

Poster

**Isolation Mist Incubation System**

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Our goal was to create a low budget egg incubation system that would enable the isolation of individual female eggs from the eggs of other females for a research experiment on BKD in Chinook salmon. Because it would not be possible to treat the eggs for fungus growth during the incubation period, a mist incubation system was deemed the best option. Working with our pathogen free well water and the existing plumbing, a system was developed using irrigation hosing, sprinklers, and plastic buckets with screened bottoms. We had initially planned to use water from the head box but the head pressure was not adequate to make the sprinklers mist properly so an alternate plan of attaching a garden hose directly off of the well water line was used. Even though the water was not degassed in a packed column, the mist created from the sprinklers had dissolved oxygen readings between 7 and 9 mg/L. Female eggs were placed in individual isolation buckets by density with the more fecund females being divided into two buckets. Prior to placing the eggs in the bucket incubators, as much organic matter as possible was removed by hand and by using iodophore rinses in order to minimize potential problems with fungus. Minor amounts of fungus were experienced which may be due to an overzealous cleaning and handling of the eggs as we adjusted our handling method to the new system. Once all eggs have reached the eyed stage, the percent fertility will be measured to determine our success with this system. Moist air incubation systems are proving to be very effective but can also be very expensive. This system is much cheaper and, although further study is needed, may be as effective as commercial moist air incubation systems.