

Restaurant marketing and local foods

The survey data were analyzed to evaluate the lowest-cost alternative in transporting fish from existing farms to restaurants. Clearly, there was significant cost savings in locating fish farms near urban areas where the restaurants were concentrated.

Several of the surveyed restaurants preferred fillets over whole fish. To produce fillets, farms that have on-site fish processing facilities were at a clear advantage. There are a few farms in Kentucky with processing rooms that are ideal for supplying restaurants by mini-

mizing fish processing, handling, and transportation costs.

Small-scale beginning farmers in Kentucky typically supply local food markets such as farmers' markets, community-supported agriculture initiatives, etc.. Most of these markets are concentrated in cities, as are the majority of independent restaurants in this study. This project shows the urban demand for fresh fish creates incentive for urban farmers to diversify into small scale aquaculture. The following website has information for beginning fish farmers: <https://srac.tamu.edu/index.cfm/CategoryDetails/whichcategory/23/>.

To enhance marketability of fish, urban

and peri-urban farmers should consider building on-site fish processing facilities; details are outlined in the following publication: [www.ksuaquaculture.org/Pubs.htm/Process & Market.pdf](http://www.ksuaquaculture.org/Pubs.htm/Process%20&%20Market.pdf).

Farmers should always investigate markets prior to making production plans. Based on the results of this project, urban farmers supplying restaurants should focus on trout, hybrid striped bass, and catfish. Catfish is a relatively easy-to-grow fish, with lower feed costs; trout and hybrid striped bass are more sensitive to water quality parameters and require high-cost diets. The following website has detailed information about farming these types of fish: <https://srac.tamu.edu/>.

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Other resources:

Kentucky State University's Aquaculture Research Center (www.ksuaquaculture.org) has professional staff who are willing to educate producers about aquaculture topics such as pond and tank production, hatcheries and nurseries, water quality maintenance, fish diseases, and economics and marketing of aquaculture products.

The Acquiring Farmland Fact Sheet is part of a series prepared by the Cooperative Extension Program at Kentucky State University.

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Selling fish to independent restaurants

Dr. Sid Dasgupta and Mr. Richard Bryant

Marketing to local restaurants

Restaurants that feature locally-grown foods have been a lucrative outlet for many small-scale farmers. In Kentucky, many independent restaurants, i.e., restaurants that are not part of a chain, are known for offering local produce, cheeses, wines, and meats. However, they rarely serve locally-grown fish. Alabama, Arkansas, and Mississippi restaurants often feature locally-grown catfish because these states are famous for their catfish industry. However, Kentucky does not have a comparably strong aquaculture industry to generate such a following by chefs.

Despite this shortcoming, selling locally-grown fish and shellfish to independent restaurants could be lucrative for Kentucky's beginning farmers. Independent restaurants featuring locally-grown foods are always seeking to diversify their menu in order to maintain their patrons' interest. Locally-grown seafood could be a means to achieve this, particularly if the fish are both tasty and less available/not available in grocery stores.

Investigating the demand for locally-grown fish was the motivation of a USDA Agricultural Marketing Service-funded project. Specifically, the restaurant demand for locally-grown fish was investigated by a survey of 289 independent restaurants in Kentucky and Ohio. This fact sheet contains results of this survey and can help farmers develop strategies to market to restaurants more effectively. Beginning farmers could discover that small-scale aquaculture fits well within their business plans and improves their risk management and marketing abilities through enterprise diversification.

Fishes farmed in Kentucky

Aquaculture is primarily a small scale industry in Kentucky. Most water acreage for aquaculture is devoted to catfish production, and much of the catfish are sold to fee-fishing operations. All other types of farmed fishes are primarily sold for food. Current data show that largemouth bass is cultured by three farms and rainbow trout is farmed by three growers in eastern Kentucky. The remaining aquaculture farmers grow hybrid striped bass, paddlefish, tilapia, crayfish, and freshwater prawns at a small scale.

Marketing for beginning farmers

This factsheet contains local marketing results that could assist beginning farmers to diversify into small-scale aquaculture production and sales.

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United States Department of Agriculture
National Institute of Food and Agriculture

Survey of independent restaurants

While 289 Kentucky and Ohio restaurants were contacted and survey questionnaires were provided to their chefs and managers, only 52 responded with complete questionnaires: 39 restaurants from Kentucky and 13 from Ohio.

The survey elicited information from restaurants about: 1) the types of freshwater fish they currently served, 2) preferences for seafood characteristics such as freshness, taste, form (i.

e., whole fish, live fish, fillets, etc.), size of fish, etc., 3) willingness to pay for locally-grown fish and 4) preferred delivery schedule of restaurants.

The survey asked chefs and restaurant managers to comment about their perceptions of fishes that are currently cultured in Kentucky and Ohio, which included catfish, largemouth bass, bluegill, hybrid striped bass, paddlefish, yellow perch, and rainbow trout. The questionnaire gave respondents the opportunity to label certain types of fishes as their most preferred choices.

The survey also elicited fish demand parameters, such as the frequency and volume of orders. These were used to develop a monthly delivery plan, which was crucial to understanding the logistics of shipping fish among farmers, fish processors and restaurants.

Perceptions of locally-grown fishes by restaurants

Of the restaurants responding to the survey, 52 percent indicated that they currently featured freshwater fish on their menu. These included tilapia, catfish, and hybrid striped bass, in decreasing order of frequency.

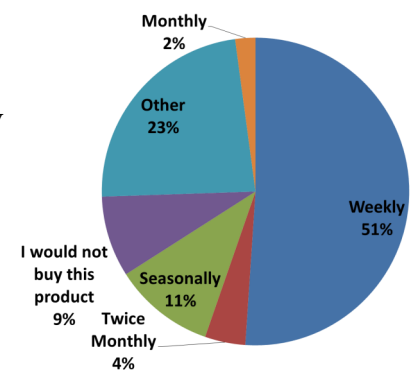
The restaurants reported types of locally-grown fish that they would like to serve. These were trout, hy-

brid striped bass, and catfish, in decreasing order of popularity.

The restaurants also reported their relative importance of various fish attributes. The most important attributes were the quality and taste of fish. Of similar importance was sourcing fish from a reliable supplier. Of lesser importance was the price of fish.

Other important considerations were whether the fish was fresh or frozen, whether the fish was unprocessed or fillets, and having a year-round supply. Thirty-seven percent of restaurants were willing to buy whole fish. Most were willing to buy fish seasonally instead of all year round.

Restaurants also indicated their deliver preferences, which are illustrated in the figure below. Weekly deliveries was the most popular option followed by seasonal deliveries, which is ideal for small-scale fish farms.



Delivery preferences for locally-grown fish, reported by restaurants in the survey.

Characteristics of surveyed restaurants

- Total number of respondents = 52 restaurants; 39 from Kentucky and 13 from Ohio
- 7% reported that their customers were mostly wealthy patrons
- 37% reported that their customers were mostly upper middle class patrons
- 28% reported that their customers were mostly middle class patrons
- 2% reported that their customers were mostly blue collar individuals
- 20% reported that their customers came from many different social classes
- Restaurant seating capacity : mean = 132 seats, standard deviation = 113 seats, mode =50 seats

Restaurant perceptions of locally-grown trout

Of all the types of freshwater fishes grown in Kentucky and Ohio, rainbow trout was chosen by the largest percentage of restaurants (44 %).

Fresh whole trout and fresh trout fillets were preferred forms by 38 percent and 29 percent of restaurants, respectively. Small whole trout, approximately 1.5 pound in size, was preferred by most of the restaurants who chose whole trout as their favorite local seafood. Medium-sized fillets (5 to 9 ounces) were preferred by 76 percent of restaurants who chose trout fillets as their top local seafood choice. The willingness to pay for whole trout was \$4 to \$6 per pound and \$8 to \$10 per pound for fresh fillets.

Restaurant perceptions of locally-grown hybrid striped bass

Hybrid striped bass was the second most favorite freshwater fish. Twenty seven percent of surveyed restaurants considered this fish as their most favorite type.

Fresh whole fish and fillets were preferred by 39 percent and 32 percent of restaurants, respectively. Of those restaurants wanting whole hybrid striped bass, 75 percent wanted fish that were 3 pounds or larger. Of those that wanted fillets, most chose medium-sized fillets between 5 and 9 ounces. The popular willingness-to-pay was \$4 to \$6 per pound for the whole fish and from \$8 to \$10 per pound for fresh fillets.

Restaurant perceptions of locally-grown catfish

Catfish was the third most preferred species of fish among the surveyed restaurants. Twelve percent of restaurants indicated that catfish was their most preferred species.

Fresh fillets was the preferred form of catfish. Whole (unprocessed) catfish was generally unpopular among restaurants. The preferred size range of fillets was 5 to 9 ounces. Sixty percent of restaurants expressing willingness to buy catfish indicated that they would pay \$5 to \$7 per pound for fresh catfish fillets.

Restaurant demand for whole fish and fillets

Only 28 of the surveyed restaurants responded with information regarding the frequency of orders and volume of fish per order. These data showed that 51 percent of respondents wanted fish to be delivered weekly. The remaining responding restaurants wanted fish twice weekly, twice monthly, monthly, and seasonally.

For those restaurants that wanted weekly deliveries, the average demand (per restaurant) for whole fish was 20 pounds of trout, 18 pounds of hybrid striped bass, and 23 pounds of catfish. Average weekly demand for fillets was 46 pounds of trout, 15 pounds of hybrid striped bass, and 45 pounds of catfish.

The average monthly demand for fish was calculated by aggregating the demand from restaurants wanting bi-weekly, weekly, twice monthly, and monthly deliveries. This resulted in an

Which restaurants favored trout, hybrid striped bass, and catfish?

- Trout and hybrid striped bass were favorites of restaurants with upper middle class clientele
- Restaurants with middle class and mixed class patrons selected trout as their first choice of freshwater fish
- Restaurants that primarily catered to college students preferred catfish over other types of locally-grown fish

average monthly demand of 84 pounds and 330 pounds of whole trout and fillets, respectively, 64 pounds and 52 pounds of whole hybrid striped bass and bass fillets, respectively, and 135 pounds and 330 pounds of whole catfish and fillets, respectively.

When trout, hybrid striped bass, and catfish are filleted, they retain 40, 35, and 45 percent of their body weight, respectively. By taking this into account, the data showed a average monthly demand of 909 pounds to trout, 212 pounds of hybrid striped bass, and 868 pounds of catfish to supply each of the 28 restaurants that provided demand data. If aggregated, the total of demand of whole fish, including the fish that are to be processed into fillets, was 11,216 pounds (5.6 tons) per month..