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WATER SUPPLY AT HARRIETTA HATCHERY

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By

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Water supplying hatchery troughs in the buildings at Harrietta Hatchery is derived from a nearby swamp in which are located numerous small springs. Underground drains radiate through the swamp to carry water to a collecting basin. The system was installed approximately 18 years ago, according to Mr. Louis Root, and improved later with CCC aid. The basin requires periodic cleaning to free it of debris carried in by the drains. Mr. Basford reports that many of the tile drains have become plugged and that he plans to have them all reconditioned this fall. He also reported that a considerable amount of surface water drains into the collecting basin, causing an additional amount of silt and debris to be carried to the troughs in the buildings. This condition is aggravated by rain, at which time the water becomes muddy. Since eggs and young trout are in the troughs in the spring when rains are frequent, the resulting water conditions are undesirable for rearing small trout.

The ponds are supplied with water from Slagle Creek, which flows through the property. Ponds No. 3 to No. 18 lie on the north side of the highway and water from Slagle Creek can enter only four ponds

directly (3, 13, 14 and 18). Water enters pond 3 through two openings and flows into pond 4 through one outlet and pond 5 through another outlet. Ponds 4 and 5 empty into pond 6, which empties into ponds 7, 9 and 11. The latter empty into ponds 8, 10 and 12 respectively. Ponds 8 and 10 empty into Slagle Creek; pond 12 empties into pond 15, thence to pond 16. Ponds 13 and 14 are supplied separately from the stream; both empty into pond 15. Pond 18 is supplied directly from the stream which empties into pond 17, which then empties into pond 16. Pond 16 drains into Slagle Creek. The present pond system makes it very difficult to properly treat sick fish for disease since it is impossible to isolate the ponds for individual treatment. Ideally, each pond should have its own water supply and outlet independent of any other pond. Such an arrangement could be made at Harrietta by filling in the present ponds and building new ones at right angles to Slagle Creek. The stream would then supply each pond individually, the waste ditch flowing back into the stream where pond 16 now empties.

Artesian wells were drilled several years ago but the oxygen content of the water is very low, and a heavy deposit of iron soon covers the bottom of ponds and incubating trout eggs causing them to smother. Sufficient oxygen can be built up by the use of splashing devices but the problem of removing or stabilizing the iron has not been solved. Experimental ponds of trout supplied by this water demonstrated very slow growth during summer months, due, at least in part, to the low temperature of the water. Loss was high among trout eggs held in this water and the growth of the fry and fingerlings was below normal. More experimentation will be necessary before the artesian wells can be used satisfactorily. Mr. Basford believes the present flow from the wells would supply not more than 12 ponds.

Report approved by A. S. Hazzard
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