Supergroup Builder and MetaGroup Reporting

MetaGroup reporting from MetaFarms is new set of tools to allow a user to build custom nursery, finish, and wean to finish group relationships and report them as a combined group for averages, totals, performance, and P&L.

Overview

The new MetaGroup toolkit includes two main components to address the needs of combining nursery and finish stages with revised performance allocations. One component is the ability to create and save combinations of Nursery and Finish groups in our Super Group Builder tool. This tool allows a user to link and save a Super Groups. These groups must be linked via a movement and our tools helps you to visualize this through the movements to and from each group.

If you don't want to manually build Super Groups and save their relationships, we allow the user the option to simply run an Ad-Hoc report to select the base groups and it will follow all groups forwards or backwards to build the wean to finish reporting on the fly.

Setup options for feed, mortality, and expense rollup categories allow you to define what is included to allocate to next group.

Components

Super Group Builder

This new form allows you to build and save Super Groups or combination of Nursery, Finish, and Wean to Finish groups for rolling up together. The form will allow you to filter to a set of Base groups where you can select to include them.

For example, pick a Nursery group as the base group. A grid will appears showing All Movements from that group to the next stage. You will see movement information and the Finishers where they were sent. Click to select which finishing groups you want to include. Now enter a name for your Super Group and Save. Your Super group now keeps this connection for any future reporting. You can build as many Super Groups as you like.

Ad-Hoc W2F Reporting

This report menu item allows to run a report without having to define a Super Group ahead of time. The idea here is to combine wean to finish performance without having to know the exazt groups involved. This maybe show me all Nursery groups closed in a date range, in which case the report will identify those nursery groups started or closed in the date range and place them as Base groups. It will then follow forward to the Finish groups and allocated based on movement data and allocation method defined in setup. Then a Revised group with the Nursery and Finish allocations will be reported.

This area include a number of filters including Business Unit, Pig Flow, Roles, and many other resources. Each filter will be combined together to allow the most flexible option for the user to limit what gets reported.

Calculations

Based on the allocation method selected, calculations will differ on how various sections of the report are totaled, averaged, or weighted.

Expense Category Rollup options

Allocation % - This option assumes the customer wants all expenses in this rollup category to be treated as a whole group distribution. Meaning regardless of how long pigs were in the group, and regardless of when the expense was entered, the whole amount of the expense will allocate to based on the number of pigs moved out on any given movement.

Invoice Date - This option assumes the customer wants all expenses in this rollup category to be assigned based on Invoice Date as related to Movement Date out of the group. Meaning only expenses that occur on or before the movement date will be allocated to next group.

Mortality

Allocation % - This option assumes the customer wants all mortalities to be treated as a whole group distribution. Meaning regardless of how long pigs were in the group, and regardless of when the mortality was entered, the mortalities will allocate based on the number of pigs moved out on any given movement.

Movement Date - This option assumes the customer wants ONLY mortalities recorded on and before the movement date to be allocated to the next group.

Feed

Allocation % - This option assumes the customer wants all feed deliveries to be treated as a whole group distribution. Meaning regardless of how long pigs were in the group, and regardless of when the feed was delivered, the feed will allocate based on the number of pigs moved out on any given movement.

Delivery Date - This option assumes the customer wants ONLY feed delivered on and before the movement date to be allocated to the next group.

Feed Transfers

At this time Feed Transfers will NOT follow the feed rule above. All feed transfers will be 100% allocated based on movement qty out of the groups. Reason is a lot of feed at the beginning and ending of a group skewed feed performance dramatically when using Delivery Date option.

Movements – Allocations

Movements drive the allocations to the next stage of production. The basic concept is if a nursery group produces 1,000 feeder pigs to two different finishers, the allocation will be driven by the quantity of those movements to the finishers.

Example:

1,000 pigs produced at Nursery

600 pigs go to finisher A1 (60%) Allocation %

400 pigs go to finisher B2 (40%) Allocation %

Allocations will assign finisher A1 to get 60% of the feed, mortalities, expenses, and other items such as pig days. Finisher B2 would get 40% of all items.

After Allocation % is calculated, each Rollup Category, Feed, and Mortality setup options will be reviewed. If an option is set to "Date" then the date of the expense, mortality, or feed delivery will be compared against the movement date. Only those that match the date will then be used in the calculation for the Allocation %.

Example:
If Feed option is set to Delivery Date:
Movement date is 1/15/2021 for Finisher A1 above and movement date is 1/20/2021 for Finisher B2. Finisher A1 will NOT get any feed delivered after 1/15 applied to the Allocation %. While Finisher B2 will get 100% of the feed delivered after 1/15.

If Fed option is set to Allocation %:
Then movement date will be not considered, and regular allocation of 60% and 40% using example above would apply to all feed deliveries.

Calculation Measures

Measure	Revised Source	Calculation
Pigs IN	Nursery or Wean to Finish group where placed	Always source value
Pigs Started	Nursery or Wean to Finish group where placed	Based on company setup for days moved in
Difference in Pigs In & Pigs Started	Calculated on all groups	Used for allocation offsets when different and applying Pigs Produced values
Actual Sqft per Pig	All groups sqft from barn setup on a daily basis	Weighted calculation based on space days in group and pig days from all groups = (SqftAllocation*DOF Base group) + (SqftAllocation*DOF Dependent Group) / Allocated PigDays
Pig Days	Combined value from both Base and Dependent groups based on movement dates - does not represent all pig days in a given group only days based on movement dates (example all nursery and finish group pig	Nursery pig days allocated to Finisher, Plus Finish pig days for those pigs arriving on those movements

	days may not sum up to revised group if other movements are involved)	
Pigs Produced	Calculated in line based on all Pigs In and Pigs Out assigned from Allocations. Idea is Pigs In – Out should equal Pigs Produced by Revised Group	Allocated Pigs IN – Allocated Deads in Group + (Allocated Pigs In + (Difference of Allocated Pigs Started – Allocated Pigs In) - (Allocated Moveouts - + Allocated SubStandard + Allocated MarketSales + Allocated Genetic Sales + Allocated Other Sales + Allocated Dead In Group + Allocated DOA) - (Allocated DOA + Allocated Pigs Started – Allocated Pigs In)
Net Wt Produced	Calculated in line based on Produced Wt and In Wt	Allocated Pigs Produced Wt - Allocated Pigs In Wt
Tfers Out as % of Pigs Out	Allocated Transfers Out occurring in Finish Stage Only	Allocated Transfers Out / Allocated Pigs Out with Adjustments
Sub-Stnd Sales as % of Pigs Out	Allocated Substandard occurring in Finish Stage Only	Allocated SubStandard / Allocated Pigs Out with Adjustments
DOA as % of Pigs Out	Allocated DOA occurring in All Stages	Allocated DOA / Allocated Pigs Out with Adjustments
Total Loss % of Pigs Out	Allocated Total Loss occurring in All Stages	Allocated Total Loss / Allocated Pigs Out with Adjustments
Genetic Sales % of Pigs Out	Allocated Genetic Sales occurring in All Stages	Allocated Genetic Sales / Allocated Pigs Out with Adjustments
Other Sales % of Pigs Out	Allocated Other Sales occurring in All Stages	Allocated Other Sales / Allocated Pigs Out with Adjustments
Inv Adjust % of Pigs Out	Allocated adjustments in all stages	Allocated Adjustments / Allocated Pigs Out with Adjustments
Deaths % of Pigs Out	Allocated mortalities in all stages	Allocated Mortalities / Allocated Pigs Out with Adjustments
New Treatments	Allocated mortality treatments in all stages	Allocated Mortality Treatments

Mortality % of Pigs In	Allocated mortalities in all stages	Allocated Mortalities / Allocated Pigs In
Base - Total Feed	Total feed from group before allocations	Base amounts not reported in revised area
Total Feed	Total feed allocated based on method selections	Total Allocated Feed
Total Feed Cost	Total feed cost allocated based on method selections	Total Allocated Feed Cost
Lb Feed Per Hd	Total feed Allocated and Pigs Produced Allocated	Total Allocated Feed/ Total Allocated Pigs Produced
Feed Cost per Lb Gain Prod	Total feed cost allocated, and net weight produced allocated	Total Allocated Feed Cost / Total Allocated Net Weight Produced
Avg Feed Med Costs per Pig	Total feed med cost allocated, and Allocated pigs produced	Total Allocated Feed Med Costs / Total Allocated Pigs Produced
Total Corn in Lbs	Total corn allocated	Total Allocated Corn
Total Corn Cost	Total corn cost allocated	Total Allocated Corn Costs
Total DDG	Total DDGs allocated	Total Allocated DDGs
Total DDG Cost	Total DDGs Cost allocated	Total Allocated DDGs Costs
Total SBM in Lbs	Total SBM allocated	Total Allocated SBM
Total SBM Cost	Total SBM Cost allocated	Total Allocated SBM Costs
Total Calories Delivered	Total Calories allocated	Total Allocated Calories
Kcal / Gain	Total Calories allocated and net weight produced allocated	Total Allocated Calories / Total Allocated Net Weight produced
Kcal / Pigs Produced	Total Calories allocated and pigs produced allocated	Total Allocated Calories / Total Allocated Pigs Produced
ADG Live	Allocated Net live Weight Produced and Pig Days allocated	Total Allocated Net Live Weight / Total Allocated Pig Days
FC Live	Total Feed Allocated and Net live Weight Produced allocated	Total Allocated Feed / Total Allocated Live Weight Produced
Adjusted FC	Total Feed Allocated and Net Weight produced allocated	Not reported in revised area since wean to finish is assumed
ADG Carcass	Allocated Net carcass Weight Produced and Pig Days allocated	Total Allocated Net Live Weight / Total Allocated Pig Days * Carcass Yield
FC Carcass	Total Feed Allocated and Net carcass Weight Produced allocated	Total Allocated Feed / Total Allocated Live Weight Produced / Carcass Yield
ADFI	Total Feed allocated and Pig Days allocated	Total Allocated Feed / Total Allocated Pig Days
Pigs Sold	Total pigs sold allocated	Total Allocated Pigs Sold
Market Loads	Total market loads allocated	Total Allocated Market Loads
Target % - Very Light to Very Heavy	Allocated Very Lights to Very Heavy and Total Processed	Total Allocated Carcasses in weight category / Total Allocated Carcasses Processed

Avg Std Wt	Allocated Market Sales Weight and Allocated Market Sales Qty	Total Allocated Market Sales Weight / Total Allocated Market Sales Qty
Avg Cull Wt	Allocated Cull Weight and Allocated Cull Qty	Total Allocated Cull Weight / Total Allocated Cull Qty
Back Fat	Allocated Backfat and Allocated Carcasses with backfat	Total Allocated Backfat / Total Allocated Carcasses with Backfat
Loin Depth	Allocated Loin Depth and Allocated Carcasses with loin depth	Total Allocated Loin Depth / Total Allocated Carcasses with Loin Depth
Yield %	Allocated Yield % and Allocated Carcasses with Yield %	Total Allocated Yield / Total Allocated Carcasses with Yield / 100
Lean %	Allocated Lean % and Allocated Carcasses with Lean %	Total Allocated Lean % / Total Allocated Carcasses with Lean % / 100
Lean Prem $/CWT	Allocated Lean Premium and Lean Premium Carcass Weight	Total Allocated Lean Premium / Total Allocated Carcasses with Lean Premium
Sort Loss $/CWT	Allocated Sort Loss and Allocated Sort Loss Carcass Weight	Total Allocated Sort Loss / Total Allocated Carcasses with Sort Loss
Insurance Qty	Allocated Insurance Qty	Total Allocated Insurance Qty
Condemned Qty	Allocated Condemned Qty	Total Allocated Condemned Qty
Capacity	Allocated Capacity	Total Allocated Capacity
Start % Cap	Allocate Capacity and Allocated pigs started	Total Allocated Pigs Started / Total Allocated Capacity
Empty Days at Start	Allocated Empty Days at Start	MAX Allocated Empty Days at Start
Empty Days at Close	Allocated Empty Days at Close	MAX Allocated Empty Days at Close
Fill Days	Allocated Fill Days	MAX Allocated Fill Days
Pig Loc Days	Allocated Pig Location Days based on group types – nursery and finish sum others max	SUM OR MAX Allocated Pig Location Days
Avg DOF	Allocated Days on Feed based on group types – nursery and finish sum others max	SUM or MAX Allocated Days on Feed
DOF Moved	Assigned by movements out	Days from Group Start until Date moved out
Days 1st Market	Allocated Days to First market sale	MIN Days to First Market Sale from Group Start Date
Sales Int	Allocated Sales Interval Days	AVG Allocated Sales Interval Days

Pig % Util	Allocated Pig Days and Allocated Weighted Capacity	Total Allocated Pigs Days / Total Allocated Weighted Capacity of spaces used
Pig Cost In	Allocated pig costs in from movement and allocated Pigs In from movements	Total Allocated Pig Costs In
Pig Cost Out	Allocated Pig Costs from all sources allocated	Total Allocated Pig Costs Out
Total Income	Total Income from all sources allocated	Total Allocated Pig Income
Income Per Head Sold	Total Income from all sources allocated and Pig Sold allocated	Total Allocated Income / Total Allocated Pigs Sold
Income Per Head Produced	Total income from all sources allocated and Pigs Produced allocated	Total Allocated Income / Total Allocated Pigs Produced
Income Per CWT	Total income from all sources allocated and Net Weight Produced allocated	Total Allocated Income / Total Allocated Net Weight Produced
Total Expenses	Allocated Expenses	Total Allocated Expenses
Expenses Per Head Sold	Allocated Expenses and Pigs Sold	Total Allocated Expenses / Total Allocated Pigs Sold
Expense Per Head Produced	Allocated Expenses and Pigs Produced	Total Allocated Expenses / Total Allocated Pigs Produced
Expenses Per CWT	Allocated expenses and Net Weight Produced allocated	Total Allocated Expenses / Total Allocated Net Weight Produced
Profit (Loss)	Allocated Total Income and Allocated Total Expenses	Total Allocated Income / Total Allocated Expenses
Profit (Loss) Per Head Sold	Allocated Profit (Loss) and Allocated Pigs Sold	Total Allocated Profit (Loss) / Total Allocated Pigs Sold
Profit (Loss) Per Head Produced	Allocated Profit (Loss) and Allocated Pigs Produced	Total Allocated Profit (Loss) / Total Allocated Pigs Produced
Profit (Loss) Per CWT	Allocated Profit (Loss) and Allocated Net Weight Produced	Total Allocated Profit (Loss) / Total Allocated Net Weight Produced * 100
Net Per CWT	Allocated Profit (Loss) and Allocated Net Weight Produced	Total Allocated Profit (Loss) / Total Allocated Net Weight Produced * 100
Allocation % 1 – 8	UP to 8 moved out groups are supported at this time. This area shows the % assign to each movement out by % - example a Nursery to two finishers would have two movements out. One	Note: Each movement is treated as an allocation. Two movements to same group is treated as two different allocations.

	was 400 pigs and another was 600 pigs. Allocated would 40% and 60%	
Total Processed	Allocated Total Processed Market Hogs (from harvest sheets)	Allocated Total Processed Market Hogs
Very Light – Very Heavy	Based on targets – number of carcasses Allocated in Very Light weight to very Heavy	Total Allocated Very Light Carcasses to Very Heavy Carcasses
Total Start Wt	Allocated Pigs Started Weight based on group setup	Total Allocated Pigs Started Weight
Total In Wt	Allocated Pigs In Weight for all incoming movements	Total Allocated Pigs Started Weight
Total Wt Produced	Allocated Pigs Out Weight for all movements out	Total Allocated Weight Produced
Total Wt Produced (w dead)	Allocated Pigs Out Weight for all movements out plus weight from deads in group	Total Allocated Weight Produced + Total Allocated Dead Weight in group
Dead Wt	Allocated Dead Weight in group (mortality records)	Total Allocated Dead Weight in group
Pigs Produced (w dead)	Allocated Pigs Produced with deads in group	Total Allocated Pigs Produced + Total Allocated Deads in group
Carcass Net Wt Produced	Allocated Net Weight Produced	Total Allocated Net Weight Produced * Carcass Yield%
Market Sales Wt	Allocated Market Sales Weight from all groups	Total Allocated Market Sale Weight
Cull Wt	Allocated Cull Weight from all Finish &b W2F groups	Total Allocated Cull Weight
Culls	Allocated Cull Qty from all Finish and W2F groups	Total Allocated Cull Qty
Total Backfat – Total Sort Loss	Total Weight items for Packer backfat, loin depth, lean, sort loss for calculations for weighted averages	Total (SUM) values
DOA	Based on event codes – Dead on Arrival allocated	Total Allocated DOAs
Total Pigs Out	Total Allocated Pigs Out of Group from movements and adjustments	Total Allocated Pigs Out
Transfer Qty	Total Allocated Pigs Transferred Out based on movement event codes	Total Allocated Pigs Transferred Out
Substandard Qty	Total Allocated Pigs Transferred Out based on movement event codes	Total Allocated Pigs Transferred Out

Market Sales Qty	Total Allocated Market Sales based on movement event codes	Total Allocated Market Sales
Genetic Sale Qty	Total Allocated Genetic Sales based on movement event codes	Total Allocated Genetic Sales
Other Sale Qty	Total Allocated Other Pig Sales based on movement event codes	Total Allocated Other Pig Sales
Inv Adj Qty	Total Allocated Adjusted Pigs based on movement event codes	Total Allocated Adjusted Pigs
Total Feed Med Cost	Allocated Feed med costs from all groups	Total Allocated Feed Med Costs
Total Loss	Allocated Deads and Allocated Adjustments	Total Allocated Deads + Total Allocated Adjustments
Total Deaths	Allocated Deads from all groups	Total Allocated Deads
Usable Square Area	Allocated square area assigned like capacity by time in each location	Total Allocated Square Area
Total Pig Cost In	Allocated pigs cost in based on movements into Nursery stage	Total Pigs Cost In
Pigs In or Pigs Started	Revised after all other pigs out values are calculated. Because Allocation % causes issue we review and match Pigs in and Pigs Started to equal Pigs Produced – Deads also take into account Difference in Pigs In and Pigs Started	Allocated Pigs Produced – Allocated Dead +/- Difference in Pigs In and Pigs Started
Expense RollUp Categories	One column is dynamically added for every rollup expense category that has costs. Not all reports will match in number of columns – if one group uses more expenses than others the number of columns will be different	Dynamic columns for each Expense Rollup Category as needed
Expense Categories	One column is dynamically added for every Expense Category. These are the company defined Expense Categories and will only show if used on a group	Dynamic columns for each Company defined Expense Category as needed
Expense Category Total $	Each Category and rollup Category will have total	Total Allocated Expense Category $

	allocated expenses for that category	
Expense Category $ Hd / Prod	Each Category and rollup Category will have total allocated expenses for that category divided by pigs produced	Total Allocated Expense Category $ / Pigs Produced

Base Columns

For each allocated value on the report there is a "Base" value reported on the Detail tab. This Base value on for example "Base - Total Feed" this amount that will be applied to the Allocated percentage on that row/group. This will help in reviewing how an allocated amount feed, days, and other items are being applied.

Expense Rollup Categories

All allocations of expenses are setup at the Rollup Category level. These are standard categories in Metafarms that allows you to map to and customer defined Expense Category. These Rollup categories will ONLY show if a the groups reported include at least one value in that section. If there is no Freight/trucking then no freight/trucking columns will show. This area of the report is dynamic and will only show when needed.

Expense Categories

For each Expense Rollup Categories the report will include every Expense Category mapped to the Rollup. Again, only if that Expense Category had values for any group included in the report. These Expense categories are the customer defined names and are include to allow custom reporting by expense code.

Reporting Information

This report includes the primary setup information based on groups.
Including:

- Producer
- Site
- Group
- Batch
- Flow
- Business Unit
- Market Contract
- Feed Mill
- All 11 Roles – Supervisor, Service Tech, Vet, etc…

Group Type
Start / Close Dates
Movement information
Performance Section (ADG, FC, ADFI)
Mortality %
Pigs In, Out, Transferred, Sold, Adjusted
Feed delivered, cost, Corn, SBM, DDGS, Calories
Market Targets – Light, Heavy, etc…
Utilization Section (Loc Days, AVG DOF, SQFt, Start Cap%)
Income & Expense by Category
Allocation breakdown per movement

Reporting Layout

This report includes several sheets/tabs on the report.
Reporting Parameters: - This tab includes what data was entered to run the report. All filters and date ranges are included
Vertical – This tab includes Revised Groups on Columns and Calculations on Rows. You can compare Revised groups by looking across the columns
Detail – This tab is meant to show all the "detail" on each Revised group was allocated and calculated. The report will show all Base Groups and Dependent Groups, the individual movements, allocations, and the Revised Groups are shown at the end with the final output.
Revised – This tab has all the Revised groups along with Subtotals at the top. A user can then compare all Revised groups, filter them and see how they impact overall rollup to Business Unit, Role, Flow, or Company level.

Glossary

Base Group	Defines the beginning group where the report drives all allocations from. A base group can be a Nursery, Finish or Wean to Finish group
Dependent Group	A revised group is linked FROM a base group and is followed to show to get allocations as needed
Revised Group	Is a Combination of the Base Group with Allocations and the Dependent Group with Allocations reported as one row – revised wean to finish group
Allocation Method	A customer gets the choice to allocate with various methods based on the Expense Category Rollup, Mortality, and Feed – A new setup for under Finance, Setup, Rollup Allocations is used to make these choices
W2F Max Weight Transfer Limit	When allocating a Finish or Wean to Finish group, if a transfer out is over the limit set in Company Default, the group will be treated as a "tail ender" group and not be followed or reported in the Revised section.

Special Reporting Features

Undoublestocking

One of the special features of MetaGroups is the ability to combine a double-stocked wean to finish group with its associated Finish group. To do this certain rule and limitation are enforced.

Event Codes – Undoublestock movements must use one event code and have that event code flagged as an Undoublestock code.

Movements out – Only 1 undoublestock movement is allowed to be followed forward to the Finish group. Multiple movements out are not supported at this time.

Movements in – We expect all pigs to arrive in the base at least 1 day BEFORE the undoublestock date. You cannot move in pigs AND undoublestock on same date

Virtual movements – To allocate balances correctly a virtual movement is created to represent the pigs left behind in the group.

Example: 2,100 pig are placed

Undouble stock moves 1,000 pigs to a finisher

Assuming no deads – a virtuals movement is created representing the balance of pigs remaining, 1,100

Virtual movement is on same day as undoublestock and will be allocated based on pig basis.

Allocation Methods – The normal process of allocating by options above will be overridden when an undoublestock groups are involved. All Allocations will be Date-Based only so all costs, mortality, feed, and others all follow the date-based model. This is the only way to properly handle remaining pigs left in a doublestocked group.

Restating Dependent Group Balances – for the original group where the pigs placed, after the movement all balances for Pigs Started to Pigs Out will reflect only those left after the undoublestock event. This allows the report to treat the remaining pigs as a finish group and combine in revised section.