

Aquastats

Ontario Aquacultural Production in 2016

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INDUSTRY SNAPSHOT 2016

Major Species Produced	- rainbow trout
Minor Species Produced	- tilapia, Arctic charr, brook trout, smallmouth and largemouth bass, walleye, cyprinid baitfish and shrimp
Total Rainbow Trout Production	- 5,060 tonnes
Total Other Fish Production	- 500 tonnes
Farm-gate Value of Rainbow Trout	- \$26.8 million
Farm-gate Value of Other Fish	- \$3.5 million
Economic Contribution	- \$100 million
Job Creation	- 190 person-years direct employment and 150 person-years indirect employment
Projected Production of Rainbow Trout	- approximately 5,700 tonnes in 2017

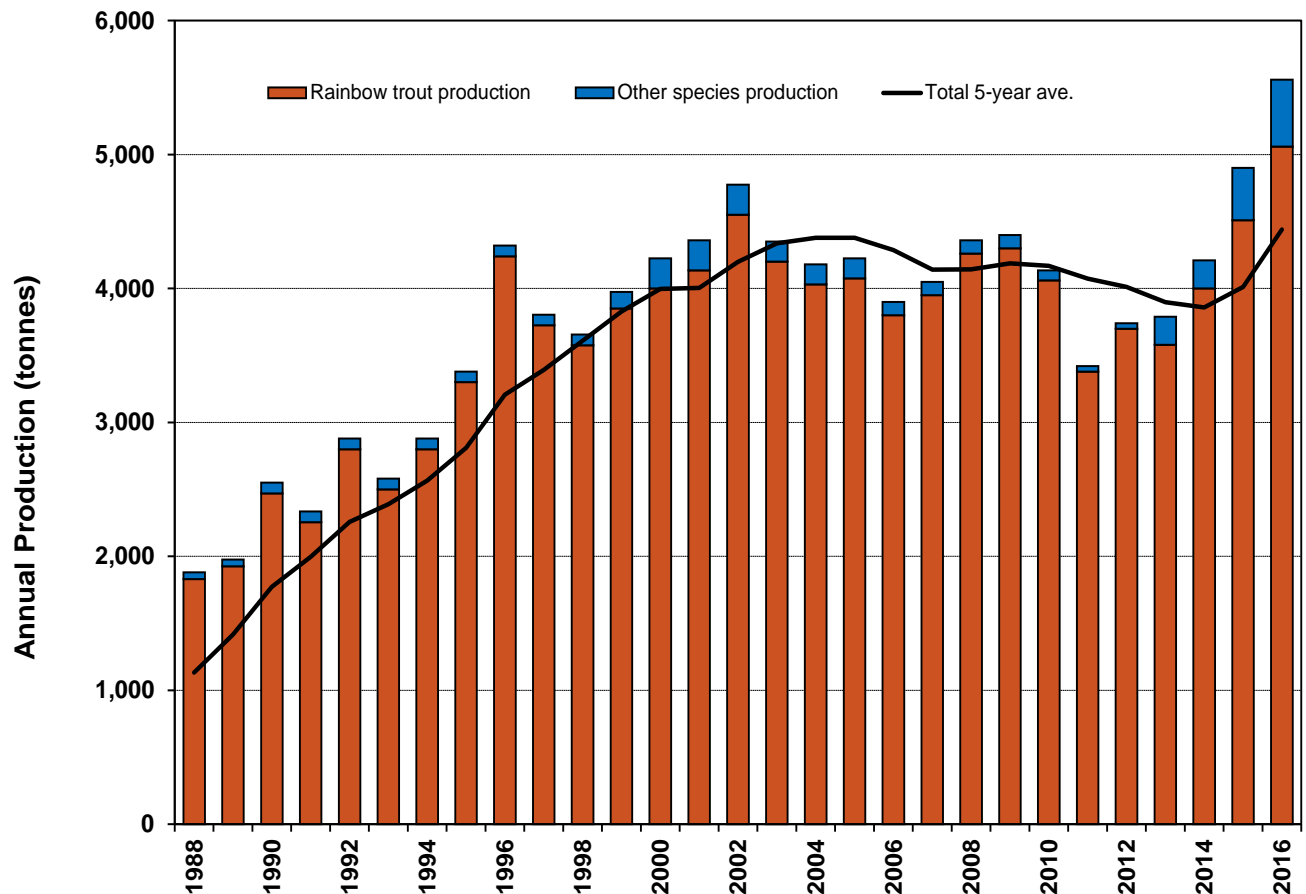
Overview

In 2016, we estimate that Ontario aquaculture farms produced 5,560 tonnes of fish and shrimp, primarily for human consumption (Figure 1). This is a 13% increase over the 4,900 tonnes produced in 2015. The majority of the production was of rainbow trout: 5,060 tonnes, (11.2 million pounds), a 12% increase over the 4,510 tonnes produced in 2015. Lake-based, net-pen production of rainbow trout in Georgian Bay and Lake Huron, continues to dominate all other land-based production systems, accounting for 85% of the total production. However, this production was approximately 450 tonnes less than projected, in part, because of above average water temperatures in 2016. Land-based production of tilapia, Arctic charr, and shrimp is limited to a few facilities in southern Ontario, with tilapia production dominating. The production of brook trout, bass, walleye and other fish species is primarily geared towards pond stocking, sports-fishing and restoration purposes. These operations provide an important diversity to the Ontario industry, although quantifiable information to measure production and economic value is limited. Our records show 64 facilities culture one or more of: tilapia, Arctic charr, brook trout, bass, walleye, shrimp and other species, with an estimated total production of at least 500 tonnes in 2016.

The total farm-gate value of the 5,060 tonnes of rainbow trout produced is estimated to be \$26.8 million, with an average price of \$2.41/lb (\$5.31/kg). Other fish and crustaceans are estimated to be an additional \$3.5 million in farm-gate revenues. More than 80 facilities are also involved with pond stocking, typically with rainbow trout, brook trout and/or bass species. The value of this aquaculture sector is conservatively estimated to be at least \$1.5 million annually in farm-gate revenues.

The Ontario aquaculture industry is estimated to have generated a total of 190 person-years of direct, on-farm employment, consisting of 145 person-years of full-time employment (40 hours/week for 12 months) and 45 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 \$100 million, with additional, and significant economic value realized via the recreational and aquaria trade.

Figure 1. Ontario aquaculture production between 1988 and 2016.



Situation Outlook

After languishing in a relatively stable state for a number of years, Ontario's aquaculture industry continues a recent trend of gradual expansion and diversification of farmed species. Notable is the significant investment by the private sector (upwards of \$50M Cdn) in tilapia and marine shrimp production, expansion of net-pen and aquaponics capacity, and enhanced fish processing facilities to service this growing production output. Increased commercial farm development by the First Nation's communities is also substantial. We have also seen the emergence of organic trout production and processing capacity, targeting the higher valued, niche markets which have experienced a rise in consumer demand. Additionally, the aquaponics sector is also expanding, combining fish production (mainly tilapia) with other plant products (e.g. various horticultural species and medical cannabis). The current species and culture system diversification is a positive sign that the private sector sees the opportunity to develop emerging market opportunities that satisfy consumer demand for product quality and safety, which are often illusory attributes, particularly with certain imported species (e.g. shrimp). Furthermore, this diversification will add stability and a renewed vibrancy to our aquaculture sector, which should stimulate further investment by later adopters. Having diversification in the species farmed, and in the technologies used, reduces sector vulnerability in the event of catastrophic production losses, or major unexpected changes in market conditions. In addition, there have been some developments in provincial regulatory and policy changes to farm licencing in the last year, and these may lead to more efficient and transparent licencing requirements which should increase growth. Recent announcements by the federal government about creating a more supportive, national policy framework for aquaculture, will also be seen by investors as a positive shift in public sector attitudes. Within an enabling policy and regulatory environment, this sub-sector of Ontario's agrifood industry will continue to grow in a responsible and environmentally sustainable way. Furthermore, aquaculture benefits regional economic wealth generation and job creation, and supplies high quality and safe aquatic food products to consumers both within, and outside the province. And finally, we are encouraged by renewed enthusiasm at the both the federal and provincial government levels in recognizing the substantial, economic growth potential in Canada's agrifood sector, including aquaculture.

Earlier factsheets available at: <http://www.aps.uoguelph.ca/aquacentre/information/publications.php>

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