Report on

Pro-Aqua 2021: Professional Practice in Aquaculture Lecture Series by SAP to University Students

The ICAR-Central Institute of Fisheries Education, Mumbai, in association with the Society of Aquaculture Professionals (SAP) under the aegis of the National Agricultural Higher Education Project (NAHEP), organized an online lecture series on "Pro-Aqua 2021: Professional Practice in Aquaculture Lecture Series by SAP to University Students". The lecture series was conducted every Saturday (02.30 pm to 05.00 pm IST) from 17th July 2021 to 28th August 2021, intended for the industry orientation of students. The program was aimed to offer relevant and practical aquaculture education to the students of aquaculture. A total of 523 participants attended the five-week lecture series.

The **inaugural session** was held on 17th July 2021, to which four industry experts were invited to deliver the lecture. A total of 115 participants attended the first-day lecture. **Dr. Gayatri** Tripathi, Principal Scientist and Nodal Officer (CIFE-NAHEP), ICAR-CIFE, Mumbai, conducted the program. Dr. Gopal Krishna, Director and Vice-Chancellor, PI-CIFE-NAHEP, ICAR-CIFE, Mumbai, inaugurated the program and gave the welcome address. In his address, Dr. Gopal Krishna stressed the importance of a strong industry-academia interphase for the collateral progression of both academia and industry. He mentioned that while academia comes out with technology, the industry has a major role in scaling up the technology. After the welcome address, Mr. Shrinibas Mohanty, VP (Education), SAP, introduced the SAP and its mission for the audience. He noted that the SAP was established with the mission to help aquaculture professionals to advance the art, science and practice of aquaculture through providing opportunities for continuous professional development of individuals and being the voice of professionals to all stakeholders in the aquaculture industry. **Dr. B.B. Nayak**, Head, FRHPHM Division and industry component leader NAHEP, ICAR-CIFE, gave the context and relevance of the programme. As the CIFE-NAHEP industry component coordinator, he explained the role of NAHEP in strengthening the academia-industry interphase. Dr. Gayatri Tripathi introduced the profile of the speakers to the audience before every lecture. Mr. S. Santhanakrishnan, Founder President, SAP & CEO, Maritech, gave the first lecture on the topic "The educated aquaculturist: Role of aquaculture education in India's aquaculture development in the last 30 years". He introduced the growth of the aquaculture industry in alignment with the advancement of professional fisheries education

in India. He also noted the present lacunas, future perspectives and possible actions to fill the gaps from an industry perspective. Mr. Ravi Kumar Yellanki, Immediate Past President SAP Managing Director, Vaisakhi Bioresources, delivered the second lecture on the topic "Status of shrimp farming in India and potential areas of improvement that calls for the involvement of professionals". In his lecture, Mr. Yellanki detailed the trends in shrimp production in India in the past decade. He noted other reasons along with the COVID pandemic for the decrease in shrimp production in 2020. Mr Yellanki also emphasized the dire need to popularize the domestic market for the shrimp and how an alternate species like tiger shrimp can be a game-changer for the Indian aquaculture industry. The third lecture by Dr. Manoj Sharma, Managing Director, MayankAqua Farms, on the topic "My journey from Zhinga (shrimp) to Zhingalala (entrepreneur)", detailed his 25 years of the journey, which made him a successful aquapreneur. The motivating lecture described his experience in planning and executing shrimp farms which made the progression of Surat into a hub of shrimp aquaculture to influence the lives of thousands of farmers. The final lecture by **Dr. Victor Suresh**, Technical Director, Growel Feeds, was on "**Professional education**" in aquaculture from a practitioner's viewpoint", where he called for the need for more professionals in the aquaculture industry. The following discussion in the question and answer session generated a lot of interest where participants wanted to know R &D prospects in the industry, disease issues and species diversification in shrimp aquaculture. After the lectures, Dr. Gayatri Tripathi thanked Dr. Gopal Krishna, Dr. B.B Nayak, invited industry experts, the CIFE-NAHEP team and the audience for making the inaugural programme successful.

The **second lecture** on the topic "**Practices in Production System**" was conducted on 24th July 2021 from 02.30 pm to 05.00 pm (IST), which 93 participants attended. Dr. Gayatri Tripathi introduced the speakers to the audience. The first lecture was given by **Mr. Shrinibas Mohanty**, VP (Education), SAP, on "**Shrimp Farming in India Today**". He presented the industry data on shrimp production in the past decade, after which he discussed the practical considerations of shrimp farming under commercial conditions. The second lecture on the topic "**Dissolved Oxygen Management in Ponds**" was delivered by **Dr. Patchala Srinivasa Rao**, Senior Technical Manager, Avanti Feeds Ltd. His lecture covered DO dynamics in ponds and factors affecting DO levels; Target levels of DO for production; Signs of oxygen deficiency in ponds and practices used in emergency management; Aerators: the practical considerations in choosing and using them. The lectures were followed by an interesting question and answer session by the participants which

generated a lot of interest. Dr. Amjad Balange, Principal Scientist, ICAR-CIFE, thanked Dr. Gopal Krishna, Director and Vice-Chancellor, PI-CIFE-NAHEP, ICAR-CIFE, Dr. B.B. Nayak, Head, FRHPHM Division and industry component leader NAHEP, ICAR-CIFE, Dr. Gayatri Tripathi, invited industry experts, the CIFE-NAHEP team.

The topic "Practices in Aquatic Animal Health Management" constituted the third lecture conducted on 31st July 2021 from 02.30 pm to 05.00 pm (IST). A total of 104 participants attended the third-week lecture. Dr. Gayatri Tripathi, Principal Scientist and Nodal Officer (CIFE-NAHEP), ICAR-CIFE, Mumbai, conducted the program. She introduced both speakers to the audience. Dr Amerneni Ravikumar, Founder, Ravi Aqua Academy, gave the first lecture on "Running a diagnostic lab". His lecture covered all the aspects of setting up an aqua laboratory at the field level from a practical point of view. Dr. Ravikumar covered various related topics on types of equipment, skills, manpower, training required, economics and profitability in aqua labs. Dr Akshaya Panigrahi, Principal Scientist, ICAR-Central Institute of Brackishwater Aquaculture, gave the second lecture on the topic "Practical Issues in Field Diagnostics and Suggestive Remedial measures" in which he covered the importance of disease diagnostics in shrimp farming, disease prevalence in shrimp, the importance of field diagnosis, different types of field diagnosis and remedial measures. The lectures were followed by an engaging question and answer session by the participants, which generated interest. The invited experts answered all the queries. After the Q&A session, Dr. Amjad Balange, Principal Scientist, ICAR-CIFE, thanked Dr. Gopal Krishna, Director and Vice-Chancellor, PI-CIFE-NAHEP, ICAR-CIFE, Dr. B.B. Nayak, Head, FRHPHM Division and industry component leader NAHEP, ICAR-CIFE, Dr. Gayatri Tripathi, invited industry experts, the CIFE-NAHEP team and the participants for making the programme a success.

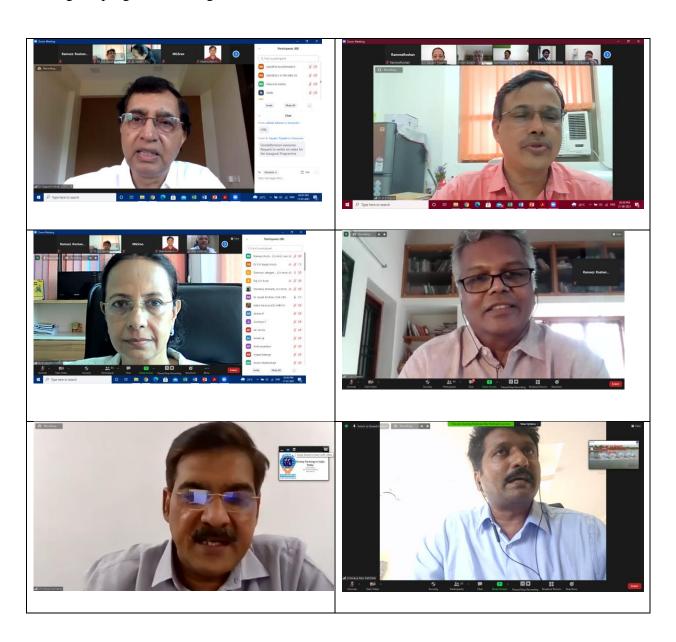
The **fourth lecture** from the series, conducted on 7th August 2021 from 02.30 pm to 05.00 pm (IST), emphasized "**Practices in Aquatic Animal Nutrition and Feed Technology**". A total of 91 participants attended the fourth-week lecture. Dr. Gayatri Tripathi, Principal Scientist and Nodal Officer (CIFE-NAHEP), ICAR-CIFE, Mumbai, conducted the program. She introduced both speakers to the audience. The first **s**peaker **Dr. Victor Suresh**, Technical Director, Growel Feeds, delivered his lecture on "**Designing and Formulating Feeds**". The technical session by Dr. Victor covered various aspects of feed formulation, specifying nutrients; development of ingredient matrices, setting ingredient levels; taking into account processing technology and the

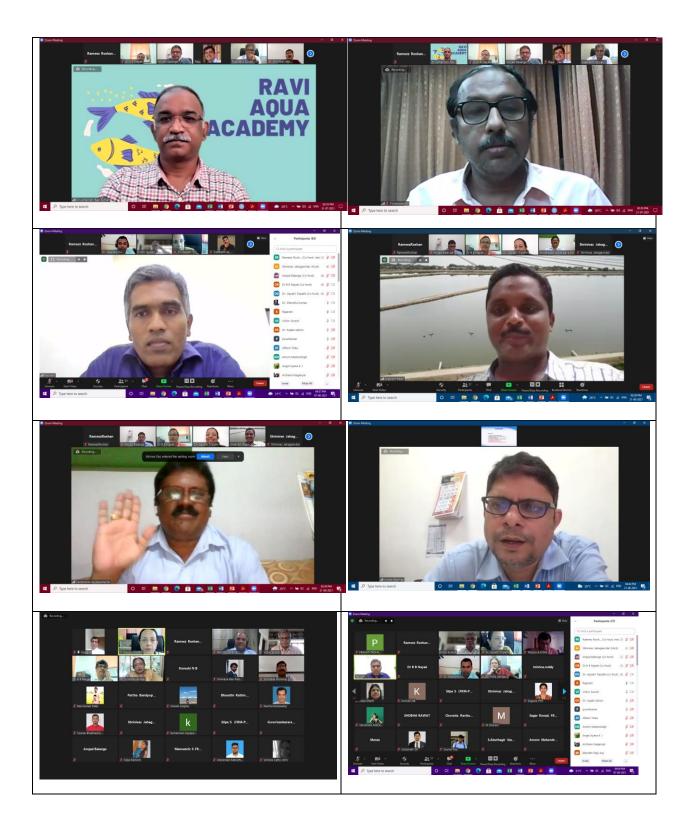
role of R&D. The second lecture by **Dr V. Rajaram**, Senior Manager – Formulations, Grobest Feeds Corporation India (P) Ltd was on the topic "**Feed Manufacturing Technology**". His insightful lecture covered a range of topics on feed types, different stages of modern feed milling, gelatinization, post pellet coating and recent developments in feed processing. The lectures were followed by an engrossing question and answer session by the participants, to which the invited experts gave clarity. After the Q&A session, Dr. Gayatri Tripathi, thanked Dr. Gopal Krishna, Director and Vice-Chancellor, PI-CIFE-NAHEP, ICAR-CIFE, the invited industry experts Dr. Victor Suresh and Dr. V. Rajaram, Dr. B.B. Nayak, Head, FRHPHM Division and industry component leader NAHEP, ICAR-CIFE, Dr. Amjad Balange, Principal Scientist, ICAR-CIFE, the CIFE-NAHEP team and the participants for making the programme a success.

The fifth and final lecture on "Practices in Farm Management" held on 21st August 2021 was attended by 65 participants. Dr. Gayatri Tripathi, Principal Scientist and Nodal Officer (CIFE-NAHEP), ICAR-CIFE, Mumbai, conducted the program. She introduced both speakers to the audience. The first speaker, Mr. Sreeram Raavi, Managing Director, Eruvaka Technologies, gave a lecture on "Advanced Technologies in Pond Management", discussing cost-effective technological solutions for sustainable and profitable aquaculture practices. Mr. Raavi presented examples of successful implementation of IoT-based intelligent systems like Real-time monitoring of water quality parameters and Intelligent feeding systems, which can continuously record data to optimize aquaculture practices. The second lecture on "Feed Management Challenges and Solutions" was presented by Mr A. Kumaresan, Senior DGM and Marketing Head, Shenglong Biotech India Pvt Ltd. He addressed a range of topics from introduction to feed, criteria for selecting a quality feed, feed ingredients, feeding management, feed chart, check tray monitoring and various types of feeding. The lectures were followed by a Q & A session, after which **Dr.** Amjad Balange, Principal Scientist, ICAR-CIFE, thanked Dr. Gopal Krishna, Director and Vice-Chancellor, PI-CIFE-NAHEP, ICAR-CIFE, Dr. B.B. Nayak, Head, FRHPHM Division and industry component leader NAHEP, ICAR-CIFE, Dr. Gayatri Tripathi, invited industry experts, the CIFE-NAHEP team and the participants for attending the programme.

The **valedictory function of the SAP lecture series** held on 28th August 2021 was attended by 55 participants. **Dr. B.B. Nayak**, Head, FRHPHM Division and industry component leader NAHEP gave the welcome address. **Dr. Gayatri Tripathi**, Principal Scientist and Nodal Officer (CIFE-NAHEP), ICAR-CIFE, Mumbai, presented the comprehensive report of the entire

programme. Some of the students among the participants were given a chance to provide feedback on the lecture series. The lecture series received many positive feedback for the initiative on bringing the industry experts onto the academic platform. **Dr. Victor Suresh**, Technical Director, Growel Feeds, gave his remarks from the SAP side. Final remarks were given by **Dr. Gopal Krishna**, Director and Vice-Chancellor, PI-CIFE-NAHEP, ICAR-CIFE. **Dr. Amjad Balange**, Principal Scientist, ICAR-CIFE, thanked Dr. Gopal Krishna, Dr. B.B. Nayak, Dr. Gayatri Tripathi, all invited industry experts and SAP members, the CIFE-NAHEP team and the participants for making the programme a huge success.





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