Internship / Thesis Opportunity (M.Sc. / Chemical Engineering, Food Chemistry, Food Technology, Polymer Science)

Development of Alternative Pectin Production Approaches

📍 Location: Cargill Pectin Plant, Malchin, Germany
🗓️ Duration: 6 months (flexible start date)
💰 Compensation: Paid internship (in accordance with German regulations)

About Cargill

Founded in 1865, Cargill is one of the world's largest privately held companies and a global leader in food, ingredients, agricultural supply chains, and industrial solutions. With approximately 160,000 employees worldwide, Cargill serves customers across food, nutrition, pharmaceutical, personal care, and industrial markets.

Within Cargill's Food Solutions business, pectin is a key plant-based ingredient used in a wide range of food applications. The Malchin site is an important part of Cargill's global pectin network, combining large-scale manufacturing, technical expertise, process development, and innovation.

Joining Cargill offers the opportunity to work in an international environment, collaborate with experienced scientists and engineers, and contribute to technologies used by leading food manufacturers around the world.

Project Description

Cargill is offering an exciting internship or master's thesis opportunity at its pectin manufacturing site in Malchin, Germany.

Pectin is a naturally occurring biopolymer obtained from citrus peels, a valuable by-product of the food industry. As part of Cargill's commitment to sustainability and biomass valorization, this project explores innovative approaches to optimize pectin production and functionality for future food applications.

The project focuses on the development and evaluation of innovative pectin processing technologies as part of Cargill's efforts in biomass valorization and sustainable ingredient development. The work will combine process development, analytical characterization, and the evaluation of how processing conditions influence pectin functionality and product performance in an industrial R&D environment.

Main Objectives

- Conduct a literature review on pectin processing technologies and pectin modification approaches.
- Plan and perform laboratory-scale experiments.
- Characterize pectin samples using analytical techniques.
- Investigate the influence of process parameters on product properties.
- Develop and evaluate suitable analytical and process control methods.
- Analyze and interpret experimental results.
- Present findings and recommendations for future developments.

Candidate Profile

- Master's student in Food Technology, Food Science, Food Chemistry, Chemical Engineering, Process Engineering, Polymer Science, or a related discipline.
- Strong interest in food ingredients, biopolymers, and process development.
- Previous laboratory experience is an advantage.
- Good English communication skills. German language skills are an advantage.
- Ability to work independently and as part of an international team.

Why Malchin?

The project is based at Cargill's pectin production facility in **Malchin**, located in the heart of the beautiful **Mecklenburg Lake District** in northern Germany.

Surrounded by lakes, forests, and nature reserves, the region offers a unique combination of industrial innovation and outstanding quality of life. Outdoor enthusiasts can enjoy cycling, hiking, sailing, kayaking, and many other recreational activities throughout the year.

Despite its peaceful setting, Malchin is well connected:

- Approximately **1 hour from Rostock** and the Baltic Sea coast.
- Approximately **2 hours from Berlin**.
- Located near some of Germany's most attractive natural landscapes and tourism destinations.

Malchin combines affordable living, a welcoming community, and easy access to both vibrant cities and nature, making it an ideal location for students looking to gain valuable industrial experience while enjoying a high quality of life.

Application

Interested in joining us?

Please send your **CV** and **motivation letter** by email to:

Hannes Lüdemann
hannes_luedemann@cargill.com

We look forward to hearing from you and discussing how you can contribute to our team at Cargill.