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NOT BY ANY MEANS common garden variety seeds, these seeds have come from such far off and now inaccessible places as Bulgaria, Spain, China, France, the Union of Soviet Socialist Republics, from Morocco, Hungary, Rumania, from South Africa, Palestine and India, from Iraq, Italy, Burma, from Siam, Cochín-China and Australia.

No, we are not selling you geography. But we would like to sell you some knowledge, some fun, as well as some seeds.

The United States has depended upon imports for many condiment and medicinal seeds. Some of the seeds contained in this unit of "THINGS of science" have rarely been grown in the United States. Much information is lacking about how such plants will fare in our country. Digitalis, we know about, but have you seen Nux Vomica, Henbane, Stramonium? And among the condiments, what do you know about the growing habits of Fennel, Anise, Coriander?

You can easily learn more about these seeds and their plants through this unit of THINGS of science which suggests experiments, invites you to plant these seeds and watch the results. Complete descriptions and instructions are included with the seeds.

Just enclose 50c, sign and send in the coupon below. Do this TODAY, for the time for planting is NOW.

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Th-3

PUBLIC HEALTH

# Death Stalks Pacific Coast Due to Red Microorganisms

## "Red Tide" Is Due to Poisonous Algae Originating In Japan and Spreading All Along Our West Coast

NOT THE Japs this time, although the "red tide," so called from the rust-red color the surf bears when this poisonous alga spreads itself along for miles on the Pacific coast from California to Washington, originates off the coast of Japan.

Following deaths reported recently of several persons and many fowl and animals from eating infected mussels and clams which they had obtained from the rocks and sands in Oregon and Washington bordering the Pacific, authorities have forbidden the removal of any of these seafoods from the beaches of the two states until Nov. 1.

Positive proof that the shellfish are unfit to eat was given not only by the investigation in the laboratories of the Oregon State Board of Health but also by Dr. Herman Sommer of Hooper Institute at Seattle and Dr. Trevor Kincaid of the University of Washington. The poison consists of microscopic organisms known as *Goniaulax* by scientists, which is present in all shellfish to some degree. However, the usual small amount does not prove harmful, and may even be beneficial; but in certain heavy tides, mussels and clams take in an extraordinary amount of *Goniaulax*, which is the only poisonous microorganism known in sea-water. This may be overcome by proper cleaning of the shellfish, for the poison is predominantly in the liver and intestinal tract and only to a slight extent in the white meat. However, in the present instance, samples investigated from the catches that caused the death of several people at different times and places, convince the authorities that it is not best to leave this to chance and hence these sea-foods will be forbidden.

The virulent poison created by the unicellular organism *Goniaulax catenellia* is one of the strongest known. It belongs to the class of alkaloids, such as strychnine, and symptoms of poisoning in man or animal are entirely of nervous origin and may begin immediately after the meal. First signs of the

poisoning are a prickly feeling in the lips, tongue and finger tips, followed by numbness. An ataxic gait and muscular incoördination and finally ascending paralysis mark the progress of the poisoning, with death from respiratory failure in from two to twelve hours after consumption of the toxic shellfish. Crabs and oysters do not feed on the "red tide" and hence are free from this menace to life.

Science News Letter, June 6, 1942

BIOPHYSICS

## Protoplasm Rubber-Like But Does Own Stretching

PROTOPLASM, the material basis of life seems to have a rubber-like structure. However, unlike rubber, it does not have to wait for someone else to stretch it; protoplasm does its own stretching and contracting.

These are two of the points about the strange, viscid, ceaselessly pulsating and streaming stuff that is the "alive" part of all cells brought out in a new book, *The Structure of Protoplasm*, edited by Prof. William Seifritz of the University of Pennsylvania (*Reviewed, SNL, this issue*).

Ever since biologists first looked at protoplasm through good microscopes there has been much "learned argument, about it and about," and even yet the doctors disagree about its ultimate structure. Microscopic examination, even with the highest powers of the microscope, tells little. Protoplasmic structure has been likened to granules, globules, a network of bubbles, a "brush-heap" of

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