

Team Meeting

Date: 6/24/2020

Time: 11:30 am PST

Location: Team Zoom Link- <https://uidaho.zoom.us/j/93624915111>

Attendees: Ben McBride, Hasan Alajmi, Khari Amos, Cody Gibson, Dr. Ken Cain, Max Johnson, Matt Swenson, Timothy Bruce, Jessie Ma

Agenda/Minutes

Agenda item: Vaccination Process Flow

Discussion:

- large range of vaccination runs (30 lbs. of fish to 240 grams of fish)
- Each dip is 1 to 3 minutes in the vaccine
- Vaccine's vary and need to be reintroduced after approximately 10 dips
- Idea for later version to implement vaccine fluid transfer from tank to tank after making maximum dips
- Water is ideal 15 degrees Celsius

Conclusions: Fish batch sizes will vary depending on the facility and their capacity. Immersion vaccines have a cycle life and need to be reintroduced, so the device needs to be accommodating to that.

Action items	Personnel Responsible	Deadline

Agenda item: Tank Design and Dimensions

Discussion: Varying tank dimensions

- Larger processes use 30-gallon tanks
- Smaller processes use 1-liter tanks
- Do not use any galvanized, wood, or porous materials

- Stainless steel is highly recommended, can explore plastics like UHMW
- Rubber maid basket size

Conclusions: Prototype needs to be small enough for one person to handle easily, approximately a 1-liter container. Stainless steel is going to be the ideal material to use in this application. It would also be wise to investigate plastics like UHMW as well.

Action items	Personnel Responsible	Deadline

Agenda item: Device Placement and Repeated Use

Discussion: Device has wide range of cycles

- Small device would be used more frequently than large device with the same number of fish
- Ideal if needles did not need to be replaced frequently
- Ideal if a later version of the device could be adjustable to fit many different sizes of tanks
- The device will be disinfected in a chlorine/bleach solution before being reused

Conclusions: The device is expected to be reused and it would be ideal if the needles did not need to be replaced or not replaced for an extended period. A more refined device can vary in sizes and should be built to accommodate multiple tank sizes.

Action items	Personnel Responsible	Deadline

Agenda item: Size of Fish and Puncture Requirements

Discussion: Fish Size Varies

- Range of sizes: low end is 1 gram (~5cm), 5 grams (~3 in), up to 20 grams
- Needle length needs to start short and work up in length (start around .25 or .5 mm)
- Emphasized that not every single fish needs to be punctured for the system to work correctly
- It is recommended to measure the thickness of dead fish skin and do puncture tests to test needle lengths

- Contact timothy or jessie for access to dead fish

Conclusions: The sizes of fish will vary but for the testing of a prototype they will be around 1-10 grams. It is wise to test needle sizes and needle puncturing depths on dead fish. Access to dead fish can be done through timothy or jessie.

Action items	Personnel Responsible	Deadline

Agenda item: Other Topics

Discussion:

- We need to provide 1 months' notice before testing of a prototype can be implemented
- Ken Cain would like to touch base every few weeks – potentially we can set up a biweekly meeting with Jessie or Tim
- Ken Cain is open to other ideas that we can bring to the table – conveyor belt, baskets,
- Other companies have tried this method but there is no data for how well the systems worked or how they were built or implemented (proprietary)
- Tim said that they have used a rubber made dish container for transferring fish, it is also about the right size for a prototype

Conclusions: Other ideas are encouraged to be brought to the table. Research on other systems like what Ken Cain wants can be done but will probably not produce results. It would be a good idea to set up bi-weekly meetings.

Action items	Personnel Responsible	Deadline

Additional Information

Resources:

Special Notes: