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## ACROSS THE ISLAND

### Oyster Development Important At Ellerslie

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I WANT to talk today about the tremendous potential in the oyster industry, and the part Roy Drinnan has played in the development at the Fisheries Research Board biological sub-station at Ellerslie.

But first a word about unusual spring developments. Stan Bowles of this office brought in a purple violet pansy which he picked in his garden Tuesday at noon. Normally, Stan tells me, it's at least mid-May before his pansies bloom. There was a mass of bloom Tuesday, though. Does that indicate an early spring?

Back to my oyster story, some really tremendous progress has been made at Ellerslie in breeding and production of oysters. I don't want to embarrass the man, but Roy Drinnan is the one who is responsible.

Even this modest man has told me in a conversation we had several months ago, "It's difficult to think of any biological process which potentially is quite so dramatic as this."

If I tell you that in the normal, natural state there are almost indescribably heavy losses in the young oyster larvae that are hatched, you'll realize why this brilliant and dedicated young scientist is trying to do something that will change that situation.

### Tremendous Mortality Problem

A FEMALE oyster produces 20 million eggs or more at a time, but 99 per cent, and sometimes more of them die. This fact has been crippling the oyster industry, it has been restricting the output drastically.

Mr. Drinnan's hope, when he embarked on the experimental production of seed oysters, was that the mortality could be reduced drastically. The idea was to develop a technique that commercial operators could use with effective results.

But the Bidford biologist didn't know for sure that this could be done. "We don't know what is causing the tremendous mortality", he explained. The hatchery opened in 1964 but the attempt failed, the oyster spat was put out to fend for themselves against natural enemies, when they were too young. Last year the spat was held in controlled laboratory conditions until their resistance was greater.

It's difficult to estimate numbers when the units are so small and their number run into the millions. But Roy Drinnan estimates he was getting 80 per cent survival last summer, instead of the less than one per cent achieved under normal conditions. It may be as high as 90 per cent, he told me, or it might be something less than 80.

There are five million larvae in a plastic tank of approximately 100 gallons. It's a very difficult task to estimate such numbers accurately, he explains.

### Potential Development Fantastic

They could get enough eggs from two female oysters, for example, to provide a fantastically large quantity of seed oysters, Mr. Drinnan explains. And this indicates, dramatically, the tremendous potential of future oyster production operations.

They don't keep all of the 20 million eggs a female oyster spawns – many are discarded, but Mr. Drinnan agrees that the potential is tremendous – all we need for one batch of eggs is one half-dozen oysters, he told me.

Up to the present the oyster hatchery development has been restricted in scope because of lack of space. They “have to hold the young oysters inside for about a month”, he explained, and they just “don't have the space to hold them that long in commercial quantities” though they have had enough production to indicate the technique is workable.

Plans are now underway, though, to provide the necessary extra space. The young oysters can be grown in quantity to the stage where they can withstand the rigors of natural hazards.

The work of Mr. Drinnan and his associates is pointing the way to establishments that can be developed and operated on a commercial scale. The hatchery technique being developed will point the way to production in quantity.

### Commercial Plant In Five Years

IT'S IMPOSSIBLE to be definite about any prediction, but Mr. Drinnan told me this week “we could have a commercial pilot plant going in three to five years time, if our present work continues to go well.

The additional space will be most welcome when it comes, though it now seems unlikely that the new building will be ready for use this coming season.

They're also interested in breeding larger strains of oysters, as well as strains that may be disease resistant.

As long as three or four years ago, Mr. Drinnan told me there will be named varieties of oysters in future as there are named varieties of potatoes now.

Progress in breeding larger oysters may be rapid. Larger, faster-growing oysters will be selected for breeding purposes. Already some dramatic results have been achieved so far as size is concerned.

Last fall, for example, Mr. Drinnan showed me some 6-month oysters that were equal in size to oysters that were two or three years old grown under normal circumstances.

The size increase to date is probably explained by improved rearing techniques under controlled conditions, and to more efficient food production.

Marked progress has been made at Bideford in culturing food for the tiny oyster larvae – they're invisible to the naked eye in the earlier stages.

But development of larger strains is another matter. That will come from breeding from large selected stock.

For the most part, it is felt at Bideford, the biological phase of the problem has been solved. “Of course there are still vast improvements we can effect, but I think now we have the basis of a commercially applicable technique”, Mr. Drinnan says with conviction.

## Economic Menace Seen Possible

THE PRODUCTION is so tremendous that it could become a menace to the industry. This is my own suggestion, not Mr. Drinnan's. Oysters are a luxury product now because they are so scarce, as well as so tasty. Should they become available in quantities that have been undreamed of in the past, and that is a possibility, the price could reach a level where oyster farming no longer would be economically attractive to the average producer.

This is a problem for the economists and "I know very little about economics", Mr. Drinnan observes.

There was, for example, the problem of how to heat water in the laboratory. That sounds simple but they were getting chromium in the water from the stainless steel containers. And that kills oyster larvae. SO the first several rearings tried were unsuccessful.

So they tried Teflon, a new product the housewife uses, and it solved that problem. There are other problems, many of them. But they'll be solved, I suggest, as this most interesting and valuable development continues.

## Interest Is Widespread

THE SENSATIONAL developments in oyster breeding and rearing has caught the attention of many countries. Mr. Drinnan had letters on his desk, when I visited him last fall, from many countries. They included the United States, England, Denmark and Norway. There was one from Dublin, Ireland. One man made a personal trip all the way from Denmark. He was seeking blue prints of the entire process. He didn't get any.

The development is still in progress. Policy is even now being considered for future development and the development could be important to our provincial economy. The Island has disadvantages, being so far north, the Ellerslie scientist told me. But it also has advantages, he explained. "We don't have the complex oyster diseases, we don't have oyster drills, for example, and similar things they experience elsewhere.

Personally I find the possibilities to be exciting.