

## Tilapia Diseases

### Diseases due to parasites



**Fish louse**

Symptoms from fish louse: swimming in pain; jump over the water surface. If widespread can cause fish to die.

Treatment: immerse trichlorfon once a week, for a duration of 3-4 weeks.



**Monogenea**

Symptoms from monogenea: the fish become more pigmented than usual; eat less; swelling of the gills.

Treatment: Add formalin (25-50 cc per 1000 liters of water).



**Bell ticks**

Symptoms from Bell ticks: Fish don't eat as much; flipping back and forth; swimming in pain; and rubbing their body against the pond's walls in an attempt to scrape off the parasites.

Treatment: Add formalin (25-50 cc per 1000 liters of water).



**Fish ticks**

Symptoms from fish ticks: bleeding ulcers; swimming in pain; and rubbing their body against the pond's walls in an attempt to scrape off the ticks.

Treatment: immerse fish in a solution of trichlorfon (0.5-1.75 grams per 1000 liters of water), or a solution of Dip-terex(TM) (0.25-0.5 gram per 1000 liters of water). But do not use the chemicals with fish that are about to be caught, as it might contaminate into the flesh.

**Infection from bacteria is usually caused from within the system.**

**Treatment involves using feed mixed with antibiotics. Generally, infected fish will show signs of bleeding or have wounds along its body.**

#### Drug family to combat diseases

1) Oxytetracycline

3) Oxolinic acid

2) Tetracycline

4) Sulfadimethoxine



## Tilapia Diseases

### Diseases due to bacteria infections



Infection of aeromonas

Often occurs in ponds that are given fresh food or have a mixed system. This bacteria thrives in waters with high levels of organic matter.

Symptoms: fish don't eat; swim slowly; eroded fins; bleeding; cuts; swollen stomachs.



Rotted gills

The disease occurs most frequently when fish are reared in high-density ponds, where the oxygen content is low, or where the water temperature fluctuates; especially after rainfall, where the fish can't adapt in time.

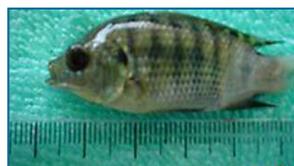
Symptoms: fish infected with flavobacterium tend to appear pale, and have rotten gills - from the outside, looking as if matter were lodged inside.



Infection of streptococcus

Spreads most severely during summer. If the infection is critically, many fish may die.

Symptoms: develops whitish eyes; swims slowly; remains still; the excretion tube becomes swollen.



Columnaris

This disease spreads during summer or when the weather changes rapidly.

Symptoms: the fish develops pale strips on its body; produces more mucilage than usual; fins and gills become eroded.

**Infection from bacteria is usually caused from within the system. Treatment involves using feed mixed with antibiotics. Generally, infected fish will show signs of bleeding or have wounds along its body.**

#### Suggestions

- 1) Use medicine consistently for 5-14 days depending on the type of drug.
- 2) Stop medication at least 21 days before catching the fish to sell, so to make sure that no traces of the drug are leftover.
- 3) Fish infected with columnaris will appear pale, and can be cured by using Ya-Leuang(TM) in a concentration of 1-3 milligrams per liter.

