

5 Ways to Cut Reagent Waste Without Cutting Corners

Practical strategies to reduce waste, protect margins, and improve inventory management in your lab.

Article 1 of 22

5-minute read

3-5x

True cost of expired reagent vs. purchase price

70-80%

Reduction in emergency orders with par levels

15 min

Monthly waste audit to identify savings

Reagent waste is one of the most controllable expenses in a clinical lab, yet it quietly drains margins every month. Between expired stock, oversized orders, and poor rotation practices, the average independent lab loses thousands of dollars a year on reagents that never produce a reportable result. Here are five practical strategies you can implement this week.

1 Track Open-Vial Stability, Not Just Expiration Dates

Most reagent manufacturers print a shelf-life expiration date on the box, but once a vial is opened, the clock resets. Many reagents have an on-board or open-vial stability of 30 days or less, which is far shorter than the printed expiry. Create a simple log—paper or digital—where techs record the date each reagent is opened. Mark the calculated discard date directly on the vial with a permanent marker. This one habit alone can prevent you from running QC or patient samples with degraded reagents, which causes costly reruns.

QUICK TIP: Use our free Open-Vial Tracking Log template (included in the JIT4LABS Templates Toolkit).

2 Implement First-Expiry, First-Out (FEFO) Rotation

FEFO is not the same as first-in, first-out. When new shipments arrive, check expiration dates before shelving. Place items with the nearest expiry at the front. This seems obvious, but in a busy lab, new boxes often get stacked on top of old ones. Designate one person per shift as responsible for proper rotation when shipments are received.

QUICK TIP: Post a FEFO reminder card at each storage location. Assign rotation ownership by shift.

3 Right-Size Your Order Quantities

Ordering in bulk often comes with a per-unit discount, but that discount is meaningless if 20% of the order expires before use. Review your actual consumption data for the past 90 days. If you are consistently discarding reagents before using them, reduce your order size even if the unit price goes up slightly. A reagent that gets used is always cheaper than one that gets thrown away.

QUICK TIP: Compare your 90-day consumption to your current order size. Adjust to match reality.

4

Consolidate Runs to Reduce Open-Reagent Time

Every time you open a reagent pack for a short run of three or four samples, you start the on-board stability countdown. By batching specimens—running similar tests together at scheduled intervals rather than one-off throughout the day—you maximize the number of tests per open vial. This is especially impactful for low-volume assays.

QUICK TIP: Schedule fixed run times (e.g., 10 AM and 3 PM) for routine tests to build larger batches.

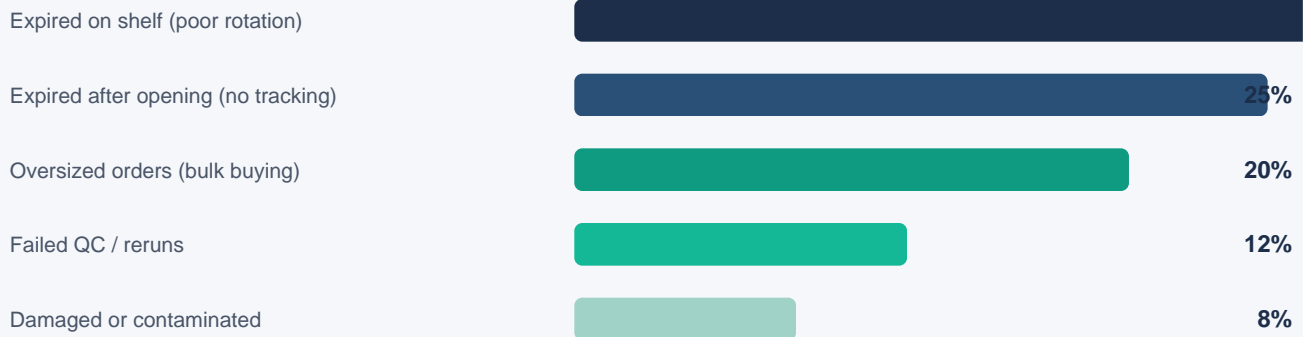
5

Conduct Monthly Waste Audits

Set a recurring calendar reminder to review what was discarded in the past 30 days. Categorize the waste: expired on shelf, expired after opening, damaged, or failed QC. Patterns will emerge quickly. Maybe one particular assay consistently expires because volume does not justify keeping it in-house—that is a candidate for send-out. Maybe a specific lot has quality issues worth reporting to your vendor. You cannot fix what you do not measure.

QUICK TIP: Use our Monthly Waste Audit template to categorize and quantify waste in 15 minutes.

WHERE DOES REAGENT WASTE COME FROM?



Source: Typical independent lab waste audit data (illustrative)

BOTTOM LINE: Start with the waste audit. Fifteen minutes of review will tell you exactly where to focus your effort. Then work through the other four tips in order of impact for your specific lab.

FREE TOOLS TO GET STARTED

Template	What It Does
Open-Vial Tracking Log	Track every opened reagent with auto-calculated discard dates
FEFO Rotation Checklist	Ensure proper shelf rotation at every shipment arrival
Monthly Waste Audit Sheet	Categorize and quantify waste in 15 minutes flat

Download the complete JIT4LABS Templates Toolkit

23 ready-to-use Excel templates covering inventory, financials, compliance, and more.

Visit: jit4you.myshopify.com/resources

This article is part of the **JIT4LABS Lab Operations Resource Series** — 22 practical guides designed to help independent diagnostic labs run more efficiently and profitably.