



AQUASTATS - 1992

Ontario Aquacultural Production in 1992

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SUMMARY

In 1992, the Ontario aquaculture industry produced 2,800 tonnes of Rainbow trout for human consumption, with a farm-gate value of \$14 million. The industry generated some 350 person-years of direct employment, as well as at least a further 250 person-years of indirect employment. The total economic value of the industry is estimated to exceed \$40 million. The average wholesale price of trout in 1992 was \$5.07 per kilogram. The industry expects to expand annual production to over 3,000 tonnes in 1993.

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 compliments our earlier reports on production statistics for Ontario². 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 241 private fish production facilities were identified from Ontario Ministry of Natural Resources license records, as well as in-house data files. These farms consisted of 45 hatcheries, 130 production trout farms, 187 fee-fishing preserves and 11 bait-fish or other farms. Many of the 241 fish farms are diverse operations, and were cross-classified under more than one type of facility description.

Rainbow trout continues to dominate food-fish production in Ontario, although other species are raised including, Brook trout, Large and Smallmouth bass and Arctic charr.

ANNUAL PRODUCTION

In 1992, Ontario fish farms produced at least 2,800 tonnes (6.17 million pounds) of rainbow trout, mostly for human consumption. This value was determined from a survey conducted between January and March, 1993 of the 241 known facilities. Complete data was reported by 59 production farms and 18 fee-fishing or other operations, in total accounting for 1,742 tonnes (3.84 million pounds) of the 1992 production output. These farms represented an average of 62% of the total production in 1988, 1989, 1990 and 1991 (range 57.2 to 66.0%). This historical data was used to help estimate total production for 1992 by assuming that these same farms again accounted for 62% of the 1992 production. Total output of market-sized rainbow trout in Ontario was therefore estimated to have been at least 2,800 tonnes in 1992.

In recent years, there has been a trend towards producing rainbow trout larger than the traditional 12-14 ounce, single portion size. This is due to the fact that fillets are becoming the marketed product of choice, requiring a larger fish for processing. Consequently, the 1991 and 1992 surveys separated total production into three size ranges; 1) 10 to 16 ounces, 2) 1 to 2 pounds and, 3) over 2 pounds. The industry uses imperial units almost exclusively, and a conversion to metric size classes is currently unwarranted.

Farms which reported production by size class, suggest that the trend towards producing a larger product continued in 1992, with the 2 pound plus size accounting for 40% of the total production (Table 1). Projections by individual farmers suggest that production will increase by over 400 tonnes in 1993. This projection is probably inflated by the marketing of the larger size class of trout by a few farms, and may not represent the true increase in new fish production. A more conservative projection is for Ontario trout production to reach 3,000 tonnes in 1993 and 3,500 tonnes in 1994.

Table I. Summary of trout production reported in the Ontario Aquaculture Survey - 1992.

Size Class - live weight	Actual Production 1992			Projected Production 1993		
	No. farms	tonnes	(%)	No. farms	tonnes	(%)
10 - 16 oz	21	125	(25)	20	163	(18)
1 - 2 lbs	19	177	(35)	16	217	(24)
over 2 lbs	11	198	(40)	11	526	(58)
TOTAL		500	(100)		906	(100)

PRICE AND ECONOMIC VALUE

In 1992, the average farm-gate price of Ontario trout was reported to be \$2.30 per pound (\$5.07 per kg). The average prices for trout under 1 pound, 1 to 2 pounds and over 2 pounds were \$2.30, \$1.88 and \$2.73 per pound (\$5.05, \$4.15 and \$6.02 per kilogram), respectively. These average reported prices are high when measured against the bulk wholesale price, which was closer to \$1.65 per pound. This is due to the fact that many farmers niche-market fish at a considerably higher value than the bulk wholesale price, which tends to skew the 'average' price to the high side. Unless they are niche-marketing, farmers should not expect \$2.30 per pound to be the farm-gate, wholesale price. In any event, these prices show some minor increases over those reported in 1991. Of note is that the over 2 pound size class accounts for almost 50% of the total product value. The total farm-gate value of the 2,800 tonnes produced in 1992 is estimated to be \$14.17 million.

In 1992, the industry generated a total of 350 person-years of on-farm employment. This consisted of 200 person-years of full-time employment (ie. 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 conservatively estimated at 250 person-years.

FUTURE DEVELOPMENTS

Total trout production in Ontario has increased from 1,830 tonnes in 1988 to 2,800 tonnes in 1992. This 53% increase compares very favourably with trout production in the USA and Idaho, where production increases over the same time period were 0.4% and 4%, respectively³. Comparable trout production data within Canada are not readily available⁴.

Opportunities for significant growth continue to exist for the Ontario aquaculture industry. However, in our opinion, this growth must be realised within the next five years since other aquacultural regions in North America are also expanding, and may exploit this growth potential before Ontario does. It is feasible for Ontario to produce more than 6,000 tonnes per year by the year 2000.

Ontario fish farmers will face many challenges and constraints to this potential growth. The most serious constraint remains an overly complex legislative and regulatory environment restricting the development of

aquaculture in Ontario. Changing labour laws, unclear drug use regulations, and chronic delays in receiving permits as well as an inability to amend the outdated Game and Fish Act have seriously restricted aquaculture. At least three major challenges face the industry.

[1] A poorly co-ordinated production and marketing system. The industry has a history of problems with matching markets and supplies, and industry growth has been sporadic due to a lack of market co-ordination and consistent product quality.

[2] Poor production efficiency is restricting the profitability of the industry. Lack of investment capital led to the development of many underfinanced operations, and coupled with inadequate production planning has created inefficiencies and low profitability.

[3] Lack of a well managed product quality assessment and control system. Some progress by government has been made in resolving jurisdictional constraints in this area. At the same time, industry has initiated the development of quality guidelines for ensuring that only superior quality products reach the consumer. Much remains to be done in this area however.

In spite of these challenges, there exists a continuing sense of optimism within the aquaculture industry. There is little doubt that Ontario has many of the essential ingredients necessary to support continued growth into the next century. What remains is for government and industry to move quickly to resolve these constraints, and exploit our domestic and export markets before the competition.

¹ Department of Fisheries and Oceans, Ontario Ministry of Agriculture and Food, Ontario Ministry of the Environment and Energy, Ontario Ministry of Natural Resources, Ontario Aquaculture Research & Services Co-ordinating Committee, Ontario Aquaculture Association.

² Moccia, R.D. and D.J. Bevan. Aquastats, Ontario Aquacultural Trout Production in 1988 with an Historical Perspective of the Industry's Development (OMAF Factsheet 89-113); 1989 Aquastats (FS91-007); 1990 Aquastats (FS91-050); 1991 Aquastats (FS92-150).

³ Aquaculture Situation and Outlook. Commodity Economics Division, Economic Research Service, U.S. Department of Agriculture, March 1992, AQUA-8. and March 1993, AQUA-10.

⁴ Long-term Production Outlook for the Canadian Aquaculture Industry, Price Waterhouse, for Dept. of Fisheries and Oceans, March 1993.

