

Summary

Recipe Adjustment is an additional module that can be added to your Orchestrated database. This feature enables you to dynamically adjust your production orders based on the batch of hops and their alpha acid. If you are interested in purchasing this module, please submit a Support ticket to start the process.

Description

Breweries need to adjust the amount of bittering hops that go into a beer, based on the alpha acid of the hops. Based on the recipe's IBUs (international bittering units) the brewer will need to use a certain amount of hops. The higher the alpha acid of the hops, the less amount required to reach a certain level of IBUs. The alpha acid determines the bitterness of the hops, so if the alpha acid changes, the brewery needs to alter the amount of hops that go into a brew to keep the same amount of bitterness of the beer. The alpha acid is input for each batch, so we're able to pull that in and update the recipe in real time based on certain calculations.

Recipe adjustment is related to Advanced QC functionality, but operates on a separate license.

Details

Configuration

To use the Recipe Adjustment feature, you first need to assign the license to your user. You can do this by going to Administration>License>Orchestrated Licensing. Here you can select the checkbox under the Recipe Adjustment column for your user.

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				OBeer Core	OBeer Production	OSpirits Core	OSpirits Production	QualityControl	Recipe Adjustment	Tastings	
			Assigned	0	7	0	0	7	7	3	
			Available	99	92	99	99	92	92	96	
			Total	99	99	99	99	99	99	99	

Once you add the license and restart your session you will gain access to a few additional items. You'll now be able to see the table where you enter in the hops alpha acid by batch in Inventory>Hops QC. You'll also be able to see the recipe adjustment button that dynamically updates the production orders in Production>Production Forms>Brew Sheet. There are also several other columns in specific windows that are important for recipe adjustment and can be added by the Form Settings in the toolbar.

The next step for configuration is to rename the "Weight In" column on the production order to "Original Qty", as OBeer repurposes this field for the recipe adjustment feature. You can do this by holding "Ctrl" on your keyboard and double-clicking on the column header.

How to Use

Step 1: Update the Bill of Materials

The user needs to Production Qty, Production UoM and the Recipe Adjustable columns. The quantity and unit of measure columns will be specific to their recipe. The recipe adjustable column should be set to "Y" for all hops they want to adjust based on the alpha acid.



OH Type Production Production Production Qby Production UoM Quantity UoM Name Warehouse Issue Method Recipe Adjustable 1 2tem * RM5005 Mait 2:now Bulk 0.00 600 10 4.1 Manual * * 1 2tem * RM5005 Mait 2:now Bulk 0.00 600 10 4.3 Manual *<	Product No. Stout					W1004 Wort - Stout					X Quan	tity 60	Warehouse Price List	*	6H01 OR	;	
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2 Item ▼ → RM5015 Mak Rahr Premum Pile Bulk 0.00 400 lb → A1 Marual ▼ 3 Tem ▼ → RM5047 Mak Wheat supersack 0.00 100 lb → A1 Marual ▼ ▼ 4 them ▼ → RM5017 Hops - Hallertauer Hembrucker 100.00 BU 10 lb → A1 Marual ▼ ▼ 5 3tem ▼ ↓ 1 0.00 0.00 10 lb → A1 Marual ▼ ▼ 4 1 0.00 0.00 10 lb → A1 Marual ▼ ▼ 5 3tem ▼ 1 0.00 10 lb → A1 Marual ▼ ▼ ●	1	Ite	•	RM5005		Mait 2-Row Bulk		0.00		600	b	-> A1	Manual	•		-	
3 Teen ▼ → RM5043 Matk Wheat supersack 0.00 100 lb → A1 Manual ▼ ∨ ▼ A100 Teen ▼ → A1 Manual ▼ ∨ ▼ A1 Manual ▼ ∨ ▼	2	2be	•	RM5035		Mait Rahr Premiu	m Pils Bulk	0.00		400	b	iA 🧼	Manual	•		ř.	
4 Item C RH5017 Hops - Hallertauer Hendbrucker 100.00 BU 10 A1 Manual Y <	3	2te	• •	RMS044		Mait Wheat super	sack	0.00		100	b	41 🗠	Manual	*		,	+
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Step 2: Update Hops QC

When hops are received into inventory, the user will need to update the alpha acid for all the batches. The only field that is editable in this table is the Alpha Acid column and should be entered by the user. If any other batch related fields need to be updated the user and do this in Inventory>Item Management>Batches>Batch Details. If there are multiple batches for the same item, the system will calculate from the batch with the oldest in-date.

2tem Code	Item Name	Batch Number	Date In	Quantity	Alpha Acid	
RH5016	Hops - Golding	45654	12/35/2013	799.00	6.00	
RH5016	Hops - Golding	LOT#4567	07/11/2016	4.000.00	6.00	
RH5016	Hops - Golding		05/08/2056	3.975.00	6.50	
RH5017	Hops - Hallertauer Harsbrucker		07/11/2016	3.391.00	4.00	1
RH5018	Hops - Liberty	-> LOT#222	05/08/2016	7,339.90	5.00	
RH5018	Hops - Liberty	⇒ LOT#2542	07/25/2016	100.00	5.25	
RH5018	Hops - Liberty	LOT#3455	07/25/2006	5,100.00	5.15	
RH5018	Hops - Liberty	LOT#7644	67/11/2016	7,500.00	\$.60	
RH5019	Hops - Magnum	\$7656	12/35/2013	779.25	5.50	
RH5019	Hops - Magnum		07/11/2016	\$00.00	5.00	
RH5019	Hops - Magnum		05/08/2056	500.00	5.00	
RH5020	Hops - Mosaic	543754	12/35/2013	800.00	2.90	
RH5020	Hops - Mosaic	-> LOT#2234	01/08/2016	500.00	3.00	
RH5020	Hops - Mosaic		07/11/2006	500.00	3.00	
RH5021	Hops - Northern Brewer	2577	12/31/2013	269.00	3.50	

Step 3: Create Production Order

When you create the production order for wort the "Production UoM" will be "BU" and the "Production Qty" will be from the original recipe from the bill of material. To process the recipe adjustment on the Brew Sheet you will first need to release the production order.



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ype tetus roduct No. roduct Description lanned Quantity Deshouse	Standard Reiseand * VV3004 Wort - Stout 60 Starts	UoM Name BBL							No. Order I Produc Produc Due De	Primary Note tion Dete tion Time te	12411 94/11/2017 94/11/2017 96:00 94/11/2017	
oM Version										Batch #	Batch Date	5,4
laster Prod #												
Components	Summary Yeat History								1	SIT		
# No.	Description	Production UoM	Production Qty	Base Qty	Planned Qty	Imund	In Stock	Warehouse	Original Qty	Racipe Adjustable	Alpha Acid	
1	Mait 2-Row Bulk		0.00	50	600		173,123.33	-> A1	0.00	-	0.00	10.
2 💀 RM5015	Mait Rahr Premium Pils Bulk		0.00	6.67	400		72,582	-> A1	0.00		0.00	
3 🧠 RMS044	Mait Wheat supersack		0.00	1.67	900		25,768	🧇 A1	0.00		0.00	
• • • • • • • •	Hops - Halertauer Hersbrucke	e BU	100.00	0.17	10		3,391	- A1	0.00	Y	0.00	- E
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emerica	0						Pick and Pa	ck Remarks				1

Step 4: Process Recipe Adjustment

From the Brew Sheet, the user will highlight the row of the desired production order and click the "Adjust" button under the "Recipe" section on the left side of the window.

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If processed successfully, you might see a brief system message pop up and will remaining on the Brew Sheet. In the background the system has done a series of checks and calculations, then updated the production order. If you drill into the production order you will see that the "Production UoM" has chaged to "grams", the standard UoM for hops.



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-> 20219	Hops - Hallerfauer Hersbrucke	r grans	25.00		0.06		1,391	-> A1	10.00	Y.	* 100.00	4.00	1
⇒ RM5044	Mail Wheat supersack		6.00	1.67	200		25.768	⇔ A1	0.00		• 0.00	0.00	1
⇒ RM5035	Mait Rahr Premium Pils Bulk		6.00	6.67	400		72,982	🗢 A1	0.00		• 0.00	0.00	
RMS005	Mait 2-Row Bulk		0.00	10	600		175,123.33	🔶 A1	0.00		• 0.00	0.00	1
Components [_]	Description	Production LioM	Production Qty	Base Qty	Panned Qty	Issued	In Stock	Warehouse	Original Qty	Racipe Adjusta	bie BU	Alpha Acid	_
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uct Description	Wort - Stout									Production	n Time	06-00	-
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Below is a summary of what happened to the production order:

- Move data in the Qty column into the Original Quantity column
- Move data in the Prod Qty to the BU column for each of the rows flagged as "Y" for Recipe Adjust
- Pull in the alpha acid details from oldest batch for each of the rows flagged as "Y" for Recipe Adjust
- Pull in the Alpha Acid for each of the rows flagged as "Y" for Recipe Adjust
- Calculate the quantity of grams and Lbs Qty for each of the rows flagged as "Y" for Recipe Adjust
- Update the Prod Qty with the quantity of grams for each of the rows flagged as "Y" for Recipe Adjust
- Update the Prod UoM to "Gram" for each of the rows flagged as "Y" for Recipe Adjust
- Update the "Planned Qty" column with new quantity in "Lbs" for each of the rows flagged as "Y" for Recipe Adjust

Notes

While the "Production UoM" is shown in grams, the inventory transaction is still processed per the Inventory UoM on the Item Master Data record.

It's also important to note is that the recipe adjustment will not process successfully if the updated "Planned Qty" is less than 0.01. For example, for a 5.5 alpha acid the lowest your IBU can be is 24.95 (before there's no update to make). You will know it wasn't processed successfully because none of the columns will have been updated.



The calculation used in the system for the "Production Qty" in grams and "Planned Qty" updated by the recipe adjustment is included below:

Calculation Formula:

BU / AA (Alpha Acids) = Gram

Gram / 453.592 = Lbs

Example:

100 BU

4 AA

100 / 4 = 25[g]

25 / 453.592 = 0.06 Lbs

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