# **Aquafeed Extrusion & Dry Petfood Technology**

NORWAY 15 - 17 April 2024

This short course is organised by Dennis Forte & Associates in conjunction with The Centre for Feed Technology (FôrTek), part of the Norwegian University of Life Sciences (NMBU)

# 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.

# **Registration Fee**

## NOK 14,000 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 1 March 2024 and paid within 14 days.

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

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

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

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

## **REGISTRATIONS CLOSE 29 MARCH 2024**

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

#### Venue

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

Programs scheduled to run 08:30 - 17:00

# **Course Enquiries**

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#### **Course Presenter**

**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 dennisforte.com.au.

**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 Published by the Course Presenter**

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











