

# GOVERNMENT COLLEGE(A)RAJAHMUNDRY

## DEPARTMENT OF ZOOLOGY

### Guest Lecture (20.04.2023)

The Department of Zoology Organized Guest Lecuture on “SUSTAINABLE AQUACULTUE – DISEASE MANAGEMENT” by **Prof. P.V. Krishna** garu M.sc., M.Phil.,Ph.D., Dept. of Zoology and Aquaculture, Acharya Nagarjuna University, Nagarjuna Nagar, Guntur.

**Main in Puts:** Sustainable aquaculture and disease management are two essential elements of aquaculture operations management. Aquaculture is the farming of aquatic organisms such as fish, crustaceans, mollusks, and aquatic plants, and it gives protein and income to many communities throughout the world. Aquaculture operations, on the other hand, can have a harmful impact on the ecosystem, such as the spread of diseases to wild populations and the dumping of contaminants into the water.

Effective disease outbreak management is essential for the sustainability of aquaculture. A number inputs, such as vaccines, antibiotics, probiotics, and other treatments, can be used to achieve this.

Vaccines are routinely used in aquaculture to prevent disease transmission. They function by activating the fish's immune system to develop antibodies capable of combating specific ailments. To prevent disease outbreaks, vaccines are frequently used in concert with other management practises such as appropriate water quality management and biosecurity measures.

Antibiotics are also used to treat and prevent bacterial infections in aquaculture. Overuse of antibiotics, on the other hand, can result in the development of antibiotic-resistant bacteria, which can be a significant problem for both human and animal health. As a result, the use of antibiotics in aquaculture should be regulated and closely controlled to avoid the development of antibiotic resistance

Probiotics are another input that can be used in aquaculture to boost fish health and prevent disease spread. Probiotics are live bacteria that are put to the water or diet to help the fish's health and growth. They function by colonising the fish's stomach with helpful bacteria, which can aid in the prevention of the growth of dangerous bacteria.

Other disease management inputs that can be utilised in aquaculture include biosecurity measures such as restricting fish movement between farms and ensuring

that equipment and workers are adequately sanitised, as well as the use of disinfectants and other treatments to prevent disease transmission.

The use of vaccines, antibiotics, probiotics, and other treatments, along with proper water quality management, biosecurity precautions, and the responsible use of inputs to ensure that they do not have a negative impact on the environment, are all necessary for sustainable aquaculture and disease management.

By this Guest Lecture all P.G. Aquaculture and Zoology Students to enhance their knowledge.





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