

From: mike freeze [mailto:kkeo@centurytel.net]
Sent: Thursday, August 09, 2007 5:22 PM
To: Calamas, MaryAnne
Subject: Triploid Grass Carp Failure Rate

Dear Ms. Calamas:

I was told that you needed further information concerning the failure rate or incidence of diploid grass carp that occur in a population of blood tested triploid grass carp. I have obtained these data from the USFWS employee, who tests all triploid grass carp originating in the state of Arkansas. Since Arkansas is the largest triploid grass carp producing state, these data represent approximately 95% of all triploid grass carp certified by the USFWS.

As you might imagine some producers have a better inspection record than others, for instance, two smaller producers have not failed a single USFWS' inspection in the last four fiscal years. This represents 112 USFWS' inspections of 120 fish each or 13,440 fish re-inspected without a single diploid fish being found. In fact for fiscal year 2007, all triploid grass carp producers in the state of Arkansas have a perfect record after 220 USFWS' inspections of 120 fish each or 26,400 fish re-inspected without a single diploid fish being found.

However, to be fair, I have compiled the failure rate of all triploid grass carp producers for the last four fiscal years of 2004, 2005, 2006 and 2007. During this four year time frame, there were 1,009 USFWS' inspections of 120 fish or 121,080 fish re-inspected and in the course of these re-inspections 11 diploid grass carp were detected. This calculates to a 0.0000908 incidence rate of diploids occurring in a population of blood tested triploid grass carp over a four year period.

However, there is also a big difference between the USFWS' triploid grass carp program and what we have proposed for triploid black carp because while the triploid grass carp are stocked into open water systems such as ponds and lakes, the triploid black carp can only be stocked into closed aquaculture systems. Hence, even if a 0.0000908 incidence of diploid black carp occurred in the blood tested triploid black carp sold to aquaculture facilities, these few diploid fish would somehow have to escape, survive and reach sexual maturity six years later, and then find a reproductively viable diploid black carp of the opposite sex. To date there has been no reproduction of grass carp in any watershed that has only been stocked with triploid grass carp, even though these sterile fish have been stocked for 24 years.

I can fax you the raw USFWS' data if you so desire.

Sincerely,
Mike Freeze
Keo Fish Farm, Inc.