Consumer Attitudes Toward Wisconsin Farm-Raised Fish

Bret Shaw\textsuperscript{1,3}, Shiyu Yang\textsuperscript{1}, Laura Witzling\textsuperscript{2}, Kristin Runge\textsuperscript{3}, Chris Hartleb\textsuperscript{4}, & Deidre Peroff\textsuperscript{5}

\textsuperscript{1}University of Wisconsin-Madison \textsuperscript{2}Iowa State University \textsuperscript{3}University of Wisconsin-Extension \textsuperscript{4}University of Wisconsin-Stevens Point \textsuperscript{5}University of Wisconsin Sea Grant Institute
Overview

• Aquaculture/Fish farming context
• Survey findings
• Next steps
Fish farming helps meet demand for seafood

• Fish is harvested at an unsustainable rate in 1/3 of the world’s marine fisheries (United Nations, 2018)

• US imports ~90% of seafood we eat (NOAA, 2017)
8 months after farmed-fish escape, lively Atlantic salmon caught 40 miles upriver

How healthy is farmed salmon?

Is farmed salmon as healthy to eat as wild salmon? And what about the health of the fish themselves?

Keywords: Fish farming

How Farmers Turn Their Salmon Pink

Fishing industry

Scottish salmon industry accused of welfare failures

Campaigners call for temporary ban on new fish farms
Despite controversy...

- European consumers
  - Generally view aquaculture positively (Alexander et al., 2016; Altintzoglou et al., 2010)

- South Carolina
  - Marine fish farming is sustainable (Jodice & Norman, 2015)

- Washington and Idaho
  - Fish farming helps wild fisheries
  - May have same issues as other forms of agriculture (Hall & Amberg, 2013)
The Wisconsin consumer survey

• Survey of a random sample of 3,000 Wisconsin households, summer of 2018

• A total of 548 surveys were returned, resulting in a response rate of 18%

• The final sample - individuals who answered more than half of the survey and who reported doing half or more of the household food shopping (N = 508).

• Sample demographics: 62% females; 94% Whites; 66% aged 55 or above.
How much people in WI eat fish

In the last year, how often did you do the following things?

- Ate chicken
  - Less than once a week (%): 14
  - About once a week (%): 43
  - More than once a week (%): 44

- Ate beef
  - Less than once a week (%): 18
  - About once a week (%): 43
  - More than once a week (%): 40

- Ate pork
  - Less than once a week (%): 36
  - About once a week (%): 43
  - More than once a week (%): 21

- Ate fish
  - Less than once a week (%): 43
  - About once a week (%): 44
  - More than once a week (%): 13
Grocery stores are top source to buy fish

When you ate fish at home, how often was it from these places?

- **Grocery store or supermarket**
  - Never or rarely (%): 17
  - Sometimes (%): 23
  - Often or all the time (%): 60

- **Caught by you or someone you know**
  - Never or rarely (%): 60
  - Sometimes (%): 23
  - Often or all the time (%): 18

- **Warehouse store (e.g., Costco or Sam’s Club)**
  - Never or rarely (%): 79
  - Sometimes (%): 12
  - Often or all the time (%): 9

- **Fish or seafood market**
  - Never or rarely (%): 89
  - Sometimes (%): 9
  - Often or all the time (%): 2

- **Farmers market**
  - Never or rarely (%): 97
  - Sometimes (%): 2
  - Often or all the time (%): 1

- **Direct from a fish farm**
  - Never or rarely (%): 99
  - Sometimes (%): 1
  - Often or all the time (%): 0
Taste is the most important attribute of fish

When you think about fish, how important are these qualities?

- **Not at all important (%)**
- **Slightly important (%)**
- **Somewhat important (%)**
- **Very important (%)**
- **Extremely important (%)**

### Taste

- 2
- 4.8
- 50.2
- 42.6

### Freshness

- 2.2
- 3.2
- 12.2
- 35.9
- 46.4

### Appearance

- 2.8
- 3.6
- 22.1
- 47.9
- 23.5

### Reasonable price

- 3.8
- 5
- 22.4
- 45.6
- 23.2

### Nutritional value

- 3.8
- 5.6
- 26.9
- 44.8
- 18.9

### Harvested recently

- 7.3
- 6.9
- 26.7
- 36
- 23.1

### From a sustainable source

- 7.3
- 9.7
- 27.3
- 37.4
- 18.2

### Recommended by store or restaurant

- 34.5
- 26.3
- 28.5
- 8.1
- 2.6

### Never frozen

- 36.4
- 26.8
- 26.8
- 6.8
- 3.2
Price, odor and access are top barriers

Barriers to Consuming Fish

- **Is expensive**: Disagree 22.4% | Neutral 33.9% | Agree 43.7%
- **I dislike the smell**: Disagree 22.9% | Neutral 39.6% | Agree 37.5%
- **Quality fish is hard to find at stores near me**: Disagree 28.1% | Neutral 36.3% | Agree 35.7%
- **Hard to prepare**: Disagree 57.9% | Neutral 27.1% | Agree 15%
- **Someone I live with (excluding myself) dislikes eating fish**: Disagree 65.5% | Neutral 16.1% | Agree 18.4%
Consumers prefer WI fish and wild-caught fish

<table>
<thead>
<tr>
<th>Product</th>
<th>Not at all or slightly interested (%)</th>
<th>Somewhat interested (%)</th>
<th>Very or extremely (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wisconsin wild-caught fish</td>
<td>27</td>
<td>30</td>
<td>43</td>
</tr>
<tr>
<td>U.S. wild-caught fish</td>
<td>30</td>
<td>29</td>
<td>41</td>
</tr>
<tr>
<td>Wisconsin farm-raised fish</td>
<td>46</td>
<td>33</td>
<td>21</td>
</tr>
<tr>
<td>U.S. farm-raised fish</td>
<td>53</td>
<td>33</td>
<td>14</td>
</tr>
<tr>
<td>Imported wild-caught fish</td>
<td>63</td>
<td>26</td>
<td>11</td>
</tr>
<tr>
<td>Imported farm-raised fish</td>
<td>78</td>
<td>18</td>
<td>4</td>
</tr>
</tbody>
</table>

How interested are you in purchasing the following?
Willingness to pay more for fish

Would you be willing to pay more for fish from these different sources?

- Leaning no (%)
- Possibly (%)
- Leaning yes (%)

<table>
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<tr>
<th>Source</th>
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<th>Possibly (%)</th>
<th>Leaning yes (%)</th>
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<tr>
<td>Wisconsin wild-caught fish</td>
<td>9</td>
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Opinion neutrality high for environmental benefits

Pros of Wisconsin farm-raised fish

- Support Wisconsin jobs
- Are good for Wisconsin
- Are healthy to eat
- Are safe to eat
- Are environmentally sustainable
- Are high quality
- Relieve pressure on wild fisheries
- Are affordable

Disagree (%) Neutral (%) Agree (%)
Concerns low; neutrality/uncertainty high

Cons of Wisconsin farm-raised fish

- **Contain contaminants**
  - Disagree (%): 19
  - Neutral (%): 63
  - Agree (%): 18

- **Can cause environmental problems**
  - Disagree (%): 23
  - Neutral (%): 60
  - Agree (%): 17

- **Are risky to eat**
  - Disagree (%): 38
  - Neutral (%): 52
  - Agree (%): 10

- **Are low quality**
  - Disagree (%): 40
  - Neutral (%): 52
  - Agree (%): 8
Wisconsin fish farmers are well trusted

How much do you trust the following to keep fish safe to eat?

- Government agencies (e.g., USDA, FDA)
- Fish farmers in Wisconsin
- Commercial fisherman in the Great Lakes
- Commercial fisherman in the U.S.
- Fish farmers in the U.S.
- Grocery stores or supermarkets
- Food manufacturers and processors
- Fish farmers in other countries
- Commercial fisherman in other countries

<table>
<thead>
<tr>
<th>Category</th>
<th>None or very little (%)</th>
<th>Some (%)</th>
<th>Quite a bit or a great deal (%)</th>
</tr>
</thead>
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<tr>
<td>Government agencies (e.g., USDA, FDA)</td>
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<td>34</td>
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How can we better promote WI farm-raised fish?

• Grocery stores and supermarkets have the greatest reach to fish consumers
• Highlight tastiness, freshness and nice appearance of products in messaging and advertising
• Message around countering perceptions of quality fish as expensive and inaccessible
• Emphasize the Wisconsin/local aspect of products
• Opinion neutrality/uncertainty regarding environmental consequences of farm-raised fish is high providing opportunities to communicate and educate
How can we better promote WI farm-raised fish?

• Respondents who believed that fish was hard to prepare ate fish less often suggesting that messaging should emphasize easy-to-prepare recipes for eating Wisconsin farm-raised fish.
Our next steps

• Assess Wisconsin fish farmers’ marketing and operational needs

• Develop social media message testing to examine what types of messaging are more effective at getting interest in Wisconsin-farm raised fish by consumers
Thank You!

Contact Information:
Bret Shaw
brshaw@wisc.edu
@BretShaw1

Shiyu Yang
syang364@wisc.edu
@syang364