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Ministry of Agriculture,
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ANIMAL
SCIENCE

AQUASTATS – 1993

ONTARIO AQUACULTURAL PRODUCTION IN 1993

University of Guelph/Agriculture and Rural Division (OMAFRA)

SUMMARY

In 1993, the Ontario aquaculture industry produced between 2,500 tonnes and 2,800 tonnes of rainbow trout for human consumption, with a farm-gate value of \$12.5 million to \$14 million. The industry generated approximately 350 person-years of direct employment and 250 person-years of indirect employment. The total economic value of the industry is estimated at \$40 million. The industry expects annual production to approach 3,000 tonnes in 1994.

INTRODUCTION

This Factsheet summarizes data collected through an annual survey conducted by the Aquaculture Extension Centre, University of Guelph, in consultation with federal and provincial government agencies, as well as representatives of the private sector trout industry in Ontario¹. The information complements our earlier reports on production statistics for the province. There is a significant production of ornamental and tropical fish by hobbyists, as well as of non-food fish species in government culture facilities in Ontario; however, these are not included in our survey.

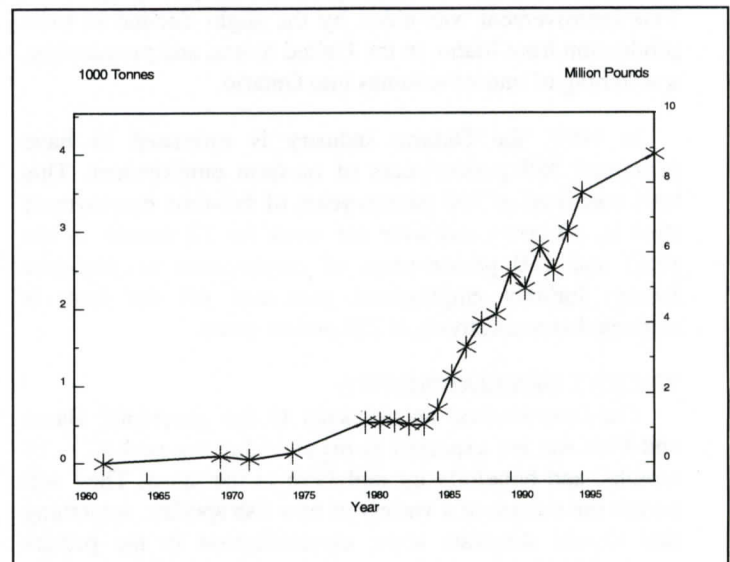
A total of 233 private fish production facilities were identified from Ontario Ministry of Natural Resources licence records, as well as in-house data files. Rainbow trout continues to dominate food-fish production in Ontario, although other species, including brook trout, largemouth and smallmouth bass, and arctic char are also raised.

ANNUAL PRODUCTION

In 1993, Ontario fish farms produced between 2,500 tonnes and 2,800 tonnes (5.51 million and 6.17 million pounds) of rainbow trout, mostly for human consumption. This value was determined from a survey conducted between January and March, 1994 of the 233 known facilities. Complete data were reported by 71 operations in total, accounting for 711 tonnes (1.57 million pounds) of

the 1993 production output. Several of the major production facilities were unwilling to disclose current information. Estimates of production were made for the non-reporting facilities based upon review of previous data. Total output of market-sized rainbow trout in Ontario was therefore estimated to have been at least 2,500 tonnes in 1993 and possibly as high as 2,800 tonnes.

Figure 1 – Ontario Trout Production from 1962 Until Present



During the last five years, there has been a redistribution of aquacultural production in Ontario. In particular, southwestern Ontario, which saw a rapid proliferation of farms during the late 1980s and early 1990s, has undergone a significant cutback in production. In its place, northern Ontario, especially the Georgian Bay region, has seen an expansion of farms. These new facilities are beginning to establish their viability, and initial production cycles are starting to come to market. Between 1988 and 1993, 18 farms ceased operation, accounting for 300 tonnes (0.661 million pounds) of production in 1988. Over the same time period, 57 new farms began production.

In recent years, there has been a steady trend towards producing rainbow trout weighing about one kilogram for the boneless fillet market. Farms that reported production by size class suggest that the trend towards producing a larger product continued in 1993, with the one to two pound size range accounting for 71 per cent of their total production. Trout less than one pound accounted for 23 per cent of production and trout greater than two pounds accounted for 6 per cent.

PRICE AND ECONOMIC VALUE

The survey data on price structure information reported in this survey was related to only 18 per cent of the provincial production total; therefore, findings are somewhat speculative.

The average farm-gate price of trout less than one pound was \$2.46 per pound (range \$1.55 to \$4.50 per pound). Trout in the one to two pound size range averaged \$1.73 per pound (range \$1.60 to \$4.80). Only five farms reported significant sales of trout greater than two pounds.

The closure of the Ontario Trout Producers Co-op during 1993 resulted in a period of disorder in the processing and distribution sectors at the beginning of the year. Farmers scrambled to develop alternative markets. However, there was a modest improvement in prices as the year progressed. This improvement was aided by the slight decline in trout production from Idaho, in the United States, and presumably, a softening of import volumes into Ontario.

In 1993, the Ontario industry is estimated to have generated 350 person-years of on-farm employment. This total consisted of 200 person-years of full-time employment (that is, 40 hours and over per week for 12 months of the year) and 150 person-years of employment as part-time labour. Indirect employment generated off the farm is estimated conservatively at 250 person-years.

RECENT DEVELOPMENTS

The long-awaited amendments to the provincial Game and Fish Act are expected to occur within the next 12 - 18 months, and hopefully by mid-1995 at the latest. They will permit the culture of a variety of new fish species, something that should stimulate some diversification in the private sector. Many niche markets are not being exploited, and the availability of cultured species other than rainbow trout may stimulate wider consumer interest in farmed-fish products. Species like arctic char, tilapia, and yellow perch should lead the list of new entrants to the marketplace. However, the farming of these "new" species will be hindered by the lack of available broodstock and production technology specific to the species. It will be at least three to five years after legislative reform before any significant diversification probably occurs. The speed of economic recovery in Ontario

will largely influence the rate at which this diversification takes place.

FUTURE DEVELOPMENTS

Cage culture production will undergo significant expansion in the next five years, owing mainly to the lower cost of access water, and the generally lower start-up capital costs. In the right location, optimum water temperatures facilitate relatively short production cycles, and the unit cost of production of cage-reared fish may be lower than in a land-based facility, depending, of course, on efficiencies of scale being reached. Look mostly to the northern Great Lakes for this expansion of cage farms. In general, we think larger production farms will account for most of the new farm starts. These farms will look to markets in the northeast United States for at least some of their sales.

We also expect to see some improvements in farm efficiency in the near future. Poorer run farms will go out of business, and increased competition from other products, like farmed salmon, will force growers to improve their operational and management systems. Production from countries like Chile will also force some industry restructuring here in Ontario. Increased competition in the feed supply sector will help farmers, mainly by offering competitive feed prices and more financing options.

Finally, there is an expanding infrastructure of support services and expertise in Ontario which, combined with industry restructuring, should encourage profitable growth of aquaculture here.

ENDNOTES

¹ Department of Fisheries and Oceans, Ontario Ministry of Agriculture, Food and Rural Affairs, Ontario Ministry of Environment and Energy, Ontario Ministry of Natural Resources, Ontario Aquaculture Research & Services Coordinating Committee, Ontario Aquaculture Association.

RELEVANT OMAFRA FACTSHEETS

Aquastats - 1989.

Aquastats - 1990.

Aquastats - 1991.

Aquastats - 1992.

Ontario Aquacultural Trout Production in 1988 with an Historical Perspective of the Industry's Development.

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