Aquastats

Ontario Aquacultural Production in 2015

by Richard D. Moccia and David J. Bevan

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INDUSTRY SNAPSHOT 2015

Major Species Produced

Minor Species Produced

Total Rainbow Trout Production
Total Other Fish Production

Farm-gate Value of Rainbow Trout

Projected Production of Rainbow Trout

Farm-gate Value of Other Fish Economic Contribution

Job Creation

- rainbow trout

- tilapia, Arctic charr, brook trout, smallmouth and largemouth

bass, cyprinid baitfish and shrimp

- 4,510 tonnes

- 390 tonnes

- \$23.2 million

- \$2.2 million

- \$80 million

- 195 person-years direct employment and

150 person-years indirect employment

- approximately 5,500 tonnes in 2016

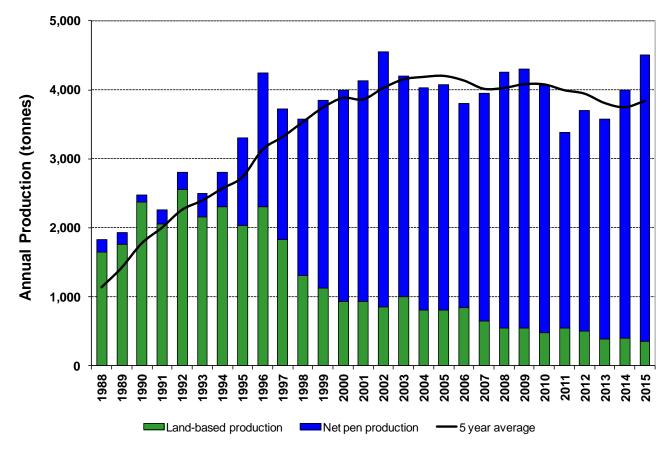
Overview

In 2015, we estimate that Ontario fish farms produced 4,510 tonnes (9.94 million pounds) of rainbow trout, primarily for human consumption. Lake-based net pen production of rainbow trout in the Georgian Bay area continues to dominate other land-based production systems, accounting for 92% of the total aquacultural fish production. Land-based production of Arctic charr and tilapia is limited to a few facilities in southern Ontario, though tilapia output is expected to increase next year. The production of brook trout, bass and other species is primarily geared towards pond stocking and recreational, sports-fishing purposes. These operations provide an important diversity to the industry, although quantifiable information to measure production capacity is scarce. Our records indicate that approximately 66 facilities culture one or more of the following species: tilapia, Arctic charr, brook trout, bass, walleye and other species, with an estimated total production of 390 tonnes in 2015.

The total farm-gate value of the 4,510 tonnes of rainbow trout produced is estimated to be \$23.2 million, with an average price of \$2.33/lb or \$5.13/kg. The average farm-gate price of rainbow trout has remained almost unchanged in recent years, with the current 5-year average price being \$2.26/lb or \$4.98/kg. The sale of tilapia, Arctic charr, brook trout, bass and other species is estimated to be an additional \$2.2 million in farm gate sales revenue. More than 80 facilities are involved with pond stocking, typically rainbow trout, brook trout and bass. The value of this aquaculture sector is conservatively estimated to be \$1.5 million annually in farm-gate revenues.

The Ontario aquaculture industry is estimated to have generated a total of 195 person-years of direct, on-farm employment in the primary producer sector, consisting of 137 person-years of full-time employment (40 hours per week for 12 months) and 58 person years of part-time employment. Indirect employment is conservatively estimated at an additional 150 person-years. The total annual contribution that aquaculture makes to the Ontario economy is estimated to exceed \$80 million, with additional economic value realized via the recreational and aquaria trade, which are large, but have not been the subject of our economic assessments in these annual surveys.

Figure 1. Comparison of Ontario land-based and net pen aquaculture trout production between 1988 and 2015.



Situation Outlook

Ontario's farmed production of rainbow trout exceeded 4,500 tonnes in 2015, a 13% gain over the previous year. The production of 'other' fish species also increased by 86% over 2014. These increases signal a renewed interest in investment in the industry, which has driven both expansion in existing facilities, as well as new farm construction which is currently underway. Although the regulatory constraints to developing new net pen farms in public waters still exists, there has been some expansion of First Nations production within their jurisdictional waters. Trout continues to have a high demand in the marketplace, in spite of competition from farmed salmon from both Canadian as well as international producers. None-the-less, it is encouraging to see upward movement in Ontario's production of a variety of aquatic species.

An uncertain, and still confusing aquaculture licencing system continues to hamper more rapid start-up of new farm sites, especially open water net pen sites in the Great Lakes, although we anticipate changes in the next year or two which may ease the regulatory burden to some degree. Ontario's high energy costs will probably impact land-based facilities that use pumping or recirculation technologies.

Through 2014-2016, we are aware of new capital investments in the industry which will amount to about \$50M Cdn. This much needed investment will help expand sites for additional tilapia and trout production, including organic trout, a large-scale marine shrimp facility, as well as financing improvements in the fish processing sector. In addition, we are seeing significant investment in aquaponics facilities, which include the co-culture of farmed fish with various edible and medicinal plants. There has also been some interest in culturing alternate species like barramundi and lake whitefish in Ontario, although no production of these fish currently exists. In aggregate, all these factors represent a significant and positive sign of renewal of the aquaculture sector in Ontario which has been stagnant for the last few years. All in all, 2015 was a progressive year for aquaculture in Ontario, and we anticipate further and significant growth into 2016 and beyond.