The Wegmans Experience with Irradiated Food
“I have a small project for you…….”

-Danny Wegman

Summer 1995
1998
Cook to 160 Campaign
THERE’S MORE TO COOKING BURGERS THAN MEETS THE EYE

Q: Which burgers are cooked to a safe temperature?

Not these, they’re actually undercooked (below 160°F)

Believe it or not, these are fully cooked!!

Cooking to 160°F is the ONLY way to tell if a burger is safe.

How to Take Your Burger’s Temperature:

With the meat on the grill, insert your instant-read meat thermometer or disposable T-Stick directly into the thickest part. The sure it doesn’t go through the bone.

COOK TO 160°F
Cooking ground beef to 160°F eliminates harmful bacteria which could cause serious or fatal illness.

Put cooked beef on a clean plate. Use a thermometer or a T-Stick®.
CUSTOMERS JUDGING ‘DONENESS’ BY TEMPERATURE

Pre-program: 8.0%
Post Program: 16.3%
AWARENESS OF 160°

Pre-program: 12.2%
Post-program: 38.1%
2002 Irradiated Fresh Ground Beef Retail Introduction
Education

• Employees
• Health Department
• Department of Agriculture
• University Contacts
What is Food Irradiation?

• Food irradiation is a process in which food products are exposed to a controlled amount of radiant energy.

• Like pasteurization of milk, treating food with irradiation can kill bacteria that would otherwise cause foodborne disease.
FDA Approval Process

- Radiological Safety: *Will radioactivity be induced in the food?*
- Toxicological Safety: *Is there evidence of adverse toxicological effects?*
- Microbiological Safety: *Will irradiation reduce spoilage organisms and allow pathogens to grow without competition?*
- Nutritional Adequacy: *Is there a significant loss of nutrients?*
History of Food Irradiation

• First paper published with the idea of irradiating food: 1895
• First commercial use in Germany in 1957
• 1963: FDA approved the use of irradiation for wheat and wheat flour.
• Early 1970s: NASA used irradiated food for astronauts.
Who Supports Irradiation?

• American Medical Association
• World Health Organization
• Centers For Disease Control
• Institute of Food Technologists
• Food and Drug Administration
• American Public Health Association
Technology Choices

3 types of ionizing radiation have been approved for irradiating food - -

• High-Energy Electrons (Electron Beam)
  - Operated by electricity

• X-Ray
  - Operated by electricity

• Gamma Rays
  - Operated by radioactive isotopes (cobalt–60)
Electron-beam

- Electricity is power source-switch on and off.
- Uses stream of high-energy electrons accelerated at near the speed of light.
- Electrons are showered on the product.
- Facilities are shielded with concrete or steel walls.
- Penetrates approximately 2-3” of product and packaging.
Regulatory Support

• “We recognize that by offering irradiated ground beef, your stores will be taking an important step to provide consumers another choice among products that are safe and nutritious.”

Joe Corby
NYS Agriculture & Markets
Employee Education
In The Know - Irradiation

Why are we proud of our Irradiated Ground Beef?
It offers our customers a 100% ground beef line of products that have the added safety benefit of the FDA & USDA-approved irradiation process.

What is Electronic Beam Food Irradiation?
Electronic Beam Food Irradiation is a process in which food products are exposed to a controlled amount of electrical energy to help eliminate harmful bacteria such as E. coli.

The Electron Beam Irradiation Process

1. Electricity is power source – switch on and off.
2. Uses stream of high-energy electrons accelerated at near the speed of light.
3. Electrons are showered on the product.
4. Electrons penetrate approximately 2-3” of product and packaging.
5. Facilities are shielded with concrete or steel walls.

Did You Know?
- Every major health organization (including WHO) has given irradiation its seal of approval.
- American astronauts have eaten irradiated foods in space since the 1970s.
- Many commonly used spices, fruits, and vegetables are irradiated.
Specialty Burgers and Sliders
Made with Irradiated ground beef

Step-by-Step:
- Review the process for producing all specialty burgers and sliders with irradiated ground beef with all team members.
- Educate customers on the safety benefits of “cook it the way you like it” to desired doneness.
- Due to USDA regulations & Food Safety guidelines block your irradiated burger section with dividers to keep out any contaminants.

Production Manual & Job Aid

Current Recipes
- 80% Plain
- Bacon and Cheddar
- Mushroom Swiss
- Vidalia Onion
- Cracked Pepper
- Blue Cheese
- Jalapeno Cheddar NEW!

*The order code for the 6.5 lb ground beef chubs is 398502. Use this for producing Specialty Burgers and Sliders.

What makes them unique:
- Irradiation means you can safely “cook it the way you like it” to desired doneness.
- Flavorful varieties like Bacon Cheddar, available as a burger or slider.
- Grill ready convenience.
Slidermania

Step-by-Step:
- Create a destination for all sliders and specialty burgers including beef, turkey, and salmon.
- Cross merchandise with Wegmans slider bun, condiments and grill accessories.
- Merchandise top 3 selling items (80% plain, bacon and cheddar, and mushroom swiss) at all times and layer additional flavors as needed.
- Support displays with overhead signs and shelf talkers (sign packages will be delivered w/e 5/7).

Don't forget to merchandise sliders with condiments, grill accessories and slider buns!
Wegmans Food Markets
Irradiated Beef
Opinion Panel Survey
Purchase Reasons

1st question “Please select all of the reasons why you purchased Wegmans irradiated ground beef. Select all that apply.” 2nd question “From the reasons selected above, what is the most important reason why you purchased Wegmans irradiated ground beef?”

The 3 “safety” responses (*) combined is 43% which surpasses convenience as the most important reason.

“Other” answers are:
Had a coupon = 28 people,
Wanted to try = 12,
It lasts longer in fridge = 10,
Wanted to try sliders = 6,
Out of stock on usual product = 6

n=1,302
Repeat Purchases

“What is the likelihood that you will be buying irradiated ground beef products at Wegmans in the next 6 months?”

69% said they are likely to purchase irradiated products in the next 6 months!

Very unlikely: 7%
Somewhat unlikely: 8%
I am not sure: 16%
Somewhat likely: 28%
Very likely: 41%

n=1,245
Unlikely to Repeat Purchase

The respondents who responded “very unlikely” (7%) and somewhat unlikely (8%) to buy irradiated ground beef again were then asked to explain their answer through an open ended question.

<table>
<thead>
<tr>
<th>&quot;Why Not&quot; Reasons</th>
<th># of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irradiated is too expensive</td>
<td>31</td>
</tr>
<tr>
<td>I don't like the taste of irradiated</td>
<td>20</td>
</tr>
<tr>
<td>I prefer organic or grass fed beef</td>
<td>13</td>
</tr>
<tr>
<td>I like my ground beef well done so there is no need</td>
<td>9</td>
</tr>
<tr>
<td>I don't like the extra processing of the irradiated beef</td>
<td>8</td>
</tr>
<tr>
<td>I only like to buy club pack</td>
<td>6</td>
</tr>
<tr>
<td>Fat content is too high on irradiated products</td>
<td>6</td>
</tr>
<tr>
<td>The irradiated did not cook as nicely as regular</td>
<td>5</td>
</tr>
<tr>
<td>Irradiated has a bad texture when cooked</td>
<td>5</td>
</tr>
<tr>
<td>I had bought the sliders not knowing they were irradiated</td>
<td>4</td>
</tr>
</tbody>
</table>

Open ended question

n=186
Reasons for Not Buying Irradiated Ground Beef

We asked the 64% of total respondents who have NOT purchased irradiated ground beef products at Wegmans, why they have not. (They could select all the reasons that applied.)

See next slide for “other” answers.

* 48% need education!

- 33% I do not know enough about irradiated ground beef
- 18% Irradiated ground beef is too expensive
- 15% I am unsure if irradiated ground beef is safe to eat
- 7% I do not like the packaging of the irradiated ground beef
- 2% I do not like the taste of irradiated ground beef
- 2% I don’t think they sell it at my Wegmans
- 14% No reason
- 11% Other (please specify)

n=2,361

Wegmans Irradiated Beef Study
At the end of the survey, we asked all of the respondents to read this paragraph:
Irradiation occurs when food is passed over, or through, an electrical energy field. For Wegmans Irradiated Fresh Ground Beef, a concentrated beam of electrical energy is used to help reduce any bacteria, such as E. coli and Salmonella, that may be in the meat. Our packaged ground beef passes through these beams and in a few seconds comes out the other side as a safer product.)............. ....In taste, quality, and nutrition, irradiated fresh ground beef is just like traditional fresh ground beef. Myths about irradiation are not true -- the meat is not radioactive, and no radioactive wastes are created by this (electron beam) process.

Then we asked “After reading the above paragraph, what is the likelihood that you would buy irradiated ground beef products from Wegmans in the next 6 months?”

- 36% of respondents who have NOT purchased irradiated ground beef said that they would be likely to buy it
- 77% of respondents who HAVE purchased irradiated ground beef said that they would be likely to buy it again
At the end of the survey, we showed all of the respondents who had purchased irradiated ground beef an informational paragraph that explained the irradiation process in great detail. We then asked the likelihood of purchase question again.

The educational paragraph had a significant difference on respondent’s likelihood of purchasing irradiated ground beef in the future!
Conclusions

- **43%** of irradiated purchasers mentioned a food safety reason as the most important reason driving their irradiated ground beef purchases.

- **69%** of irradiated buyers said they are likely to repeat the purchase in the next 6 months. **15%** said they would not repeat the purchase and the main reason was “irradiated is too expensive.”

- The main reason why people said they did not buy irradiated ground beef at Wegmans is a lack of knowledge about the product (**48%**).

- After reading a detailed educational paragraph, the irradiated purchasers likelihood of a repeat purchase of irradiated ground beef jumped 8%, indicating that education will increase purchases.
Irradiated Fruit
Questions?