

during the next 10 years. In 1933, a decline set in and continued to the 1940 low of approximately 2.7 per 1,000 strength.

Medical Department problems of mobilization were emphasized by a statement in the report of the large numbers of enlisted men who must be trained as technicians.

For an Army of 1,800,000, the report said, approximately 23,000 qualified dental, veterinary, sanitary, medical, surgical, pharmacy, laboratory and X-ray technicians are required. In addition, some 35,000 administrative specialists are necessary. Facilities existing at the time the report was prepared were sufficient to train 18,000 enlisted technicians in three-month courses.

*Science News Letter, February 28, 1942*

## FISHERIES

## Oysters, Like Cattle, Grow Fat in Rainy Years

**O**YSTERS, like cattle, depend on rain. They grow sleek and fat in rainy seasons, are lean and make poor eating in drought years, states the new annual report of the New Jersey Agricultural Experiment Station.

The reason is that oysters, like cattle, are animals and depend on plants for their food. The "pastures" on which oysters feed are minute one-celled plants that swarm in uncountable millions in the sea, as grass-blades pack meadows on the land. As pastures of the land depend on soil fertility, this microscopic "grass of the sea" depends on mineral nutrients in solution in the water. Most of these mineral salts are washed down from the land. When rains are copious and rivers are full, the inshore waters where oysters live are well fertilized; in droughty years they receive little of these necessary washings from the land, the micro-plants dwindle accordingly and the oysters go hungry.

The parallel breaks down, however, when it comes to seasons of destructive floods, when dams burst and valuable topsoil is washed away from the land. That is hard on agriculture ashore, but fine for aquaculture offshore. Some of the best oyster years on record have followed summers of notable floods.

There is a notable and obvious difference, too, between the grazing of livestock and the feeding of oysters. Cattle move about, feeding on stationary plants, but in the sea it is the animal oysters that stay put and the plants that swim or drift about until they are caught in

the in-sucked current of water that each oyster keeps pumping through its shell.

The parallel picks up again when it comes to the variety of plants eaten respectively by cattle and oysters. Cattle eat almost anything green, but depend mainly on two large plant groups: grasses and legumes. Oysters feed on practically any microorganism they capture, but their mainstays are two large groups of microscopic plants, which have no common names but are known to scientists as diatoms and dinoflagellates.

A "fat" oyster does not contain actual fat, as a fat steer does. Its reserve food is stored in the form of glycogen, or animal sugar—the same stuff that is stored in our own livers and the readiest reserve food that can be drawn upon in our own physiological emergencies. This liver-sugar in oysters is one of the things that makes them especially desirable in the human diet.

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It is possible to obtain *fat* in a crystalline form.



## Today... I Helped a Man Make Sugar in Cuba

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