

Key Vocabulary:

- *Eartag:* The plastic tag that is put in the animal's ear that includes information to identify who the animal is.
- **Pellet:** Small particles created by compressing an original material in this case, animal feed, to reduce particle size.
- *Timothy Hay*: A long grass that is cut, dried and harvested for animal feed.
- *Probability*: The quality or condition of something to be probable or likely to occur.
- *Weaning:* The process of gradually introducing an infant (or baby) mammal to its adult diet.
- *Vaccination*: A treatment of medicine that stimulates the immune system to develop immunity to a disease.

Here's an update on Bluebella!

Name: RJS-FARVIEW BLUEBELLA

Birthdate: OCTOBER 10, 2016

Sire: S-S-I Robust Mana 7087-ET

Dam: RJS-FARVIEW BUTTERFLY

Lesson Idea: "How We Compare?" Identify in the written text below the key things that have changed in Bluebella's life from when she was

a baby to now that she is five months old. Write them in a list and compare them to how the students lives and needs have changed from when they were a baby until now. Where did they sleep? What did they eat? How many other babies were they around? Write down comparisons

tween the two.



Her Diet:

Bluebella just turned five months old on March 10. Until she was three months old, she was raised in a single calf pen but now is in a group pen with four other calves. She has received a blue identification tag, been registered and will soon receive her yellow tag that will have her name, birthday, mother's name and her registration number.

Classroom Exercise:

Have the class research the process of *pelletizing* a feed on the computer. Discuss how it compares to cooking processes they are familiar with.

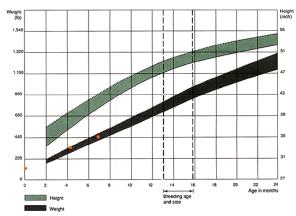
Bluebella was weaned from drinking milk at about two months old and now eats a diet of sweet feed with a pelted mix and hay, which is long grass cut, dried and stored to use as animal feed. The hay that Bluebella eats is called Timothy Hay, which is high in fiber to help the development of her rumen, one of the four stomach compartments that Bluebella has. The sweet feed she eats is a grain that provide her with her protein and energy needs.

Lesson Idea: Compare and contrast the types of food you eat to what Bluebella eats. What foods do you eat that are high in Fiber? What foods are high in Protein?

Her Growth & Development:

When Bluebella was born, she weighed about 100 pounds. Today, she weighs about 400 pounds is about 37 inches tall. When Bluebella becomes a full grown cow, she will weigh about 1,500 lbs. and should be 56 inches tall.

Lesson Idea: **Use Worksheet** to compare your growth and weight to a cow's. How much weight did you gain in the past three months? How many inches did you grow?





Growing Up on the Farm:

Since the last update, Bluebella was weaned from drinking milk. During the first two months of her life, she was fed high-quality milk to give her the essential energy, protein and other nutrients she needed to grow and develop. Now that she is a little older, she is fed dry feed — the sweet feed and hay — and has a constant supply of fresh, clean water available to her.

Bluebella was also vaccinated. Since calves, heifers and cows live in barns and meadows where they can come in contact with other animals and with germs carried in the air, they are vaccinated much like people are to protect them from getting harmful diseases. *When do you last get a vaccination?*



An Update on Bluebella's Mom:

Bluebella's mother — RJS-Farview Butterfly— is now giving about 80 pounds of milk a day, down from her peak milk production of 100 pounds two months after she had Bluebella. Regardless, she is on her way to producing around 28,000 pounds of milk this year. Butterfly was bred artificially to become pregnant in February. Once she is confirmed pregnant, she will milk for another five months prior to being dried off for two months before she has her next baby.

Life on the Dairy Farm:

The farmer's job is to make sure Bluebella, Butterfly and their herd mates (or other animals in the herd with them) are kept healthy and content. Not only is it important to their well-being, it plays a significant role in their ability to grow to become capable of producing high quality milk and have a long and productive life.

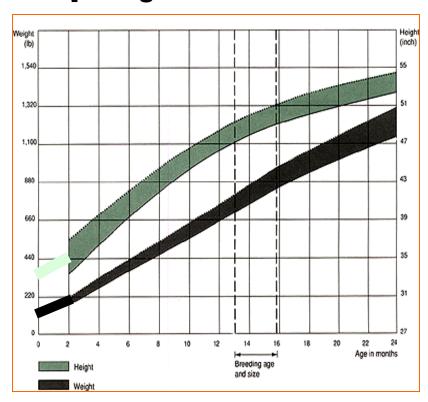
Here is what they need to stay healthy:

- A well-balanced diet: As Bluebella grows, she will be fed a diet that meets her nutrition needs. High fiber foods like hay make up a large portion of her diet, with grain added to give her more energy and nutrients. The farmer works with a "nutritionist" to make sure every bite the calf or cow eats is perfectly balanced.
- A clean, comfortable place to live: Bluebella sleeps on bedded straw and sawdust, while the mature cows like Butterfly sleep on sand bedded stalls. They stay in well-ventilated, clean barns and have continual access to fresh water.
- Regular health care: Dairy animals like Bluebella need regular care. They get vaccinations to protect them against diseases, and the veterinarian does regular herd checks to make sure the animals are healthy.

Activity Idea: "Operation Dairy," Go to www.operationdairy.com and play the game to find out more about the care that dairy cows receive on the farm. Explore Sunny Hills Farm to find out how much care the cows receive every day. Hidden throughout are dairy tokens.



Comparing Growth in Calves to Growth in Boys



About. Pediatrics Birth to 36 months: Boys Length-for-age and Weight-for-age percentiles NAME 100 39 25 30 60 22 21 -55 18 18 Mother's Stature -12 Length Head Circ

Calf Growth Chart:

- How many inches does a calf grow in the first 2 years of her life?
- 2. How many pounds does a calf gain within the first 2 years of her life?
- **3.** How long it takes the calf to double her weight? _____

Boy's Growth Chart:

- 4. How many inches does a boy grow in the first 2 years of his life?
- 5. How many pounds does he gain within the first 2 years of his life?
- 6. How long it takes the calf to double her weight?

Comparing the Two:

- 7. Which one gains more weight the calf or the boy?
- 8. Which one grows more inches the calf or the boy?
- 9. Who doubles their weight the fastest the calf or the boy?
- 10. How long does it take the calf to grow as many inches as the boy grows in the first six months of his life? _____



As Bluebella grows up, her diet and care change!



Bluebella received a blue eartag when she was born. This tag, which her herdmate Avatar is showing off, includes her registration number and herd ID number, which is 386. That number will be used to record when she gets vaccinated and receives other care. In a few weeks, she will receive a yellow eartag, which will include her name, her mother's name, her date of birth and the herd ID number. She'll also soon get her registration paper which certifies her as a registered Holstein.



Bluebella's diet has changed. For the first two months of her life, she was fed milk. Now she receives a sweet pelleted feed, fresh water and hay. This feed will help her digestive system develop. Cows have four stomach compartments, making them a ruminant animal. Ruminant animals can digest high fiber foods like hay easier than those animals that only have one stomach.



Bluebella moved out of her individual pen and is now in a pen with four other animals. She'll stay in this pen for a couple of months prior to being moved in to a larger pen with even more animals. It is similar to how a child moves from a nursery to a pre-school with a small class size to an elementary classroom, which has even more students in it.



Look how big Bluebella has gotten!



Bluebella has been growing very fast! At just five months old, she is nearly as tall as her owner Eddie, who is a fourth grader.