

# IDAHO DEPARTMENT OF FISH AND GAME

**Jerry M. Conley, Director**

HAGERMAN HATCHERY

Annual Report



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by  
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## Hagerman Hatchery

### ABSTRACT

The objective of Hagerman Hatchery was to raise 3,500,000 of rainbow, kamloops, cutthroat, brown trout, coho and fall chinook salmon for streams, lakes and reservoirs throughout Idaho.

Hagerman Hatchery planted or transferred 3,408,218 rainbow, kamloops, cutthroat, brown trout, coho and fall chinook salmon weighing 456,047 pounds.

It took 835,340 pounds of feed with a conversion of 1.8 pounds of feed to produce a pound of fish. The total expenditure for the year including salaries, fish feed, capital outlay, repair and all other costs was \$309,430.15. The cost per pound of fish produced was \$.67.

The total number of catchable rainbow trout planted or transferred was 1,962,964 weighing 408,421 pounds. The number of fingerling rainbow, kamloops, brown, cutthroat, coho and fall chinook salmon planted or transferred was 1,445,254 weighing 21,440 pounds.

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Fish Hatchery Superintendent III

## OBJECTIVES

The objectives of the Hagerman Hatchery are:

1. To raise 3,500,000 rainbow, kamloops, cutthroat, brown trout, coho and fall chinook salmon of all sizes for streams, lakes and reservoirs throughout Idaho.
2. To assist in increasing or maintaining harvest levels and populations of these species for fishing or recreational use in all waters of the state.

## INTRODUCTION

Hagerman Hatchery is located in South Central Idaho, in Gooding County, in the Hagerman Valley near the Snake River, three miles southeast of the town of Hagerman. It receives its water supply from Tucker Springs and Riley Creek and requires 115 cfs of water to operate at full capacity.

The hatchery facilities include 24 raceways, 570' long, varying in width from 6' to 15'; 18 fingerling raceways, 2½' x 100' and 28 cement vats in the incubation building, 3' x 15'.

The hatchery is capable of rearing 500,000 pounds of salmonids with the present stocking schedule.

## FISH PRODUCTION

### Rainbow Trout

Rainbow trout is the primary species reared at Hagerman Hatchery. At the start of the year 1,472,806 eggs and 955,717 fish weighing 68,000 pounds were on hand and ended the year with 438,019 eggs and 1,175,959 fish weighing 54,350 pounds. The hatchery received 2,592,820 eggs from Aqua Life Corporation, Mount Whitney (California), Troutlodge (Washington) and Hayspur (IF&G).

One million nine hundred eighty-seven thousand, six hundred sixty-four (1,987,664) fish weighing 380,401 pounds were stocked and transferred. One hundred eighty-four thousand, four hundred forty (184,440) fish weighing 39,850 pounds to Mackay, Ashton, McCall, Kamiah and Clark Fork hatcheries.

There were 722,671 rainbow weighing 11,519 pounds transferred from Grace, Ashton, McCall, Hayspur and Hagerman National to Hagerman Hatchery. From these fish, 259,134 weighing 4,620 pounds were planted. The remaining fish are holdovers for next year's catchable plants.

### Cutthroat Trout

Grace Hatchery transferred 199,622 cutthroat trout to this station. These fish were planted in waters in Region 3 and Region 4.

### Kamloops Trout

Seven hundred sixty-eight thousand, five hundred two (768,502) eyed kamloops trout eggs were received from Skane Fish Farms, Moses Lake, Washington. Three hundred seventy-three thousand, four hundred fifty (373,450) fingerlings were stocked and 282,760 fingerlings were transferred to the Clark Fork Hatchery.

### Brown Trout

Six hundred twelve thousand, four hundred eighty (612,480) brown trout eyed eggs were received from the Fish and Wildlife Service, Crawford, Nebraska. One hundred fifty-eight thousand (158,000) fingerlings were stocked. There were 200,304 fingerlings received from the Grace Hatchery and 180,324 were planted.

### Coho Salmon

One hundred sixty-three thousand, nine hundred sixty-eight (163,968) eyed eggs were received from Quilcene Hatchery, Washington, and from those eggs we stocked 35,400 fingerlings. .

### Fall Chinook Salmon

Five thousand seven hundred (5,700) fall chinook salmon were on hand from the previous year and were stocked in Region 1.

## FISH HEALTH

Proliferative Kidney Disease was not the major disease problem this year and exactly how much mortality it caused is unknown but from all indications, a small number. The water supplies from Riley Creek and Tucker Springs were kept separate in the larger raceways. PKD was not found in the fish using Tucker Springs water but was found in the fish using Riley Creek water. The University of Idaho was conducting studies on these fish, trying to determine the source of the infection. Circumstantial evidence pointed to seagulls, but nothing definite has been proved.

A continuing disease problem was Infectious Hematopoietic Necrosis (IHN), a virus disease. IHN caused fairly high mortalities in the rainbow, killing approximately 650,000 fish. The only known treatment was to thin the populations of fish in each infected raceway.

Another viral disease that was present, although it appeared to be lessening as a problem disease, was Infectious Pancreatic Necrosis (IPN). The loss attributed to IPN was 150,000 fish, and again, the only attempt at control was by thinning.

A recurring disease that caused mortality was Bacterial Gill disease. Losses from this disease are mainly in the lower section of the larger raceways and take 200,000 fish a year. A treatment of Cutrine and Benzalkonium Chloride was used and also a comparatively new drug for fish use, Chloramine T. Chloramine T requires a drip of 6 to 8 parts per million for one hour for either one day or two days and usually clears up the problem if the raceways are comparatively clean and have adequate flows of water.

In the hatchery incubation building where eggs are incubated and the first month and a half of rearing takes place, the first problem is coagulated egg sac in the sac fry causing losses of approximately 150,000 a year. Later, as the fish approach carrying capacity, they contact the protozoan "Costia" causing a loss of 200,000.

Some minor problems have been caused by Gyrodactylus, Epistylis and Trichodina, causing losses of 100,000 fish.

Since the vaccination program of ERM was started, there hasn't been, any red mouth diagnosed at this station.

Again, the ever present bird populations of seagulls, night herons, blue herons, kingfishers and ducks bring on an unseen loss of approximately 150,000. The bird wires over the raceways have helped and as they are completed this coming year, should alleviate part of the problem from the larger birds. Ducks are a problem during the winter and either walk in or fly under the wires to take some of the fish: Birds going from raceway to raceway apparently spread disease.

#### FISH TRANSFERS

Table 1 includes all transfers from Hagerman Hatchery to other stations.

#### FISH RELEASES

The following are total fish planted in the different regions of the state from Hagerman Hatchery:

##### Region 1

Rainbow trout:	185,935	-	51,700 pounds
Fall chinook salmon:	5,700	-	600 pounds

##### Region 2

Rainbow trout:	123,720	-	42,950 pounds
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Table 1. Fish transfers from Hagerman Hatchery. October 1, 1982 to September 30, 1983.

Date	Species	Receiving Station or Water	Number	Pounds	Size at Release
3/24/83	Rainbow	Clark Fork	22,050	6,300	8-09"
4/25/83	Rainbow	Kamiah	12,480	3,200	8-09"
5/05/83	Rainbow	Clark Fork	15,120	5,600	9-10"
5/09/83	Rainbowa	Kamiah	11,610	2,700	8-09"
6/13/83	Kamloops	Clark Fork	117,760	2,560	3-04"
6/13/83	Kamloops	Clark Fork	165,000	1,250	2-03"
6/20/83	Rainbow	Mackay	11,340	2,700	8-09"
6/21/83	Rainbow	Kamiah	12,720	2,400	7-08"
7/25/83	Rainbow	Mackay	14,280	2,800	7-08"
8/01/83	Rainbow	McCall	15,120	2,700	7-08"
0/03/83	Rainbow	Mackay	14,850	2,700	7-08"
8/08/83	Rainbow	Mackay	17,010	2,700	7-08"
8/08/83	Rainbow	Ashton	17,280	2,700	7-08"
8/108/83	Rainbow	McCall	16,500	2,500	7-08"
9/13/83	Rainbow	Clark Fork	<u>4,080</u>	<u>850</u>	7-09"
		TOTAL	467,200	43,660	

Region 3

Rainbow trout:	412,386	-	71,880 pounds
Cutthroat trout:	156,980	-	1,310 pounds
Brown trout:	27,000	-	300 pounds

Region 4

Rainbow trout:	804,756	-	99,271 pounds
Cutthroat trout	43,500	-	440 pounds
Brown trout:	289,748	-	5,715 pounds
Kamloops trout:	323,050	-	3,675 pounds
Coho salmon:	7,990	-	85 pounds

Region 5

Rainbow trout:	235,249	-	81,185 pounds
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Region 6

Rainbow trout:	396,744	-	62,630 pounds
Coho salmon:	21,740	-	410 pounds
Kamloops:	50,400	-	800 pounds

SPAWNTAKING OPERATIONS

The spawntaking operations that the Hagerman Hatchery personnel were involved in included the kokanee salmon trap on the South Fork Boise River near Pine. The personnel assisted with the installation and removal of the trap. The fish trapped were taken to Eagle Hatchery for spawning. The hatchery personnel also assisted with the kokanee spawning on Granite Creek, a tributary to Pend Oreille Lake.

HATCHERY IMPROVEMENTS

Work continued on overhead bird wires on the large raceways. A feed bin for storage of sack feed was also started.

SPECIAL STUDIES

Three strains of fish were selected for a study in Magic Reservoir. Shasta rainbow trout, kamloops trout and Hayspur rainbow trout were raised for stocking in Magic Reservoir. One hundred fourteen thousand, two hundred forty (114,240) Shasta rainbow, 114,912 Hayspur rainbow and 124,490 kamloops rainbow fingerling were marked with fluorescent dye and stocked in Magic Reservoir.



FISH FEED UTILIZED

The fish feed used by Hagerman Hatchery came from Clear Springs Trout Company and Rangens, Inc., both operating feed mills in Buhl, Idaho.

<u>NUMBER OR TYPE</u>	<u>POUNDS</u>	<u>AMOUNT</u>
1	300	\$ 74.06
2	1,500	382.92
3	7,100	1,757.80
4	32,150	6,230.77
5	54,200	10,287.52
6	67,050	12,059.91
Course Crumbles	8,930	1,792.96
7	107,160	18,073.41
8	556,900	93,875.76
Oregon Moist Pellets	<u>100</u>	<u>37.75</u>
TOTALS	835,440	\$144,572.86

Number of pounds of fish produced: 456,047  
 Conversion of 1.8 pounds of feed to produce a pound of fish.  
 Cost per pound of fish produced was \$.67.

MISCELLANEOUS ACTIVITIES

The hatchery personnel were involved in sage grouse check stations and assisted conservation officers with upland game bird patrol.

A number of high school and grade school classes were given tours of the hatchery.

Approximately 43,000 people visited the hatchery this year. Activities included looking, fishing and/or hunting on the hatchery and Wildlife Management area.

ACKNOWLEDGEMENTS

Hatchery staffing during the fish year included:

Bud Ainsworth, Fish Hatchery Superintendent III  
 Fenton Hays, Fish Hatchery Superintendent II  
 Bill Doerr, Fish Hatchery Superintendent I  
 Paul Smith, Fish Culturist  
 Doug Anderson, Fish Culturist  
 Mike Black, Bio-aide  
 Bob Taxelius, Laborer  
 Bryce DeGiulio, Laborer  
 Mindy Claxton, Laborer  
 Scott Bowman, Laborer  
 Bill Fiscus, Fish Transport Operator (six month period)  
 Ralph Taylor, Fish Transport Operator (six month period)