Week 3:

The Week of August 8 to 14

- Lesson 1: Claims about Hormones & genetically modified foods

- Success Criteria:
- Students are going to learn about genetically modified foods and hormones and what these labels mean. At the end of the week they will be able to identify GM foods and recite how they differ from non-GM foods.
- Write and answer the following questions in Your Red Books

Hormone Free

- "Free of hormones" or "hormone free"

  VS. "No hormones added" or "raised without hormones"

- Anything that is or has been alive contains hormones, including plants!

Is there anything in this photo that is "hormone free"?

- Genetically Modified Foods and Hormones

- What's really going on?

- Before we begin, watch the short clip on the safety of Genetically Modified Foods at:
- https://www.youtube.com/watch?v=JMPE5wlB3Zk

- **Task:** After watching the clip, write a short summary in your Red Books.

GMO-Free

- Are you paying extra for a food when none of its ingredients contained GMOs in the first place?
- **Which banana is NOT a GMO food?**

GMO-Free labeling

No GMO labeling

Image source: Pixabay.com

Neither of them are GMO foods and never have been

GMO-Free

No GMO labeling

Image source: Pixabay.com

GMO Foods commonly found

Currently available …

- Corn (field and sweet)
- Soybeans
- Cotton
- Canola
- Alfalfa
- Sugar beets
- Papaya (Hawaiian)
- Squash
- Artic Apples

More information …

- NOTE: Not all versions of all these foods are genetically engineered.
- Before being placed on the market, genetically modified foods must be approved

Write the answers to the following questions in your **Red Book.**

- 1. Look at slide 2. Why is it misleading to claim that a particular food is hormone free?

- 2. List several different foods that have been genetically modified (slide 6)

- 3. Watch the BBC video on genetically modified foods – and in dot-point form summarize the evidence that they are safe. Click the link here: https://www.bbc.com/news/av/science-environment-36324442

Week 3 Lessons 2 & 3

Use By, Sell By & Best Before…

Figuring out Food Dates

Tasks

- In your **Red Books,** write down the difference between ‘Use By,’ ‘Sell By’ and ‘Best Before’ dates (see slide 13).
- List several examples of HIGH acid foods that can keep for up to 18 months! (see slide 15).
- List several examples of LOW acid foods and how long they can be kept for? (see slide 16).
- What is the advice on eating from dented or rusty cans – please summarise? (slides 17 & 18).
- What is the general rule for using frozen foods and eggs? (slides 19 & 20)
- I once visited a friend and he had a jar of fruit that had expired in 2002! How often do you check the dates of your cans? Do you have any that are expired? Can you still eat them if they are?

Extension Exercise

- Lesson 3
- Go home and analyse 2 cans of something that is in your cupboard.
- What health claims are being made?
- Based on what we have learned – what conclusions can you draw? **Be prepared to discuss your findings in class.**

Food Date Labels: What Do They Mean?

- Label confusion contributes to food waste.
- 84% of consumers in a 2016 study discarded food near the package date at least occasionally.

Label Dates on Foods (Voluntary Except for Infant Formula)

A "Use-By" date is the last date recommended for the use of the product while at peak quality. It is not a safety date except for when used on infant formula.

A "Sell-By" date tells the store how long to display the product for sale for inventory management. It is not a safety date.

A "Best if Used By/Before" date indicates when a product will be of best flavor or quality. It is not a purchase or safety date.

Information source: USDA/FSIS. http://bit.ly/2l3GO32 | Graphic created by Alice Henneman

Proper Storage

- After the date passes, the product may not be the best quality, but the product may still be safe, wholesome and of good quality, if handled properly.
- Store refrigerated foods at 40^0 Celsius below.
- Consider the following canned food guidelines….

Image source: USDA/FSIS

Storing Commercial Canned Foods (in a Cool Dry Place, Below 85^0F)

High-acid foods keep 12 to 18 months.

Examples: juices (tomato, orange, lemon, lime and grapefruit); tomatoes; grapefruit, pineapple, apples and apple products, mixed fruit, peaches, pears, plums, all berries, pickles, sauerkraut and foods treated with vinegar-based sauces or dressings like German potato salad and sauerbraten

Image source: USDA/FSIS

Storing of Commercial Canned Foods (in a Cool Dry Place, Below 85^0F)

Low-acid foods keep 2 to 5 years.

Examples: meat and poultry, stews, soups (except tomato), spaghetti (noodle and pasta) products, potatoes, corn, carrots, spinach, beans, beets, peas, pumpkin

Image source: USDA/FSIS

Canned Food Safety: Dented Cans

- A small dent in a can that is in otherwise good shape should be safe.
- Discard deeply dented cans (a dent you can lay your finger into).
- A sharp dent on either the top or side seam can damage the seam and let potentially deadly bacteria enter. Throw away!
- When in doubt, throw it out!

Canned Food Safety: Rusted Cans

- Discard heavily rusted cans. They can have tiny holes in them allowing bacteria to enter.
- Surface rust that you can remove by rubbing with your finger or a paper towel isn't serious and can be kept.
- If there is any rust inside, do not eat the food! Rust isn't safe to eat.

Image source: Pixabay.com

Storing Frozen Foods

Food stored constantly at 0^0F will always be safe. Only the quality suffers with lengthy freezer storage.

Image source: USDA

Image source: Photo by Alice Henneman

Storing Raw Eggs in the Shell

- Egg cartons contain a “Sell-By” or “EXP” (expiration) dates, so retailers don’t keep them on the shelves past a certain date.
- After eggs are purchased, they will maintain their best quality for about 3 weeks beyond the expiration or sell by date.
- Refrigerate eggs in original carton in coldest part of refrigerator (40^0F or below), not the door due to loss of coolness from repeated opening of the door.