FISH CULTURE FOR PROFIT.

By CHAS. E. HIESTER.

To grow fish for profit we select those kinds that are easily kept, which will not require to be fed artificially,—such kinds, in fact, as will feed themselves. Fortunately there are quite a number of varieties from which to select; but the common catfish now heads the list as a profitable market fish and water properly prepared and stocked with them yields a larger revenue than several times its area of the best farm land. This fish does not require a large supply of water, but can be cultivated in any quiet runway, or pond, and in water too warm for trout. It is very hardy; has no diseases of any kind; increases very rapidly and grows fast; is ready for market at a year old, and, having few small bones, always finds a ready sale at fair prices. In fact the demand for this sort of fish, a small pan-fish without bones, is practically unlimited. They live on the larvæ of insects and on the aquatic vegetation in the ponds and runways, and do not require any other food. No special breeding arrangements are required for them, and very little attention in any way, as compared with other varieties of fish. A peat soil is best, and will produce more fish to the acre than any other. Last winter from a single runway about a hundred yards long, in soil of this kind, nearly 20 bushels of marketable fish were taken, that sold for over a hundred dollars, and more than 50,000 small fry, in all stages of growth, remain in the waters.

An estimate of the value of an acre of pond surface may be made as follows: On proper soil 10 pounds weight of fish may be kept in less than 100 square feet of water, and the supply of food will be adequate; hence, an acre will afford over 42,000 feet of water, sufficient in capacity for more than 4,200 pounds of fish. This will give a supply of 82 pounds weekly. Such fish as may be grown in a pond sell at wholesale by the ton for 10 cents a pound, making an annual supply worth $840.

In connection with fish farming on level lands, fruit-growing and poultry farming can be carried on at the same time to good advantage. Parallel runways are cut through all the land it is desired to operate. The soil that is thrown out forms ridges or lands between the runways, about 2 feet above the level of the water, and on these lands plum and quince trees are closely planted. The curculio and other insects which make these high-priced fruits impracticable on the upland, here have no chance to work, and the result is perfect fruit. Experiments made during the past three years on a tract of land in Pennsylvania have shown a result on which we can base the following estimates:

Cost of preparing ten acres.

Embankment 1,800 feet, at 30 cents	$540	
Embankments 900 feet, at 20 cents	180	
		$720
Runways, 10,000 feet, at 8 cents		800
Water-gates, 3, at $10		30
Trees, 1,250, at 20 cents	250	
Planting	50	
		300
Extra labor, 4 men, at $1 per day		1,100
Tools, hoes, screens, &c		50
Total cost of preparing ten acres		$3,000

We are also able to get at the annual receipts and expenses, and we find that fish culture, instead of being the troublesome, fussy business it is generally supposed, in reality is the simplest of all the productive industries, and comparatively nothing remains to be done after the waters are properly prepared.

Annual receipts from ten acres.

10,000 feet of runway, 10 feet wide, 1 pound fish to 10 feet, at 10 cents	$1,000
85,000 feet of pond surface; 8,500 pounds fish, at 10 cents	850
1,250 fruit trees, plum and quince, at $1	1,250
Poultry and eggs	150
Total annual receipts	$3,250

Annual expenses.

Labor, 2 men	$600	
Tools, hauling, &c	20	
Total annual expenses		620
Net profits for one year on $3,000 invested		$2,630

Should the operations prove as successful on a large scale as on a small one, the receipts would be increased from one to one and a half times, which would make the annual net profits on ten acres considerably over $5,000.

For a new industry this is certainly a wonderful showing, and we are assured that the figures are rather within than over the marks.

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