up Dry Blend Types	3
Blend Type tab	4
Nutrient Defaults tab	7
Batch Sheet Settings tab	9
Price Sheet Defaults tab	13
Blend Charges tab	14
Liquid Blends	15
Setting Up Liquid Blend Products	15
Setting Up Liquid Blend Types	16
Blend Type tab	16
Batch Sheet Settings tab	17

# **Blend Nutrients**

Help

For details on how to work with *Blend Nutrients*, please refer to the *Blending* chapter of *online Help*.

Before you can start setting up blend types, all the nutrients you use will need to be defined.

Add	🖋 Edit	×c	elete	🔹 Refresh	😢 Exit	
Nu	trient Code	•	Desci	ription		
N	N		Nitrogen			
Р К			Phosphorus Potash			
S	S B		Sulphur Boron			
В						
Cu			Copper			
Zn			Zinc	21		
Mg			Magn	esium		
Mn			Mang	anese		
Fe			Iron			
Ca			Calci	m		1
Se			Selen	ium		4

Blending > Manage > Blend Nutrients

# Dry Blends (scaled and volumetric)

# Setting Up Dry Blend Products

**Help** For more details on how to setup products, please refer to the *Inventory* chapter of *online Help*.

On the **Products tab**, they must be flagged as an Inventory Item and be Blendable.

Save 😨 Refrest	n 👶 Prices/Taxes	🔇 Exit					
roduct   Units   In	ventory Notes Ass	ociated Product	s   Blending   I	Manufacturing	Dangerous Goods	Regulations	
	This product is acti	ive.					
Product Code:	4600		•		🔽 Inve	ntory Item?	
Description:	46-0-0		•		🔽 Retu	mable?	
Product Type:	Dry Fertilizer		-	Add	I Blen	dable?	

On the *Units tab*, you need to include all units you'll use with your blender. The main unit type must be the same as the main *Blend Type* units. Most of the time, MT alone will be adequate, unless your blender

is scaled in kilograms or pounds. If you're using a volumetric blender, you will need two matching unit types – main units and scale units.

Save	e 🕼 Refresh 🚦	Prices/Taxes	🔇 Exit				
Produc	t Units Invento	ry Notes Ass	ociated Prod	ucts   Blending   Manufa	acturing   Dangerous Goods	Regulations	
Г	Units	Main	Jnits?	Conv. Factor to Main	Company Retail Price	Active?	
>	MT - Metric Tonne	e 🚺	/	1.00	\$709.00		
	LB - Pound			2,204.60			
	KG Kilogram			1,000.00		1	
	NG - Nilografins					and the second se	

Inventory > Manage > Products

The *Inventory, Notes,* and *Associated Products* tabs can be left as is. The *Blending* tab, however, is crucial:

🐦 Edit Product: 1152 - 11-52-0	
Save     Refresh     X Delete     S Prices/       Product     Units     Inventory     Notes     Associate       Density:     61.0000        Product Makeup:	Iaxes       Stat         agrē needs to know the density of the commodities to calculate the density of the finished blend         use the same rate eg. lbs/cubic foot for all products
Nutrient           > N - Nitrogen           P - Phosphorus	Percent         optional: click [ ]           11%         to set location densities           52%
Add Nutrient Remove	define all of the nutrients in the product here, so that agrē can correctly calculate how much of this product you need to make a blend

# Setting Up Dry Blend Types

agrē comes with at least one blend type already configured for you. Have a look and see how it is set up:

-	Pland Turos Codo	Departmention	ĥ	opation	Active?
>	DRY	Dry Fertilizer		St. Albert	Active

Blending > Manage > Blend Types

## **Blend Type tab**

The *Blend Type* tab outlines the units and conversion factors you'll be using most of the time:

Nellesit				
lend Type Nutrient De	faults   Batch Sheet Settings   Price S	heet Defaults   Bler	nd Charges	
Blend Type Code:	EDMDRY Active		Blend Name Decimals:	0
Description:	Edmonton Dry	•	Detail Name Decimals:	2
Location:	Edmonton 💌 *		Unit Price Decimals:	4
Main Units:	MT - Metric Tonne	Decimals: 4	•	
Volume Units:	•			
Field Measurement:	acre *	Decimals: 2	•	
Nutrient Rate Units:	lb *	Decimals: 1	Conversion:	2,204.626
Application Rate Units:	lb *	Decimals: 1	Conversion:	2,204.626
Filler Product:	<b>_</b>	Add Product		
Allow Nutrient Max C	)ption?		Projects set a are not reta	t the product level ined in blends
Project:	<b></b>		if you want a Pro blend, set it at t	ject associated to a he Blend Type level

**Caution** *Main Units* and *Conversion* factors cannot be changed once the blend type has been used to Make a Blend.

*Main Unit* is the measurement unit for the completed blend (the total amount that is made is calculated in these units). For scaled blenders, it's usually **Metric Tonnes**. If you work in other units, just change these to whatever it is you commonly use, and modify the conversion rates appropriately.

*Field measurement* is a unit of area – usually acre or hectare – and is the unit of measurement for the broadcast area.

*Nutrient rate unit* is the unit in which the quantity of nutrient per unit of broadcast area is measured – kilograms or pounds – so that you end up with kilograms per hectare, or pounds per acre. You must specify how to convert the nutrient rate unit to main units – the conversion factor is Nutrient Rate Unit / Main Units (in this example, there are 2204.6226 lbs per MT).

**Broadcast Rate Unit** is the quantity that is spread over the field – this might be a dry or liquid measure, depending on the finished product.

The *Decimal* fields specify the number of decimals to be used for the relevant data item. Decimal values must be 4 or less.

Tip	Unit Price Decimals affect how much rounding occurs on the price per main
	unit (the more decimals, the less rounding), but the total price (quantity*unit
	price) will always have 2 decimals no matter what value is typed here.

In the *Filler Product* box, enter the filler product you want to use for the blend type. Filler products are only used for the blend name or calculation method when the guaranteed analysis is exceeded.

Check Allow Nutrient Max Option? to set maximum NPKS values instead of minimum NPKS values.

An extra column will appear on *Make a Blend* allowing you to *Limit* the amount of one or more nutrients. It's not foolproof (the calculation has to balance using the selected products, so the value could still be exceeded ), but it should get you closer to your targets.

	Nutrient	Ib per acre	Limit
	N - Nitrogen	0	1000
	P - Phosphorus	0	
	K - Potash	0	50/
>	S - Sulphur		V
•			[27]

Select the *Allow Suspensions?* check box if this is a liquid blend type using suspensions.

Select the **Project** to which all blends made with this type should be associated. (projects associated with blend commodities [46-0-0, 11-52-0, etc.] are not carried over to blends)

#### **Blend to Grade**

When you make a blend using a **blend name** or **guaranteed analysis** calculation method, you may ask for an analysis that isn't possible using the products listed. The analysis may be either unattainable (e.g., 90-90-90) or too low using the products listed (e.g., 7-7-7). If the analysis isn't attainable, then agrē provides you with a blend that achieves the desired ratios and the attained guaranteed analysis (e.g., 17-17-17). However, if the analysis given is too low, agrē gives you the option to "blend to grade" by using a *Filler Product*. For each of your blend types, you can optionally specify a default filler product.

The *Filler Product* must be an inventory item, must be blendable, must be active, and must have the main unit type (and volume units if applicable).

# **Note** Filler products are only used if you are **calculating** a blend **based on blend name or nutrient rate**, *and* the guaranteed analysis is exceeded.

Nutrient Requirements: Use Split Sources?		Click Yes to select a filler product (the one specified on the blend type is the default.)
P - Phosphorus     Guara       K - Potash	The guaranteed analysis that you have aske these products. Would you like to use a fille grade? Click Yes to use a filler product and blend to Click No to use the closest blend name.	d for will be exceeded with er product and blend to o grade.
Product           4600 - 46-0-0           1152 - 11-52-0           0060 - 0-0-60           > 120050 - 12-0-0-50 Sulfate		Yes No

When you calculate the blend, you'll be asked if you want to add the filler product.

Make a Blend > Calculate Blend

Once you click *Use Selection*, the blend would be calculated using enough filler product to bring the analysis down to grade.

👌 Choose	e a Filler Product:	×
Product:	GRIT - Filler Grit	•
	<u>U</u> se Se	

## Nutrient Defaults tab

When you are calculating blends, it can be handy to have the system provide default products for the nutrients you request in the blend. The *Nutrient Defaults* tab lets you set up those defaults, but at *Make a Blend* time you can change to a different product if you wish:

Ту	pe Nutrient Defaults Batch S	heet Settings   Pr	ice Sheet Defaults   Blend Charges	
	Nutrient	Nutrient Order	Default Product	Required?
>	N - Nitrogen	1	4600 - 46-0-0 🔻	<b>V</b>
	P - Phosphorus	2	1152 - 11-52-0	<b>V</b>
	K - Potash	3	0060 - 0-0-60	<b>V</b>
	S - Sulphur	4	120050 - 12-0-0-50 Sulfate	<b>V</b>
	B - Boron	5	BORATE - Borate - 15% Boron	
	Ca - Calcium	<u> </u>	calS - calcium sulphate	
	Cu - Copper	optional for non-	COPPER12 - 12% Copper	
	Fe - Iron		IRON - Iron Oxy Sulphate 40%	
	Mg - Magnesium	required	MAG - Magnesium 0-0-20-21-10mg	
	Mn - Manganese	nutrients	MANGANESE28 - Manganese 28%	
	Se - Selenium		SELENIUM - Selcote Ultra - Selenium	
L	Zn - Zinc	12	ZINC20 - Zinc 20%	
Ŀ				
	Add Nutrient Remove N	utrient Ad	d Product 🗌 🗆 🗆 Blend Name: Include	e All Nutrient Codes

N, P and K are always there, always in that order, and always required.

**Other nutrients** can be made *required* – these will always display in the blend name (even if 0), in the order specified (if it is required, it must have an order). There can be **no gaps between required nutrients** (the numbers must be consecutive, you can't have a non-required nutrient before a required one in the sequence). This effectively means that required nutrients must be N, P, K and then whatever other nutrients you want required, followed by any optional nutrients for which you'd like to specify the order of appearance.

A nutrient that is *not* required can have an order number – this will be the 'starting point' for the order when on *Make a Blend* – and will be included in the blend name only if the value is greater than 0.

Note	When calculating a blend, all non-required nutrients can be moved around – the order is just a starting point.
Tip	You can <b>add</b> a <i>nutrient</i> or a <i>product</i> on the fly with the buttons at the bottom.

You can **remove** the selected nutrient from the list with the **Remove Nutrient** button (as long as it isn't N, P or K).

The **default product** will be added to the Products in Blend grid on the Make a Blend form whenever you add this nutrient to a blend of this blend type. It's just a default, though, you can remove it and replace it with another product on the fly if you want. The product you define must contain the nutrient in its product definition (see Adding Products / Blending tab in online Help).

If you commonly create blends with different 'default products' (say, a slow-release nitrogen instead of straight 46) you might want to create a new blend type for that sort of blend. The new blend type can have slow-release product as the default for nitrogen, saving you from having to change out the product each time you make a slow-release blend.

you c	an copy the b	lend type by clic	cking <b>Copy</b> .		
VN	lanage Blend Types				
+	Add / Edit X	Delete	Refresh 🔞 Exit		
	Blend Type Code	Description	Location	Active?	
>	DRY	Dry Fertilizer	St. Albert	V	

## **Batch Sheet Settings tab**

The **Batch Sheet Settings** tab is where you define the conversion rates between your scale units and your main blend units, as well as the maximum size of your blender and the order in which you want products to be put through the blender.

Save 🖄 Refresh 🐼 Exit				
end Type   Nutrient Defaults Batch Sheet Settings   Price Sheet	Defaults Blend	Charges		
Main Units: MT - Metric Tonne Scale Units: kg Conversion: 1,000 Decimals: 0		Adjust Actuals Defaul Quantities are exp Product Qua Enter values per: Blend Adjust: Rate	ts ressed as: initity O Scale O Batch O Batch	Stops
Blender Type  Scaled / Metered  Scaled / Metered		is hate		
Blender Type Scaled / Metered C Volumetric Scaled / Metered	Produ	ct	Product Order	
Blender Type Scaled / Metered C Volumetric Scaled / Metered Max Blend Size (in main units): 8	Produ > 4600	ct - 46-0-0	Product Order	
Blender Type Scaled / Metered C Volumetric Scaled / Metered Max Blend Size (in main units): 8	> 4600	ct • 46-0-0 DTAINDRY - Agrotain Dry (	Product Order	
Blender Type Scaled / Metered C Volumetric Scaled / Metered Max Blend Size (in main units): 8 Show Worksheet on Batch Sheet by default	Produ > 4600 AGR0 1152	ct - 46-0-0 DTAINDRY - Agrotain Dry ( - 11-52-0	Product Order	ducts will be
Blender Type Scaled / Metered C Volumetric Scaled / Metered Max Blend Size (in main units): 8 Show Worksheet on Batch Sheet by default Show Percentages on Batch Sheet by default	<ul> <li>Produ</li> <li>4600</li> <li>AGR0</li> <li>1152</li> <li>0060</li> </ul>	ct - 46-0-0 DTAINDRY - Agrotain Dry ( - 11-52-0 - 0-0-60	Product Order 1 C 2 3 liste 4 on t	ducts will be d in this order he worksheet
Blender Type Scaled / Metered Scaled / Metered Max Blend Size (in main units): Show Worksheet on Batch Sheet by default Show Percentages on Batch Sheet by default Show Blend Notes by default Show Blend Notes by default	<ul> <li>Produ</li> <li>4600</li> <li>AGR0</li> <li>1152</li> <li>0060</li> <li>12005</li> </ul>	ct - 46-0-0 DTAINDRY - Agrotain Dry ( - 11-52-0 - 0-0-60 - 0 - 12-0-0-50 Sulfate	Product Order 1 2 3 1 1 2 pro- 1 1 2 pro- 1 1 5	ducts will be d in this order he worksheet
Blender Type         Image: Scaled / Metered         Scaled / Metered         Max Blend Size (in main units):         Image: Show Worksheet on Batch Sheet by default         Image: Show Worksheet on Batch Sheet by default         Image: Show Percentages on Batch Sheet by default         Image: Show Blend Notes by default         Image: Force Equal Batches by default	<ul> <li>Produ</li> <li>4600</li> <li>AGR0</li> <li>1152</li> <li>0060</li> <li>12005</li> </ul>	ct - 46-0-0 DTAINDRY - Agrotain Dry ( - 11-52-0 - 0-0-60 - 0 - 12-0-0-50 Sulfate	Product Order 1 C 2 3 4 5	ducts will be d in this order he worksheet

This tab displays the *Main Units* (and *Volume units* if you have them) just to be helpful (if you want to change them, head back over to the Blend Type tab).

The *Scale Units* represent the units the actual blending equipment uses, and the *Conversion* factor is Scale Units / Main Units. *Decimals* tells you how many decimal places the scale can understand.

Adjust Actuals Defaults can be changed on the fly when you're adjusting a blend.

You can choose either *Scaled/Metered* or *Volumetric* for your *Blender Type*. If you have entered settings for one and then switch the radio button to use the other type, you'll be warned that you will lose your settings if you proceed with the change.

TipSave before you click Volumetric! If you change your mind, you'll still have the<br/>settings you've already made (including ones on other tabs) up to this point.

#### **For Scaled Blenders**

*Max Blend Size* is the capacity of the blender.

agrē	2				Blend E	Batch Shee		
ustomer:	Carter, Ale Box 14 #7 Arden Dog Rive	exander (1033) County Road r, SK S0K 1T9				306.552.190		
Blend Name:	18-17-19			Field(s): Cross Corner				
Batch A:	Blende	d Product		Percentage	kg	Stops		
	46-0-	0		33.3334%	412.00	412.00		
	11-52	2-0		33.3333%	412.00	824.00		
					440.00	1 000 00		
	0-0-6 Repeat I	O Batch 1 times fo	or a Total of 1,23	33.3333% 6.00 kg	412.00	1,236.00		
Nutrient	0-0-6  Repeat I	0 Batch 1 times fi Target Ra	or a Total of 1,23	33.3333%	412.00	1,236.00		
Nutrient N Nitroge	0-0-6 Repeat I	O Batch 1 times fr Target Ra	or a Total of 1,23	33.3333% 6.00 kg Total for all Batch Blend [	412.00 es (kg):1,236.00 Density:58.7	1,236.00		
Nutrient N Nitroge P Phosph	0-0-6 Repeat I	0 Batch 1 times fr Target Ra	or a Total of 1,23	33.3333% 6.00 kg Total for all Batch Blend I Applicatic	412.00 es (kg): 1,236.00 Density: 58.7 nn Rate: n/a	1,236.00		
Nutrient N Nitroge P Phosph K Potash	0-0-6 Repeat I	0 Batch 1 times fr Target Ra	or a Total of 1,23	33.3333% 6.00 kg Total for all Batch Blend I Applicatic Total Area Sic	412.00 es (kg): 1,236.00 Density: 58.7 on Rate: n/a a (acre): n/a unature:	1,236.00		
Nutrient N Nitroge P Phosph K Potash Id Notes TEST BATCH	0-0-6 Repeat () in horus	0 Batch 1 times fr Target Ra	or a Total of 1,23	33.3333% 6.00 kg Total for all Batch Blend I Applicatic Total Area Siç	412.00 es (kg): 1,236.00 Density: 58.7 on Rate: n/a a (acre): n/a gnature:	1,236.00		
Nutrient N Nitroge P Phospł K Potash d Notes TEST BATCH Batch 4	0-0-6 Repeat i horus	0 Batch 1 times fr Target Ra OMMENT 11-52-0	or a Total of 1,23	33.3333% 6.00 kg Total for all Batch Blend I Applicatio Total Area Sig	412.00 es (kg): 1,236.00 Density: 58.7 on Rate: n/a u (acre): n/a gnature:	7,236.00		
Nutrient N Nitroge P Phosph K Potash Id Notes TEST BATCH Batch 4	0-0-6 Repeat 1 horus 1 SHEET C0 16-0-0	0 Batch 1 times fr Target Ra OMMENT <u>11-52-0</u> 412.00 / 824.00	0-0-60	6.00 kg Total for all Batch Blend I Applicatio Total Area Sig	412.00 es (kg): 1,236.00 Density: 58.7 on Rate: n/a a (acre): n/a gnature:	1,236.00		

*Worksheet, Percentages,* and *Blend Notes*: check the ones you'd *usually* like to see on each batch sheet (these are just defaults; you can uncheck them on a blend-by-blend basis).

*Force Equal Batches* can also be changed on the fly when you are making actual blends.

The only *Products* that will show on this list are **active**, **blendable** and have the **main unit type defined** on the product.

The idea is to list the products in the order you want them added to the blender – this will affect the order that the products show up on the batch sheet. Ties are allowed. Anything that should go in first should have a low number (like 1) and anything that should go in last should have a high number (like 9). Any product that isn't in the list will be placed second last (but only when there is a qualified "last" product to be used).

If you don't specify a *Product Order*, they will be listed in the same order you see them on the Calculation tab when you are making a blend.

#### For Volumetric Blenders

First you'll need a bin for *each product* you use in a blend for *each location* that that has a volumetric blender.



Blending > Manage > Bins

*Bin description* is required and must be unique per location.

The *Final Factor* is the rate that the product comes out of the bin (e.g. in kg/rpm). If a bin can output 0.3765 kg per rpm, set the final factor to be .3765. Basically, this means that for each tick of the dial (revolution), this amount of product will be output per minute. So set the dial to 100 and you would get 37.65kg/minute output from the given bin.

Note	Keep track of the bin units that you are using, as you need to specify the <b>conversion factor</b> between units of final factor and main units of the blend type (done on the blend type).
	For example, if you are using KG as the units for the final factors, and the main units of the blend type is MT, then the final factor conversion for the blend type is 1000 (1000 kg in a tonne).

end Type Nutrient Defaults Batch Sheet Settings Price Sheet Defaults	Blend Charges
And Type   Nutrient Derauits       Decirings       Price Sheet Derauits         Main Units:       MT - Metric Tonne         Scale Units:       KG       •         Conversion:       1.000       Decimals:       0         Blender Type       •       Volumetric         Conversion Factor:       1.000       •         Maximum Dial:       999       •         Max Throughput Per Hr:       200       Max Blend Size (in main units)         If Show Blend Notes by default       •       optional         Force Equal Batches by default       •       •	Adjust Actuals Defaults Quantities are expressed as:

The Batch Sheet tab for **volumetric blenders** looks a little different:

**Conversion factor**: This converts the final factor units to main units. This is the conversion from the units used in the bin final factor to the main units for the given blend type. For example, if the final factors are calculated based on kilograms and the blend type main units are in tonnes, the final factor conversion is 1000 (1000 kg in a tonne).

**Maximum dial**: This is the maximum setting (rpm) on the blending equipment. Typically the dials can be set from 0 to 1000 but often times the manufacturer may recommend a maximum setting of say 900 or 990, etc. The dial settings control the speed of the augers (typically represent rpm – revolutions per minute). When the system calculates the batch settings, it will take the maximum dial settings into consideration and will not assign a dial setting higher than this number.

*Max throughput per hour*: This represents the maximum amount of blended product that can be output per hour. This is measured in main unit type. Note that each bin has an auger (or multiple augers) and has its own maximum capability (the maximum dial setting). If all augers ran at their maximum capability, likely the system would be overloaded. The system itself has a maximum throughput for all products/bins combined. When the system calculates the batch settings, the maximum throughput is considered and the dial settings are adjusted to make sure that the maximum throughput isn't exceeded.

*Max Blend Size (in main units)* is normally the capacity of the vehicle/trailer/container into which the blend is loaded. Since this can change for every customer, you may want to leave it blank.

Force Equal Batches by default can be changed on the fly when you are making actual blends.

## Price Sheet Defaults tab

The Price Sheet Defaults tab tells agre what commodity pricing to print - by default - on the Price Sheet.



Tip

These settings are just defaults - you can change the show/hide status of each price on the *Make a Blend Price Sheet tab* before you print.

							BI END01
Customer:	Ale	xander Carter (C0874)				Date: Apr 02	2, 2020
0242446662655	Bo	x 14			Blend	Type: Drys	MT blender
	#7	Arden County Road					
	Do	g River Saskatchewan	SOG 4H0 306.5	52.1903			
Blend Name:	19-	17-19		(19	9.00-17.33-19.99)	~	0
Field(s):					(3)		(2)
	Ble	nd Product		Percent	Metric tonne	Unit Price	Pricelacre
	46-0	0-0		33.33%	0.4120	\$700.00	\$7.21
	11-5	52-0		33.33%	0.4120	\$500.00	\$5.15
	0-0-	60		33.33%	0.4120	\$664.00	\$6.84
	Nut	rient	Target Rate		Area (acres)	40	00
	N	Nitrogen	12.9		Rate (lb/acre)	6	8:1:
	Ρ	Phosphorus	11.8		Density	5	8.7
	ĸ	Potash	13.6		Blend Charge	\$0	00
				Q	ty (Metric tonne)	1.23	160
					Unit Price	\$621	33
					Total Price	\$767	97
					Price/acre	\$19	20

## Blend Charges tab

If your company charges a fee for blending, that can be set up on the last tab:

Blend Charge Prod: Blend Charge		f you don' can clear f f you don' f you don' night late	d charge is: \$3.00 t have blend cha this out. t have blend cha r, keep the blend	per MT arges and never w arges now, but thi d charge and price	ill, you nk you e it at \$0.
Optional Surcharges per MT) of Blend     When blend includes at least this number of prod     Number of Products     Surcha     *	ducts: V rge	Vhen Additi Product ⊳*	onal Products inclu Type	ude a product of this Sur ▼	type: charge
Remove Surcha NOTE: If the number of products is not listed, the charge associated with the next lowest number of products will be used	arge e vf			Remove Surcha	arge /pe

**Caution** Blend Charge Product cannot be changed once the blend type has been used to Make a Blend (but the price of it can be changed at any time).

There may be a **Blend Charge Product** already set up in your database called "Blend Charge" – if so its price has been set to \$0 but can be changed.

Show Blend Charge On: you can display the blend charge only where you want the customer to see it.

Optional Surcharges can be added based on:

- the number of products in the blend (e.g. you'll mix 4 products for free, but add any more and there'll be additional charges)
- product type

(e.g. the customer wants seed added to the blend which means you'll need to be compensated for the extra time spent to clean out the blender afterwards)

# **Liquid Blends**

**Note** Much of the liquid setup is the same as dry, so mainly what's different for liquids will be covered here. Head back up to the Dry Blends section for more details about the fields and settings common to both types.

# **Setting Up Liquid Blend Products**

You will need to setup *each* product that will be used in liquid blends.

• On the *Units tab*, MT (or whichever Main Unit is specified on the blend type) is required, but products also need a unit type to reflect the volume. Add your liquid *Unit*, usually GAL (either US or Imperial but keep it consistent for all products), along with the applicable *Conversion Factor to Main*.

Save 😰 Refresh 🛱 Prices/Taxes 😣 Exit								
roduc	t Units Inventory No	otes Associated Pro	oducts Blending Manuf	acturing Dangerous Good	s Regulation			
	Units	Main Units?	Conv. Factor to Main	Company Retail Price	Active?			
	MT - Metric Tonne	<b>V</b>	1.00	\$464.00	<b>V</b>			
	ImpGal - Imp. Gallons		172.858363		<b>V</b>			
	L - Litre		785.83		1			
	USGAL - US Gallons		207.5943		1			

Note	Different products will likely have different conversion factors.
------	---

• Fill in the *Blending tab*.

😺 Edit I	Product: 280	0 - 28-0-0	) UAN		
📙 Save	🔹 <u>R</u> efresh	X Delete	Prices/Taxes	😣 E <u>x</u> it	Ž
Product	t Units Inve	ntory Notes	Associated Produ	icts Blend	ding Mang
C	Density:				
F بـــــ	Product Makeup		<del>مى</del> رىمىرىكىرىمى		}

# Setting Up Liquid Blend Types

## **Blend Type tab**

Since blend types are setup usually by location, if you have a liquid blender in more than one location you will likely want to setup a blend type for each one.

🔽 Add Blend Type	
🔚 Save 😰 Refresh 😵 Exit	
Blend Type Nutrient Defaults Batch Sheet Settings Price	e Sheet Defaults Blend Charges
Blend Type Code: LIQUID • 🔽 Active	Blend Name Decimals: 0
Description: Liquid Blend Type	Volume Units 2
Location: Dog River	Appication Rate units
Main Units: MT - Metric Tonne	Decimals: 3
Volume Units: USGAL - US Gallons	Decimals: 3
Field Measurement: AC	Decimals: 0
Nutrient Rate Units: LB	Decimals: 0 Conversion: 2,204.6
Application Rate Units: USGAL	Decimals: 3 Conversion: 1
🔽 Convert Application Rate Units to/from Liquid? 🔫	check if you want the blend
Filler Product:	Add Product calculated in GAL/acre
Allow Nutrient Max Option?	Prejecto cot at the product level
Allow Suspensions?	are not retained in blends
Project:	if you want a Project associated to a blend, set it at the Blend Type level

Caution Volume Units and Convert Broadcast Rate Units to/from Liquid cannot be changed once the blend type has been used to Make a Blend.

### Batch Sheet Settings tab

#### **Show Gallons**

Note If you want the batch sheet to show metric tonnes, leave the *Convert Scale Units to/from Liquid?* checkbox *un*checked - see page 19 for an example.

On the *Batch Sheet Settings tab*, specify the *Scale Units*, *Conversion factor*, (which is the conversion factor between the Volume Units and the Scale Units) and default *Products*.

Since you want the batch sheet to show **gallons** instead of metric tonnes, check the **Convert Scale Units to/from Liquid?** checkbox.

Save 😰 Refresh 😵 Exit end Type   Nutrient Defaults   Batch Sheet Settings   Price Sheet De	efaults Blend Cha	arges	
Main Units: MT - Metric Tonne Volume Units: USGA Scale Units: USGal Conversion: 1 Decimals: 0 ✓ Convert Scale Units to/from Liquid? Blender Type ⓒ Scaled / Metered C Volumetric	L - US Gallons	Adjust Actuals Defaulte Quantities are expre	essed as: tity C Scale Stops C Batch C Field Size
Scaled / Metered         Max Blend Size (in main units):       8         Max Volume Size (in vol units):       1,250         Show Worksheet on Batch Sheet by default         Show Percentages on Batch Sheet by default         Show Blend Notes by default         Force Equal Batches by default	Product 2800 - 28- 1034 - 10- 0012 - 0-0 150020 - 1 >* Add Produ	0-0 34-0 -12 Bulk 5-0-0-20 	Product Order 1 2 3 4 duct Order

*Max Volume Size* is the capacity of the blender in volume units (in this case, US gallons).

#### Sample Batch Sheet – Show Gallons

The following is a sample batch sheet for **21 MT of 2800**, with the *Convert Scale Units to/from Liquid?* box checked.

Blend Name: 28-0-0-0	6		Blen	nd Descrip	ption:		
Nutrient Requirements				Field	d(s):		•
Nutrient	Ibs per acre					Field Size	асте
> N - Nitrogen	2						USgal
P - Phosphorus						Application Hate	
K - Potash						Blend Quantity:	21.000 MT
S - Sulphur						Quantity Limit:	21.000
						Volume Blend	4.359.480 USG4
						Volume Blend Quantity:	4,359.480 USG4
						Volume Blend Quantity: Density:	4,359.480 USGA
Products in Blend:		Prepay Blen	1 T (	Committeed	ų	Volume Blend Quantity: Density:	4,359,480 USG4
Products in Blend	N	Prepay Blerv 47 Percent	f  T C Price	Committeed	<b>I⊽</b> Prepay?	Volume Blend Quantity: Density:	4,359,480 USG4
Products in Blend Product 2 12800 - 28-0-0	N 21.0	Prepay Blens (T Percent 00 100	5 (* C Price   464.00	Committed WO Ref	IF Prepay? No	Volume Blend Quantity Density: Blend Total Price:	4.359.480 USG4
Products in Blend Product > 2800 - 25-0-0	N 21.0	Prepay Blenv IT Percent 00 100	5 (* C Price 464.00	Committed WO Ref	IV Prepay? No	Volume Blend Quantity Density: Blend Total Price: Subtotal:	4,359,480 USGA
Products in Blend Product > 2800-28-0-0	21.0	Prepay Blens 4T Percent 00 100	5   C Price   464.00	Committeed WO Ref	IV Prepay? No	Volume Blend Quantity Density: Blend Total Price Subtotal: Add1 Prod. Total	4,359,480 USG4 \$464.00 \$9,744.00 \$0,00
Products in Blend Product 3 2800-28-0-0	21.0	Phepay Blank 4T Percent 00 100	5 [ C Price 464.00	Committeed WO Ref	Prepay? No	Volume Blend Quantity Density: Blend Total Price: Subtotal: Add1 Prod. Total Add1 Prod. Total Add1 Prod. Taxes:	4.359.480 USG4 \$464.00 \$9.744.00 \$0.00 \$0.00
Products in Blend Product > 2800-28-0-0	21.0	Prepay Blans 4T Percent 00 100	8 [" C Price 464.00	Committed WO Ref	IV Prepay? No	Volume Blend Quantity Density: Blend Total Price: Subtotal: Add1 Prod. Total Add1 Prod. Total Add1 Prod. Taxes: Total	4,359,480 USG4 \$464.00 \$9,744.00 \$0.00 \$9,744.00

0.00	-		Tronia Testing	Inc.
agr	9	Convert Scale Units to/from Liquid?	Blend Batch Sh	eet
Customer:	Lyle Martin (C1000) PO Box 18 Westlock, AB T9K 3L2		780.459	). <mark>12</mark> 00
Blend Name	: 28-0-0-0	Field(s):		
Batch A:	Blended Product	Percemage	USGal Stops	
	28-0-0	100%	1090 1090	
Batches Blended	28-0-0 Repeat Batch 4 times f	for a Total of 4360 USGal	1090 1090	
Batches Blended	28-0-0 Repeat Batch 4 times f 1 2 3 4 Target R	for a Total of 4360 USGal	1090 1090	
Batches Blended Nutrient N Nitrog	28-0-0 Repeat Batch 4 times f 1 2 3 4 Target Ra	Total for all Batches	1090 1090 (USGal):4360 bes (US4359.48	
Batches Blended Nutrient N Nitrog P Phos	28-0-0 Repeat Batch 4 times f 1 2 3 4 Target R len bhorus	for a Total of 4360 USGal ate Total for all Batches Total for all Batches Total for all Batches	1090 1090 (USGal):4360 thes (US4359.48 1943 US Gallions per MT	
Batches Blended Nutrient N Nitrog P Phosp K Potas	28-0-0 Repeat Batch 4 times f 1 2 3 4 Target Ra Jen Shorus h	for a Total of 4360 USGal ate Total for all Batches Total for all Batches Total for all Batches Blend	1090 1090 (USGal):4360 thes (US4359.48 943 US Gallons per MT Density: n/a	

#### Show Metric Tonnes

Note	If you want the batch sheet to show <b>gallons</b> instead of metric tonnes, check
	the <i>Convert Scale Units to/from Liquid?</i> checkbox - see page 17 for an
	example.

On the *Batch Sheet Settings tab*, specify the *Scale Units*, *Conversion factor*, (which is the conversion factor between the Volume Units and the Scale Units) and default *Products*.

Since you want the batch sheet to show metric tonnes instead of gallons, leave *Convert Scale Units to/from Liquid?* unchecked.

Main Units: MT - Metric Tonne Volume Units: USGAL - US Gallons  A Main Units: MT  Conversion:  Conversion:  Blender Type  Blender Type	es   Adjust Actuals Defaults Quantities are expre	issed as: tity ⊂ Scale Stops ⊂ Batch
Scaled / Metered      Volumetric		← Field Size
Scaled / Metered		Product Order
Max Blend Size (in main units): 8 2800 - 28-0-0		1
Max Volume Size (in vol units): 1,250 1034 - 10-34-	-0	2
Show Worksheet on Batch Sheet by default 0012 - 0-0-12	2 Bulk	3
Show Percentages on Batch Sheet by default 150020 - 15-0	0-0-20	4
Show Blend Notes by default	•	
✓ Force Equal Batches by default		

Max Volume Size is the capacity of the blender in volume units (in this case, US gallons).

#### Sample Batch Sheet – Show Metric Tonnes

The following is a sample batch sheet for **21 MT of 2800**, with the *Convert Scale Units to/from Liquid?* box *un*checked.

					E	Send Descri	ption:		1
Nut	trient Requirements					Fiel	d(s)		•
	Nutrient	lbs p	er acre					Field Size:	асте
>	N - Nitrogen	100 C						Application Rate	USgal/ac
	K - Potesh	1						Pland Constitut	21 000 MT
	S - Sulphur							Diana Galenniy	21.000
								Volume Bland	1000
								Quantity:	4,309,480 0.9044
								그 물건 것 같아요.	
								Density:	
Pros	ducts in Blend			Prepay Blend		Committeed	a a	Density:	
Pro	ducts in Blend		MT	Prepay Blend Percent	Price	Committee WD Ref	Prepay?	Density:	
Pro	ducts in Blend Product 2800 - 28-0-0		MT 21.000	Prepay Blend Percent 100	Price 464.00	Committed WO Ref	Prepay? No	Blend Total Price	\$464.00
Pro.	ducts in Blend Product 2800 - 28-0-0		MT 21.000	Prepay Blend Percent 100	Price 464.00	Committee WO Ref	Prepay? No	Blend Total Price:	\$454.00
Pro	ducts in Blend Product 2800 - 29-0-0		MT 21.000	Prepay Bland Percent 100	Frice 464.00	Committed WO Ref	Prepay? No	Blend Total Price Subtotal: Add1 Prod. Total	\$464.00 \$9,744.00 \$0.00
Pro	ducts in Blend Product 2800 - 29-0-0		MT 21.000	Prepay Blend Percent 100	9 [T Price 464.00	Committed WO Ref	Prepay? No	Blend Total Price Subtotal Add1 Prod. Total	\$464.00 \$9,744.00 \$0,00 \$0.00
Pro	ducts in Blend Product 2800 - 29-0-0		MT 21,000	Prepay Blenc Percent 100	Price 464.00	Committee WO Ref	IV Prepay? No	Blend Total Price Subtotal Add1 Prod. Total Add1 Prod. Total	\$464.00 \$9,744.00 \$0,00 \$0.00
Pro	ducts in Blend Product 2800 - 29-0-0		MT 21,000	Prepay Blend Percent 100	8      Price      464.00	Committed WO Ref	IV Prepay? No	Blend Total Price Subtotal Add1 Prod. Total Add1 Prod. Taxes Total	\$464.00 \$9,744.00 \$0.00 \$0.00 \$9,744.00
Pro	ducts in Blend Product 2800 - 29-0-0		MT 21,000	Prepay Blend Percent 100	8   -   Price   464.00	Committed WO Ref	Prepay? No	Blend Total Price Subtotal Add1 Prod. Total Add1 Prod. Taxes Total Price per acre.	\$464.00 \$9,744.00 \$0.00 \$0.00 \$9,744.00 \$9,744.00 \$0.00

0000	-		Tronia	Testing Inc.
agre	2	Convert Scale Units to/from Liquid?	Blend Ba	tch Sheet
Customer:	Lyle Martin (C1000) PO Box 18 Westlock, AB T9K 3L2			780.459.1200
Blend Name:	28-0-0-0	Field(s):		
Batch A:	Blended Product	Percentage	МТ	Stops
	28-0-0	100%	6	6
Batches 1 Blended	Repeat Batch 4 times f	for a Total of 24 MT	$\backslash$	
Nutrient	Target R	Total for all Pata	has /MD-24	
N Nitroge	n	Total for all Bat	tches (US4359 48	
P Phosph	norus	207	.5943 US Gallons per MT	
K Potash		Blenc	d Density:n/a	
		Applicat	tion Rate:n/a	
S Sulphu		Total Are	a (acres): n/a	

I