

# Cows Turn Pasture into Milk



**Cows** are amazing animals. For thousands of years, farmers all over the world have used cows to make **milk**, provide meat and clothing, and pull plows or wagons.

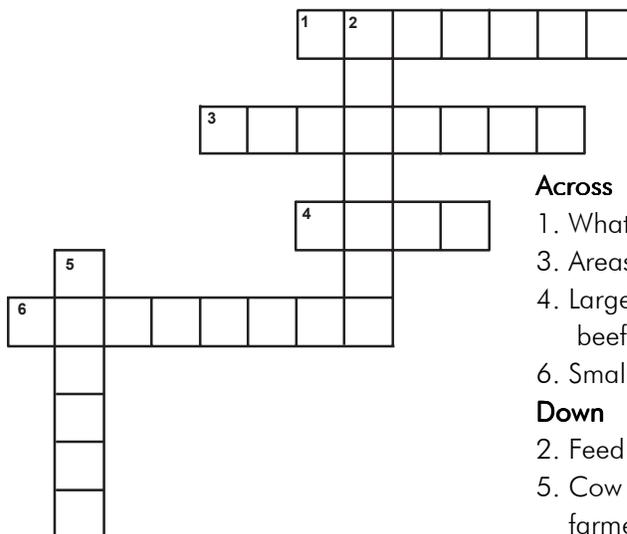
Cows can do all this while eating (**grazing**) something humans cannot digest—grass and other plants found in fields called **pastures**. And pastures are healthier when eaten by cows! In fact, when we mow and fertilize grass, we are imitating what happens naturally when cows eat and poop on it.



Over the last 50 years many scientists and farmers have worked on figuring out what feed mixtures (**rations**) will make dairy cows give the most milk. If cows stay inside all day and eat silage (chopped, fermented corn plants or alfalfa) and grain (like corn and soybeans), they can make more milk than if they walk around outside on pasture and eat the grass and plants they find there.

Even though cows kept inside make more milk, pastured cows tend to live longer and often cost less to keep. A grazing farmer can make as much money as a dairy farmer who keeps cows inside. Also, grazing is possible on steep land where the dirt would wash away if it were in row crops like corn. Farmers who feed their cows pasture spend less on feed and machinery. This is because the cows are out finding their own feed and spreading their **manure** (cow poop). Farmers who keep cows inside need to bring the feed to them and haul their manure out of the barn. And kids can help a lot on a grazing farm.

## Do you know these dairy words?



### Across

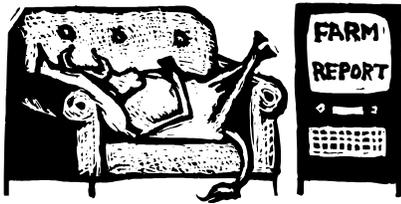
1. What cows are doing when eating pasture.
3. Areas of grass and other plants used for animals to graze.
4. Large four-legged animals that are raised for milk and beef.
6. Small sections of a larger pasture, fenced for grazing.

### Down

2. Feed mixtures created to help cows give a lot of milk.
5. Cow poop; grazing animals leave this on pastures and the farmer doesn't have to haul it out of the barn.



Keep reading! Some of the words for this puzzle are on the next page.



### What do pastured cows do in the winter?

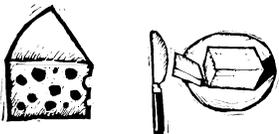
Many farmers bring them into the barn and feed them silage, hay, and grain during the winter. Other farmers bring bales of hay out to the pastures and let the cows eat there. If they have wind protection and get plenty to eat, cows are not particularly bothered by cold.

### How do the cows know not to eat poisonous plants?

Cows like the plants that are good for them, like grass, clover, and alfalfa. They usually avoid the plants that are not good to eat, like thistles. Farmers can manage pastures so they have lots of good plants.

### Doesn't it kill the grass to have a lot of big animals eating and trampling it?

If cows stay in one area too long, they can kill the grass. Farmers divide their pastures into different sections called **paddocks**, and move the cows to a new paddock whenever it will help the grass stay healthy. Farmers use electric fence to divide their land into paddocks.



### Does the milk taste different when cows eat grass?

There is a small difference in the taste of the milk, depending on what the cow eats. Most people can't taste the difference in milk, but some people think the cheese made from the milk of pastured cows tastes different. Butter made from the milk of pastured cows is a brighter yellow than other butter.

### If grazing is so great, why don't all farmers do it?

Nearly half of all Wisconsin dairy farmers use pastures to feed their cows. But it takes work and planning to grow healthy, green pastures and put fences on them. Also, farmers often feel it is their job to make the most milk they possibly can, so they keep their cows indoors. It is a challenge to figure out what is best for cows, land, farmers, their neighbors and people who eat dairy products. There are advantages and disadvantages to both systems. Which system works best depends on the kinds of things the farmer likes to do, the land and equipment the farmer has, and many other things. If you were a dairy farmer, would you have your cows graze or keep them inside? Why?

**Help Gracie the grazing cow find her way to fresh pasture!**

The image shows a large square maze. At the bottom left corner, there is a small illustration of a cow with a black and white pattern, facing right with an arrow pointing into the maze. At the top right corner, there is a small illustration of a tree with a cow grazing under it, with an arrow pointing towards the maze from the right. The maze itself is a complex grid of paths and dead ends.