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REPORT NO. 877

PRODUCTION OF FATHEADED MINNOWS
AT THE WOLF LAKE HATCHERY

by

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On May 2, 1942, Mr. L.A. Krumholz and the writer obtained between 600 and 800 fatheaded minnows (Pimephales promelas) from the old brick-yard ponds near Grass Lake Village. (These ponds are situated across the railroad track, north of the highway, just west of town. Fatheads and mud minnows are the only species present). These minnows were taken to the Wolf Lake Hatchery and placed in Pond No. 17 (1.27 acres) by R. Rhodes and R. Wilson.

This pond was not fertilized nor were the fish fed during 1942. Special spawning devices were not placed in the pond.

On June 30, 1942 the writer found that spawning had been successful and that large numbers of fry and fingerlings were present about the edge of the pond. Several floating boards and several rocks were found to have fatheaded minnow eggs on their under surfaces.

Pond No. 17 was drained on May 1, 1943. It was found at this time that it would be impossible to drain the pond completely without killing large numbers of fish which had a tendency to hang up in the 6 to 7 inches of algae that covered the bottom of the pond. It was decided that the pond should be almost completely drained several times, and allowed to partially fill afterwards. In this manner all stranded minnows would be saved. It was also decided to leave the minnows that could not be removed from the pond as brood stock for another year.

Pond No. 17 was partially drained twice. When water was present only in the channels leading to the outlet, an attempt was made to drive all of the minnows out of the pond. After the second draining the slash boards and screen were re-replaced in the outlet box and the pond was allowed to fill.

Two thousand fatheaded minnows were counted and weighed. Using the weight of 2 pounds for 2,000 fish, the remainder of the fish were weighed and placed in Pond No. 24. A total of 116 pounds of fish were weighed, yielding an estimated 116,000 fathead minnows that were placed in Pond No. 24 as brood stock. At least 35,000 minnows were estimated to have been left in Pond No. 17. Therefore, the total estimated production of fatheaded minnows was approximately 150,000, weighing 150 pounds. The production per acre, therefore, was 118,110 fish weighing 118.11 pounds.

These production figures are considered to be minimal because an enormous number of minnows remained in Pond No. 17 after the second draining.

The fatheaded minnows varied in size from $3/4$ to 3 inches. Six or seven major size groups were represented.

This production compares favorably with the maximum yield published for this species.

Pond No. 24 should prove ideal for the growth and maximum production of fat-headed minnows. A row of stumps is present along the south side of the pond. Most of the dykes surrounding the pond have been riprapped with large boulders to prevent the wave action from washing out the dykes. Brush piles are fairly numerous about the pond. Adequate spawning places are therefore present, and some cover for the adults and young. Large quantities of daphnia were present in the pond between May 7 and 13.

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