

Tilapia Farming and Processing/Marketing Cooperative Concept:

Implications and Business Advantages



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The Tilapia Value Chain: Fish Feed to Plate

This is the goal, but what does it really take to get there?



The Tilapia Value Chain: Fish Feed to Plate

- Feed production
- Fingerling production—hatchery
- Market-size fish production
- Processing
- Marketing—wholesale and retail
- End-point consumption



The Tilapia Value Chain: Fish Feed to Plate

Most of us want to focus on growing fish!

We like to feed fish, we like to watch fish grow, we become mesmerized by the fish and their production environment.

Passion about growing fish is a good thing!

But we must also accept some business reality.



Reasons Why Aquaculture Businesses Fail

- Pinning hopes on undeveloped technology
 - Research is costly (e.g., Kent Sea Tech)
- Failure to realize that aquaculture is farming
 - Low-tech foul-ups from a variety of sources usually cause business failure (e.g., Simplot, Bayport Aquaculture)
- Undercapitalization
 - Don't forget working capital!
- Aiming at the wrong market
 - Grow profitable species
- Failure to realize the product is a live animal
 - Fish are not widgets; they can die prematurely
- Lack of business experience and vertical integration (consolidate)
 - Ability to raise fish and good business sense not always synonymous

Source: Lindbergh, J., and K. Pryor. 1984. Six ways to lose money in aquaculture. *Aquaculture Magazine* 10(4):24-25.

Current Fate of U.S.-produced Tilapia

- Option 1—Sell live to ethnic markets in New York, Chicago, Canada, California, or other small niche markets
- Option 2—No real second option—Why?
- The vast majority of frozen and filleted tilapia sold in the U.S. come from foreign sources (Central and South America and Asia)
- Aside from one or two processing plants in the U.S., nearest automated processing facilities are in Belgium and Honduras—must process by hand



Is a cooperative **THE ANSWER** to past aquaculture failures and current business realities and trends?

Let's take a look.

The Successful Dairy Cooperative Model

- Bargaining-only—Focus their operations on negotiating the sale of raw milk, but do not engage in manufacturing or processing
- Manufacturing/processing—Manufacture some or all of their milk into dairy products
 - Commodity manufacturing—Undifferentiated or generic products in bulk; seek high volume and sell to other handlers
 - Niche marketing—Capture some marketing margins in addition to processor margins; seek high price-point branding
 - Fluid processing—Make other products in addition to fluid milk (value-adding)
 - Diversified—Manufacture both commodity and differentiated (branded) products
- Cooperative cooperation (cooperatives working together)
 - Joint ventures
 - Marketing networks
 - Stabilization of supplies and prices
 - Member and employee benefit plans (e.g., health insurance)

Tilapia Value Chain

Safety (Risk) and Profit Scores

	Feed production	Fingerling production	Fish grow-out	Processing	Marketing	Mean score
Technical Safety Score	8	5	5	7	8	6.6
Profit Score	7	7	5	6	7	6.4
Combined Score	15	12	10	13	15	13.0

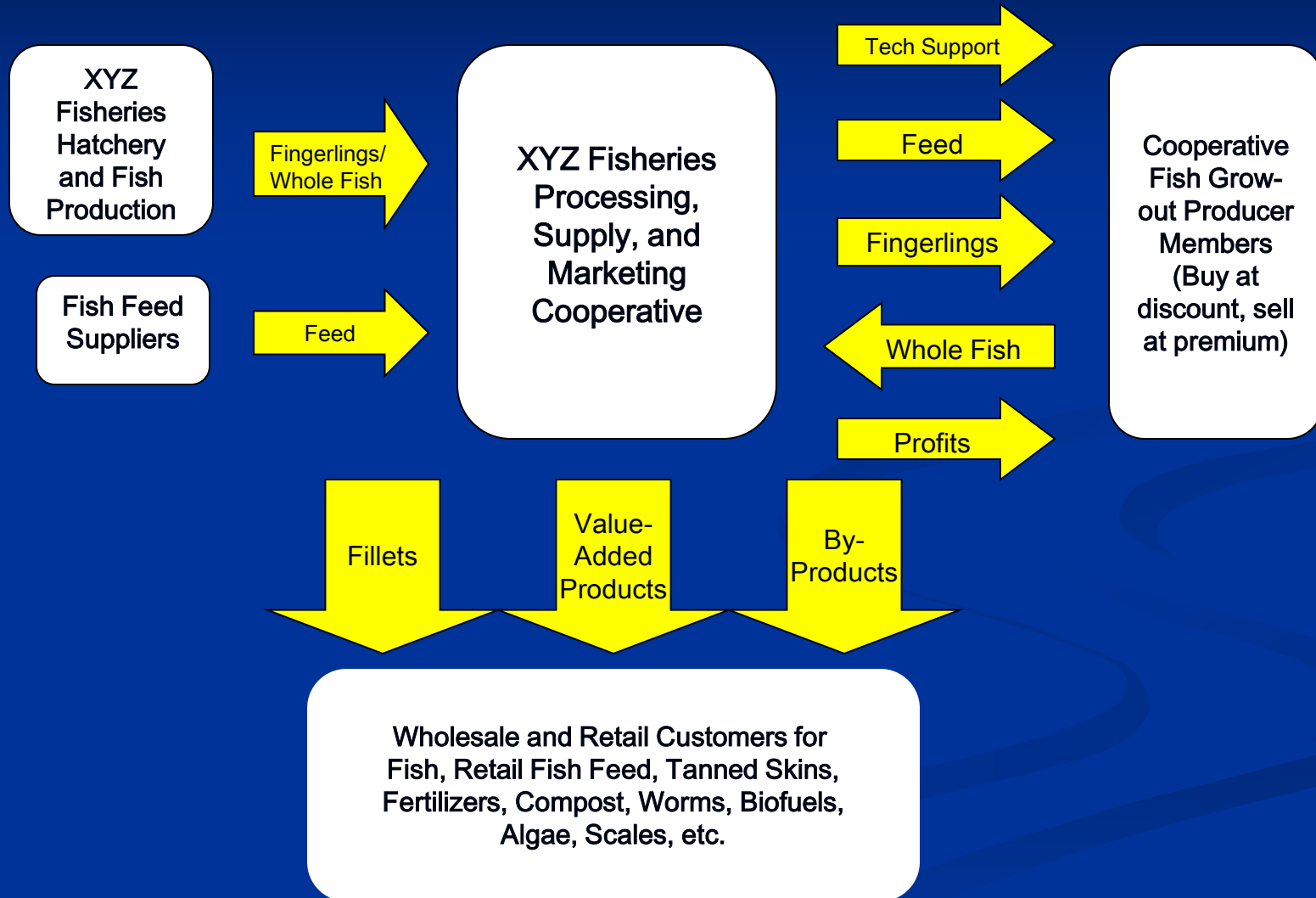
Score range: 1-10

Safety = Lack of risk

Green = At or above mean score

Orange = Below mean score

The XYZ Fisheries Cooperative Concept— Include Purchasing/Supplying Raw Materials



Co-op Members vs. Non-members

An Investment in Safety and Profits

- Reliable price for feed
- Discount price for feed
- Reliable supply of fingerling fish
- Discount price for fingerling fish
- Ability to focus solely on grow-out
- No requirement for multiple expertise
- Technology and technical support
- Reliable market to process and sell fish at harvest
- Premium price at harvest
- Increase technical safety of grow-out (reliable raw materials)
- Share in higher technical safety (lower risk) of larger umbrella company (i.e., 6.6 vs. 5)
- Share in profits of a larger umbrella business (i.e., 6.4 vs. 5)
- Consolidate and vertically integrate
- Unstable price for feed
- No volume discount for feed
- Unstable supply of fingerling fish
- No discount for fingerling fish
- Loss of day-to-day focus
- Requires multiple expertise (cause of many business failures)
- No technology and technical support
- No reliable market to process and sell fish at harvest
- Lower and unstable price at harvest
- Lower technical safety of grow-out (unreliable raw materials)
- No share in higher technical safety of larger umbrella company
- No share of profits from a larger umbrella business
- Lack of consolidation and integration

XYZ Fisheries Cooperative

Hypothetical Structure

- Share price based on present value of company—lowest share price to those who buy in first; as company valuation grows, share price increases (incentive to buy-in early)
- Discounts and profit-sharing based on numbers of owned shares (incentive to buy more shares)
- Membership available for producers of tilapia, producers of other species, and investors with no previous involvement with fish (unrestricted membership creates a financially strong cooperative)

Moral of the story... Cooperatives deserve a close look!



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