

These activities are intended to be used by Dairy Farmers and Dairy Princesses to visit the classroom and introduce the students to concepts presented in the “Discover Dairy -Animal Health” lessons for all levels. Each activity is intended to last about 20 minutes.

Objective: Demonstrate to students the steps dairy farmers take in ensuring that their dairy herd receives a nutritious diet, healthy living conditions and good medical care.

Desired Outcome: Students will be able to list three or four things farmers do to ensure their dairy cows receive adequate care.

ACTIVITY: A Balancing Act

Preparation: Use large Ziploc bags to gather samples of the ingredients that you or your family uses in your milk cow ration. Keep ingredients in separate bags. Be sure to include any unique ingredients like cotton seed or pretzel salt that you may use.

Ingredient	One Cow	120 cows
Corn Silage	40 pounds	4,800 pounds
Haylage	30 pounds	3,600 pounds
Shelled Corn	11 pounds	1,320 pounds
Soybean Meal	6 pounds	720 pounds
Mineral Mix	3 pounds	360 pounds
Total	90 pounds	10,800 pounds

Write on a poster how many pounds of each ingredient each cow eats each day and how many pounds total you feed to your cows each day. *See example to left.*

Find feed tub or large mixing bowl to take in to the class, along with a mixing spoon. Make sure the bowl is large enough to fit all of the ingredients into it.

Video:

If time and technology allow, show students the four-minute video on Discover Dairy and Animal Care. Show elementary students the elementary version and upper level students middle school version. Both videos can be found online at www.discoverdairy.com.

Classroom Discussion (Set materials up in front of classroom):

Introduce yourself and your role in the dairy industry. If you are a dairy farmer, talk about your farm, many cows you have, where your farm is and why you love being a dairy farmer.

Explain that a cow’s health is of the utmost importance to dairy farmers, because proper animal care leads to the production of high-quality milk. A cow must receive a nutritious diet, regular medical care and be kept in clean and comfortable living conditions to remain healthy. “Today’s classroom activity will show how farmers feed their cows a nutritious diet.”

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Classroom Discussion *(continued)*:

Ask: How can you make sure you eat a nutritious diet? (Answers may include choose foods from the five food groups, eat vegetables and fruits, avoid junk food, etc.) Do we always make the right choices when it comes to our diet? Do we sometimes have a bag of chips or a candy bar?

Explain that cows are a little like kids. They won't necessarily make the right choices if given a choice of foods they can eat. To make sure cows eat a well-balanced diet, farmers blend their foods together into something called a "Total Mixed Ration." Today we are going to make our own Total Mixed Ration.

Activity:

Pass around the bags of feed ingredients and explain that these are feeds your/the farmer's cows eat on the farm. Let them feel the feeds to see what they feel like. You can add what some of the feeds provide — for example, corn silage and haylage provide fiber and energy, while soybean meal provides protein.

Tell students how a TMR mixer is used to mix the feed together on the farm. A farmer works with a nutritionist who decides how much of each feed ingredient a cow needs to meet her nutritional needs. Then a farmer uses a TMR mixer, which looks like a big mixing bowl on wheels with a built-in weight scale, to weigh out the exact amount of the different feeds that the herd needs. The TMR mixer blends all of the feed together so that every bite a cow takes is perfectly balanced.

Have students add the ingredients together in the large mixing bowl or feed tub. In older classrooms, you can actually have the students weigh the ingredients with measuring cups or a weight scale to add value to the exercise. They can write down how much of each ingredient is in the tub and what the total amount is.

Summary:

Remind the students that providing a well-balanced diet for the cows to eat is just one way the farmer makes sure cows are kept healthy and well cared for.

*Ask: Do you remember other ways the farmer cares for their cows?
(Answers could include providing a comfortable place to live and regular veterinary care.)*

Encourage the students to learn more about what dairy farmers do on their farms to provide high quality milk and take good care of their cows at www.operationdairy.com. Remind them that farmers play an important role in providing a safe, wholesome food supply and taking good care of the environment. Thank them for the opportunity to visit their classroom.

After Your Presentation is Finished

Inform teacher of more classroom activities available at www.discoverdairy.com. Give them a Discover Dairy brochure and let them know the lessons meet state educational standards for math, science and reading and come complete with videos, reading guides and assessment-based worksheets.

