

Materials Control

Yield Management

micros | **FIDELIO**

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Introduction:

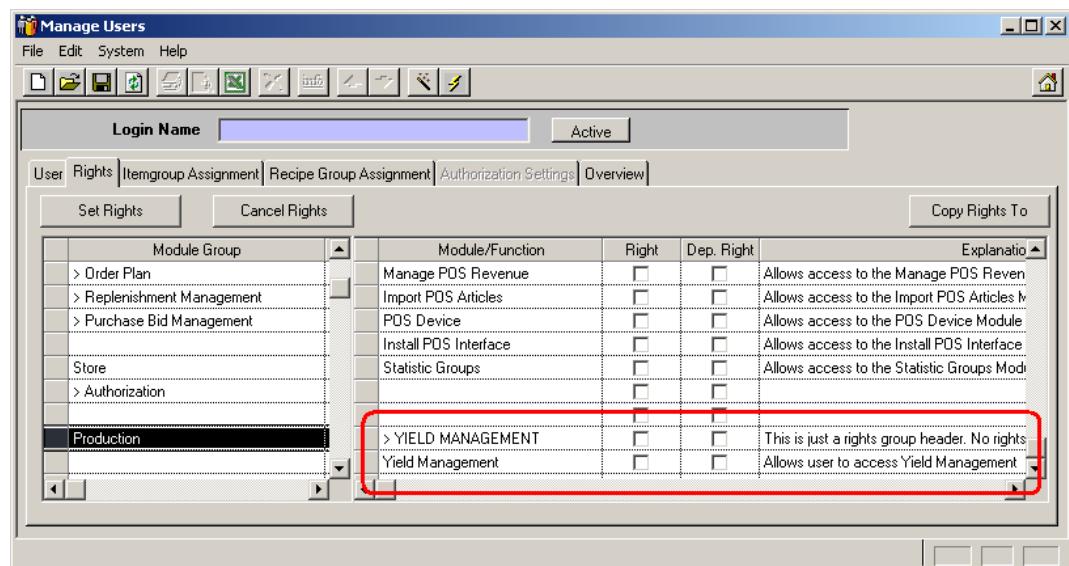
This document describes the functionality of the Yield Management module in Materials Control.

This module can be used to divide delivered items into individual stock items.

Yield Management is available in version 8.6.6.00.xx and higher and does not require any additional license part to be ordered, but older license files will have to be replaced to allow access to this module.

USER RIGHTS:

In order to access the module, the following user right must be considered:



At the end of the section "Production" a subsection for the Yield Management was added.

Yield Management:

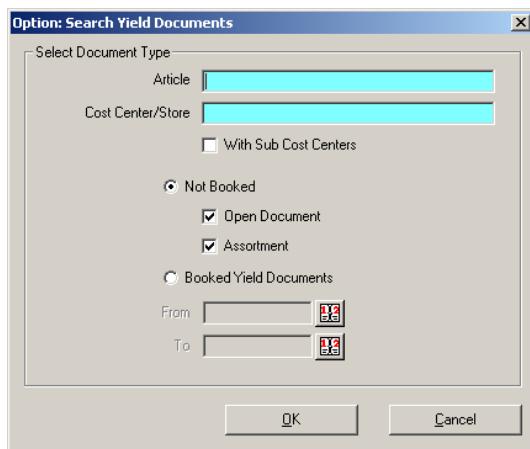
- This user right is required to allow access to the Yield Management module.

SCREEN DESCRIPTION:

The module can be found in the submenu "Production".

At start the module will show the Overview screen and the filter dialog. Here the user can filter the documents to be displayed in the Overview screen.

By default the dialog offers the options as shown below:



Article: filter for a specific main Yield Article

Cost Center/Store: Filter for documents created/booked for a specific cost center

With Sub Cost Centers: Include linked sub cost centers in search

Not Booked: Using this option the system will offer to show the following two document types

- Open Document: created, saved, but not booked documents
- Assortment: predefined Yield Assortments

Booked Documents: Using this option the system will show booked documents only

- From/To Date Range: Select the date range for the booked documents.

OVERVIEW:

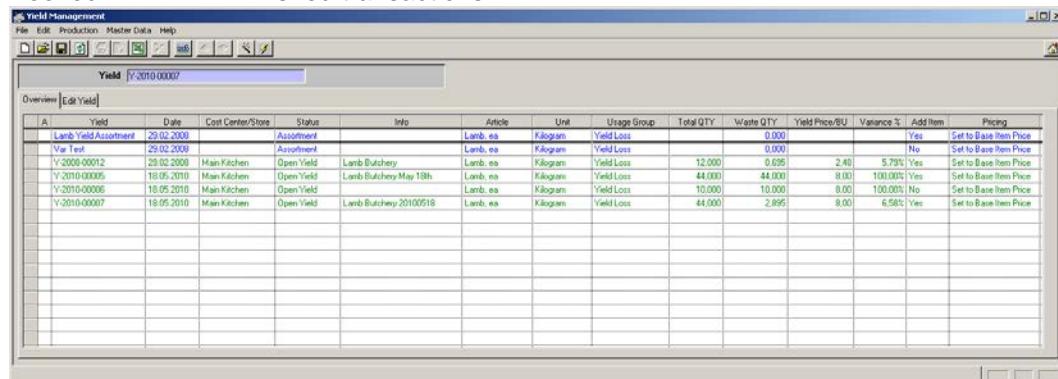
The overview screen shows the key information to find the correct document.

Based on the selection made in the filter dialog three types of documents are displayed:

Assortments: Predefined lists for reoccurring yield processes

Open Yield: Saved, but not yet booked documents

Booked: finished transactions



A	Yield	Date	Cost Center/Store	Status	Info	Article	Unit	Usage Group	Total QTY	Waste QTY	Yield Price/BU	Variance %	Add Item	Pricing
	Lamb Yield Assortment	29.02.2009		Assortment		Lamb, ea	Kilogram	Yield Loss	0.000			Yes	Set to Base Item Price	
	Var Test	29.02.2009		Assortment		Lamb, ea	Kilogram	Yield Loss	0.000			No	Set to Base Item Price	
	Y-2009-00012	29.02.2009	Main Kitchen	Open Yield	Lamb Butchery	Lamb, ea	Kilogram	Yield Loss	12.000	0.696	2.40	5.79%	Yes	Set to Base Item Price
	Y-2010-00005	18.05.2010	Main Kitchen	Open Yield	Lamb Butchery May 18th	Lamb, ea	Kilogram	Yield Loss	44.000	44.000	8.00	100.00%	Yes	Set to Base Item Price
	Y-2010-00006	18.05.2010	Main Kitchen	Open Yield		Lamb, ea	Kilogram	Yield Loss	10.000	10.000	8.00	100.00%	No	Set to Base Item Price
	Y-2010-00007	18.05.2010	Main Kitchen	Open Yield	Lamb Butchery 20100518	Lamb, ea	Kilogram	Yield Loss	44.000	2.896	8.00	6.58%	Yes	Set to Base Item Price

Columns:

Yield: Document name

Date: Creation / Booking Date of the document

Cost Center/Store: Cost Center used for Transaction

Status: Document Status (Assortment, Open Yield, Booked)

Info: Information (optional, entered in document)

Article: Yield Article

Unit: Base Unit for Yield Article

Usage Group: Assigned Usage Group for Loss

Data Grid:

Pos.:	Position number
Article:	Stock Article name
Unit:	Unit for Stock Article
Weight Factor:	Weight Factor from Article
QTY:	Yield QTY
Ideal %:	Ideal QTY in % (only when using Assortments)
Ideal QTY:	Ideal QTY in Unit (only when using Assortments)
Act %:	% QTY of total QTY
QTY / YBU:	QTY in BU of the main Article
Yield Base Unit:	BU of the main Article
Var. %:	Variance in % between Ideal QTY and actual QTY (only when using Assortments)
Price/Unit:	Price of yielded Article
Price Total:	Total value of yielded Article

Buttons/Functions:

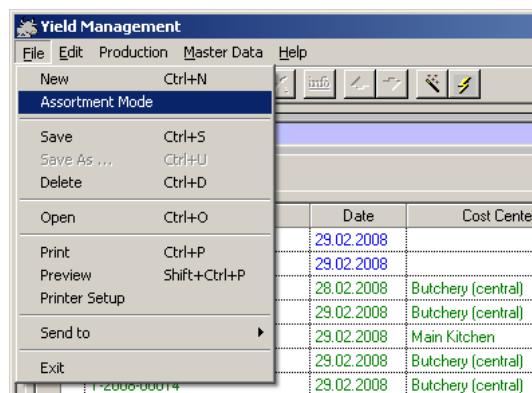
New Article:	Add new positions to the yield transaction
Delete Positions:	Delete positions from the current unbooked yield transaction
Reorganize Pos.:	Refresh of position numbers
Refresh Price:	Refresh Prices of yielded Articles
Book:	Booking Transaction

USING ASSORTMENTS:

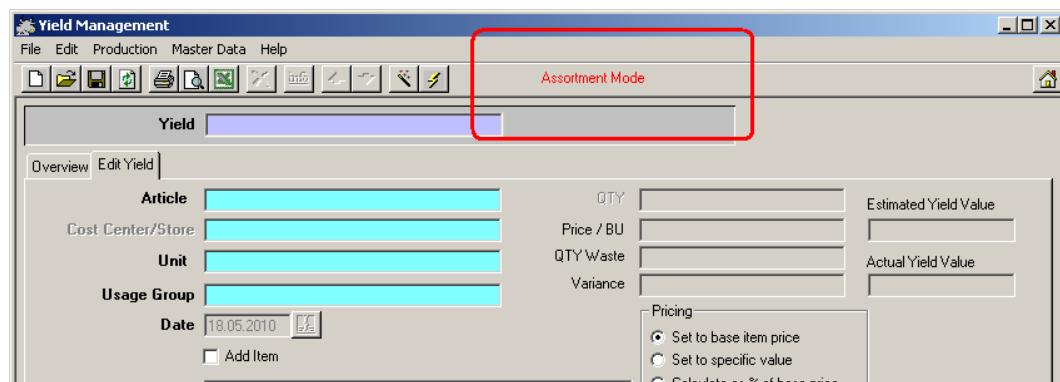
In environments using this module the yield transactions are usually reoccurring events. Therefore we recommend to create predefined lists -> "Assortments" for this. The use of assortments also allows a better evaluation of the yield transaction in regards to planned and actual yield quantities and values.

SETUP OF ASSORTMENTS:

Open the module "Yield Management" and go to the Overview screen. Here please open the "File" menu.



The second option offers to switch to the Assortment Mode.



The module shows this status/mode at the top of the application.

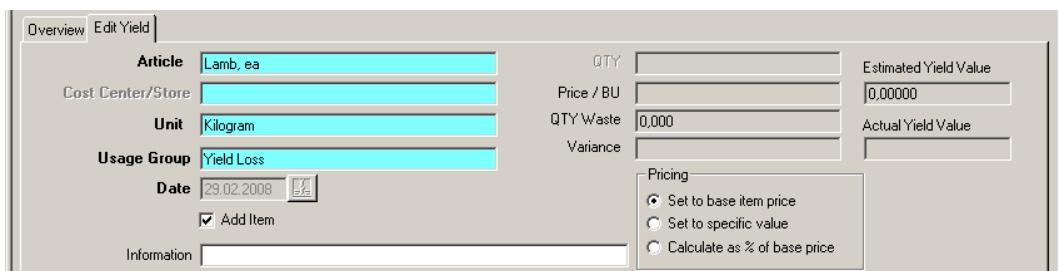
Now the Yield Assortment can be created.

As first step a clear name for the Yield Assortment has to be defined.



This name should give already a clear identification about the content of this assortment.

Now the header figures for the assortment can be defined:



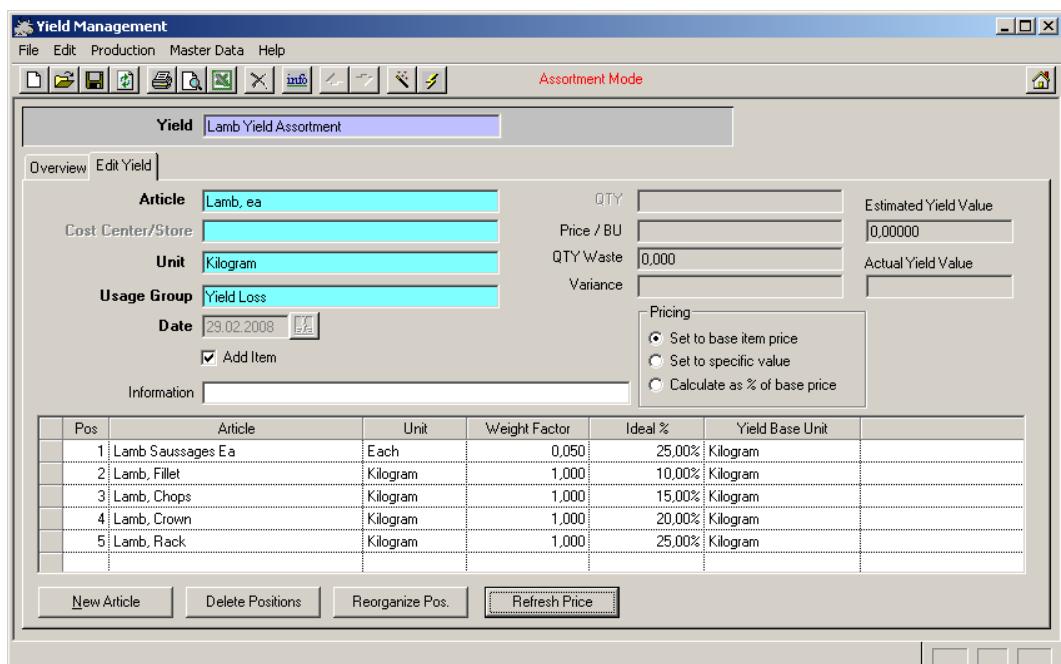
The screenshot shows a software interface titled 'Edit Yield'. It includes the following fields:

- Article:** Lamb, ea
- Cost Center/Store:** (empty)
- Unit:** Kilogram
- Usage Group:** Yield Loss
- Date:** 29.02.2008
- Information:** (empty)
- QTY:** (empty)
- Price / BU:** (empty)
- QTY Waste:** 0,000
- Variance:** (empty)
- Estimated Yield Value:** 0,00000
- Actual Yield Value:** (empty)
- Pricing:**
 - Set to base item price
 - Set to specific value
 - Calculate as % of base price
- Add Item:**

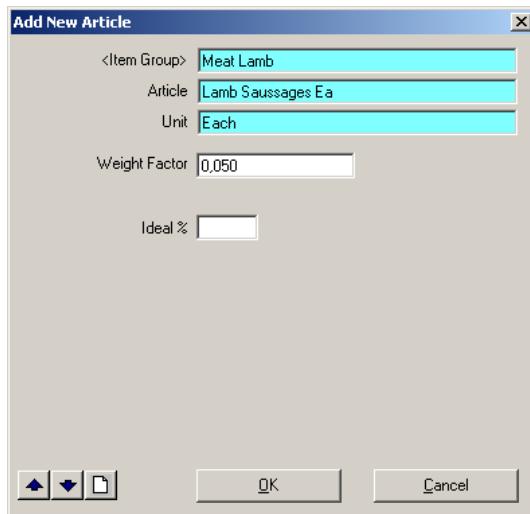
- Article: Select here the main Yield (raw) Article which should be divided into the different Stock Articles. Here only articles having a weight base unit (e.g. Kilogram, Pound, etc.) can be selected. This is a logical restriction.
- Unit: Here the used weight base unit is displayed.
- Usage Group: Define the Usage Group which should be used for the variances. This Group must be created before in the Usage module. It could be one general group (as in the example here) or also more detailed (e.g. "Lamb Yield Loss").
- Add Item: This option controls if the user is allowed to add positions to the assortment while booking a yield transaction using this assortment.
- Information: This is the usual document text information field. It could be used for additional descriptions. We would recommend to leave this blank for assortments and use it for actual bookings only.
- Pricing: transaction Select the pricing method (explained above) for the yield based on this assortment

As next step the positions should be added. These are the articles which are yielded from the main article.

In the following example an entire piece of lamb will be divided into different stock articles.



Click on the button "New Article":



<Item Group>: Pre-select any Item Group (optional)

Article: Select the Stock Article to be yielded out of the main Article

Unit: This could be either the base unit or the preferred store unit defined in the Article setup.

Weight Factor: Here the system shows the weight factor defined in the Article setup. For Articles defined with a weight base unit (e.g. Kilogram) this is always 1,000. For all other Articles using e.g. Liter or Each this must be setup properly and maybe adjusted here as any incorrect figure here will result in wrong yield figures.

Example: Create an Article like "Lamb Sausages" with the base unit "Each". Per default the application fills the Weight Factor with 1,000. In this case every sausage would be calculated the factor of 1 to the weight base unit (e.g. Kilogram), means 1 kg per sausage. If the

weight of the sausage should be 50 grams, the weight factor needs to be adjusted to 0,050.

Now define a Preferred Store Unit "Pack 10ea" for this article.
Go back to the Yield Management. When adding the Lamb Sausage the user needs to check the weight factor depending on the used unit.



- If the Preferred Store Unit = Base Unit, this is offered here as only possibility. The weight factor should be correct since this is the same value as defined in the Article setup.
- If a Preferred Store Unit was defined in the Article setup, this will be offered here as default (Base Unit could be selected manually). But the Weight Factor could be incorrect. Here the user must check and eventually adjust the factor manually. This is not calculated automatically since the weight of this article in the used packing unit could be different to a single article (production losses, etc.)

- Ideal %: Define here the expected ideal % yield for this article (20% of the delivered Lamb should be Lamb Rack)

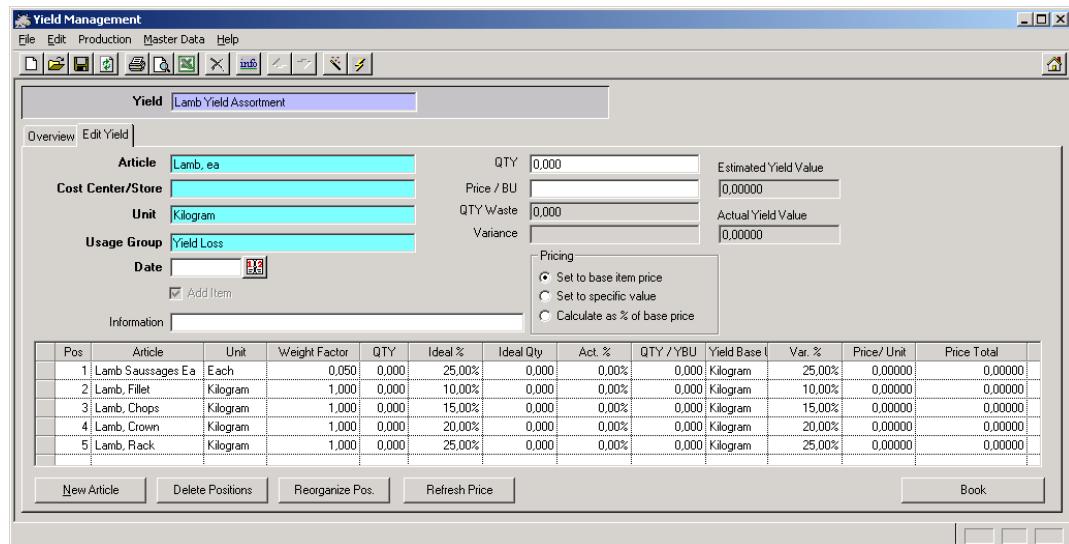
Other Functions:

- Delete Positions:
 - Mark any record in the detail grid and click on this button. The record is marked for deletion now and will be removed at next saving.
- Reorganize Positions:
 - By clicking this button the system will reset the position numbers.

BOOKING YIELD WITH ASSORTMENTS:

When using assortments the system allows easily to compare the actual yield vs. the ideal (expected) quantities to evaluate the efficiency of every yield transaction.

Pick the assortment from the overview list.



The system now shows all predefined figures.

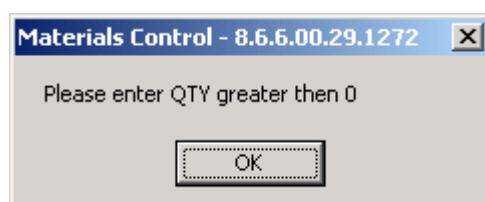
The user now has to select...

- the Cost Center/Store
- the Document Date
 - o Once the date is entered the system will try to find the price of the main article.
 - If DailyTotals are activated: the system will use the average price valid at the document date in that cost center.
 - if DailyTotals are not activated: The system will show the current average price of the main article in the selected cost center.

The field "Information" could be used to add some notes or descriptions to this yield transaction.

As next step the user has to enter the QTY of the main article to be processed.

If the user tries to enter the yield quantities first, the system will show the following message:



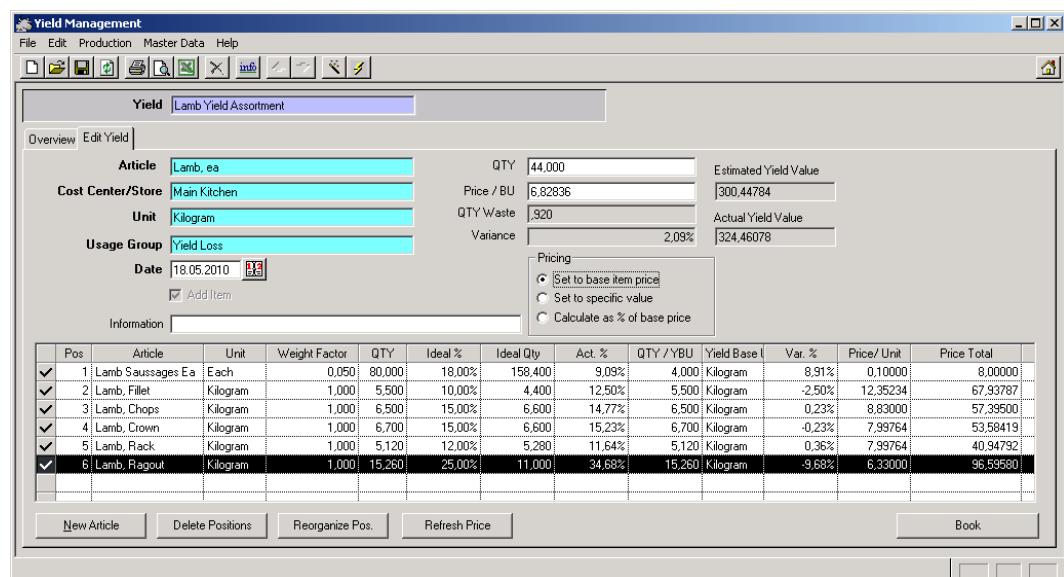
Once the quantity was entered, the system calculates the Estimated Yield Value.

QTY	44,000	Estimated Yield Value
Price / BU	7,82836	344,44784
QTY Waste	44,000	Actual Yield Value
Variance	100,00%	0,00000

The offered price (see above) could be adjusted manually if required. Since until now no yield quantities are entered, the system shows the full QTY as waste and a variance of 100%. This is automatically recalculated once the quantities for the yielded articles are entered.

The pricing calculation is offered as defined in the assortment, but could be changed as required. This could be possible since e.g. the quality of the delivered goods requires a different calculation model.

Now the user can enter the yield quantities per position.



The screenshot shows the Yield Management software interface. The main window title is 'Yield Management'. The 'Yield' tab is selected. The 'Article' is set to 'Lamb, ea'. The 'Cost Center/Store' is 'Main Kitchen'. The 'Unit' is 'Kilogram'. The 'Usage Group' is 'Yield Loss'. The 'Date' is '18.05.2010'. The 'Pricing' section has a radio button selected for 'Set to base item price'. The 'Information' table lists six yield positions:

Pos	Article	Unit	Weight Factor	QTY	Ideal %	Ideal Qty	Act. %	QTY / YBU	Yield Base	Var. %	Price/ Unit	Price Total
1	Lamb Sausages Ea	Each	0,050	80,000	18,00%	158,400	9,09%	4,000	Kilogram	8,91%	0,10000	8,00000
2	Lamb, Fillet	Kilogram	1,000	5,500	10,00%	4,400	12,50%	5,500	Kilogram	-2,50%	12,35234	67,93787
3	Lamb, Chops	Kilogram	1,000	6,500	15,00%	6,600	14,77%	5,500	Kilogram	0,23%	8,83000	57,39500
4	Lamb, Crown	Kilogram	1,000	6,700	15,00%	6,600	15,23%	6,700	Kilogram	-0,23%	7,99764	53,58419
5	Lamb, Rack	Kilogram	1,000	5,120	12,00%	5,280	11,64%	5,120	Kilogram	0,36%	7,99764	40,94732
6	Lamb, Ragout	Kilogram	1,000	15,260	25,00%	11,000	34,68%	15,260	Kilogram	-9,68%	6,33000	96,59580

Here the system will check the maximum possible QTY:



Once all positions are entered the user can see the efficiency of the yield transactions.

Click on "New Article" (if this option is allowed in the used assortment):

Add New Article

<Item Group>	Lamb, Ragout
Article	Lamb, Ragout
Unit	Kilogram
Weight Factor	1,000
QTY	13,000
Ideal %	
Ideal QTY	
Act %	29.55%
QTY / YBU	13,000
Yield Base Unit	Kilogram
Var %	
Price	6,33000

Buttons:    OK Cancel

Select the article and the quantity. The system will now try to insert the new position. Here again the system will check the maximum possible QTY:

Materials Control - 8.6.6.00.29.1272

44,000 : You can not exceed maximum quantity

OK

When double-clicking any record the system offers the detail dialog per position:

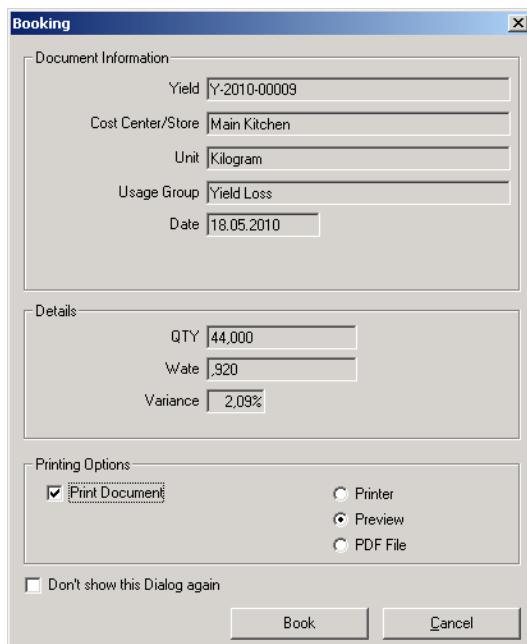
Add New Article

<Item Group>	Lamb, Ragout
Article	Lamb, Ragout
Unit	Kilogram
Weight Factor	1,000
QTY	15,260
Ideal %	25.00%
Ideal QTY	11,000
Act %	34.68%
QTY / YBU	15,260
Yield Base Unit	Kilogram
Var %	-9.68%
Price	6,33000

Buttons:    OK Cancel

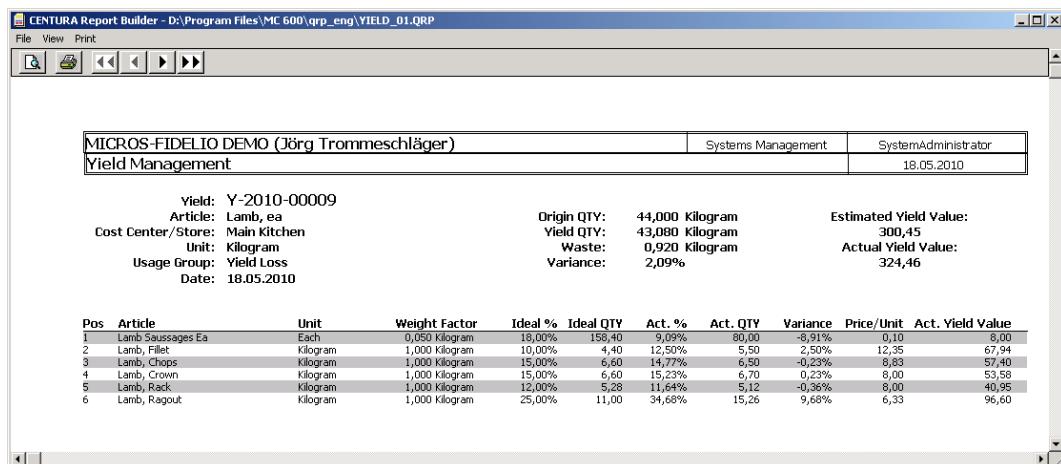
It shows all relevant details for this record. Depending on the used pricing method the price per position can be changed here.

Click on "Book" to finalize the transaction.



The system shows the usual booking dialog.

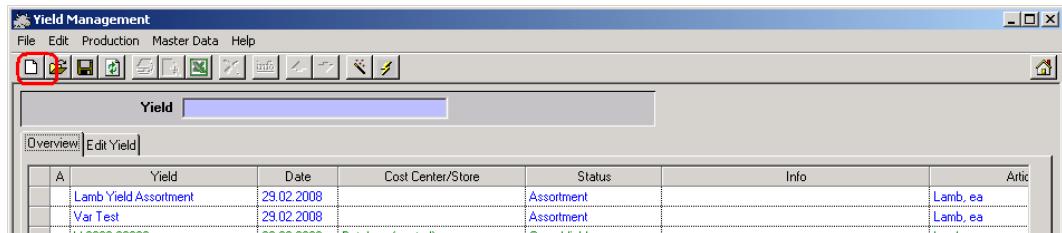
The print out shows all details as well:



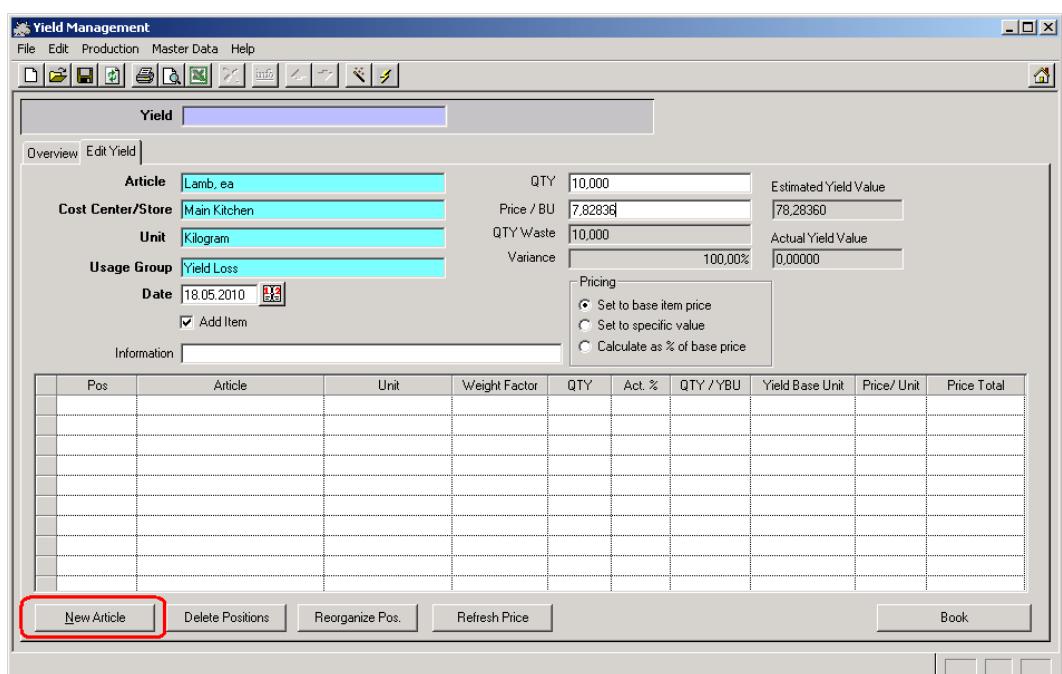
BOOKING YIELD W/O ASSORTMENTS:

The functionality here is very similar to the above explained, but this mode of course does not offer the comparison between ideal and actual figures.

Click the “New” icon in the toolbar of the overview:

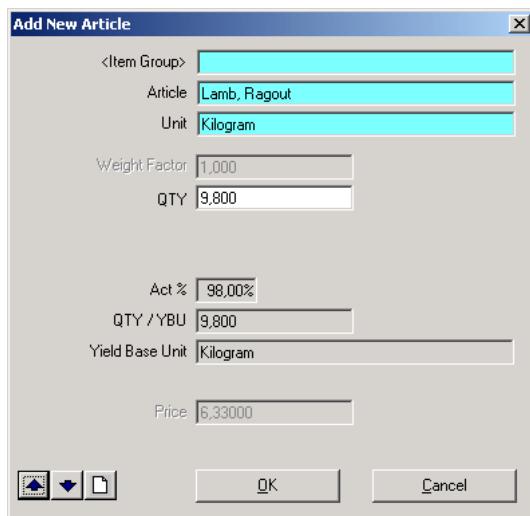


The system will now open a new document template.



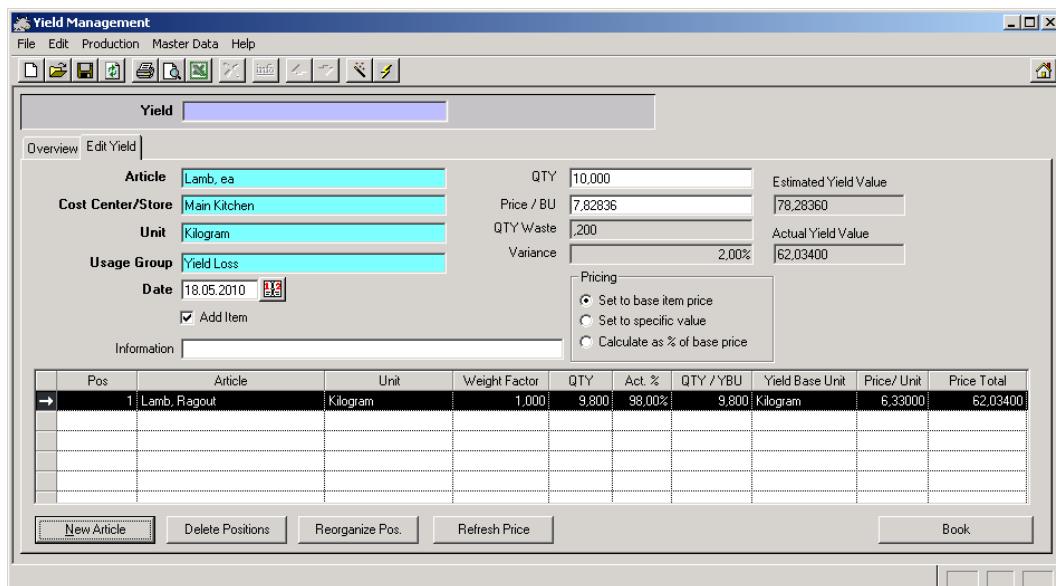
Since there are no predefined “ideal” figures available this screen has less columns.

Click on the button “New Position” to add a new article:



Here the user now can select the article and enter the yield quantity. The dialog already shows the yield % QTY compared to the total QTY.

Click on "OK" to confirm the record and "Cancel" to close the dialog.



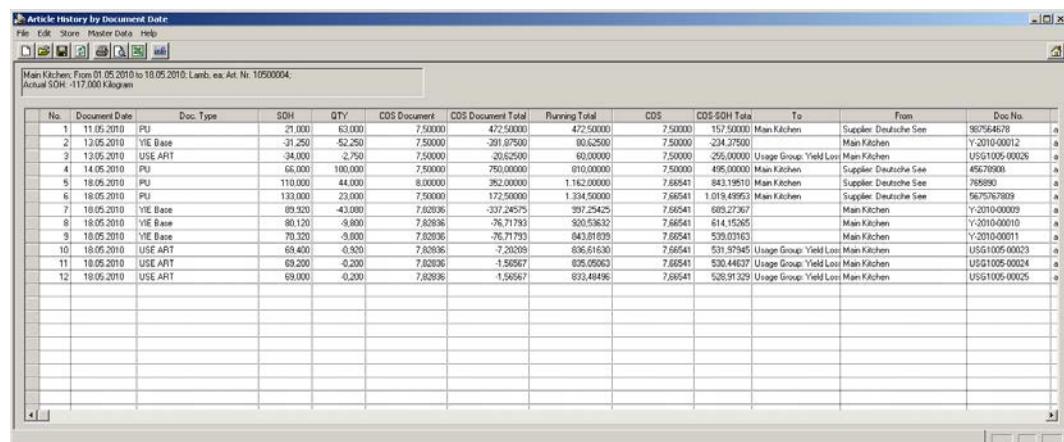
The grid now shows all possible yield details except the comparison to the ideal figures. The "Book" button completes the transaction.

DISPLAY OF YIELD TRANSACTIONS:

These yield transactions can be reviewed in the analysis modules:

ARTICLE HISTORY BY DOCUMENT DATE:

This module is designed to the transactions of a single article. Here the user can see the purchases (Type: PU), the yield transactions (Type: YIE Base) and the usage bookings (Type: USE ART), of the used main article (here "Lamb, ea"):

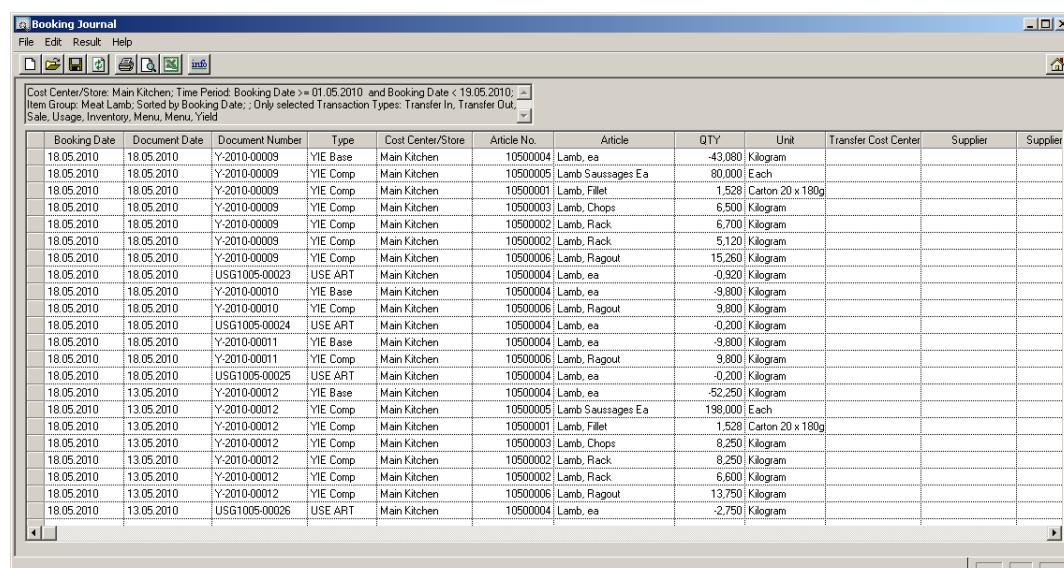


Main Kitchen; From 01.05.2010 to 18.05.2010; Lamb, ea; Art. Nr. 10500004; Actual SOH: 117.000 Kilo gram

No.	Document Date	Doc. Type	SOH	QTY	CDS Document	CDS Document Total	Running Total	CDS	CDS-SOH Total	To	From	Doc. No.
1	11.05.2010	PU	21.000	-63.000	7.50000	472.50000	472.50000	7.50000	157.50000	Main Kitchen	Supplier Deutsche See	9679564673 a
2	11.05.2010	YIE Base	31.250	-43.000	7.50000	-281.75000	191.75000	7.50000	-234.75000	Main Kitchen	Y-2010-00012 a	
3	12.05.2010	USE ART	34.000	-5.250	7.50000	50.00000	60.00000	7.50000	220.00000	Usage Group: Yield Loss	Main Kitchen	USG1005-00026 a
4	14.05.2010	PU	66.000	100.000	7.50000	750.00000	750.00000	610.00000	750.00000	695.00000	Supplier Deutsche See	45570000 a
5	18.05.2010	PU	110.000	44.000	8.00000	382.00000	1162.00000	7.68841	643.19810	Main Kitchen	Supplier Deutsche See	7688990 a
6	18.05.2010	PU	133.000	23.000	7.50000	172.50000	134.50000	7.68541	1.019.49953	Main Kitchen	Supplier Deutsche See	5675747929 a
7	18.05.2010	YIE Base	89.320	-43.000	7.82836	-337.24575	997.25425	7.68541	689.27367	Main Kitchen	Y-2010-00009 a	
8	18.05.2010	YIE Base	80.120	-9.000	7.82836	-76.71793	920.53632	7.68541	614.15365	Main Kitchen	Y-2010-00010 a	
9	18.05.2010	YIE Base	70.320	-9.000	7.82836	-76.71793	840.61639	7.68541	539.03163	Main Kitchen	Y-2010-00011 a	
10	18.05.2010	USE ART	69.400	-0.320	7.82836	-7.20208	806.51630	7.68541	531.37945	Usage Group: Yield Loss	Main Kitchen	USG1005-00023 a
11	18.05.2010	USE ART	69.200	-0.200	7.82836	-1.56567	805.05063	7.68541	530.44637	Usage Group: Yield Loss	Main Kitchen	USG1005-00024 a
12	18.05.2010	USE ART	59.000	-0.200	7.82836	-1.56567	833.48496	7.68541	528.91329	Usage Group: Yield Loss	Main Kitchen	USG1005-00025 a

BOOKING JOURNAL:

This module allows to show transactions of multiple articles, but with less details per article. Here the user can see also purchases (excluded in this selection for better visibility), the yield transactions of the main article (Type: YIE Base), the yield transactions of the yielded articles (Type: YIE Comp) as well as the loss bookings to the usage group (Type: USE ART).



Cost Center/Store: Main Kitchen; Time Period: Booking Date >= 01.05.2010 and Booking Date < 19.05.2010; Item Group: Meat Lamb; Sorted by Booking Date; Only selected Transaction Types: Transfer In, Transfer Out, Sale, Usage, Inventory, Menu, Yield

Booking Date	Document Date	Document Number	Type	Cost Center/Store	Article No.	Article	QTY	Unit	Transfer Cost Center	Supplier	Supplier
18.05.2010	18.05.2010	Y-2010-00009	YIE Base	Main Kitchen	10500004	Lamb, ea	-43.080	Kilogram			
18.05.2010	18.05.2010	Y-2010-00009	YIE Comp	Main Kitchen	10500005	Lamb Sausages Ea	80.000	Each			
18.05.2010	18.05.2010	Y-2010-00009	YIE Comp	Main Kitchen	10500001	Lamb, Fillet	1.528	Carton 20 x 180g			
18.05.2010	18.05.2010	Y-2010-00009	YIE Comp	Main Kitchen	10500003	Lamb, Chops	6.500	Kilogram			
18.05.2010	18.05.2010	Y-2010-00009	YIE Comp	Main Kitchen	10500002	Lamb, Rack	6.700	Kilogram			
18.05.2010	18.05.2010	Y-2010-00009	YIE Comp	Main Kitchen	10500002	Lamb, Rack	5.120	Kilogram			
18.05.2010	18.05.2010	Y-2010-00009	YIE Comp	Main Kitchen	10500006	Lamb, Ragout	15.260	Kilogram			
18.05.2010	18.05.2010	USG1005-00023	USE ART	Main Kitchen	10500004	Lamb, ea	-0.920	Kilogram			
18.05.2010	18.05.2010	Y-2010-00009	YIE Base	Main Kitchen	10500004	Lamb, ea	-9.800	Kilogram			
18.05.2010	18.05.2010	Y-2010-00010	YIE Comp	Main Kitchen	10500006	Lamb, Ragout	9.800	Kilogram			
18.05.2010	18.05.2010	USG1005-00024	USE ART	Main Kitchen	10500004	Lamb, ea	-0.200	Kilogram			
18.05.2010	18.05.2010	Y-2010-00011	YIE Base	Main Kitchen	10500004	Lamb, ea	-9.800	Kilogram			
18.05.2010	18.05.2010	Y-2010-00011	YIE Comp	Main Kitchen	10500004	Lamb, ea	-9.800	Kilogram			
18.05.2010	18.05.2010	Y-2010-00011	YIE Comp	Main Kitchen	10500006	Lamb, Ragout	9.800	Kilogram			
18.05.2010	18.05.2010	USG1005-00025	USE ART	Main Kitchen	10500004	Lamb, ea	-0.200	Kilogram			
18.05.2010	13.05.2010	Y-2010-00012	YIE Base	Main Kitchen	10500004	Lamb, ea	-52.250	Kilogram			
18.05.2010	13.05.2010	Y-2010-00012	YIE Comp	Main Kitchen	10500005	Lamb Sausages Ea	198.000	Each			
18.05.2010	13.05.2010	Y-2010-00012	YIE Comp	Main Kitchen	10500001	Lamb, Fillet	1.528	Carton 20 x 180g			
18.05.2010	13.05.2010	Y-2010-00012	YIE Comp	Main Kitchen	10500003	Lamb, Chops	8.250	Kilogram			
18.05.2010	13.05.2010	Y-2010-00012	YIE Comp	Main Kitchen	10500002	Lamb, Rack	8.250	Kilogram			
18.05.2010	13.05.2010	Y-2010-00012	YIE Comp	Main Kitchen	10500002	Lamb, Rack	6.600	Kilogram			
18.05.2010	13.05.2010	Y-2010-00012	YIE Comp	Main Kitchen	10500006	Lamb, Ragout	13.750	Kilogram			
18.05.2010	13.05.2010	USG1005-00026	USE ART	Main Kitchen	10500004	Lamb, ea	-2.750	Kilogram			

(for a better visibility the purchases are excluded in this screenshot!)

USAGE STATISTICS:

Here the user can review the automated usage bookings for the loss figures to the defined usage group: