Promoting Aquaculture for Sustainable Food Production *Volume-2 Issue-1:2017*

UVAS Fisheries and Aquaculture Newsletter

Introduction:
The Department of Fisheries & Aquaculture, UVAS aims to provide excellence in higher education, training, research and development, services and advice in the fields of sustainable Fisheries and Aquaculture consequently contributing to economic and social development of the country .

Mission:
To produce highly skilled professionals in the field of Fisheries and Aquaculture to meet the demand of growing Fisheries industry by resolving food and environmental problems

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SUCCESS STORY OF 6TH INTERNATIONAL FISHERIES SYMPOSIUM & EXPO 2017 "Innovative and Sustainable Aquaculture for Blue Revolution"

A two-day 6th International Fisheries Symposium and Expo of the University of Veterinary and Animal Sciences (UVAS) Lahore was successfully conducted 8-9th February, 2017 in Faletti's Hotel, Egerton Road, Lahore. Renowned fisheries and aquaculture experts from 16 countries, including America, Canada, Mexico, UK, Croatia, New Zealand, Malaysia, Belgium, Turkey, Thailand, China and Indonesia etc, participated in the symposium. Punjab Livestock and Dairy Development Minister Mr. Asif Saeed Manais and Minister for Forestry, Wildlife and Fisheries Punjab Mian Yawar Zaman Khan inaugurated the ceremony and session of the conference. Various sessions on fish feeding management, fish diseases and health management, fish pond and hatchery management, fish harvesting and post-harvest technology, research planning, data acquisition analysis and interpretation, fish physiology, breeding and genetics and poster competitions were the main features of the two-day event. The symposium provided an opportunity to researchers, academia, students, professionals and fish industry to get abreast of the latest research, shared ideas and developed strong linkages in the field of fisheries and aquaculture.

Govt. Striving For Promotion of Fisheries in Balochistan

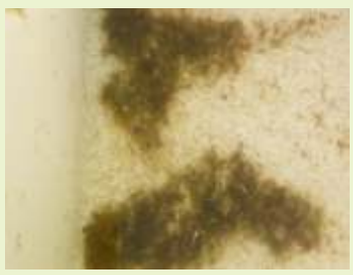
Balochistan Fisheries Department is striving for promotion of fisheries in the province. A project of construction of a floating fish landing jetty in Ormara area of Gwadar is in progress at a cost of more than one hundred and seventeen million rupees. Similarly, another project for the establishment of a fish hatchery in Hub Dam in Lasbella district is also swiftly being executed at a cost of more than 68 million rupees.

KPK Fisheries Department Established Trout Hatchery and Fish Farms

Fisheries department of Khyber Pakhtunkhwa (KPK) is going to establish a trout fish hatchery and five fish farms in Siran valley to enhance production of trout fish and promote tourism in the area. According to the fisheries department, every fish farm would produce 750 kilogram trout fish every year and more than one hundred thousand juvenile trout fish would also be released into the river Siran during the five years period. The Department will impose heavy fines on illegal fishing particularly use of illegal means including poison, electric current, chemical and others, in this regard department will also hire ten watchers to stop illegal fishing, use of venomous chemicals and electric current. The Govt. official released 10,000 trout juveniles in Siran river at Nawaz Abad. Trout hatchery and farms would also help in enhancing business opportunities for local people and promoting tourism in the area. Strict measures will be implemented in all rivers and streams of Mansehra district to protect trout fist.

Successful Breeding of Grass Carp *(Ctenopharyngodon Idella)* at, UVAS

The aquaculture team at Department of Fisheries and Aquaculture, University of Veterinary and Animal Sciences Ravi Campus led by Dr. Muhammad Hafeez-ur-Rehman, Assistant Professor alongwith Mr. Muhammad Akmal, Lecturer under the guidance of Dr. Noor Khan, Chairman of the Department have achieved two successful spawnings in their fish hatchery complex, Ravi Campus and now have several hundred thousand juveniles past the early critical stage and feeding and growing well. The brood stock were taken from different ecological zones of the Punjab and reared in the University ponds. The brood stock was fed with high protein artificial feed and proper management of pond and then breeding was attempted. Grass carp have not been bred in University ponds since last 8 years. Induced breeding team of the Department have made several unsuccessful attempts to bred this species over the past few years but experiments were not successful. This year team managed two successful spawnings trials of this specie. Students of postgraduate were also involved in hands on training of induced breeding techniques of Chinese carps which is the basic mandate of the Department. Department of Fisheries and Aquaculture, UVAS is a Govt. owned education and training provider institute and offer mostly freshwater aquaculture courses, trainings and degree programmes and have an excellent aquaculture setup for BS(Hons)/M.Phil/PhD Fisheries & Aquaculture students.



UVAS Developed Fish Vaccine Against Bacterial Disease, Infectious Abdominal Dropsy (IAD) In Grass Carp

UVAS Researchers have successfully developed fish vaccine against Infectious Abdominal Dropsy (IAD) disease. Ms. Iqra Farooq completed her M.Phil degree with her research dissertation entitled "Gel based inactivated vaccine production against Aeromonas hydrophila in grass carp *(Ctenopharyngodon idella)*" under the supervision of Dr. Muhammad Hafeez-ur-Rehman (Assistant Professor) Department of Fisheries and Aquaculture and Dr. Imran Altaf (Assistant Professor) Quality Operation Laboratory, University of Veterinary and Animal Sciences, Lahore.

Diseases are the biggest constraints in aquaculture industry. Among the bacterial diseases, Infectious Abdominal Dropsy (IAD) has been reported as a chief cause of substantial economic losses. The abdominal dropsy is investigated from various areas of Pakistan and is a major fish loss for aquaculture industry. The virulent strain of *Aeromonas hydrophila* isolated from infected fishes which could produce the disease symptoms within 24-72 hours on experimental inoculation. *Aeromonas hydrophila* is accountable for abdominal dropsy as well heamorrhagic Septiceimia which is acute and fatal disease. It causes symptoms like formation of skin lesions ultimately shedding the scales, ulcers, gills hemorrhages abdominal inflammation and exophthalmia. In acute form, the disease emanated so rapidly that fish die without the appearance of any clinical symptoms. In analysis, the farmers sustain intense loss due to the disease and no protective measures were available. There is an effort to develop a suitable vaccine to increase the fish antibody response against abdominal dropsy. The study was designed for the isolation of *Aeromonas hydrophila*, bacteria were confirmed by microscopic analysis and biochemical characterization. The pathogenicity of the isolated *A. hydrophila* was evaluated by administering the active strain in grass carp *(Ctenophryngodon idella)*. The gel based inactivated vaccine was prepared by bacterial suspension and 0.5 ml, the best doze of vaccine were injected in grass carp fish produced long term immunity against abdominal dropsy.

This was the first attempt from Pakistan to develop fish vaccine for abdominal dropsy. The findings of her research will be useful for the enhancement of immune response to improve fish health and development of this vaccine manifest the great assistance to enhance the fish antibody response against abdominal dropsy ultimately reducing the magnitude of economic losses due to *Aeromonas hydrophila* to the fish producers. Further experiments on vaccine are in progress to expand on other commercially important aquaculture fish species of Pakistan.

FEEDing Pakistan: Three-day Seminar On "Aquaculture And Feeding Management" and Study Tour to Feed Mills

Under FEEDing Pakistan program of American Soybean Association (ASA)/WISHH, funded by United State Department of Agriculture (USDA), SoyPak held a three-day seminar on "Aquaculture and Feeding Management" including a Study Tour to Feed Mills and Fish Ponds. The seminar was held exclusively for female students of Fisheries and Aquaculture at Lahore College for Women University (LCWU).

This activity was organized with the collaboration of the Zoology Department of LCWU, Zoological Society of LCWU, Society for Promotion of Science and Technology of LCWU, and the Small and Medium Enterprise Development Authority (SMEDA), Ministry of Industries, Government of Pakistan. The event was held in the Biotechnology Department, LCWU from Wednesday, August 03, 2016 through Friday, August 05, 2016. This training program was a continuation of training for female students specializing in "Fresh Water Aquaculture" and was attended by 40 students and faculty members. This study tour marked the first time a group of female Pakistani students were allowed to visit large scale feed mills in the country and learned about the soy-based floating extruder technology for manufacturing floating feed. Dr. Uzma Qureshi, Vice Chancellor LCWU, was the Chief Guest at the inaugural session. Participants were taught about the benefit of soy usage in replacing the fishmeal in fish diet. It was a very successful event where all the female graduates and faculty members were having a lot of knowledge, more practical approach, about the soy usage in feed and its benefit translated in quality production of ponds. Basics of the Aqua-feed manufacturing, feed ingredients, Nutrition and Technology and Feeding Management techniques in ponds and nutrition balance and formulation were new things for them including information about soy.

This was a sort of first training program held to educate the students and the faculty about different techniques applied in Aquaculture, feeding management, pond management, feed technology and economics. Field trip was an eye opening for the participants and they had very active participation in field trip related to their subject speciality. At the closing ceremony all the successful participants were given completion certificates with a complimentary copy of both Aquaculture Handbook and Manual of Tilapia.

6th International Fisheries Symposium And Expo 2017 In Pictures


6th International Fisheries Symposium & Expo-201
8-9th February, 2017
Organized by


6th International Fisheries Symposium & Expo-2017
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UVAS HEC-BC KEP Project Team Participated in UK-Pakistan Partner's Event, 2017

Higher Education Commission, Pakistan and British Council (HEC-BC KEP) jointly organized "Achieving Impact & Investment in Collaborative Research: a UK-Pakistan Partners' Event" from 24- 25th April, 2017 in Islamabad. Dr. Noor Khan, Associate Professor/PI and his project team participated in this two day event and displayed project posters/activities in Exhibition. Worthy Vice Chancellor, UVAS, Meritorious Prof. Dr. Talat Naseer Pasha (S.I.), also participated in this Event and briefed the Chief guest Mr. Ahsan Iqbal, Federal Minister for Planning & Development and Dr. Mukhtar Ahmed, Chairman, HEC, about the project activities and progress of fish industry in Pakistan.

Editorial Board

This news letter is jointly initiated by UVAS-Industry Liaison Working Group on "Fisheries & Aquaculture" and HEC-BC KEP Project titled "**To STRENGTHEN PUBLIC/PRIVATE PARTNERSHIP AMONG FISHERIES & AQUACULTURE COMMUNITIES THROUGH EDUCATION & TRAINING IN PUNJAB PAKISTAN".**

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