

## XVIII.—ON POND-FISHERIES.

BY VON DEM BORNE.

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After having given statistics of the pond fisheries in the Prussian provinces of Lorraine, Silesia, Posen, and Schleswig-Holstein, Mr. von dem Borne goes on to say:

“The facts which I have mentioned justifying the conclusion that the pond fisheries deserve the attention of the farmer to the highest degree.

“The net profit is very considerable, and the expense is comparatively small. It is therefore scarcely probable that there will be any loss, as is so frequently the case in other farming operations.

“The ponds *produce* manure, while the fields *consume* it. The water flowing into the ponds forms layers of manure and feeds a number of aquatic plants, which form a highly valuable substitute for straw.

“The shores produce grass, which, however, does not yield any great profit, because it is mostly sour, and, in order not to disturb the carp, has to be cut very carefully.

“The mud which gradually gathers at the bottom of ponds contains much vegetable and animal matter, and, according to its chemical composition, forms a more or less valuable article of manure. Meadows lying lower than ponds may be successfully fertilized by irrigating them by the muddy pond-water. The mud from ponds is also an excellent fertilizer for fields.

“Ponds may also become a source of income to the farmer by being cultivated while lying dry. They furnish a large quantity of manure for the fields. While lying dry ponds are usually planted with grass or oats, but also with potatoes, hemp, summer wheat, and beets. During the first years after having been laid dry the ponds need no manure whatever.

“Like forests, ponds also exercise an influence on the climate, and this influence will be in proportion to their size. The former director of the Principality of Trachenberg (Silesia), Mr. Frieboes, has informed us that fields in the neighborhood of ponds always had more moisture

\* Von dem Borne, “*Ueber Teichwirthschaft*.”—[Translated by HERMAN JACOBSON.]

even during a dry season, and that vegetation seemed to flourish more. In very damp seasons such fields may even have a hurtful excess of moisture. For a light soil, needing a good deal of moisture, ponds are decidedly beneficial.

“When ponds are laid dry the consequences are similar to those attending the destruction of forests. Fortunately ponds are more easily restored than forests. If it seems profitable to change ponds into fields, the dams should at least be left. In the district of Militsch, *e. g.*, large ponds have been laid dry and changed to fields; on some farm-houses have even been built. A few of these ponds could again be restored to their original condition, but with many of them this was absolutely impossible, although they yielded very little profit as fields, while as ponds they had proved a source of considerable income. Similar experiences have been made in Bohemia, where there is an unusual number of large ponds.

“Whenever ponds are laid dry, the dams should, therefore, be preserved, and no buildings should be erected, and it will be easy to restore them whenever it should be deemed advisable.

“It is profitable to use the ponds from time to time as fields, because it proves favorable to the growth of the fish, and because the grass or grain planted in the ponds needs no manure. When ponds do not receive sufficient food for the fish from rivers or brooks, as is the case with very large ponds, it will be advantageous to introduce a regular system of rotation, and use them, *e. g.*, three years for raising fish, and then three years for raising grain or grass.

“It is of course understood that in constructing ponds it is indispensable to have a sufficient quantity of water. In large ponds this quantity is very considerable, and the entire contents of large rivers are required.

“Thus in Lorraine the Rhine-Marne Canal is used for this purpose, as also the Seille and the Saar; in the district of Militsch, the Bartsch; in the district of Rothenburg, the Neisse, Spree, and the Schöps; and near Peitz, the Spree.

“For small ponds, especially those used for raising carp, it is not advisable to have them fed from rivers, because other fish—particularly pike—get into them and destroy many carp. For hatching-ponds the so-called sky-ponds are the best, *i. e.*, those filled by rain and snow water.”