



Roaring River Hatchery Triploid Trout Program

The Triploid Process from Egg Take to Egg Shipments

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Roaring River Hatchery

Overview of Hatchery

- Release about 215,000 legal triploid Rb trout each year.
- Rear 151,000 Sts and 85,000 Stw from fingerlings to smolt.
- Roaring River staff consist of 4 permanents and 2 seasonal positions.
- Gravity fed from Roaring River.
- Use the 72 (Cape Cod) stock for brood program.

Overview of Hatchery

- Start spawning the 1st of November
- Spawn 3 and 4 year old brood.
- Roaring River produces eggs that will provide for 70% of the stocked trout in Oregon.
- Roaring River will take 8-10 million green eggs/year.
- Roaring River ships 4-5 million eggs/year.

Egg distribution

Nehalem Hatchery

Irrigon Hatchery

Wallowa Hatchery

Oak Springs Hatchery

Roaring River Hatchery

Wizard Falls Hatchery

Aisea Hatchery

Willamette Hatchery

Cole Rivers Hatchery

Klamath Hatchery

Sorting brood



- Anesthetize brood and check for ripeness throwing ripe females in ally way to be crowded into spawn building.
- Green females are thrown over the crowder back into the pond.
- Once we are done sorting we will figure out how many males we need to crowd up for spawning.
- Will spawn the following day.

3 year old female

- They average between 6-8 pounds.
- 5,000 eggs/female



4 year old female

- Average weight is about 16 pounds. With some females being over 20 pounds.
- 10,000 eggs/female





Spawning Building

Netting fish out of pens and putting into anesthetic



- There are four pens inside the spawn building.
- Keep 3's, 4's, and males separate in pens.

Collecting milt

- Dip males in water to rinse anesthetic off then dry with towel before collecting milt.



Collecting milt



- 1 male/container

Milt

- Place containers of milt in cooler to stay cool and dry while waiting to be used.



Air spawning



- **Spawn into container and then combine eggs in bucket until reach 50 ounces of eggs.**

Buckets of eggs waiting to be fertilized and triploidized

- Bring buckets of eggs up from spawn building to hatch house where they are placed in troughs prior to being triploidized.
- Turn water on in troughs to help keep eggs cool while waiting.
- Have enough buckets of eggs and sperm stocked piled so once start triploidizing there won't be any breaks.



Eggs being fertilized

- Use 3 males/bucket and gently stir to mix. Then add enough water to activate the sperm and to cover eggs. Let sit for 1 minute to fertilize.



Rinsing eggs



Pouring eggs into cylinder basket

- Start TTU time.
- Triploid between 320-375 TTU's.
- Use pathogen free well water throughout the triploiding process.



TTU trough



- Able to run two pressure vessels in tandem while triploidizing.

Pressure vessel



Placing eggs into pressure chamber



- Once eggs have at least 320 ttu's they are then placed into the chamber.
- The pressure is then brought up to 10,000 psi for 5 minutes.

Pouring eggs into incubators

- Eggs are placed into heath stack incubators.



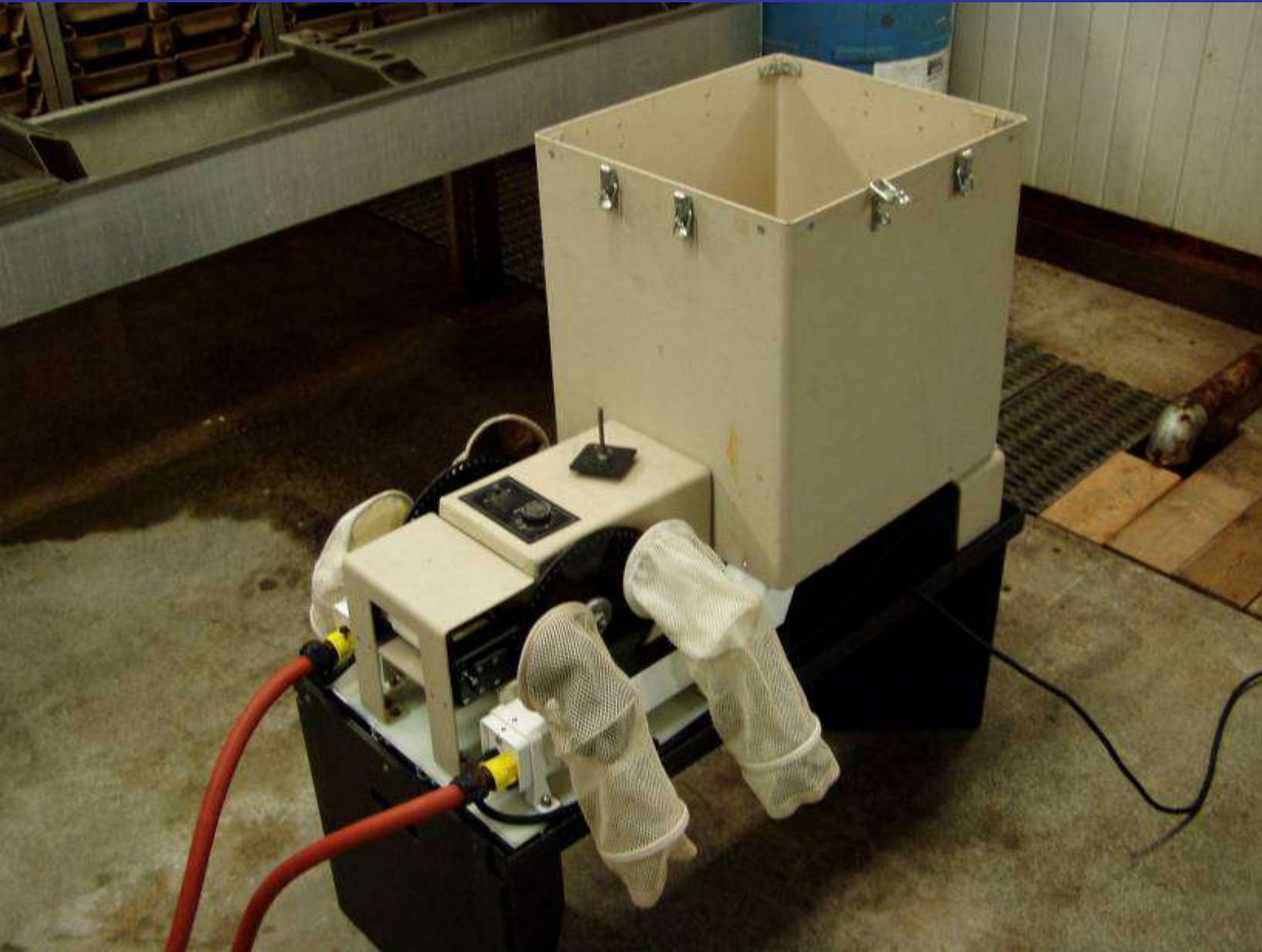


Shocked eyed eggs

- Shock at 400 tu's
- Let sit for 24 hrs



Egg picker



Salting station

- 26 gallon tub
- 8.5% salt solution
- Basket is 22x16x12 inches



Salting eggs

- Use to get the majority of the weak eyes and blanks that the egg picker misses.
- Gives the receiving hatcheries a good quality product to start off with. Low ponding mortality.



Salting eggs

- The deep basket lets the eggs get good separation from good eggs to bad eggs.
- Salt when there is at least 425 tu's.
- Will sacrifice some good eggs to get weak eyed and blanks. Really makes hand picking a lot easier.



Picking eggs



- Hand pick remaining bad eggs.
- Once eggs are hand picked they are inventoried.

Shipping crate





Questions?