

iGROW

Nebraska 4-H

Teaching Guide

Mobile iGrow Educational Display

Thank you for participating in the Mobile iGrow educational display program! Mobile iGrow displays are traveling displays that visit area schools for a 2-3 week time frame. Included with each display is a teaching guide that leads a classroom discussion around the display. An iGrow activity worksheet, tied to the display content, is provided for students. The complete unit, including all activities, correlates to Nebraska State Standards. A survey link is provided for teacher feedback which will assist in the development of future displays.

GO MOBILE WITH YOUR CLASSROOM!

The Beef display will help students learn more about where their food comes from and how agriculture is important in our everyday lives. This video is a great introduction to the display: <https://go.unl.edu/9mfn> "Beef: From Farm to Supermarket." The digital display includes augmented reality to enhance the learning experience for students. Please download the Metaverse app to utilize at the display.

NEBRASKA BEEF- SAFE AND NUTRITIOUS

Discussion: How many of you like to eat hamburgers? Hamburgers are made from beef cattle, just like the one on the banner. Raise your hand if you knew that hamburgers are made from cattle. What is your favorite type of food that's made with beef? Let's look at the examples on the banner. Farmers/ranchers work hard to make sure that the beef we eat is safe to eat. Meat is an important part of a balanced diet. Beef is a great source of protein and keeps your body energized. A serving size of meat is about the size of a deck of cards or a small cell phone.

How many of you have seen cattle out in a field? Do you think we have a lot of cattle in Nebraska? (We do! Nebraska ranks 2nd nationally for the number of cattle. Texas is #1). There are over six million head of cattle in Nebraska. More cows than people live here! Did you know that cattle vary in size depending on the breed? (They do, just like different dog breeds vary in size.) The cow on the banner is the size of an average beef animal. Go stand by the ruler on the banner. How do you compare in size? Let's guess how much the animal weighs. (On average, 1200-1400 pounds).

There are two main types of cattle - Beef Cattle and Dairy Cattle.

- Beef cattle, like the one shown on the banner, are raised for their meat. Hamburgers, t-bone steaks, and roast beef are some examples of meat from a beef animal.
- Dairy cows are raised for their milk and to produce milk from which dairy products are made, like cheese, yogurt, and ice cream. *Show students a picture of a dairy cow (in Activity Box) and compare it to the beef animal on the display.*

CATTLE BY-PRODUCTS

Beef cattle are used for many products other than meat - **99%** of the **cow** is used! Wow, that's amazing! The non-food products made from a beef cow are called by-products. Let's look at some examples of by-products on the banner (lower left corner). All of these items are made from different parts of the beef cow. Paint brushes are made from the hair of the cow, soap and crayons from animal's fat, soccer balls from the leather that comes from the cow's hide, and cattle manure is used for fertilizer. Are you surprised by any of the by-products shown on the banner? *A list of beef by-products is available in the activity box.*



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CAREERS IN AG

Discussion: Over a million jobs are tied to raising beef in our nation. That's a lot! Can you think of businesses related to beef? Gather ideas. (Packing plants, farms, trucking companies, feedlots, grocery stores, etc.) When we think about all the products shown on the banner, there are many careers connected to each one. Many people do not realize that their jobs/careers are connected to agriculture. Do you have family members with jobs connected to agriculture? Is there a career you might be interested in related to the beef industry?

ANIMAL CARE & IDENTIFICATION

Discussion: Farmers/ranchers work hard to make sure their cattle are raised with the best care and are safe. How do they keep their animals healthy and safe? Farmers/ranchers provide their animals with food, water, air, shelter and health care. They check their animals every day to keep them healthy and to check for illnesses. Sick animals are taken to a veterinarian, just like you might go to a doctor when you get sick. They keep health records of the animals, just like your doctor does for you.

Farmers/ranchers often use ear tags to identify animals. Do you see the ear tags on the animal? What does the tag say? Most ear tags will have a combination of letters, numbers, or symbols that represent something important. It could be the name of a calf, birthday of the animal, numbers that match a cow/calf pair, or even the order the calves are born. Animals may have multiple ear tags. *Pass around samples of real ear tags, located in the Activity Box. Read the information on the back of the ear tag.*

Animal identification helps farmers/ranchers watch each animal closely, keep records of their birthday, health history, and offspring. For example, if animal #2 has a cough, you would be able to easily find and identify that animal to check and care for it. Farmers, ranchers, and veterinarians work together to maintain healthy animals. **Ear Tag Activity:** If you had a herd of cattle, how would you identify your animals? Create your own ear tag. *Paper ear tags and markers are available in the iGrow Activity Box.*

AUGMENTED REALITY & DIGITAL SCREEN

The digital screen contains more beef facts and augmented reality to enhance the learning experience for students. Using the Metaverse app, scan QR codes as they appear on the digital screen!

WRAP UP

1. Take a photo of your classroom at the display and post it! **#iGrowNE4H**
2. What surprised you from our discussion about beef today? What is something new you learned? For additional learning, have students complete the iGrow activity worksheet.
3. Teachers, we appreciate your feedback! *Within two weeks, please complete the survey and return it in any of the following ways:*
 - ✓ Complete the survey online at: go.unl.edu/igrowbeef
 - ✓ Place the survey in the container labeled "Activity Box" by the Mobile iGrow display.
 - ✓ Mail to: Nebraska Extension-Hall County, 3180 West Hwy 34, Grand Island, NE 68801.



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Survey

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Please list your school: _____

Please list your grade level: _____

As a result of the Mobile iGrow Display and activity worksheet,

My students learned more about beef.	YES	NO	MAYBE	N/A
My students learned more about agriculture.	YES	NO	MAYBE	N/A
My students increased their understanding of how farmers/ranchers care for their animals.	YES	NO	MAYBE	N/A
The Mobile iGrow display was beneficial for my students.	YES	NO	MAYBE	N/A

Student comments that you would like to share:

Suggestions for future Mobile iGrow Displays:

Comments:

I'd like to receive more information about youth development programs from Nebraska 4-H.

If yes, please add your email address here: _____

