

CIBA EXTENSION SERIES No.4

SHRIMP CULTURE

DISEASES AND HEALTH MANAGEMENT



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SHRIMP CULTURE

DISEASES AND HEALTH MANAGEMENT

The shrimp will be healthy and grow faster if the pond environment is maintained hygienic on the lines described in "Pamphlet", Shrimp Culture - Pond Management. If the pond environment is unhygienic the shrimp will be unhealthy resulting in poor growth and mortalities. So it is very important that farmer should watch the shrimp regularly to know the health of the shrimp and take necessary precautionary measures. The age old saying that prevention is better than cure is very much applicable in case of shrimp culture also. At present no treatment methods are available to effectively control shrimp diseases particularly viral diseases. Once the shrimp are infected it is difficult to control the disease.

A few guidelines are given here on the shrimp diseases and their diagnosis and the methods to prevent/treat them.

DISEASES AND SYMPTOMS

General indications

1. Shrimp exhibit dull and slow movements, coming to surface or edges of the pond after 3-4 weeks of duration of culture especially during night and early morning.

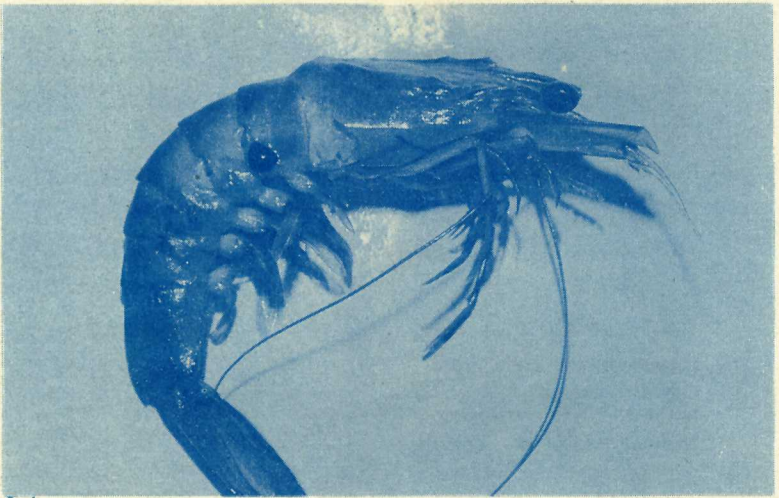


Protozoan infestation

2. Poor feeding behaviour which can be easily noticed by observing the quantity of feed left over in the feeding trays.

External symptoms

1. Shrimp become bluish in colour (Possibly due to MBV infection)
2. Appendages turn reddish in colour (Red disease)
3. Shell becomes soft (Soft shell syndrome)
4. Shell appears greenish and matty (Protozoan infestation)
5. Muscle opaque (Cotton shrimp disease)
6. Head pale yellowish, emits foul smell on opening (Yellow head disease)
7. Shell with buff coloured spots (IHHNV or White spot disease)
8. Black patches/blisters on shell (Bacterial disease)



Systemic vibriosis / bacterial disease

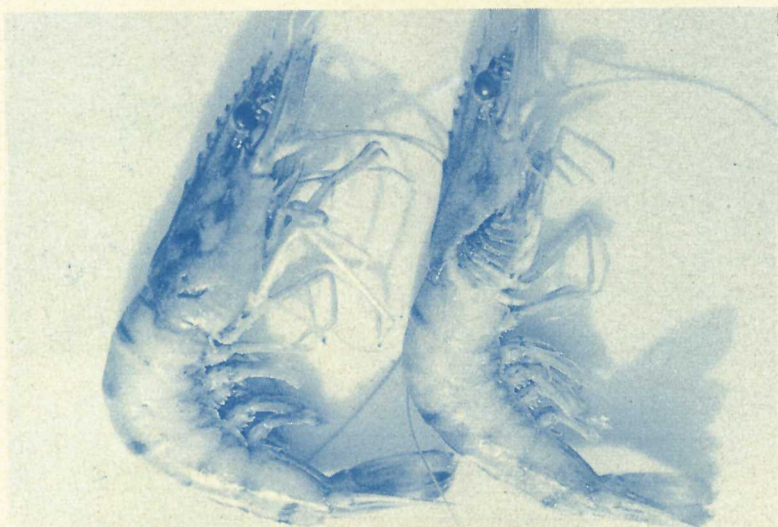
Internal symptoms

1. Gill brownish or black (Black gill disease)
2. Gills covered with filamentous growth (Filamentous bacterial disease)
3. Gills appearing greenish (Parasitic infestation)

4. Gut empty (Vibriosis)

5. Hepatopancreas white and turbid (BMN disease)

If the shrimp show any of the above indications it may be concluded that the shrimp are not healthy.



Black gill disease

Disease preventive measures

1. The black top layer of the pond bottom should be removed and the pond dried and tilled before stocking.

2. Lime should be applied @ 200 - 300kg/ha depending on soil and exposed to sunlight for about 2 - 3 weeks.

3. Avoid stocking pale inactive or apparently unhealthy seed.

4. Farm implements used in infected ponds should not be used in uninfected ponds as they transmit disease. Wash the implements with soap water or bleaching powder and dry periodically.

5. Indiscriminate use of chemicals and drugs should be avoided as they are harmful rather than useful. They should be used as last option after consulting the experts.



White spot disease

Chemicals and drugs useful in controlling diseases

Disease	Drug/Chemicals	Dose	Mode of application & precaution
1. External parasitic infection	i) Formalin 37%	250-300 l/ha 1m depth	Apply uniformly on pond surface and aerate the pond continuously
	ii) Potassium permanganate	2gms/1000 l. of water	Bath treatment for one hour
2. Bacterial diseases	BKC - 50 (Benzalkonium Chloride)	2gms/1000 l. of water	Bath treatment for one hour
a. Shell disease			
b. Necrosis of appendages			
3. Gill disease	BKC - 50 (Benzalkonium chloride)	2gms/1000 l. of water	Bath treatment for one hour
4. Systemic bacterial (Vibriosis)	Oxytetracycline	1.5gms/kg of feed	Feed @ 2-10% of biomass
	EDTA	10-20gms/1000 l. of water	Bath treatment for 12 hours

For further details contact the addresses given overleaf

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