

## **Project Report to Soy Aquaculture Alliance (SAA)**

1<sup>st</sup> quarter report:

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**Proposal Title:** Implementing integrated approaches to select for feed efficient rainbow trout families to enhance the soy protein utilization in salmonid aquaculture

## **Progress report:**

**Objective 1:** to develop an indirect set of benchmarks to be used in selection of rainbow trout to enhance the efficiency of growth and utilization of plant protein-based diets.

- We have selected randomly 1200 fish fingerlings from 15 families (80 fish per family). All fish we individually PIT tagged and weighed.
- Fish (20 -30 g) were stocked in a flow through system with spring water (14 °C) in three tanks (1500 l).
- Fish are being fed with soybean based diet (SBMD) (crude protein: 41% and lipid: 21%). Currently, fish are under acclimatization period for two weeks.
- Fish will be on feeding regime (starvation and refeeding) thereafter fish will be grouped in four groups.

**Objective 2:** to identify the variation in trout families for improved feed efficiency using stable isotopes in feed.

- We have purchased all the materials and supplies for this objective.
- Two experimental diets (labelled with stable isotope and unlabeled) are manufactured in Bozeman, MN and shipped to Hagerman, ID for the feeding trial.
- PIT tags and biopsy supplies were purchased.
- A total of 1200 fish from 15 families (80 fish per family) were pit tagged.
- 1200 fish are distributed in 30 tanks.
- Fish feeding trial has been started and will end in few weeks thereafter at the end of experiment biopsy muscle sample will be collected for the measurement of stable isotope in each fish.