LIVE FISH TRANSPORT - FISH HANDLING, PACKING AND FORWARDING TECHNIQUES

PACKING AND TRANSPORTATION OF ORNAMENTAL FISHES

In the ornamental fish trade, the customers' need for high-quality fish is always a crucial factor. The fish must not only attractive but also robust to withstand long air transportation. The use of modern packaging technology for air transport to increase fish density and improve survival is critical to the industry. There are 4 main reasons for transporting aquatic animals:

(i)The movement of fry or juveniles for stocking into farms or in to the natural environment.

(ii)The movement of brood stock for management purposes.

(iii)The movement of livestock to markets.

(iv)The movement of animals for research purposes.

For restocking and culture, the density of fish during transportation is generally high whereas brood stock and animals for research will usually be transported at a much lower density.

The ornamental fishes meant for stocking and sale needs to be transported from one place to another in live condition. The major concern is management of handling stress and mechanical shock, potential heat stress and deterioration of water quality. The metabolism of animals will affect the physiology of the transported fish. Control of these factors involves some knowledge of the environment requirements and physiological responses of the animals, enabling

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(a)Handling:

i)The visible damage frequency noticed is scale loss, but it should be remembered that the epidermis will have been damaged to the delicate epidermal layers and mucous covering will allow invasion by pathogens and disrupt osmoregulation.

ii)Good quality, preferably knotless nets, containers and other materials should be used both at capture and packing stages and it should be done with patience to ensure safe handling and minimize mortalities.

(b)Mechanical stress:

i)During the transportation process, there will be some level of vibration sudden shocks and higher noise levels particularly in vehicles. All these factors will directly cause stress.

(c)Temperature:

i)Ornamental fish are comparatively smaller in sizes and very sensitive to changes in water temperature.

ii)Temperature affects all aspects of mechanism and at higher temperature metabolic rate increases.

iii)During transportation, water temperature should not be allowed to rise above the starting temperature and should be reduced if possible by adding ice to the water.

iv)However drop should not be more than 5°C per hour.