

NewTechAqua Advanced Course on Fish nutrition, feeding and health - Zaragoza (Spain), 5-9 June 2023

TIMETABLE

Hour	Monday 5	Tuesday 6	Wednesday 7	Thursday 8	Friday 9
9:15-10:15	1. Opening	3.4. Tools and experimental approaches for fish nutrition: in vitro modelling	4.2.3. Advances from EU projects 4.2.3.1. NewTechAqua and Nextgenproteins	5.3.2. Project advances 5.3.2.1. Proimmunoil+: practical diets and functional ingredients	6.2. Precision feeding and modelling
10:15-11:15	2. Introduction to fish farming challenges	4. Aquafeed ingredients 4.1. Conventional ingredients	4.2.3.2. PerFormFish and AqualImpact: single cell protein, insect meals, alternative oil	5.3.2.2. NewTechAqua: pro-health feed to reduce Sparicotyle in seabream	6.3. Legal framework and Certification schemes. 6.3.1. EFSA Guidelines and requirements for feed ingredients
<i>Coffee break</i>					
11:45-12:45	3. Nutritional physiology 3.1. The integrity of mucosal tissues	4.1. Conventional ingredients	5 .Improving fish health and performance in farmed fish 5.1. Nutritional requirements under different environment conditions.	5.4. Gut microbiome: microbiomes assessment in Aquaculture	6.3.2. Certification schemes in aquafeed manufacturing and fish farming
12:45-13:45	3.2. The fish digestive system. Gut anatomy and functionality	4.2. Alternative ingredients 4.2.1. Macro & micro algae, insects, SCP yeast, fungi, bacterial, etc.	5.2. Selective breeding and feed efficiency		6.3.3. Organic certification. NewTechAqua: organic feed trials
<i>Lunch break</i>					
15:15-16:15	3.2. The fish digestive system. Gut anatomy and functionality	4.2.2. Effects of alternative ingredients on zootechnical performance, health and quality.	5.2. Selective breeding and feed efficiency	6. Feed formulation and feeding 6.1. Challenges in feed formulation and technology	6.4. Practical work. Feed formulation and feeding efficiency evaluation
16:15-17:15	3.3. Microbiome in fish	4.3. Open discussion: potentials and constraints	5.3. Functional ingredients 5.3.1. Fish feed additives	6.4. Practical work. Feed formulation and feeding efficiency evaluation	7. Final discussion and closing session
17:15-18:15			6.4. Practical work. Feed formulation and feeding efficiency evaluation		