From: Jesse Trushenski

To: Aquaculture2018 - ARS

Subject: USDA Priorities for Aquaculture

Date: Tuesday, August 28, 2018 4:34:44 PM

Thank you for the opportunity to provide feedback regarding USDA priorities for aquaculture for the next 5-year period. Below are the synthesized recommendations from Riverence (a WA-based salmonid breeding company) and Evaqua Farms (an ID-based rainbow trout producer and processor), two commercial aquaculture operations held by Spring Salmon, LLC. Please contact me if additional information or clarification is needed (contact information below).

Thanks!

--Jesse

## Health

- Vaccine development, particularly the development of effective strategies to deliver vaccines to large groups of fish at earlier life stages (i.e., oral or immersion vs. injection)
- Research to support FDA-approval of a new broad-spectrum antibiotic as a complement/successor to Aquaflor and TM-200 For Fish for systemic bacterial infections
- Research to support FDA-approval of an alternative to formalin for treatment of external infections/infestations of eggs and fish
- Development of rapid, farm-based diagnostic tools to address the dearth of fish health laboratories/veterinary diagnostic support for aquaculture.

## Nutrition

- Development of economically viable alternatives to fish oil as a source of LC-PUFAs, particularly GM oilseed grops
- Research to characterize the effects of feed manufacturing on feed quality and ingredient performance

## Marketing

• It is well-documented that aquaculture is unfairly represented in popular media, but there isn't much information available regarding effective strategies help address mis/disinformation about aquaculture. Better communication tools/strategies would help our industry.

## General

- For all priority areas, but especially Health and Nutrition, emphasize research that will satisfy the
  requirements for authorized use by industry (e.g., ingredient definition by AAFCO, drug approval by
  FDA)
- Much of the routine business of raising fish--sterilization, slaughter, estimating biomass, etc.--is done the same way now as it's been done for decades. There is a need to identify new technology (or new applications of existing technology), hardware, software, etc., to make routine husbandry practices more efficient and effective.

\_\_

Jesse Trushenski, Ph.D. Director of Science

Email: <u>jesse@springsalmonllc.com</u> | Voice or Text: 618.559.9397

Spring Salmon Group	