Vol. VI

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No. 9

Oregon's Pheasant Propagation Program

By JOHN McKEAN, Chief of Operations, Game Division

Game farms are one of the oldest and most popular activities of the Game Department because they are tangible and provide a product which can be seen, handled and counted by sportsmen. However, application of available information on production costs and returns to hunters from released birds indicates that the current cost of a legally bagged cock pheasant, directly traceable to summer-released stock, is at least eighteen dollars.

After a thorough examination of the facts available, the Commission has ordered a 40 per cent cut in pheasant production and made other changes in the propagation program.

The questions of how to produce pheasants and how, when and where to release them to obtain the greatest possible benefits for hunters have been the subject of much controversy and speculation throughout the nation and some eastern states have completely abandoned their propagation programs.

In order to fully appreciate the problems confronted by the Commission in attempting to design a program that will utilize the available funds most efficiently and produce the most for Oregon hunters, it is necessary to understand Oregon's past and present programs and the measured returns from them. This article reviews the history of Oregon's pheasant propagation program, the methods used, and production problems. A following article will summarize measurements of productivity, survival, and returns to hunters of released birds.

History

The first successful introduction of pheasants in North America was made in the Willamette Valley in 1881. The success of this planting soon gained national recognition and other states sought breeding stock from the Oregon birds. To meet this demand, Mr. Gene Simpson of Corvallis began raising pheasants in captivity in 1903 and selling breeding stock to Oregon and other states. In 1911, the legislature created a Game Commission and one of their first acts was to acquire Mr. Simpson's pheasant farm and appoint him game

farm superintendent. Mr. Simpson served the state well in that capacity until his death in 1939.

During these early years, the game farms were extremely valuable because they provided initial breeding stock for unoccupied habitat. By 1940, all of the available habitat in the state had been stocked and restocked many times, and since that date the pheasants produced have been primarily used to supplement established populations.

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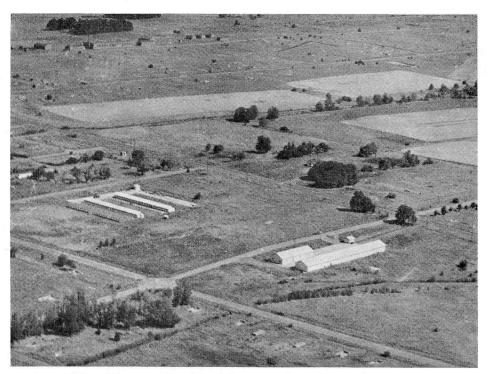
HUNTERS! TAKE A SECOND LOOK

Another hunting season is here and another Oregon hunting fatality rollcall. Bullets snuffed out five lives last year. Eleven more persons were maimed, some permanently.

Why do we repeat this familiar refrain when you are so keenly aware of your obligation for human life and property? Investigation shows the lethal gun in most cases was handled by a perfectly normal, sober, individual such as you, Mr. Hunter. Some who mistook their victim for game were regarded as "expert" hunters and often their victim wore red.

In the majority of cases careless gun handling by the individual or his partner accounted for the one fatal shot. It is the "mistaken for game" cases that seem so puzzling, yet, are they? Take, for example, the hunter who shot his

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Aerial view of the E. E. Wilson Management Area. Machine shed and workshop are in the right foreground, brooder houses at the far left.

☆ THIS AND THAT

\$

Signs around the waterholes developed by the habitat improvement division in the Deschutes National Forest indicate much use by deer. When the holes become low, additional water is hauled to replenish them. In the Willamette district many temporary water units have been reinstalled and maintained in order to increase the number of suitable sites in the valley for pheasant liberations.

Bitterbrush seed is being collected by field agents for later use on eastern Oregon ranges. Lotus major and burnet seedings were growing well on the Tillamook and Clatsop county ranges and the plants are being utilized by deer or elk on all sites.

Reported death of trout in Davis Lake earlier in the season proved to be concerned only with a small part of the whitefish population. The infection was fungoid in nature.

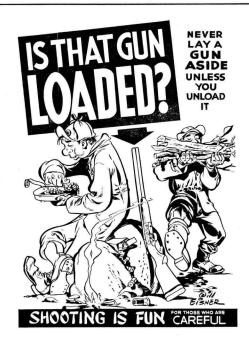
Angling for summer steelhead along the North Umpqua River started late in June and for the first time data is being collected to estimate the catch in this fishery. A man has been employed for the summer to pursue this phase of the study, with headquarters at Steamboat.

The new self-bailing planting boat recently completed for the McKenzie River has been given several trials and has proved to be very satisfactory for both stream and lake liberations. Three hundred pounds of fish were liberated on one occasion over a half mile of fast boulder-strewn water. It is believed that the boat has a capacity of about 600 pounds of yearling fish in rivers and 800 in lakes.

Salvage of warm water fish on Sauvies Island commenced in June and most of the fish were transferred to live waters near the Island.

Sheriff's Rifle Range Open to Hunters

Hunters desiring to sight their rifles may use the facilities of the Multnomah County Sheriff's Range at 9415 S.E. Powell Boulevard, Portland, it is announced by Sheriff Terry D. Schrunk. During the period from Monday, September 17 to Friday, September 28, the range will be open daily from noon until dark. The range has been and will continue to be open on Saturdays and Sundays from noon until 6 p.m. No charge is being made for this privilege.



NEW SOUND FILM AVAILABLE FOR SHOWING

"Trout Story," the first sound moving picture on Game Commission operations, is now ready for distribution to organizations and schools.

Development of the trout from the egg stage to planting size is effectively depicted and the color photography takes full advantage of opportunities for beautiful shots provided by fishing scenes on Oregon's mountain lakes and streams.

Photography and script are by Clark Walsh and Stuart Couper of the Commission's Information and Education division. Sound recording was done by the Calvin Film Company.

The picture is 16 mm. and has a running time of 20 minutes. Three prints will be available and application for bookings can be made through the Portland office of the Game Commission.

International Association of Game, Fish and Conservation Commissioners Meet

The annual meetings of the International Association of Game, Fish and Conservation Commissioners and the American Fisheries Society are scheduled for the week of September 10 to 14 in Rochester, New York.

Representation from Oregon includes Delbert Gildersleeve, Commission Chairman, and P. W. Schneider, Acting State Game Director. Mr. Schneider was selected to act as chairman of the panel discussion on "Serious Wildlife Administration Problems of 1951."

Hunters! Take a Second Look

(Continued from page 1)

cousin dead at a distance of 174 yards. The victim was running through the trees and the bullet hit him squarely in the chest. This hunter was an "expert shot," one experienced in the woods. Probably this nimrod had a reputation for always bringing home the bacon, a fellow who needed but a glimpse of game and it was his. Yes, there are many "experts" who have mistaken others for game.

If these men had paused like the novice, to be sure of their target, our tragic hunting fatality rollcall would not be as long. Be sure before you shoot. No shot is worth gambling on a human life.

Oregon State Game Commission Bulletin

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 $\mathop{\rm MIRIAM~KAUTTU}_{Editor}$

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Pheasant densities dropped to extremely low levels in most of the state during the 1930's. In an effort to correct this situation, the Commission authorized construction of the Ontario Game Farm and increased the capacity of other stations from a total of 17,486 birds in 1936 to 74,450 in 1940. The Commission also provided for the systematic allocation and liberation of the increased production and an investigation of the merits of the program.

Oregon's game farms have produced 1,091,508 pheasants since 1911 and approximately half of this number have been released since 1940.

Methods

For the benefit of those who are not familiar with Oregon's pheasant propagation program, the following explanation is provided.

Pheasants are polygamous and normally begin laying in late March. The breeding birds are selected early in March and placed in breeding pens with one cock and eight hens in each pen. The eggs are gathered at least twice each day to avoid exposure and breakage. Hens lay an average of forty eggs by May 31st. These breeders are then released early in June and frequently lay a small clutch of eggs after release.

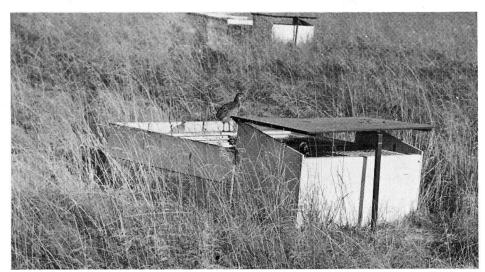
Game bird eggs are incubated under domestic hens. Farms advertise for setting hens and have established routes upon which they gather hens from commercial poultrymen at weekly intervals. Pens and nests are provided for incubation with fifteen to twenty eggs per nest. Pheasant eggs hatch in from twenty-three to twenty-four days.

Day old chicks are transferred with hens to brood coops in open fields. Each hen is given a brood of twenty-five chicks. The coops are spaced at fiftyfoot intervals in open fields, with sixteen coops and 400 birds per acre. Chicks are confined to coop and hen for two to seven days and then released to range at will and return to the coop for food and shelter. Hens are confined to the coop during the six-week brooding period. The birds are normally wellfeathered and independent of the brood hen at an age of six weeks. Since there are no barriers to their flight or travel, substantial numbers of birds may stray away from the rearing fields at that age. The birds are normally trapped at an age of eight weeks, depending upon rate of growth and weather conditions, and are loaded directly into a liberation

(Continued on page 4)....



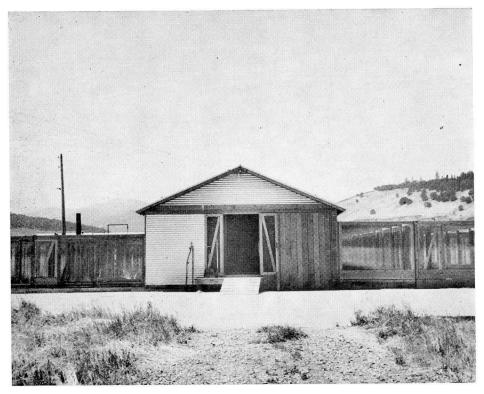
Field rearing project on the E. E. Wilson Game Management Area. This method has been preferred because the birds are raised under near natural conditions and are better prepared for summer release than birds raised in mechanical brooders.



Close-up of brooder coops on the Wilson Area field rearing project where approximately 9,000 pheasants have been produced this season.



Farming is an integral part of game farm operations. The crops provide food and shelter for birds during the rearing period and are harvested at the close of the season for use during the following season.



The new hot water brooder system on the E. E. Wilson Management Area, constructed in the spring of 1951, has a seasonal capacity of 10,000 birds.

(Continued from page 3)

truck for transporting to previously chosen liberation sites during the months of July and August. In an effort to obtain better results, pheasants have been raised by this method on refuges and other private lands and allowed to gradually disperse as they matured, thus avoiding the sudden change of environment. This practice was not found any more productive than liberations of birds from the game farms.

A breeding flock for the following year is selected from the earliest hatched birds and held in covered pens until they are sixteen to eighteen weeks old and then brailed and allowed to pasture in open fields during the winter. A brail is a leather strap which holds one wing closed and prevents flight of the bird.

Although there have been some exceptions, the above stated procedures have been generally followed since 1939.

Prior to that date, most of the birds were raised in pens. A portion of the birds were released during the summer months and as many as possible held for release after the hunting season. Early survival studies indicated that late fall releases were not practical.

Although the poultry industry has made much progress in developing mechanical methods of hatching and brooding poultry, those methods have not been adopted on Oregon's game farms because it was believed that they produced an inferior bird. During the 1930's, electric incubators and brooders were installed on game farms at Eugene, Corvallis, and Pendleton. At that time, it was concluded that production costs were just as high as with domestic setting hens and the birds were inferior in both vigor and wariness.

In view of these conditions, the Commission adopted the open field method of rearing and designed all farms for

production of eight-week old birds to be released during the summer months. None of the farms have pens which will facilitate holding of much more than the required breeding stock.

Another policy adopted by the Game Commission in the late 1930's was to practice selective breeding for Mongolian pheasant characteristics in eastern Oregon and the Chinese strain in western Oregon. The Mongolian pheasant is a native of higher plateaus of Asia and, therefore, believed better adopted to the more extreme eastern Oregon climate.

The major handicaps to mass production of pheasants and other game birds are that they will not tolerate crowding and once they have attained the powers of flight they are difficult to hold in captivity.

Oregon's deployed system of rearing pheasants requires substantially larger farms than those of most other states and because the birds require cover during the rearing period, farming becomes an integral part of the game farm operation. Standard farming procedures are used with the exception that plantings are usually lighter than the normal to avoid a dense growth which would handicap movement of the birds and cut out sunlight needed to keep the ground free of mold and other forms of contamination. Most of the cereal crops produced on the farms are harvested after the bird-rearing season and fed out during the following season. By assigning a value to the harvested crops, farming operations on the farms are selfsupporting but do not provide a substantial source of revenue.

Production Costs

An analysis of 1950 production costs by operations is displayed in Figure I. The average cost per bird produced on

(Continued on page 5)

Figure I ESTIMATED COSTS BY OPERATIONS 1950

		Average	C		v. Cost
	** 1	Unit	Gross $Cost$.,	aised
Operation	Volume	Cost			—.02
Farming	287 a.	\$ 28.02	\$ 8,041.98	-\$ 1,580.83	
Egg Production	209,317 eggs	.06	12,559.02	12,559.02	.18
Hatching and Rearing					
Setting Hens	12,497	2.25	36,741.80	28,086.63	.40
Labor	- 10 14				
Hatching	18 mo.	220.00	3,960.00	3,960.00	.06
Rearing	0.4	220.00	18,480.00	18,480.00	.26
Feed and Misc. Supplies		.25	17,681.75	17,681.75	.25
reed and Misc. Supplies	70,727 birds	.03	2,121.81	2,121.81	.03
Trapping	10,121 DITUS	.20	12.820.00	12,820.00	.18
Holding	64,100 mo.	.20	12,020.00	12,020.00	.10
Administration and			07 000 10	97 669 40	.40
Maintenance Stations and Equipm	ent		27,663.49	27,663.49	.40
				24.24.704.40	1.71
*Totals			\$140,069.49	\$121,791.49	1.74
Cost Per Bird Raised (70,137)			2.00	1.74	1.74
Cost Per Bird Month			.60	.52	
*Net cost includes value of farm			50.		

(Contined from page 4)

that year was \$1.74, including maintenance and other costs incurred in yeararound operation of stations.

Cost data indicates that the domestic setting hen is the weak link in Oregon's pheasant production program. Education and competition have induced commercial poultrymen to practice aggressive flock improvement programs and specialize in production of either eggs or meat. The egg-producing strains have been selectively bred to exclude broody characteristics and most of the breeds used in meat production are so large that they trample a high percentage of the chicks after hatching. Game farms have been paying \$1.50 to \$2.00 for setting hens and only approximately onehalf of the hens purchased prove satisfactory for use through the brooding season. In 1950, 12,497 hens were used on the four farms and the average net cost per hen was \$2.25 or 40 cents per pheasant raised. This cost is extremely high when compared with the five to ten cent heat cost required by mechanical incubators and brooders.

By prorating production and liberation costs, the average cost of released pheasants by age classes are as follows:

Eight-week old summer-released birds \$1.66
Adult cocks released in October 2.33
Adult hens released in March 3.13

These are the measurable costs in terms of direct investment in released birds; however, the true cost must be based upon the contribution of these birds to established populations and hunting.

Survival and production studies provide an estimate of the direct return to hunters from liberations. Application of those measures indicates that the approximate true cost of the above age classes of pheasants are as follows:

Cocks Ho	Cocks Harvested	
Per 100 R	eleased	Per Cock
Summer-released Birds	9	\$18.44
*Adult Cocks in Fall	64	4.16
Adult Hens in March	35	8 94

^{*}Includes added cost of 50c per bird for maintenance of areas to accommodate public hunting.

Supporting data for these estimates will be presented in next month's bulletin.

In view of the above information, it appears that Oregon's past system of rearing and releasing young birds in summer is not the most efficient, and even direct stocking of cocks for the gun appears questionable on a strictly monetary and food production basis. However, when recreational values and

the low productivity of some of Oregon's habitat under current land use practices are taken into consideration, it appears that such heroics as stocking cocks for the gun may be justified to meet the recreational needs of Oregon citizens, particularly in the vicinity of population centers.

Present and Future Programs

In the light of these conditions, the Commission has authorized the following alterations of the program this year.

Eastern Oregon:

Reduce pheasant production on the Ontario and Hermiston farms from a capacity of 40,000 pheasants to 20,000 summer-released pheasants.

Increase production of chukar partridge at both stations in an attempt to establish that species on suitable eastern Oregon habitat. (Approximately 3,000 chukars have been produced this year, but most of these birds will be held for breeding stock.)

Western Oregon:

Install mechanical incubators, brooders and holding pens on the 1,900-acre E. E. Wilson Game Management Area and produce 20,000 adult pheasants and 10,000 young pheasants. Liberate 10,000 adult cocks immediately prior to hunting season and hold 10,000 adult hens for release in the spring of 1952.

Increase production of European Grey partridge for liberation in western Oregon.

Plan to combine operations of the Eugene and Corvallis farms on the Wilson Area and dispose of those properties.

An aggressive development program has been initiated on the E. E. Wilson Management Area this year, including installation of an electric incubator and construction of a hot water brooder system. The brooding cost of six-week-old pheasants in this new unit was 34 cents per bird and 96 per cent of the birds started were successfully raised to that age. The average brooding cost with domestic hens exceeds 50 cents at six weeks.

It is believed that through application of improved rearing methods production costs can be substantially reduced and a limited pheasant production program can be justified; however, it is planned that future emphasis will be upon production of the chukar, Hun and other exotics which do not at present have a wide distribution in Oregon.

It must be recognized that game farms are primarily of value in providing initial breeding stock and our hunting is dependent upon the productivity of established populations and the many factors which influence their welfare.

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Young pheasants in runway outside of brooder house. There is a direct access to the building so that birds may go in and out at will.

LONG CLOSURE ON BEAVER ENDED

Since 1932, trappers have watched beaver increase along their favorite trapping waters and have waited patiently for the day when they could again legally trap some of these valuable furbearers. Through protection and a vigorous transplanting program, in which the Game Commission has relocated over 3,000 beavers, these animals have increased from near extinction in 1932 to an abundance in most sections of the state. The Game Commission feels there is now an ample supply of these animals to justify allowing commercial trappers and landowners to harvest the surplus. Power to open the season on beaver to commercial trapping was granted the Game Commission through a bill passed by the 1951 legislature.

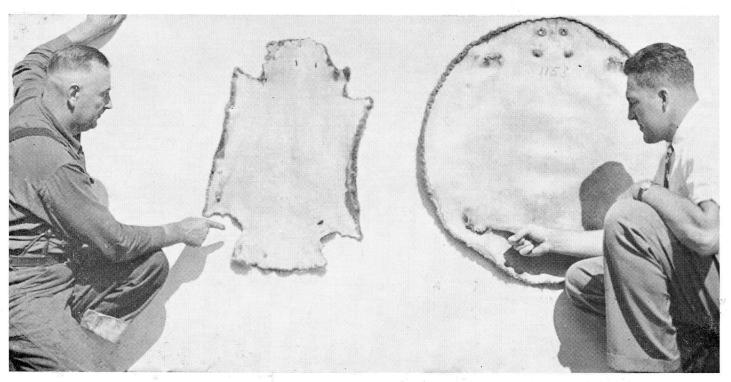
Beaver, in addition to their valuable fur, are extremely valuable in soil and water conservation in mountainous and arid country. Their dams hold back water, causing a more even stream flow throughout the year. Each dam acts as a reservoir in which eroded soil from above is deposited. Over a period of years mountain meadows are formed from a series of these dams. These impoundments offer ideal habitat for fish, waterfowl and other wildlife; are valued by stockmen as water holes for their cattle and sheep and by lumbermen as a source of water in case of fire.

Despite all of these benefits, there are numerous kinds and instances of damage by these furbearers. By digging holes in dikes they offer a serious threat to the lives and property of people living behind the embankments. Beaver subsist largely on bark of trees and succulent vegetation. Fruit trees, ornamental shrubs, truck gardens, alfalfa, and grain are relished. Ranchers depending upon irrigation ditches for water are seriously damaged by the damming of ditches. Dams prevent other ranchers from draining their lands. Beavers dam road culverts, cut tide boxes, wallow down mint and other crops, undermine banks and remove protective trees, which causes land to cave in or wash away during high water, and build dens under fields which cave in when cattle or a tractor goes over. In the past three years, over 2,000 of these and other types of damage complaints have been received by the Game Commission.

In setting an open season, the Game Commission had to weigh the many benefits and detriments so as to protect the animals where they are beneficial and allow trappers to remove surpluses and nuisance beavers in other areas. In addition to all national forests, the headwaters of many streams are excluded from the open beaver area.

All trappers who intend to take beaver during the season of November 15 to January 15 must have a trapping license and their traps branded with a brand approved by and registered with the Game Commission. They must also have purchased prior to trapping beaver and have on their person while trapping metal seals for each beaver caught. These are sold only through the Game Commission office in Portland for \$2 each. Each beaver pelt must be tagged through an eye-hole at the time it is stretched. Refunds will be made on any tags not used. Reorders will be accepted at any time during the season.

Beavers are large, strong rodents and will easily escape from small or weak traps. The minimum size which should be used is a No. 4. All sets should be made with a heavy weight and in such a manner that the animal will quickly drown. Strong and unkinked wire (Continued on page 7)



N O Improperly handled pelt brings poor price

Y E S
50 per cent more return
on a good pelt

BEAVER REGULATIONS

Open Season: November 15, 1951 to January 15, 1952, both dates inclusive, in the following described areas:

Baker County:

All open except waters inside exterior boundaries of national forests; tributaries of Burnt River east of U. S. Highway 30, and tributaries of Powder River south of Oregon Highway 86.

Note: Private land in Sumpter Valley is outside exterior boundary of national forest and open to beaver trapping.

Benton County:

All open except waters west of summit of Coast Range.

Clackamas County:

All open except waters inside exterior boundaries of national forests; Molalla River and tributaries above Shady Dell covered bridge; Butte Creek above the new county bridge at Scotts Mills; Clear Creek, Canyon Creek, Milk Creek, and their tributaries above Highway 211.

Clatsop County:

All open except Necanicum River and tributaries above Necanicum Junction; North Fork Nehalem River and tributaries above confluence of Soapstone Creek; Soapstone Creek and tributaries; Arch Cape Creek and tributaries; and Elk Creek and tributaries.

Coos County:

All open except waters inside exterior boundaries of national forests and Elliott State Forest and tributaries of South Slough near Beaver Hill.

Douglas County:

All open except waters inside exterior boundaries of national forests and Elliott State Forest.

Lane County:

All open except Willamette and Siuslaw National Forests and all waters flowing directly or indirectly into the Pacific Ocean north of the mouth of the Siuslaw River.

Lincoln County:

All Closed.

Linn County:

All open except waters inside exterior boundaries of national forests; Calapooya River and tributaries above Dollar; Middle Fork Santiam River and tributaries above confluence of Quartzville Creek; Crabtree Creek and Roaring River and tributaries above their confluence at Larwood; Wiley Creek and tributaries above Foster; Thomas Creek and tributaries above Jordan; North Santiam and tributaries above Mehama.

Marion County:

All open except waters inside exterior boundaries of national forests; Butte Creek and tributaries above new county bridge at Scotts Mills; Abiqua Creek and tributaries above Oregon Highway 211; Silver Creek and tributaries above Oregon Highway 211 bridge at Silverton. *Polk County:*

All open except waters west of summit of Coast Range; Little Luckiamute and tributaries above Black Rock; Rickreall Creek and tributaries above Pope and Talbot gate; Luckiamute River and tributaries above Fisherman's Camp and Mill Creek above Oregon Highway 22. Tillamook County:

Open areas: Nestucca River and tributaries up to confluence of Niagara Creek; Nehalem River and tributaries up to confluence of Cook Creek; North Fork Nehalem River and tributaries up to confluence of Soapstone Creek; Tillamook River and tributaries; Wilson River and tributaries up to Lower North Fork Wilson River.

Union County:

All open except waters inside exterior boundaries of national forests; Grande Ronde River and tributaries above confluence of Five Points Creek; Five Points Creek open to national forest boundary.

Washington County:

All open except South Fork Tualatin River and tributaries above Cherry Grove; Scoggins Creek and Sein Creek and their tributaries above their confluence; Gales Creek and tributaries above bridge on Glenwood-Timber Highway; and McKay Creek above Sunset Highway.

Yamhill County:

All open except Hayes Creek, North Fork Yamhill River and tributaries above confluence of Hayes Creek near Pike, Yoncalla Creek and tributaries, and Casper Creek and tributaries.

Other Counties:

All of the following counties are open except waters inside the exterior boundaries of national forests: Columbia, Crook, Curry, Deschutes, Gilliam, Grant, Harney, Hood River, Jackson, Josephine, Klamath, Lake, Malheur, Morrow, Multnomah, Sherman, Umatilla, Wallowa, Wheeler, Jefferson and Wasco.

SPECIAL BEAVER REGULATIONS

Beaver tags may be purchased at a cost of \$2.00 each by any licensed trapper or registered landowner. Each trap-

per must have his tags on his person while trapping beaver. Such tags are subject to inspection at any time by any peace or game law enforcement officer.

Each tag authorizes the holder to take and sell one beaver. When a beaver is killed and the pelt is removed, the special beaver tag shall be affixed through an eye hole in the pelt. The accompanying report card shall be detached from the tag, filled in with the required information and mailed to the Game Commission not less than 10 days after the beaver is killed.

Fees paid for unused beaver tags will be refunded provided the tag holder has previously reported the tags used as required by law. Unused tags should be forwarded to the Commission for refund within 90 days after the close of the beaver season.

Any person convicted of violating any of the beaver regulations shall forfeit his right to obtain a beaver tag for the period of two years following such conviction.

Beaver Closure Ended

(Continued from page 6)

should be used to secure the trap. Information on proper handling of pelts will be submitted to the trapper at the time metal seals are ordered.

The raccoon has been increasing rapidly throughout the state and has become quite predaceous on poultry and game birds. It is now legal to hunt or trap raccoon at any time of the year with either a hunting or trapping license. Land-owners can hunt or trap these animals on their own property without any type of license or permit.

Due to the diminishing supply of breeding stock of mink and otter, the season has been shortened one month from that of previous years. They may be trapped from November 15 to January 15. Muskrats and marten can be legally taken from November 15 to February 15 as in previous years. No open season is provided for the taking of the scarce fisher and ringtail cat. All other animals, except those classified as game animals may be hunted or trapped during the entire year.

Elsewhere in this bulletin are the complete beaver regulations for the 1951-52 season. They are also to be found in the 1951 Hunting Synopsis. They should be thoroughly studied and followed to assure continued good trapping and to prevent violations through ignorance of the laws.

(Continued from page 5)

Theoretically, polygamous species such as the pheasant would withstand much more liberal hunting seasons than prevail in Oregon if all hunters recognized the value of the hen and gave her the protection deserved; however, in some areas the hunting season has no measurable effect upon sex ratios and it may be assumed that the loss of both sexes is approximately equal. If such conditions are traceable to the attitude that game farms are providing the hunting and the area will be immediately restocked, someone is making a tragic mistake. So, please take care while you are hunting this fall because the activities of hunters will have a substantial effect upon our future upland game hunting.

SEPTEMBER-OCTOBER CALENDAR

Trout—General season closes September 30, Zones 1 and 2; October 14, Zones 3, 4, 5, 6, 7, 8 and 9.

Salmon, Steelhead—Open both months. Spiny-ray Fish—Open both months.

Blue and Ruffed Grouse—September 1 to 7.

Doves—September 1 to 15.

Band-tailed Pigeons—September 1 to 30.

Deer—September 29 to October 21. Elk—Opens October 27.

Silver Gray Squirrels—October 1 to 20 in 7 counties; entire year in 7 counties. Predators—Open both months.

Pheasants—Opens noon October 19; closing dates vary.

Hungarian Partridge—Opens noon October 19.

Valley Quail—Opens noon October 19.

Note: Consult official hunting and fishing regulations for exceptions and complete information.



THE WIZARD FALLS HATCHERY



Gene Morton, superintendent of the Wizard Falls hatchery, and his young son, Kenneth.

Completed in June of 1948, Wizard Falls Trout Hatchery on the Metolius River is Oregon's newest and most modern trout production plant.

Since its opening 3,600,000 fingerling and 406,000 legal-sized trout have been reared at Wizard Falls and sent on their way to lakes and streams of central Oregon. By icing the tank water with chunks of ice, liberation trucks this summer hauled Wizard Falls fish as far as the remote Three Forks of the Owyhee River in the extreme southeast corner of the state.

The rustic brown hatchery buildings blend well with their yellow pine forest setting at a point where the Metolius River begins its plunge to the Deschutes through a wild canyon. You may reach this hatchery in its vacation land setting via the Santiam Highway and the Metolius River resort road passing through Camp Sherman.

A major chore for hatchery superintendent Gene Morton and his three assistants is feeding their hungry trout horde. All trout food is kept in a cold storage plant designed to hold 100,000 pounds of fish food at 10 degrees below

zero. Grinding and preparing this food is a highly important phase of fish culture. Through the summer over 1,000 pounds of fish food are thawed, ground, and mixed daily. Food for the young fry must be ground through fine sieves at least ten times. These fry are fed once every two hours and the large fish once every other day.

All trout eggs taken from brood rainbow kept at the hatchery or shipped in from other stations are placed in the main hatchery building for incubation. The 32 hatchery troughs are fed with water piped directly from Wizard Falls springs which surge directly out of the nearby canyon wall in a constant flow. These spring waters are ideal for trout culture, averaging 50 degrees and never varying more than two degrees the year around.

A combination of ideal water, skilled care, and balanced feeding has produced an outstanding growth on Wizard Falls rainbow. Eggs received at the hatchery last December were hatched in January and by August 1, seven months later, these fish averaged seven inches in length.

In addition to rainbow, 40,000 summer run steelhead destined for the Deschutes are being reared at the hatchery. Small fish are kept in one of the 20 circular ponds and are later transferred to larger raceways. A portion of the first Atlantic salmon to arrive in Oregon are also being reared at Wizard Falls Trout Hatchery, and several hundred brown and eastern brook trout are being raised experimentally in these waters. The browns have thrived at the hatchery but the brook trout have made slow progress in their growth.

A recent invention of hatcheryman Morton's is a trout grader that separates entire lots of fish into size groups when poured through the grading chute.

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