

Top 10 tips

For successful testing



How to turn testing into clarity, confidence, and better decisions across food, dairy, and beverage processing.

Most testing doesn't fail because the technology is wrong. It fails because the questions were unclear, the setup wasn't aligned with reality, or the results couldn't be trusted when it mattered most.

Successful testing is not about running experiments. It's about designing a process that reduces uncertainty, produces reliable data and supports decisions you won't regret later, when scaling up, investing or committing to production.

The tips below focus on how to approach testing and get the most value from it.

01 Start with clear objectives

Before testing begins, define what success means.

What decisions should the test enable?

What outcome would make you confident enough to move forward or to stop?

Clear objectives and success criteria shape everything that follows: test design, parameters, data collection and interpretation. Without them, even "good" results risk being inconclusive or misleading. Once testing is underway, it's often too late to redefine the rules.

02 Commit the right resources

Testing always consumes time, money and internal attention. The real risk is not investing too much, but investing without direction.

Early alignment on resources creates realism. It allows testing to be scoped properly, trade-offs to be made consciously, and economic boundaries to be understood from the start. This helps avoid exploring solutions that may work technically but prove unrealistic to implement later.

03 Combine equipment, facilities and expertise

Testing rarely fails because of missing equipment. It fails because of missing context.

Without experience guiding the setup, it's easy to test the wrong parameters, overlook critical variables, or draw conclusions that the data doesn't support. Early involvement of experienced process expertise helps sharpen test plans, avoid repeating what is already known, and ensure that results can be translated into realistic, scalable solutions.

Expertise throughout the process ensures that tests are designed with scale-up, repeatability, and interpretation in mind, not just execution.

04 Choose the right testing environment

Where testing takes place matters less than how it is controlled.

Some environments offer flexibility, others realism or speed. The challenge is ensuring sufficient control, consistency and collaboration. When testing conditions vary too much or lack structure, results become difficult to compare, and it becomes harder to trust the outcome.

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05 Start small and build with purpose
Effective testing mirrors production without pretending to be production.
Starting with production-relevant equipment at a smaller scale allows processes to be validated step by step. This approach exposes risks early, supports informed design choices and makes scale-up more predictable. Thinking big is important, but confidence is built through experience.

06 Test with representative materials
Test data are only as reliable as the samples behind them.
Using materials that truly reflect real production conditions is essential, especially for food products with a short shelf life, where freshness, handling and timing directly affect quality and performance. Representative samples reveal real-world behaviour and help ensure that results remain valid when conditions become less controlled outside the test environment.

07 Replace assumptions with reliable data
Testing exists to remove guesswork, not to confirm what we already believe.
But that only works when tests are designed correctly from the start. Clear parameters, consistent methods and disciplined execution turn data into a decision-making asset. Without this foundation, results risk becoming impressive-looking numbers with limited real value.

08 Leave room for learning and iteration
The most valuable test results often emerge when assumptions are challenged.
Being open to adjustments, alternative configurations and new insights allows testing to evolve from validation into optimization. Iteration is not a sign of uncertainty; it's a sign that learning is happening and that the process is becoming more robust.

09 Consider resource efficiency from the start
Performance alone rarely tells the full story.
Testing is a powerful opportunity to understand water use, energy consumption, and cleaning efficiency before production begins. These insights influence operating costs, sustainability performance and long-term resilience, and are far easier to address early than after systems are fixed.

10 Plan the next step early
Testing should never exist in isolation.
From the outset, results should guide the next steps: implementation, equipment choices, timelines, costs, and operational planning. Without early cost transparency, even strong technical results can be difficult to evaluate or act on.
When testing is designed with the next decision in mind – including how results translate into realistic investment scenarios – it accelerates progress rather than slowing it down.

Ready to start testing?

Testing can take many forms, depending on your objectives, resources and processes. It may involve on-site trials using rented or purchased equipment, remote testing with selected samples, or hands-on testing at dedicated test centers. Some tests are completed in days, while others evolve over weeks as insights build and parameters are refined.

With extensive hands-on experience in lab testing, pilot trials and production-relevant validation, Alfa Laval supports customers across all these scenarios – helping you choose the approach that best fits your needs.

Talk to our experts to discuss your objectives, testing options and next steps, and design a testing journey that delivers results you can trust.



Contact Alfa Laval

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