

SUSTAINABILITY OF ONTARIO'S AQUACULTURE INDUSTRY: 1998 & BEYOND*

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The History and Opportunities

In Ontario, fish culture has been practiced since the turn of the century by the provincial government, mainly to support lake and stream rehabilitation or to enhance recreational fishing opportunities. Fish culture remained exclusively a government endeavor until 1962, when enabling legislation allowed the private sector to farm and sell rainbow and brook trout, and small-mouth and largemouth bass. Since then, the commercial aquaculture industry has grown significantly. In 1996, over 4,200 tonnes of fish -primarily rainbow trout- were produced in Ontario, which contributed nearly \$65 million to the provincial economy.

From a macroscopic perspective, this growth pattern more or less parallels the performance of the national and international aquaculture sectors, and was a response to the same multitude of factors which contributed to the industry's expansion in most industrialized countries. More recently, demographic changes in our local and regional populations have continued to fuel a demand surge in Ontario, and improved organization and entrepreneurship within the private sector during the last decade have

kept the growth opportunities alive.

Ontario possesses many assets for continued aquaculture development, notably, the availability of abundant, high quality water resources, easy and cheap access to large domestic and foreign markets and a well developed industry infrastructure. This infrastructure consists of good availability of equipment, services and supplies, plus a high level of technical and scientific expertise within our university, government and industrial communities. This, coupled with recent amendments to legislation which now permit the culture of 42 aquatic species, should enable expanded production of both old and new products for growing markets. The period of economic downturn that nearly crippled the province during the early part of the decade also appears to be over, and the wholesale price of trout even crept up a few cents a pound for the first time in several years.

By all accounts, then, Ontario's aquaculture industry should have a bullish future of sustainable growth ahead of it.

Sustainability implies that a profitable industry evolves in harmony within the social, environmental and economic milieu of the community in which it exists.

The Challenges to Sustainability

But the future is not all rosy for Ontario. This is not a doomsday forecast by any measure, but there are ominous storm clouds on the horizon. Like most other Canadian provinces, and indeed, many other aquaculture producing countries around the world, the provincial industry is facing many formidable challenges to its continued sustainability. The romantic 'honeymoon period' of the pioneering phase of growth is over, and Ontario fish farmers are now dealing with a plethora of issues spanning the environmental impacts of fish farms, to the aggressive international competition in our domestic marketplace. Ten years ago for example, few people ever imagined that fish welfare issues would become important, or that Chile would sell fish in our local markets for prices that sometimes defy belief. Feed and energy costs are unacceptably high. Markets are increasingly volatile. Few, if any, new food products are being developed, the regulatory environment is unpredictable, and the financial climate for investors is still uncertain. There are growing confrontations between fish farmers and the many other rightful user-groups who claim their share of the water, land, recreational and other resources in the province. Peaceful co-existence never comes easily for the new kid on the block.

But what are the most important issues facing the Ontario aquaculture industry? Maintaining an acceptable level of profitability for the primary producer surely tops the list, followed by an increasingly challenging marketplace in which to do business. The regulatory climate has become worse, instead of better, for doing business, perhaps in response to pressures from environmental or other groups. All these add up to increased risk exposure - either real or imagined - for anyone entering the business, or already in it. A key element to the way this risk is perceived by the private sector is the manner in which government as a whole views aquaculture.

A miscellany of federal and provincial government departments regulate the industry with as many as two dozen permits and licences. No single agency can appreciate the whole picture facing the prospective new farmer, and in consequence, each protects its own regulatory power. The result is smothering the development of fish farming.

Fish farming should be recognized as a business quite distinct from the management of the wild fishery, and should be treated more like terrestrial livestock agriculture, especially regarding environmental concerns.



The Solutions for Sustainability

In the case of aquaculture, ecological sustainability and economic viability together lead to orderly growth. Making a profit while in constant conflict within the community is surely just as destructive to aquaculture's survival as is living harmoniously when you're loosing your shirt financially! Making a profit is not a bad thing; in fact, it's obviously a key ingredient for the success of any business, and it's what keeps our economic engine running. You don't put groceries on the table, pay taxes, employ workers, buy goods and services which employ other people, and on and on, if you are bankrupt. So what to do?

Although it's been said many times before, there needs to be increased co-operation between the public, private and university sectors in solving the challenges to success. We must have sensible regulatory controls based on logical risk/benefit analysis and a value-based decision making scheme that recognizes the necessity of making money in addition to managing the impacts of aquaculture. Heavy-handed regulators and a slow-moving government bureaucracy kill the entrepreneurial spirit and soften investors' attitudes as much as a weak dollar. It's no co-incidence that the stock market reacts to shifts in government policy, because investors know that doing business in a province or country is heavily influenced by the political climate. There is a window of opportunity to develop Ontario aquaculture that won't be open for much longer, and if government really wants business and economic growth to occur, it needs to conduct its business in a more logical, efficient, timely and responsive manner than is typical. This is especially true when it comes to the regulatory aspects of government.

On the other hand, the private sector needs to be reasonable in its demands from society, and must be internally vigilant to promote and maintain honest business practices, and to take seriously the need to manage and mitigate the ecological and community impacts of its farming practices. Farmers are no different from government bureaucrats when it comes to sometimes burying their heads in the sand to the real issues that face them. Aquaculture needs to move cautiously when deploying too much of its resources into untried or unproven technology, or diversifying into new species where the marketplace is largely unknown.

After all, business failures because of poor management, especially when it happens to larger, high-profile operations, hurt the investor climate more than anything else.

Ontario in particular, has a well-developed system of integrating the research and service needs of the industry with the scientific community through close collaboration with applied research and extension programs at the University of Guelph. These types of linkages and partnerships need to be enhanced and exploited more by all players. Co-operative research and development is essential if we are ever to bring production costs down to acceptable levels, and ensure our profitability and competitiveness. We need to better utilize the combination of excellent research capacity and facilities at the University of Guelph, and the long-established, experienced trout farming industry, to address some of the key obstacles to growth.

Areas in which such cooperation needs to be focused and increased include reducing rainbow trout production costs through diet development, fish health management and selective breeding, and the development of production based environmental codes of practice, as well as reducing waste outputs through improved feeding systems and new technologies. As well, extensive rearing of species such as the basses, carp and perch (for which basic technologies are known) to produce safe, high quality and entirely fresh products for local markets, needs to be explored and encouraged.

Government must take a long, hard look at its legislation and regulatory policies, and rationalize them to accommodate the special needs of aquaculture to enable it to thrive as a business and contribute to rural development and the production of healthy products for food and stocking.

Ontario's regulatory and economic climate will continue to be the largest factors influencing the growth of aquaculture here. There is a healthy investment community in Ontario, however they are predictably wary of supporting a volatile new agribusiness, especially in a province with such unpredictable political and legislative constraints.

Notwithstanding these facts, it is our opinion that aquaculture has a strong potential for continued growth in this province.



Additional Reading

1. Hynes, J. 1996. Aquaculture: An Ontario Industry. Canadian Aquaculture Directory 1997. Contact Canada, Georgetown, Ontario. p. 48-51.
2. Moccia, R.D. and David J. Bevan. 1997. AQUASTATS 1996. Ontario Aquacultural Production in 1996 and Situation Outlook. University of Guelph, Aquaculture Extension Centre Factsheet, Publ. No. 97-006. 4 pp.
3. Moccia, R.D. and David J. Bevan. 1996. Aquaculture Legislation in Ontario. University of Guelph, Aquaculture Extension Centre Factsheet, Publ. No. 96-002. 6 pp.



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