Growing Students’ Mindset: A Lesson to Analyze Perceptions About Organic Food

Kevin J. Donnelly, J. Anita Dille, Kim J. Kerschen
Department of Agronomy
Kansas State University
Background

• Senior Agronomy Capstone Experience course
• Focus on critical thinking to analyze current agricultural issues
• Group projects, homework assignments, class activities, case studies, guest speakers, debates and discussion
• Meets for 3-hour block once per week
Background

• This presentation describes a lesson focused on organic food (homework plus one full day of activities)
Objectives of Organic Food Lesson

• Increase student awareness of the availability and cost of organic food in the community
• Compare taste and quality of selected organic versus conventionally grown foods
• Analyze facts and opinions comparing organic versus conventional production
• Consider future demand and opportunities for organic food production
Step 1 - Homework Assignment

• Students are provided with a 20-item grocery list of common food items
• Go to two different stores, preferably a large chain store and a smaller, private store
• Try to find organic and conventional versions (name brand and store brand) of each item and record per unit prices
• Two weeks to complete shopping trip
Agronomy 602 – Capstone Experience

- Homework assignment: **Due in two weeks – Week #3 – January 30, 2018**

1. **Complete a price comparison chart** for the following grocery items. Visit at least two grocery stores and fill in the following chart for each store you visit.

2. **Write about and summarize your shopping experience in a ½ page,** highlighting how easy or difficult it was to locate these items? Do different grocery stores seem to promote different types of products?

<table>
<thead>
<tr>
<th>Item</th>
<th>Name brand</th>
<th>Store brand</th>
<th>Organic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Store 1</td>
<td>Store 2</td>
<td>Store 1</td>
</tr>
<tr>
<td>1 lb pork loin roast</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>1 lb Red Delicious apples</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>½ gallon 2% white milk</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Observations From Homework

• Finding organic sources was challenging, especially in stores where there was not a separate section
• Stores varied widely in the amount of organic products available (Walmart vs. Dillons)
• Organic was usually higher priced, but price differences are quite variable depending upon the product
In-Class Activities

• Class discussion of shopping trip homework on availability and price of organic food options
• Organic versus conventional “taste test” and personal preference ranking
• Class vote followed by analysis and discussion of class results
• View a documentary movie on food trends followed by discussion
• Instructor presentation on organic food options in large metropolitan cities
Snack Time – Taste Test Event
## Student Evaluation Form

<table>
<thead>
<tr>
<th>Item</th>
<th>Conventional Unit Price</th>
<th>Organic Unit Price</th>
<th>Better Taste? (A or B)</th>
<th>Which is Organic? (A or B)</th>
<th>Class Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chocolate milk</td>
<td>1.99/gal</td>
<td>5.98/gal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colby cheese</td>
<td>0.332/oz</td>
<td>0.598/oz</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bananas</td>
<td>0.59/lb</td>
<td>0.69/lb</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gala apples</td>
<td>1.69/lb</td>
<td>1.99/lb</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carrots</td>
<td>1.79/lb</td>
<td>1.69/lb</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Taste Preference Summary  
(86 students over four years)

<table>
<thead>
<tr>
<th>Students’ Personal Preference</th>
<th>Percent of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic Clearly Preferred (≥ 2:1)</td>
<td>14%</td>
</tr>
<tr>
<td>Conventional Preferred (≥ 2:1)</td>
<td>37%</td>
</tr>
<tr>
<td>No Clear Preference</td>
<td>49%</td>
</tr>
</tbody>
</table>
Correct Identification Summary
(86 students over four years)

<table>
<thead>
<tr>
<th>Identification of Organic Version in Paired Samples</th>
<th>Percent of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clearly Correct (≥ 2:1)</td>
<td>52%</td>
</tr>
<tr>
<td>Clearly Incorrect (≥ 2:1)</td>
<td>11%</td>
</tr>
<tr>
<td>No Clear Consensus</td>
<td>37%</td>
</tr>
</tbody>
</table>
Movie Time – With Choice of Popcorn!
Documentary Movies We Have Used

• Food, Inc.
• Food Evolution
• In Organic We Trust
• Fresh
Food System in the Urban Environment
Good Availability of Organic Choices
Dillons Grocery, Manhattan, KS
Key Food, Queens
New York City
Conclusions

- Homework valuable for awareness since most students had not shopped for organic food
- Food tasting provides a fun and engaging activity with surprising results
- Students realized preferences were likely based on flavor differences (i.e., saltier, sweeter) among the paired products, rather than organic vs conventional
Conclusions

• Movie stimulates considerable discussion since most are critical of conventional production
• Topic creates great opportunity think critically and argue based on facts versus opinion
• Awareness of growing organic demand may lead to niche production options or future career opportunities
• Lesson has been positively evaluated by students as one of their favorite sessions
Thank You