



Powering Large-Scale Enzyme Production

Why enzymes matter?

- High specificity and efficiency under mild conditions
- Lower energy, water, and chemical use
- Improved process performance and product quality
- Sustainable, biodegradable biocatalysts

Where enzymes are used?

Food & Beverages



Animal Feed



Detergents



Textiles



Biofuels



Pharma / Biotech



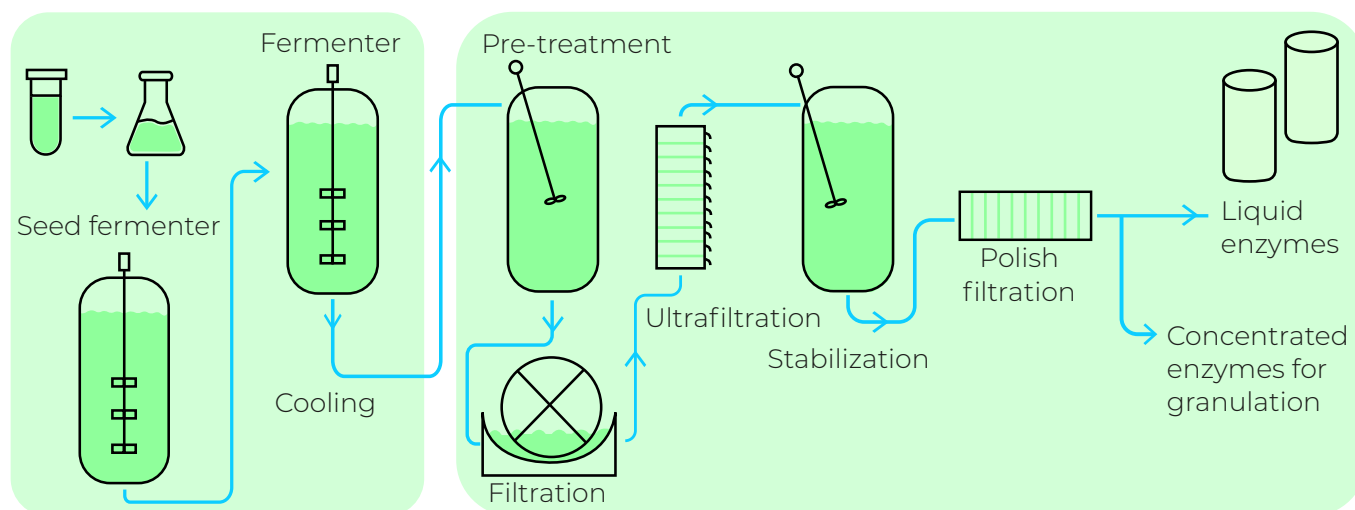
Power your enzyme production with Roquette's plant-based ingredients—designed to enhance fermentation performance, support enzyme stability, and help deliver more sustainable, high-quality bioprocesses.

Upstream: From strain and seed train development to fermentation

Objectives: Maximize enzyme production, productivity, consistency, and process robustness.

Key KPIs: Enzyme titer, volumetric productivity, biomass growth, substrate-to-enzyme yield, batch-to-batch consistency, fermentation cost per activity unit.

Optimization levers: Strain selection, seed train design, medium composition, feeding strategy, process control, scale-up methodology, digital monitoring, and raw material consistency.



Downstream: From cell removal and concentration to purification, stabilization, drying, and final formulation

Objectives: Recover, protect, and deliver enzyme activity in a stable, market-ready format.

Key KPIs: Activity recovery, enzyme purity, residual activity after processing, shelf life, moisture and water activity, product yield, cost per activity unit.

Optimization levers: Clarification and filtration design, purification strategy, process conditions, formulation protectants, drying or granulation parameters, particle engineering, packaging, and application-specific stability testing.

