



**Protein
Application
Center**
Switzerland

Innovations for a **better world.**

BÜHLER

Proteins

Paving the way for a healthier future

By 2050, our planet's agricultural system will need to support 10 billion people. Amongst others, we will face several challenges in the future, such as minimizing the environmental impact of agriculture, feeding the world's growing population with limited resources and access to safe and nutritious food.



Addressing these challenges will require collaboration among governments, industries and individuals to develop sustainable and resilient food systems for the future. Transitioning to plant-based protein alternatives is seen as one of the most impactful ways to save resources by bringing protein to the population without requiring a resource and time-intensive animal conversion. To be able to test and produce these plant-based protein ingredients in the best possible way, we have opened the Protein Application Center in Switzerland. Here we offer trials for producing protein isolates and dairy alternatives.

Collaboration: uniting efforts for a sustainable future

In the context of addressing future challenges in areas like food sustainability, collaboration is essential. It enables stakeholders to combine their strengths, knowledge, and resources to develop holistic solutions that can have a positive impact on a global scale.

This is why we collaborate together with our partner endeco protein & foods in the operation of the protein application center. Together, we foster diversity of thought, pool resources and combine our skill sets.



Combining supreme machinery for best end results

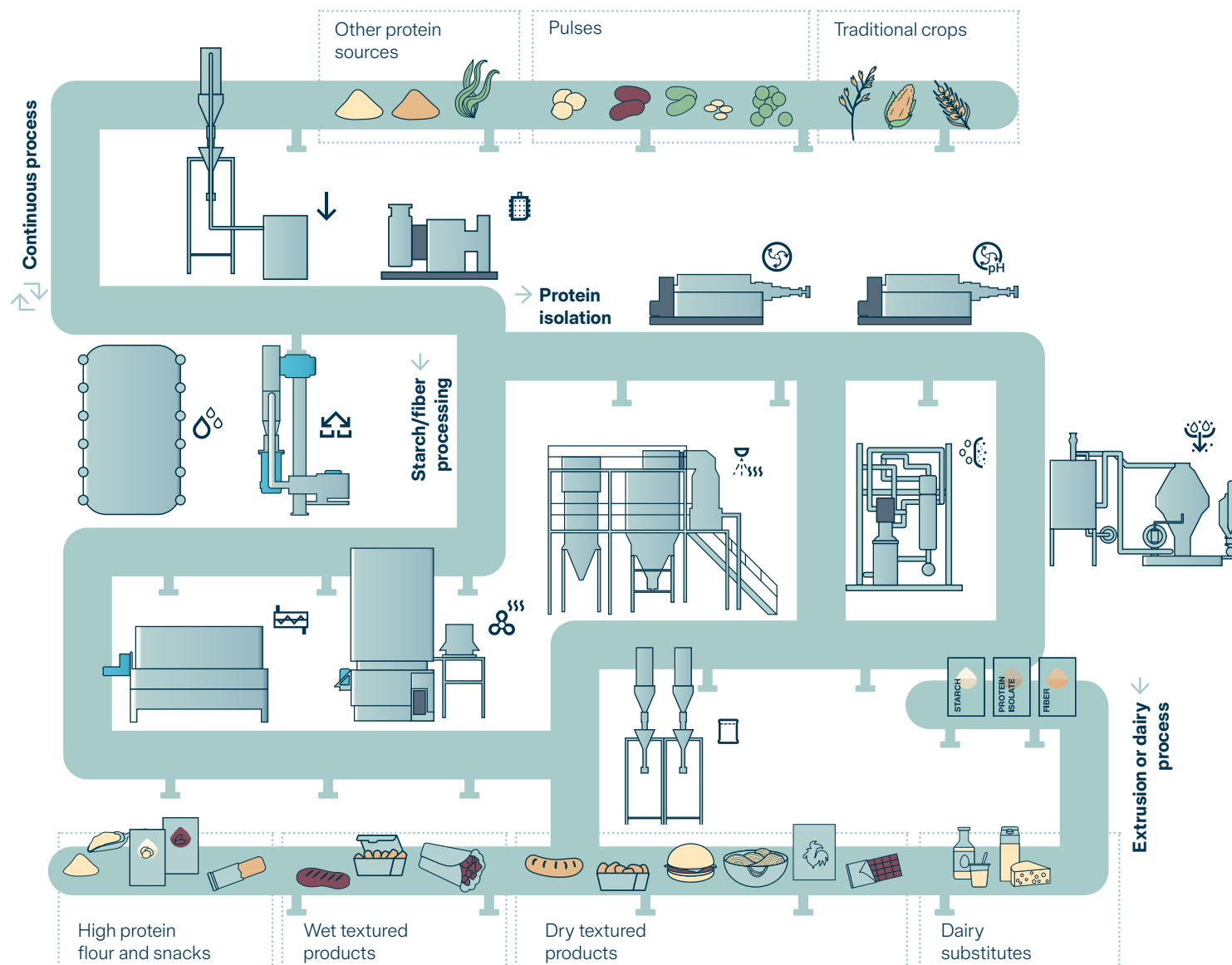
To ensure the best result for various production needs, we combine our process know-how, solutions and partner's equipment in one place. The combination of Bühler and endecos process know-how and the wet processing machines of our partners such as Hosokawa and MMS enables us to offer fully-fledged solutions for various plant protein requirements.

Ensuring scalability of your product

Plant-based food alternatives will only achieve the desired impact on the environment if their production can be scaled for mass-market adoption. Our facility has been uniquely designed with that factor in mind. We offer two different processing lines: one providing proof of concept of your ideas and one continuous line for validating your future process.

Proteins

Process overview in our Protein Application Center



Our continuous line

- ↓ Intake
- 🔪 Wet Grinding & Dispersing
- 🌀 Separation of Protein from Starch/fiber
- 🌀 Isoelectric Precipitation
- 🚿 Washing & De-watering
- 🌀 Membrane Separation
- 💨 Spray Drying
- 🔪 Starch & Fiber Separation
- 🚿 Washing
- 🚿 De-watering
- 💨 Whirlflash Drying
- 📦 Finished Products Bagging

Accelerating innovation

The Protein Application Center features an industrial pilot-plant production line as well as a batch-line for processing plant-based protein isolates, starch and fiber. The different plant sizes enables us to run trials with higher capacities on a continuous manufacturing process and smaller quantities that go through production process as a distinct unit. On the batch line, also dairy alternatives can be tested.

Flexible product development options to achieve your desired objective

In the Protein Application Center, the product can be separated into a protein, starch and fiber fraction. Not only the protein fraction is a valuable ingredient, but also the side streams from protein isolation, namely starch and fiber, add value to a variety of products.

Plan a trial with us



Get in touch

Contact us to discuss your needs and costs with one of our experts.
Decide on the objectives of the trial and any special equipment needed.



Plan in advance

Make sure you ship your material ahead of time to allow customs clearance.



Join us for your trial

Join us physically from the Protein Application Center in Switzerland.
Or join us virtually if you prefer not to travel.

We offer

- support in feasibility trials and run optimizations
- process adaptations for fast prototyping and proof of concept
- different technological solutions for processing various product quantities
- thorough process and product knowledge
- analysis, creation, and sensory expertise to create winning products

Feasibility trial

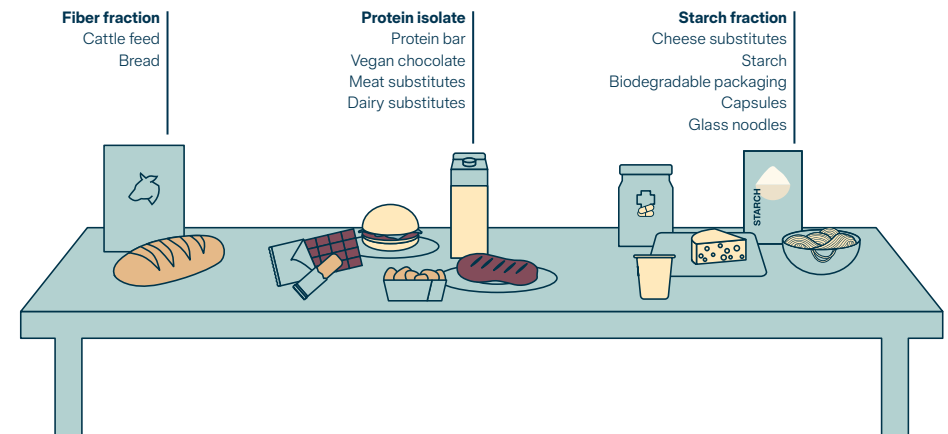
Develop a proof of concept and design recipes with combination of protein sources. Or explore novel ingredients and trial concepts.

With our individual batch line, we offer you minimum batch runs and the possibility to test dairy alternatives in addition to protein isolates.

Product development

For improvement and optimization of existing recipes. Whether you plan to launch a brand extension, further develop an existing product or want to use enhanced technical solutions.

With our continuous process line, we offer you the opportunity to validate various applications with different technologies.



Global network supporting transition to sustainable proteins



Protein competence across the globe

We are operating 45 Application Centers for food applications world wide and 16 that are focused on pulse and protein processing.

*Our application centers in Uzwil

- Protein Application Center
- Grain Innovation Center
- Extrusion Application Center
- Food Creation Center
- Chocolate Mass Application Center
- Energy Recovery Center



Bühler AG

CH-9240 Uzwil
Switzerland

T +41 71 955 11 11

buhlergroup.com/pac

PAC Switzerland en 03/25 LS

