Science Club News

Science Project Materials

➤ THIS COLUMN has made reference several times to the necessity of an early start for achieving successful science projects. Summer is likely to provide the best opportunity, so now is the time to get started.

This year's science fairs probably left you with the impression that some projects had cost a great deal or required equipment totally beyond the reach of the average student. In most instances, these projects were dramatic examples of what can be done with resourcefulness and rather unlikely junk.

It is surprising how many motors from old washing machines, electric fans and similar items have undergone change and emerged as scientific equipment. Surplus electronic parts, such as tubes, wiring and switches, have been bought by many students at low prices. Many report discovering all sorts of useful bits and pieces for sale in junkyards or on scrap heaps of industrial organizations.

One project utilized the springs from 50 ball-point pens in the building of a computer which solved quadratic equations.

If you have not yet selected your project, use a few summer days to tour the attic and basement, local surplus equipment outlets, junkyards and scrap heaps. Such tours are not only fun, but the materials available may suggest a project. Of course, if you already are working on a project, such forays will have specific goals.

SCIENCE NEWS advertisers often offer materials useful for projecteers, and Science Service has a book, "Science Projects Handbook," which contains many helpful hints and information useful to the budding scientist. It is available for 55¢, including postage and handling, from SCA at the address below.

It should be a very productive summer, and fun, too. Good luck!

Send reports of your club activities to Science Clubs of America, 1719 N Street, N.W., Washington, D.C. 20036. Sharing of ideas and information will help all clubs to improve their programs.

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OCEANOGRAPHY

Seaweed Supplies Low

➤ THOUGH MAN is only beginning to make full use of the ocean as a source of food and other items, Canadian scientists are already worried that some of the demands will be too great.

Extracts from seaweeds such as Irish moss, kelp and rockweed find more than 40 different uses in the food, pharmaceutical and textile industries and in agriculture.

The value of seaweed harvested in Nova Scotia, New Brunswick and Prince Edward Island is now about one million dollars annually, and there is considerable industry based on the collection of widely scattered wild plants. Further industry growth will place additional demands on known beds of commercially important species.

While surveys will probably reveal new sources, it is quite possible that cultivation of selected species of seaweeds will become necessary said Dr. A. C. Neish, in charge of plant physiology at the Canadian National Research Council's Atlantic Regional Laboratory in Halifax.

Seaweed cultivation studies have been initiated on a small scale, but the work is expected to be expanded with the establishment of a field station. Present research is concerned with the environmental factors controlling growth of different species of seaweeds.

Surveys already conducted show that seaweeds grow in Canada's coastal waters, and additional species are likely to be discovered, said Dr. Neish.

Although most species of seaweeds grow in the intertidal zone, where they are fully or partially exposed at low tide, a considerable number grow well below the surface.

It is in deep water that the large weeds are found. *Agarum,* a species of kelp commonly known as the sea colander, has been found growing in extensive beds at a depth of 50 to 60 feet. Although rarely seen, this is an abundant seaweed on the Atlantic coast of Nova Scotia.

An interesting weed recently discovered by the Canadian researchers is a red alga, *Polysiphonia arctica,* that thrives at depths of 100 feet and was not previously found growing in the area.

Five species of seaweeds are now being harvested commercially in the Canadian Atlantic provinces—Dulse, Irish moss, Ascophyllum, Gigartina and Furcellaria. Dulse is sold for human consumption and the other seaweeds are processed for the production of gelling agents, such as sodium alginate and carrageenan, which find wide use in the food and pharmaceutical industries.

One of the most important gelling agents found in seaweeds is agar. There are no species in the Atlantic region being used for production of agar but the seaweed, *Gracilaria,* which contains a gelling agent similar to agar grows in the warmer waters of the region.

Little is known about the chemistry of most of the species of seaweed found on the Atlantic coast, but chemical studies continue to reveal new and interesting compounds, some not previously found in nature. Commercial potentialities for these compounds remain to be assessed.

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