

6. FINAL CONCLUSIONS

At the beginning of the trial triploids have a mortality of 30% compared to the diploid group which was only 10%.

Triploids grow a bit faster in early developmental stages, although by the end of the biological trial diploids grow more than the triploids, and this is reflected by the presence of one more vertebra in diploids and also significant differences in a number of the biometric analysis conducted.

Diploid and triploids have differences in the ossification process, and changes in the mineral content of diets induce a delay in the ossification of both diploid and triploid trout.

The factor ploidy and diet poor in P contributed for a low number of myotomes in triploids compared to diploids.

P is a very important mineral for skeleton development and balance. Animals appear to recover their mineral content after a period of P limitation, although the impact in the skeleton needs further evaluation.

At 64 dpf molecularly there are no differences registered between diploids and triploids groups. The levels of OSC, OSN and OSP transcripts are equal in all experimental groups.

Triploids are a good alternative to transgenic, and to really evaluate growth differences and changes in skeletal development studies of a greater duration would be helpful.