

Batch Yield Reconciliation

How-to guide: what the workbook does, how to use it and what every number means.

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Batch Yield Reconciliation

Log every batch's theoretical and actual yield, samples, rejects and losses; get yield and reconciliation against each product's limits, and see which batches need investigating.

For: QA and production managers, batch record reviewers and process engineers in pharmaceutical, biotech, nutraceutical and food plants.

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Quick start

1. On Setup, list your products with the unit they are counted in and the yield and reconciliation limits from your validated process.
2. On Batch Log, add one row per batch: batch number, date, product, theoretical yield and actual yield.
3. Add QC samples, rejects and other accounted losses; read yield, reconciliation, unaccounted quantity and the status words.
4. For every batch out of limits, enter the deviation or investigation reference; the Check column names any that are missing.
5. Open the Dashboard: the latest batches against their limits, and where each product's material goes.

What is in the workbook

Start Here	Read this first: what the workbook does and how to use it.
Setup	Site name and the products you reconcile, with their unit and yield and reconciliation limits.
Batch Log	One row per batch: theoretical and actual yield, samples, rejects and losses, against the product's limits.
Dashboard	The latest batches against their limits, and where each product's material goes.
Method	How every number is calculated, with assumptions, limits and sources.
Verify	Self-check: the workbook's formulas recomputed on fixed inputs against an independent reference.

What each number means

Quantity	How it is calculated	Units
Yield	Actual yield / theoretical yield.	%
Reconciliation	(Actual yield + QC samples + rejects + other accounted) / theoretical yield.	%

Quantity	How it is calculated	Units
Unaccounted	Theoretical yield - actual - samples - rejects - other accounted; negative means more was counted than theoretical.	product unit
Yield status	Within limits when yield low <= yield <= yield high (product's limits, looked up); otherwise Out of limits.	words
Reconciliation status	The same test of reconciliation against the product's reconciliation limits.	words
Check	Product not on Setup list; duplicate batch number; out of limits with no deviation reference.	words
Within all limits	Batches with both statuses Within limits / batches with a yield (a count ratio).	%
By product	Yield and reconciliation from SUMIFS of the product's batches (same unit), not averages of batch percentages; losses as shares of theoretical.	%
Latest batches	The last rows of the Batch Log, found by INDEX/MATCH from the last batch number upward.	-

Assumptions, limitations, sources and the self-check (the Verify sheet, which recomputes the workbook's formulas on fixed test inputs) are in the workbook. The last page shows the Dashboard with the example data for Alder Valley Health, a fictional business.

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Engineering estimates for planning and improvement work. Verify the results against your own process, data and standards before you rely on them.

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BATCHES RECONCILED	WITHIN ALL LIMITS	BATCHES OUT OF LIMITS	OUT OF LIMITS, NO DEVIATION REF
32	93.8%	2	1
Rows with a theoretical yield	Yield and reconciliation both within	Yield or reconciliation outside	Target 0
			Above target

