

**IDAHO DEPARTMENT OF FISH AND GAME**

**ANNUAL REPORT**

**AMERICAN FALLS HATCHERY**

**1992**

**Prepared by:**

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## INTRODUCTION

American Falls Fish Hatchery is a resident fisheries hatchery located on the north bank of the Snake River, 1/2 mile below the American Falls Reservoir Dam, near the town of American Falls.

The primary objective of the hatchery is to rear for stocking and redistribution 150,000 pounds of catchable size (9- to 12-inch), and 20,000 to 30,000 pounds of fingerling (4- to 6-inch) rainbow trout.

The hatchery is staffed by three permanent state employees and usually one 8-month temporary employee.

Funding for the hatchery comes from license monies and from an American Falls Reservoir District Endowment.

The physical layout of the hatchery consists of 20 single pass 100 x 8 x 3 foot concrete raceways, and a hatchery building containing fourteen 21 x 4 x 2 concrete rearing vats.

Water for the hatchery comes from Reuger Springs located on the property. They produce an average of 20 cfs at a constant temperature of 55°F.

## FISH PRODUCTION

Once again this year the hatchery raised exclusively Hayspur Strain (R9) rainbow trout Oncorhynchus mykiss. These trout seem to perform extremely well at this facility. In December 1991 and March 1992, a total of 541,040 eyed eggs were received from Hayspur Hatchery. An overall hatching percentage of 83% was achieved this year (Table 5).

At the beginning of 1992, a total of 266,207 R9 rainbow trout were on hand to help meet 1992 stocking requests.

During 1992, a total of 707,230 R9 rainbow trout (224,669 lbs) were produced. A total of 107,108 were fingerlings (7,582 lbs), and 600,122 were catchable (217,087 lbs). A total of 327,878 catchables (123,179 lbs) were stocked or transferred, and 107,108 fingerlings (7,582 lbs) were stocked or transferred. This left 272,244 rainbow trout on hand (December 31, 1992) to help meet 1993 stocking requests.

Costs for 1992 (less capital outlay) totaled \$212,700. Fingerling production costs were \$0.84 per pound and \$0.05 per fish, while catchable production costs were \$0.95 per pound and \$0.34 per fish. Stocking requests were met and exceeded for both fingerlings (107%) and catchables (109%) for 1992 (Tables 6 and 7).

## HATCHERY IMPROVEMENTS

### A. Repairs:

1. New siding on residence number three.
2. Installation of shower unit in residence number two by hatchery personnel.

3. New carpet in bedrooms of residence number three.
4. Painted interior of one residence and shop.
5. Finished installation of bird net enclosure over outside raceways.
6. Replaced water tank and pump motor on domestic water system.
7. Excavated, leveled, and seeded hillside on hatchery grounds.
8. Repaired and replaced generator control panel in the hatchery building.
9. Installed directional signs to the hatchery on the county and state roadways.

B. Needs

1. Metal roofs on two residences.
2. Metal siding on one residence and two garages.
3. Replacement mower deck for lawn tractor.
4. Replacement wood burning stove in one residence.
5. Permanent irrigation system for hatchery grounds.
6. New kitchen flooring in one residence.
7. More efficient furnaces in all residences.
8. Mig welder for repairing aluminum feed tubes.
9. Tractor with rear-mount weed mower/front loader for care of 100-acre property.

**FISH STOCKED/TRANSFERRED**

During 1992, American Falls Hatchery stocked or transferred a total of 434,986 R9 rainbow trout (130,761 lbs). Of these fish, 107,108 were fingerling (7,582 lbs) and 327,878 were catchable (123,179 lbs). Of the catchables, 160,352 (61,180 lbs) were transferred to other state hatcheries. Hatchery staff also stocked 600 smallmouth bass Micopterus dolomieu and 827 channel catfish Ictalurus punctatus. Specific locations and sizes can be seen on Tables 1, 2, and 6.

**FISH FEED**

During the 1992 production year, a total of 241,589 pounds of feed of various sizes was fed out. Rangen Feed Company provided all of the feeds for this year. Total feed cost for 1992 was \$59,452.02 (.25 per lb average). A feed study was not able to be done this year due to problems with the hatchery

building. Total conversion for this year was 1.07. Specific feed sizes and costs can be seen in Table 4.

#### FISH HEALTH

Fish health for the 1992 production year was overall very good. No viral diseases were experienced during the period. All lots of fish were tested twice yearly for Infectious Hematopoietic Necrosis virus (IHN), Infectious Pancreatic Necrosis virus (IPN), Bacterial Kidney Disease (BKD), and Whirling Disease. All tests proved negative.

A small bacterial outbreak was found in the second to last group and the last lot (92HAYT) of fish. Initially, the bacterium was diagnosed as Vibrosis by the Eagle Fish Health Lab. After later study and a diagnosis from the FDA, it was found to be Aeromonas sobria. All fry were started on TM medicated feed for the first two weeks of the feeding cycle. Problems with the hatchery building control panel forced the fish to be moved outside earlier than normal. The fish were given TM medicated feed for two weeks again to alleviate stress-induced problems. All lots remained healthy except for the second to last group of eggs that were received. A substantial period of mortality was experienced, and the fish were again treated with TM medicated feed for 21 days as recommended by Eagle. The fish seemed to recover for a time only to begin dying again. They remained dying at about 10 to 15 fish per day until they were stocked out. One explanation for this problem may be that these eggs were received fairly late in the spawning cycle and were light controlled. This may have made the eggs more susceptible to this bacterium than the other lots of fish.

#### FIN EROSION

During the 1992 production year, staff at American Falls Hatchery tested fin erosion using the method developed at Ashton Hatchery. This involved measuring fork length, dorsal fin length, and pectoral fin length and comparing these to wild fin length ratios. Three tests were done on each lot of catchable fish. Each lot of fingerlings was also tested in late fall of 1992. Overall, staff felt erosion was not too bad for a facility of this size. Erosion seemed to increase on those fish that were held off feed for various amounts of time. Fish that were not held off feed seemed to do better. The following is a list of the erosion test results.

Lot	% of Wild Fish Fins	Size
91HAY	39	Catchable
91HAYT	41	Catchable
91HAY1	42	Catchable
92HAY	51	Fingerling
92HAY1	54	Fingerling
92HAYT	47	Fingerling

#### GENERAL

Bird predation was non-existent this year with the completion of the new netting over the raceways. So far, only the magpies seem to be able to penetrate the chicken wire.

The springs held out well this year considering the drought is still with us after six long years. Average flows were 18.4 cfs with a high of 20.8 in March and a low of 17.0 in August (Table 3).

The hatchery staff was once again busy this year maintaining the hatchery grounds. Numerous trees and shrubs were trimmed and planted, and a new area of lawn was created. As always, a lot of time was spent moving irrigation pipe around to keep the grass from drying up. We received numerous positive comments about the appearance of the hatchery from the general public.

Many of the signs on the hatchery grounds were repaired and repainted, and painting was also completed in both shop areas.

The hatchery staff also spent a considerable amount of time working with the Region 5 staff on various projects. Two included the capture and transport of catfish and bass from Region 3 to Region 5. Another included gillnetting on a local lake. A fourth included helping out with creel data of a local lake and the Snake River. Staff also hauled water to guzzlers in the desert to help antelope and other critters survive the drought.

#### **PUBLIC RELATIONS**

Approximately 5,000 visitors came to the hatchery this year, consisting mostly of the general public and school groups. Tours were given well into the summer even after the school year was over. Many people were bird watching and walking on the hatchery grounds. Two newspaper articles were written about hatchery activities this year.

Once again this year, a Free Fishing Day clinic sponsored by the Police Axillary of American Falls was hosted here. One hundred and fifty kids and their parents turned out for the all-day event. Several Region 5 personnel assisted in putting on the clinic and helping the kids fish. Everyone got to keep two fish, and fun was had by all involved.

Public response this year has been very positive for the most part. Considering we are still under drought conditions, and lacked water for fish later in the year, people were fairly understanding.

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## **ACKNOWLEDGEMENTS**

Hatchery staff for 1992 included Gary Baker Superintendent II, David Billman Superintendent I, Kurtis Schilling Fish Culturist, Eric Strand Bio-aide. Special thanks goes to Pat Billman for her help fin clipping trout.

Table 1. Fish transfers, American Falls Hatchery 1992.

Facility	Number	Pounds	Size/lb
Clark Fork Hatchery	119,466	47,430	2.50
Mullan Hatchery	21,535	7,300	2.95
Ashton Hatchery	4,375	1,250	3.50
McCall Hatchery	14,976	5,200	2.88
Totals	160,352	61,180	

Table 2. Fish transferred or planted by region.

Region	Species	Numbers	Destination
1	R9	151,001	Region wide
2	R9	80,000	Region wide
3	R9	14,976	Region wide
4	R9	14,802	Region wide
5	R9	126,575	Region wide
	BA	600	Snake River
	CC	600	Snake River
6	R9	47,632	Region wide
	CC	227	Rainbow Lake
TOTALS	R9	434,986	
	BA	600	
	CC	827	

Table 3. Flow rates on a monthly basis for 1992 in C.F.S.

	Jan	Feb	Mar	Apr	May	Jun
Flow	18.6	20.3	20.8	18.9	17.9	17.9
	Jul	Aug	Sep	Oct	Nov	Dec
Flow	17.3	17.0	17.3	18.0	18.3	18.2

Table 4. Fish feed utilized at American Falls Hatchery, 1992.

Brand Name	Size/Type	Pounds	Cost
Rangen	5/32 Production	47,420	11,333.38
Rangen	1/8 Production	179,128	42,811.59
Rangen	#4 Grower	5,000	1,425.00
Rangen	Coarse Crumble	5,000	1,425.00
Rangen	Starter #3	150	66.00
Rangen	3/64 Soft Moist	700	437.50
Rangen	1/16 Soft Moist	264	155.76
Rangen	1/32 Soft Moist	132	86.46
Rangen	Starter Soft Moist	45	32.63
Rangen	#4 Crumble Medicated	500	303.00
Rangen	#1 Starter Medicated	200	101.20
Rangen	#2 Starter Medicated	250	126.50
Rangen	3/32 Medicated	2,800	1,148.00
TOTALS		241,589	59,452.02



Table 5. Eggs received at American Falls Hatchery, 1992.

Species	Strain	Date	Number	Hatch %	Lot
Rainbow	R9	12/09/91	204,204	75	92HAY
Rainbow	R9	12/17/91	271,472	88	92HAY1
Rainbow	R9	03/04/92	65,364	91	92HAYT
TOTALS			541,040	83	

Table 6. Fish requested and actually planted or transferred at American Falls Hatchery, 1992.

Species & Strain	Request	Actual	Pounds	% Achieved
Rainbow R9 (3-6 in)	100,000	107,108	7,582	107
Rainbow R9 (6-12 in)	300,000	327,878	123,179	109
TOTALS		434,986	130,761	

Table 7. Total fish production and costs at American Falls Hatchery, 1992.

Species & Strain	Number	Pounds	Cost/lb	Cost/fish
Rainbow R9 (3-6 in)	107,108	7,582	0.84	0.05
Rainbow R9 (6-12 in)	600,122	217,087	0.95	0.34
TOTALS	707,230	224,669		

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