

Aquafeed Extrusion Technology

Short Course

Centre for Feed Technology (FôrTek), Norway

25 to 27 March 2015

Access course webpage via <http://www.foodstream.com.au/events/>

This short course is presented by FoodStream in conjunction with the Centre for Feed Technology (FôrTek), Norway. FoodStream is an Australian company which, working with extrusion specialist Dennis Forte, has been presenting extrusion training in countries including Australia, Thailand, and New Zealand for almost 20 years.

Overview

This 3-day course covers the principles of extrusion, the design of extrusion processes, and the formulation of extruded aquafeeds. Principles learned will be demonstrated using the extruder in the Centre for Feed Technology pilot plant.

The program provides background in general extrusion technology, but is specifically directed at aquafeed extrusion. The course applies to both single and twin screw extrusion technology.

The course will cover 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
- Product density control
- Preconditioning for extrusion
- Causes and effects of extruder instability
- Screw, barrel, and die-plate wear
- Extrusion troubleshooting



Photo: Dejan Miladinovic

Examples in product formulation and the design of extrusion processes will be included to demonstrate application of the theory. 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.

Handout notes directly relevant to the presentations are included in the registration fee. Participants can order more detailed notes as a bound volume at additional cost.

The full planned program is available from the course website via www.foodstream.com.au/events/.

Course Presenters

Key presenters at the course are:

- Dennis Forte, of Dennis Forte & Associates
- Gordon Young, of Foodstream Pty Ltd

Presenters are highly experienced in extrusion and related operations used in aquafeed production, as well as having worked with companies across a range of other extruded products.



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Course Venue

Centre for Feed Technology (FôrTek)
Arboretvn 10,
N-1432, Ås (near Oslo)
Norway

Registration Fee

11,500 NOK per person (or equivalent in other currency at time of invoicing - approx €1350)

Note: Registration fee is set in Norwegian Krone and will vary when converted to other currencies according to fluctuations in exchange rates.

A **10% discount** applies for registrations received by **4 February 2015** and *paid within 14 days of invoicing*,

An additional **10% discount** applies for **three or more course registrations** received together from the same company.

The registration fee includes handout notes directly related to the presentations, as well as lunches, and morning and afternoon teas.

More detailed notes on extrusion technology are available as a bound volume at an additional cost of 1050 NOK (approx €120) per copy.

Registrations close 13 March 2015.

REGISTER ON-LINE - access the course website via <http://www.foodstream.com.au/events/>,
OR

Send participant details (name, company, address, email, ph) to:
registrations@foodstream.com.au

For course related enquiries, contact:

Gordon Young
FoodStream (Australia)
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FoodStream Pty Ltd 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 its unique business structure, FoodStream is able to deliver innovative, flexible solutions to the needs of processors. Details of services offered by FoodStream are available through our website at www.foodstream.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. Information is available via www.nmbu.no/fortek.

