



ज.प्र.नि. समाचार DWM NEWS



Volume : 12 No. 2

April - June, 2011

“Water saving approach in commercial aquaculture”

The Institute is carrying out a project at Balasore, since 2009, with the aim to estimate the water requirement, water productivity and feeding management for improving water quality and triggering compensatory growth performance of Indian major carps, giant freshwater prawn and black tiger shrimp in grow-out culture system.

The concept of feed restriction and refeeding that triggers compensatory growth ultimately enhance yield by 16-18% and maintain water quality, thus minimizes the water requirement for exchange. This also helps in enhancing water productivity, preventing wastage of water and operational cost by 20-25% in grow-out aquaculture. Under BWMP, regulated water exchange has significantly higher net water productivity over periodic water exchange while, periodic water exchange has no significant impact on growth and biomass gain, but essential on demand basis to maintain a cleaner aquatic environment.

Further, the water requirement (without hampering the growth, yield and water quality) of 13.5 m³/kg biomass in composite freshwater fish and prawn culture and 9.97m³/kg biomass in mono-culture of black tiger shrimp at a stocking density of 5000 fingerlings/ha and 100000 PL/ha, respectively were estimated. This will give a new dimension to aquaculture industries and would help in minimizing the wasteful use of water in grow-out aquaculture.



DIRECTORATE OF WATER MANAGEMENT

CHANDRASEKHARPUR, BHUBANESWAR - 751 023, ORISSA, INDIA

Phone : 91-674-2300060, Fax: 91-674-2301651, E-mail:director.dwm@icar.org.in, Website: www.wtcer.ernet.in

Participation in ICAR-Industry Meet

ICAR-Industry Meet was held at Birsa Agriculture University, Ranchi during 01-02, April 2011. Dr. R. K. Panda, Principal Scientist and I/C ITMU of the Institute presented the potential technologies developed at the Institute. Representatives of the ITMUs from ICAR institutes located in Eastern and North-Eastern regions, entrepreneurs and representatives from small Agro-based Industries participated in the meet.



Biennial AICRP (WM) Scientists Meet at Pantnagar, Uttarakhand

The Biennial Scientists meet of AICRP (WM) was held at GBPUAT, Pantnagar from 10-12 June 2011 to deliberate the technical progress and presentation of new projects, review of financial and Physical progress under All India Coordinated Research Project on Water Management. On this occasion four publications prepared by the project scientist along with the Annual Report of AICRP (WM) 2010-11 were released. Dean, College of Technology urged upon the urgent need to bring awareness among the various water user sectors on over exploitation of ground water and limited efforts for its recharging. Dr. Ashwani Kumar opined that water has been, water is and water will be the focus point of discussion in almost all the forums and meetings and in the 12th plan the water has to be considered as the most important commodity, next to energy. Chairman of the session, Hon'ble Vice- Chancellor Dr. B. S. Bisht in his presidential address urged the scientists to look the problems of water from global, national, regional and local perspective. During the meet, the technical achievements of the ongoing projects during the year 2010-2011 and programme for year 2011-12 were presented by the Chief Scientists of 25 AICRP (WM).

On-farm Technology Dissemination

An interactive meet cum discussion on 'Water – Care for Future' was organized on 12th May 2011 at the foundation day of the Institute. Need to harvest rain water, appropriate utilization of poor quality water in farming, groundwater recharge and multiple use of water through integrated farming system were emerged as key issues during the discussion. Dr. A. Kumar, Director, DWM; Er. A. C. Goel, Director, CWC and Er. Nutan Kumar Dash, Specialist & PD, Directorate of Horticulture and Mission on Micro Irrigation spoke on the occasion. Fifteen farmers of five districts (namely; Khurda, Jagatsinghpur, Nayagarh, Dhenkanal and Kendrapada) covering rocky mid-hill water shortage to salt stressed water excess coastal regions of Orissa were honored by conferring '**DWM Progressive Farmers' honor 2011**' because of their forwardness to adopt and practicing various technologies of the Institute for up-scaling water productivity at different situations. Farmers revealed their immense happiness for getting benefited through various research programmes carried out by the scientists at the Institute. 'DWM Proficiency award' for 2011 were conferred to some of the staff for their outstanding contribution to the Institute.



Deliberation on DWM technologies for upscaling water productivity



Distribution of 'DWM Progressive Farmers' honor 2011' to recognized farmers



Sharing of Farmers' experience on water saving through improved farm practices

Chief Scientists' Meet of AICRP (GWU) at RAU, Pusa

The Chief Scientists' Meet of All India Coordinated Research Project (AICRP) on Ground Water Utilization was organized at Rajendra Agricultural University (RAU), Pusa (Samastipur) Bihar to discuss the groundwater assessment, conjunctive water use, rainwater harvesting and groundwater recharge, and groundwater pollution due to domestic and industrial waste waters along with management options during 28-30 April 2011. It was inaugurated in the presence of Dr. Ashwani Kumar, Director, Directorate of Water Management (DWM), Bhubaneswar; Dr. A. P. Mishra, Ex. Dean, CAE, Pusa; Dr. S. Chellamuthu, Director, WTC, TNAU and Dr. V. P. Singh, Director Research, RAU, Pusa. Dr. Ashwani Kumar in his address briefed about national groundwater resources scenario and important issues related to its management. Annual Report of AICRP on GWU for the year 2010-11 was released on the occasion. Dr. M. J. Kaledhonkar Principal Scientist and Dr. M. Raychaudhuri, Senior Scientist from Coordinating Unit presented achievements of the project for year 2010-11.

The centers of AICRP on Groundwater Utilization presented the progress of their research studies during different technical sessions and also proposed research plans for 2011-12. Optimal irrigation pump sizes for different zones of Punjab, use of paddy variety with higher water productivity in Bihar to reduce the ground water withdrawal, conjunctive use of canal water and groundwater to control waterlogging in canal commands of Madhya Pradesh, improved designs for filters of recharge structures, low cost recharge structure (Rajasthan), plans to utilize recharged water to enhance irrigation intensity and water productivity, groundwater quality mapping in poor quality groundwater areas and assessment of suitability of waste waters for irrigation purpose by different centers were finalised as the recommended technologies.



Monthly Meet-cum-Seminar at DWM

In order to keep the process of scientific research at high level, monthly regular interactions among the researchers in terms of conducting seminars have been in practice at the Institute. To this effect, Dr. Mrityunjay Suar, Director, KSBT, Bhubaneswar delivered a talk on the topic **“Biotechnological applications for humanity”** on 10 June, 2011 at the Institute.



Participation in the Eastern Zonal Sports Tournament

A fifteen member sports contingent of DWM led by Dr. K.G. Mandal, Sr. Scientist as Chief-de-Mission participated in the Eastern Zonal ICAR Sports Tournament during 7-11 April 2011 organized at IVRI, Izatnagar. Dr. (Mrs.) Deepa Samant, Scientist bagged one gold medal as a zone champion in the Table Tennis (Women) Singles event.



FROM THE DIRECTOR'S DESK

I am privileged to present the DWM News of April-June 2011 covering the highlights of different activities of the Institute during the second quarter (April-June, 2011). The Centre contributed significantly in research, training and extension during that period. During the period, the biennial Scientists meet of AICRP (WM) was held at GBPUAT, Pantnagar from 10-12 June 2011 and review of financial and Physical progress was made. The Chief Scientists' Meet of AICRP (GWU) was also held at RAU, Pusa (Samastipur) Bihar during 28-30 April 2011. Institute participated in the Eastern Zonal ICAR Sports Tournament at IVRI, Izatnagar during 7-11 April 2011 and bagged a gold medal as a zone champion in the Table Tennis (Women) Singles event. An interactive meet cum discussion on **'Water –**



Care for Future' was organized on 12th May 2011 to commemorate the foundation day of the Institute and fifteen farmers of five districts of Odisha were honored by conferring 'DWM Progressive Farmers' honor 2011' for up-scaling various technologies of the institute. During the occasion, 'DWM Proficiency award' for the year 2011 were also conferred to some of the staff for their outstanding contribution to the Institute.

I appreciate the efforts and hard work of Dr. R. K. Panda, Dr. Gouranga Kar, Principal Scientists, Dr. S. Mohanty, Sr. Scientist and Dr. A. K. Nayak, Scientist-SS to bring out this Newsletter in time.

(Dr. Ashwani Kumar)

Concept

Dr. Ashwani Kumar, Director

Compiled, Edited and Layout design

Dr. R. K. Panda, Principal Scientist
Dr. S. Mohanty, Senior Scientist
Dr. Gouranga Kar, Principal Scientist
Dr. A. K. Nayak, Scientist- SS