# Aquafeed Extrusion & Dry Petfood Technology

NORWAY — 17 - 19 April 2023

## Overview

This 3-day course covers the principles of extrusion, the design of extrusion processes, and the formulation of extruded aquafeeds and dry petfoods. Principles learned will be demonstrated using the extruder at FôrTek.

The program provides background in general extrusion technology, but is specifically directed at aquafeed and dry petfood extrusion.

The course applies to both single and twin screw extrusion technology, and covers topics from the basics of extruders and their configuration, through what is happening chemically and physically inside the extruder barrel, to an understanding of extruder dies and extruder instability.

# **Course Content**

#### Topics covered include -

- > Principles of extruder configurations (single and twin screw)
- > Role of rheology in extrusion,
- › Die types and effects, die design
- > Extrusion ingredients design of formulations for extrusion
- > Preconditioning for extrusion
- > Product density control
- > Causes and effects of extruder instability
- > Extrusion troubleshooting
- > Screw, barrel, and die-plate wear

Principles learned will be applied during the practical demonstration on Day 2. Important aspects of peripheral systems (eg raw materials pre-processing, preconditioning, product drying) are also covered.

## Venue

Norwegian University of Life Sciences (NMBU) Vitenparken Building Fredrik A. Dahls vei 8 Ås (near Oslo), Norway

## **Registration Fee**

#### NOK 13,000 per person

Registration fees are set in NOK and will vary when converted to other currencies according to fluctuations in exchange rates.

A **10% discount** applies for registrations received by **3 MARCH 2023**.

An **additional 10% discount** applies for those attending consecutive courses.

An **additional 5% discount** applies for 3 or more course registrations received together from the same company.

Discounted fees apply for PhD students and non-profit research organisations - see course <u>webpage</u> for details.

Registration fee includes PDFs directly related to the presentations, as well as lunches, morning & afternoon refreshments.

#### **REGISTRATIONS CLOSE 31 MARCH 2023**

Register online via course webpage, or send participant details (name, company, address, email, ph) to mjephcott02@gmail.com

## **Course Enquiries**

**Dennis Forte** (D. Forte & Assoc.)

+61 416 261 726 <u>forte1@iinet.net.au</u>

## **Course Presenters**

**D.** Forte & Assoc. is a private R&D company offering a complete range of technical consulting services to the processing industry, including a range of specialist training courses. Due to it's unique business structure, D. Forte & Assoc. is able to deliver innovative, flexible solutions to the needs of processors.

Mr Dennis Forte, a chemical engineer with extensive experience in extrusion processing and die design, including breakfast cereals, extruded snacks, pasta, and confectionery. Dennis has worked with a wide variety of companies using extrusion technology.

Details of services offered by D. Forte & Assoc. are available through their website at <u>dennisforte.com.au</u>.

The Centre for Feed Technology (FôrTek), part of the Norwegian University of Life Sciences (NMBU), serves the international feed industry by carrying out research in all areas of fish feed, pet food, and animal feed as well as in student education. New ingredients and processes can be tested using its extensive pilot plant facilities, which includes extrusion, pelletising, drying, and coating equipment.

# Books by the Course Presenter

Available to course participants at 20% discount to list price. Or order online from <u>fie.com.au/books</u> or major booksellers.



> Full Planned Program available from course webpage.

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