FISH PATHOLOGIST REPORT

Location
Iron Gate Hatchery

Species
Steelhead fry
Fall Chinook-09 fingerlings
(Oct-Nov 2010 release)

Date
June 16, 2010

Holding Area
Hatchery Trough 6
A series (now in A, C, D, & E)

Disease Condition
SH Fry: Fish were placed in troughs and shortly thereafter some losses were noted. Losses now at 30 fish per day of 16K fish (0.2% per day). Moribund fish euthanized and evaluated using light microscopy showed mixed bacteria (Aeromonad/Pseudomonad-type) on skin and gill scrapes, and also in intestines. No other pathogens or parasites found.

Chinook Fingerlings: Losses have been around 150 fish per day of 720K fish (0.02% per day). Fish were fin clipped and held in high densities during and immediately after process. Moribund fish euthanized and evaluated using light microscopy showed mixed bacteria (Aeromonad/Pseudomonad-type) on skin and gill scrapes. Fish have been thinned into 3 additional raceways.

Recommendations
SH fry: Treat with oxytetracycline medicated feed (terramycin) at a rate of 3.75 g of oxytetracycline per 100 lbs of fish, per day, for 10 days. This is achieved by feeding 2% body weight per day if feed has 2 g oxytet per lb of feed, or feed at 1% body weight per day if feed has 4 g oxytet per lb of feed.

Chinook: The lower densities provided by thinning will help a great deal. Treat external bacteria with potassium permanganate (KMnO4) flushes. Do three flushes per day, for three consecutive days, at about 30 minutes apart. Use 1.0 oz per cfs on day one, 1.5 oz per cfs on day 2 and finally 2.0 oz per cfs on day 3. Do not feed fish morning of treatment or for several hours after treatment. Salt fish before treatments.

Comments
It is the responsibility of Iron Gate Fish Hatchery to comply with any applicable water quality discharge regulations while performing these treatments.

Submitted By: Mark Clifford, Ph.D., Associate Fish Pathologist, CDFG