



# **AQUAFEED EXTRUSION TECHNOLOGY SHORT COURSE**

**Centre for Feed Technology (Fôrtek), Norway**

25 to 27 March, 2015

## **PLANNED COURSE PROGRAM**

**Note: The following program may be subject to minor change**

### **Day 1      Wednesday, 25 March**

8:30	Introduction and welcome, Overview of the extrusion process
9:15	Extruder configurations (single and twin screw)
10:00	Morning Tea
10:20	Ingredients and their effects
11:15	Role of rheology in extrusion processing
12:15	Lunch
1:00	Principles of die design
1:45	Preconditioning for extrusion
2:30	Pellet quality measurement
3:00	Afternoon tea
3:15	Technical Considerations in the Selection and Evaluation of Dry Materials Blending Operations
4:15	Recipe formulation exercise
4:45	Close Day 1

## **Day 2**

## **Thursday, 26 March**

8:15	Review Day 1
8:30	Product Density Control
9:15	Causes and effects of instabilities during extrusion processing
10:00	Morning Tea
10:30	Single screw extruders vs twin screw extruders
11:30	Die design and extruder configuration examples (re pilot plant run)
12:15	Lunch
1:00	Demonstration in pilot facility
3:00	Afternoon tea
3:30	Review of demo, extruder start-up video & discussion
	Close Day 2

## **Day 3**

## **Friday, 27 March**

8:15	Review so far
8:30	Extruded product analysis and the RVA
9:15	Influence of Energy Input on Product Water Solubility
10:00	Morning Tea
10:30	Screw, barrel, and die-plate wear
11:15	Drying technology related to extruded products
12:00	Lunch
12:45	The Vacuum Infusion Process
1:30	Scale-up and process transfer
2:15	Extrusion trouble shooting
3:00	Afternoon tea
3:15	Extruded product quality assurance and how to achieve it
4:00	Final discussion, Close of Course