Office Distribution only

Alledge - Int. 2417

DEPARTMENT OF THE INTERIOR

INFORMATION SERVICE

FISH AND WILDLIFE SERVICE

For Release to the AMs of
Friday, July 14, 1944.

The output of America's new seaweed industry, developed to provide the agar and other essential products which before the war came almost exclusively from Japan, is now limited chiefly by the shortage of divers and processing equipment rather than by any scarcity of seaweeds, the Fish and Wildlife Service of the Department of the Interior reported today.

Although at the present time the best quality of agar, a substance which is essential in all bacteriological research and highly useful in many industrial processes, comes only from seaweeds of the type known as Gelidium, surveys have revealed beds of this seaweed off the Pacific coast which are more than sufficient to supply all that can be harvested within the next few years with present facilities, according to Dr. Ira N. Gabrielson, Director of the Service.

With the lack of sufficient divers and equipment limiting the output of agar, plants will have to operate at peak efficiency to produce our minimum requirements, Dr. Gabrielson said. During the past year staff members of the Fish and Wildlife Service have been studying chemical methods of increasing the yield of agar from Gelidium and have obtained promising results. A report on this project will be ready about the first of the year.

Also being investigated is the seasonal variation in the yield of agar from Gelidium as a guide to more efficient harvesting of the seaweed.

While the gum from Gelidium is the only substance that meets the exacting requirements of bacteriologists as a culture medium, it has been found that a different seaweed, known as Gracilaria, yields a gum that can be used satisfactorily in most industrial processes that formerly utilized agar. Production of Gracilaria gum is now an established industry on the Atlantic coast in the states of Massachusetts and North Carolina, and has recently been undertaken at several points on the Pacific coast.

Discovery of the suitability of Gracilaria gums for industrial uses provides industry with a considerably cheaper product, for seaweeds of this type can be harvested at a fraction of the cost of Gelidium. While Gracilaria grows in abundance between the tide lines where it can easily be gathered during favorable stages of the tide, beds of Gelidium are located in water as deep as 50 or 60 feet, requiring the use of regulation diving suits and equipment for harvesting.

The cost of harvesting and processing agar in American factories is considerably higher than we formerly paid for agar imported from Japan although improved

(over)

methods of extraction now being studied by the Fish and Wildlife Service should reduce the cost. Current prices are $2.25 per pound for high grade bateriological agar. Agar formerly imported from Japan frequently was unsuitable for bacteriological use without further refining by American firms. The cost of the finished product, however, was about $1.50 to $2.00 per pound.

Because Gracilaria gums are cheaper than agar from Gelidium and are proving highly satisfactory for industrial uses, technologists of the Fish and Wildlife Service believe they will continue to be used for such purposes even when more agar becomes available. Gracilaria gums are now being used in marine storage batteries and in the manufacture of incandescent lamps, radio and redar tubes, and certain pharmaceutical products.

xxxx