

Wisconsin Dairy FUN BOOK



Let's Explore Wisconsin, AMERICA'S DAIRYLAND

Colby Cheese

Colby Cheese is named after a city in Clark County.

Big Cheese

Wisconsin is home to 138 cheese plants that produce more than 600 varieties, types and styles of Wisconsin cheese—almost double any other state.

STATE DOMESTIC ANIMAL



Dairy Cow

Wisconsin is home to more than 1.27 million dairy cows.

Wisconsin

makes more cheese than any other state, making one of every four pounds produced in the United States.



Agriculture

For more than 160 years, agriculture has driven the state's economy.

Cheese Curds

People in Green Bay eat more cheese curds than anywhere else in the United States.

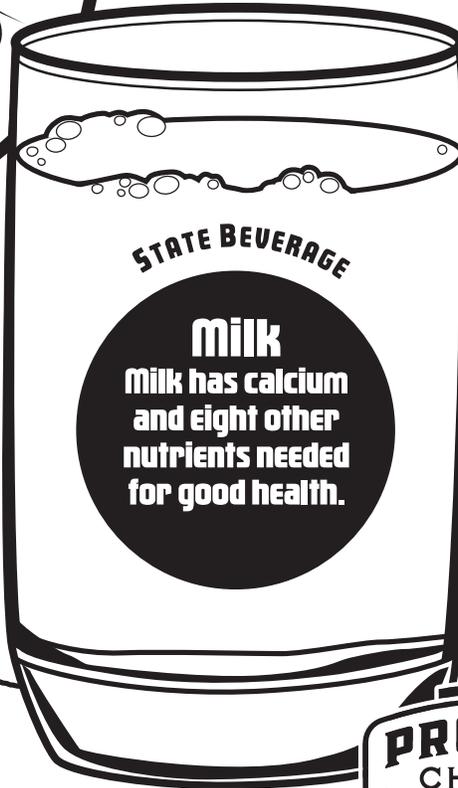
Dairy Farm

Wisconsin's 9,500 dairy farms produce over 13% of all milk and 25% of all cheese in the United States.

STATE BEVERAGE

Milk

Milk has calcium and eight other nutrients needed for good health.



CHEESE

A piece of cheese the size of an adult's thumb has the same amount of calcium as one cup of milk.





Wisconsin's Strong DAIRY HERITAGE

→ **PRESENT**

1994 The Wisconsin Master Cheesemaker® Program, the only one of its kind in the U.S., is established.

2009 Wisconsin specialty cheese production tops 500 million pounds for the first time.

2015 Wisconsin cheesemakers capture 61% of all awards for cow's milk cheese at the United States Championship Cheese Contest.



2010 Wisconsin becomes the 4th largest cheese-producing region in the world—behind the United States, Germany and France.



1994 The Wisconsin Specialty Cheese Institute is formed to promote the specialty cheese industry.



1930's Wisconsin officially becomes known as America's Dairyland.

1910 Wisconsin becomes the leader in cheese production.

1921 Wisconsin is the first state to establish cheese grading standards.



1890 First dairy school in America is established at UW-Madison.

1986 The Center for Dairy Research at UW-Madison is established.

1881 The first ice cream sundae is served in Two Rivers, Wisconsin.

Past →

1841 Wisconsin's first cottage industry cheese factory established.

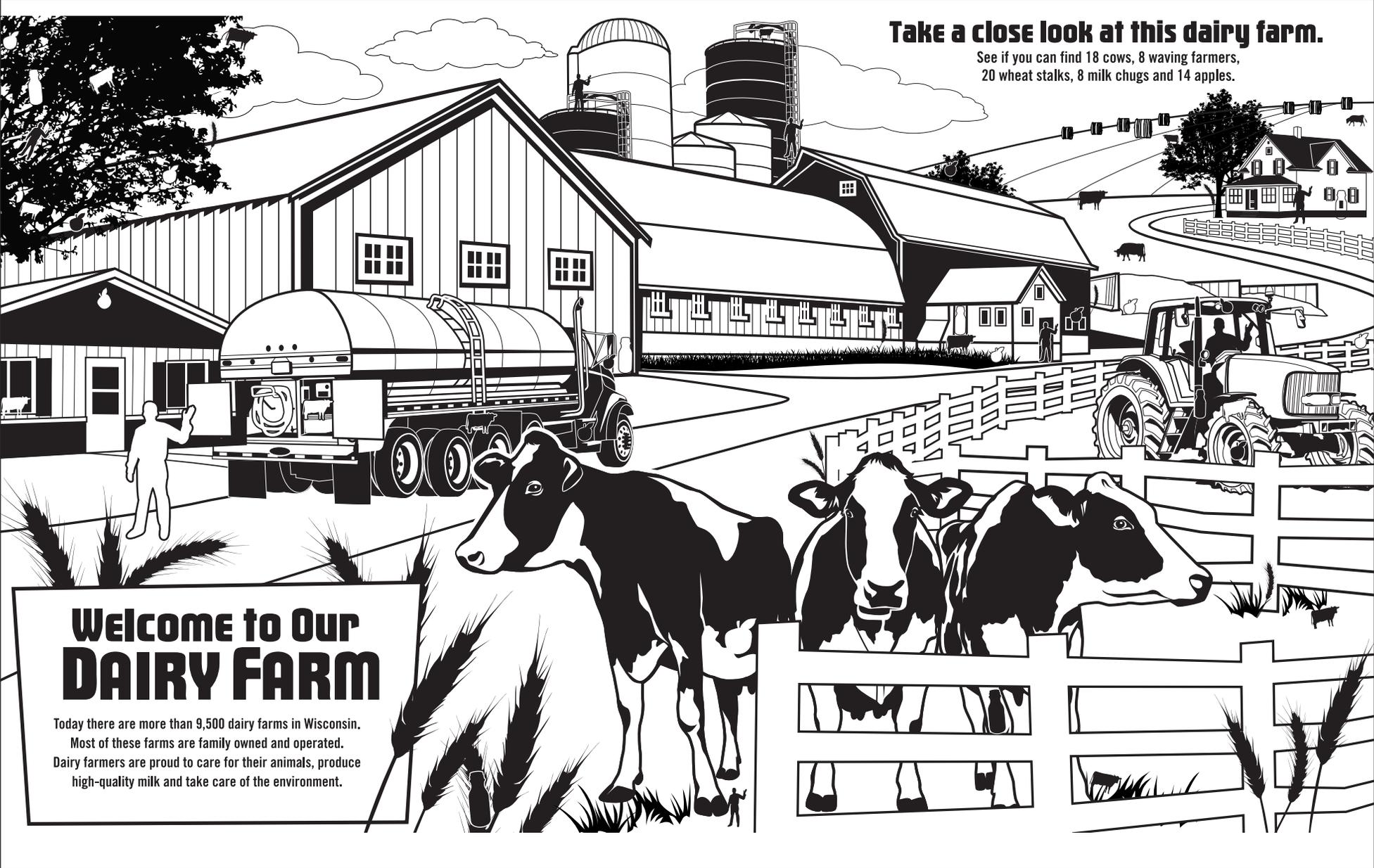


1885 Colby Cheese is invented in Colby, Wisconsin.

1877 Brick Cheese is invented in Dodge County, Wisconsin.

Take a close look at this dairy farm.

See if you can find 18 cows, 8 waving farmers,
20 wheat stalks, 8 milk chugs and 14 apples.



Welcome to Our DAIRY FARM

Today there are more than 9,500 dairy farms in Wisconsin.
Most of these farms are family owned and operated.
Dairy farmers are proud to care for their animals, produce high-quality milk and take care of the environment.

Dairyland RIDDLES



zzzzzzzz



10. Why shouldn't you stay awake after the cows go to sleep?

11. How do you make a strawberry shake?

12. Where do cows like to ride on trains?

1. What game do cows play at parties?

5. What is black and white and red all over?

13. When is the best time to eat hot fudge?

2. What two farm animals do you walk with every day?

6. What are the spots on black and white cows called?

3. What kind of cheese needs repair?

7. What does a cow ride when her car is broken?

4. What class do cow students look forward to?

8. What was the bull doing in the pasture with his eyes closed?

9. What do you call cheese that isn't yours?



WISCONSIN DAIRY BREEDS

Holstein

black and white; came from Holland in 1621



Milk comes from dairy cows. In Wisconsin, there are seven main breeds of dairy cows. Most dairy cows in Wisconsin are Holsteins. One way to tell the breed of a dairy cow is by its color. Which breeds have you seen before?

Red & White Holstein

red and white; came from Holland



Brown Swiss

solid brown, varying from very light to dark; came from Switzerland in 1869



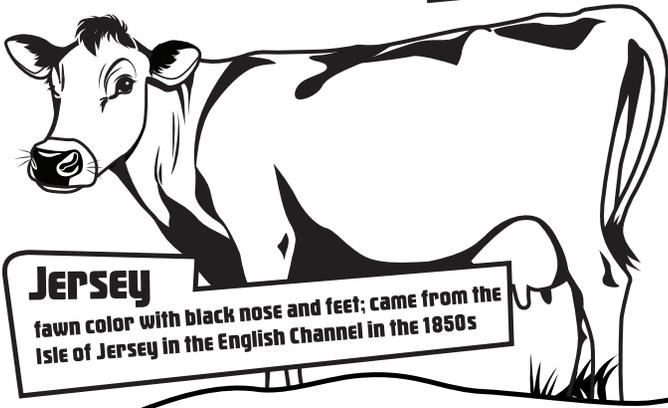
Milking Shorthorn

reddish-brown with small white spots; came from Northeastern England in 1783



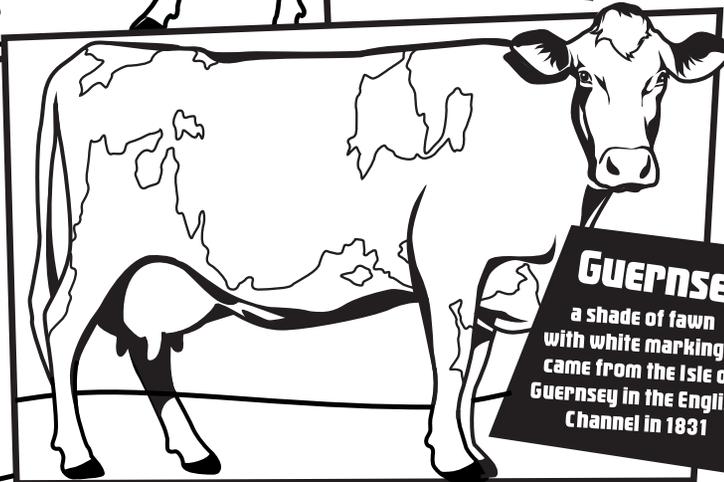
Jersey

fawn color with black nose and feet; came from the Isle of Jersey in the English Channel in the 1850s



GUERNSEY

a shade of fawn with white markings; came from the Isle of Guernsey in the English Channel in 1831

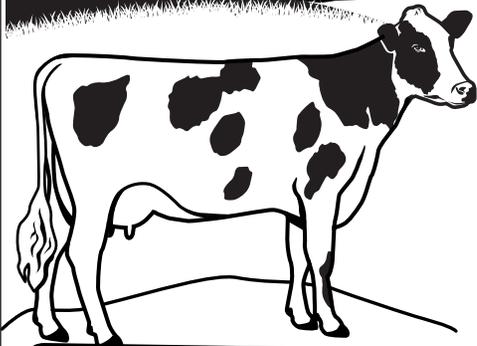


Ayrshire

light to deep cherry red with white; came from the County of Ayr in Scotland in 1822



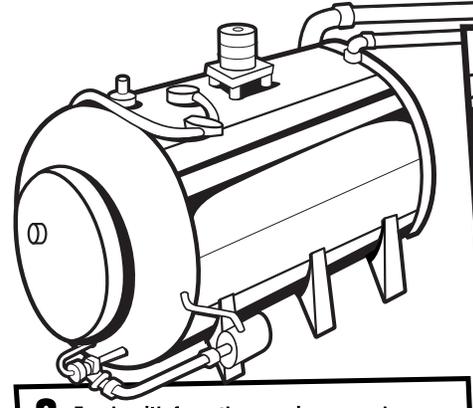
Milk from Cow to You!



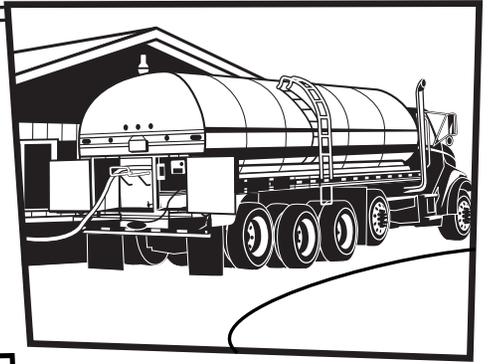
1. Milk comes from healthy, well-fed cows that are raised on dairy farms.



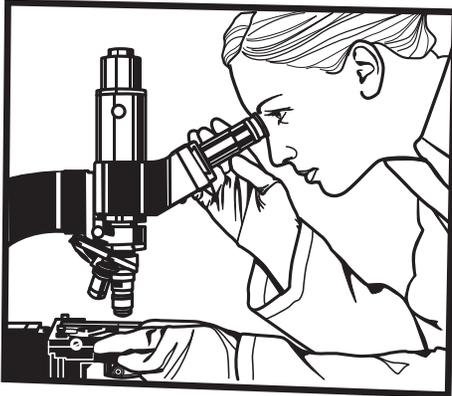
2. To begin milking, a cow's udder is washed before the milking machine is attached. This happens at least two times a day.



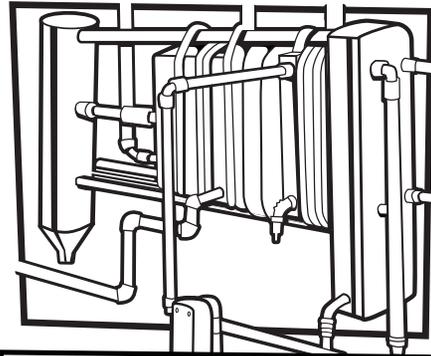
3. Fresh milk from the cow is pumped through a pipe and into an insulated tank, where it is cooled and kept fresh and safe.



4. Each day, a special insulated tanker truck comes to the farm to pick up the cold milk and deliver it to the dairy plant.



5. At the dairy plant, the milk is kept cold and tested many times for quality.



6. Next, the milk is quickly heated, or pasteurized. This is an important step to ensure the milk is safe and wholesome.



7. The milk is then cooled again, put into containers and stored in a refrigerated room until it can be picked up.



8. Within two days after milking, the milk is loaded onto refrigerated trucks and delivered to schools, restaurants and supermarkets.



Calcium
for strong bones
and teeth

Vitamin A
for healthy
eyes and skin

Phosphorus
to strengthen bones

Vitamin B12
so red blood cells
can carry oxygen
to working muscles

Protein
for strong
muscles

Potassium
for fluid balance and to
help muscles contract

**Niacin and
Riboflavin**
to help cells
produce energy

Vitamin D
to deposit calcium
in bones and teeth

Milk has calcium
and eight other
nutrients for good
health. Cheese and
yogurt are also part
of the milk group.

Milk's Nutrients

MILK

is a power drink that supplies your body with nutrients to grow tall, play hard and learn well. Calcium, along with eight other essential nutrients in milk, will keep you healthy. Remember to drink 3 servings of milk each day for the nutrients you need.

Word Scramble

H C I W D N A S Y L L E J D N A R E T T U B T U N A E P
I M S T D J U S O L C E J C I A O E P T L B P I O A M O
B B R S R K U I C F M R L H K B Z R T A U B T U N A E F
H C I A D N A S Y L L E S R E G R U B E S E E H C A E P
W Z R O S R F K S C U I R H K R M V H I F T A Z Z I P R
F Z O T J R O O L R O R G D O E U R H E U V A R O L V K
K I R T V C E R E A L O M R F R F Y G O R H L R O F R S
O R B A S R J G G R H I K R D M F I H B L K R I K M V E
H G R E L M B R N R G U R I W P I R J A W V M J M R U L
Z I E H E R F Y U I E H V Y E R N K S R V Z E O R G L B
L O R W G M L H B R F C I L N S S A R E D O L R J I R A
F E R E A Y V L E U R N E J R E G R D R K R D R K H C T
R I C L B C D J S Y I O E R D N K W E Y E A T O C Z U E
L B R O R M J K E F U R O K A B L O Y K R B C I R E O G
O W Y H K H R C E O R J D R C R O G I F O L H N U R G E
H R B W Y K H U H R G Z R L R I Y J R H O Y E R A R L V
E G R I L L E D O H E E S E S A H D W O C P J H B P F H
Y E R E H C I W D N A S E S E E H C D E L L I R G J K W

Search for these foods that taste great with milk:

PANCAKES, CEREAL, CHEESEBURGERS, GRILLED CHEESE SANDWICH, LASAGNA, MUFFINS, BAGELS, COOKIES, PASTA, PEANUT BUTTER AND JELLY SANDWICH, WHOLE WHEAT TOAST, CHICKEN FINGERS, VEGETABLES, PIZZA, FRUIT

Good nutrition tastes great in all types of milk. They all have the same nutrients. Choose the milk you like the best and drink 3 servings every day.

Unscramble the answers to learn more about the nutrients in milk and their functions in your body.

Which mineral helps build strong bones and teeth? **MIULACC**

This nutrient keeps your body hydrated and cool and makes up 90% of milk's content. **TRAEW**

This mineral strengthens strong bones. **ROHPSHOUPS**

Which vitamin helps red blood cells carry oxygen to your muscles? **TANBMIIV-12**

Name an important mineral needed to keep fluid balance in your body. **ATUOPSSIM**

Which two B vitamins found in milk help the body's cells produce energy? **CNIANI** and **LVFAINROB**

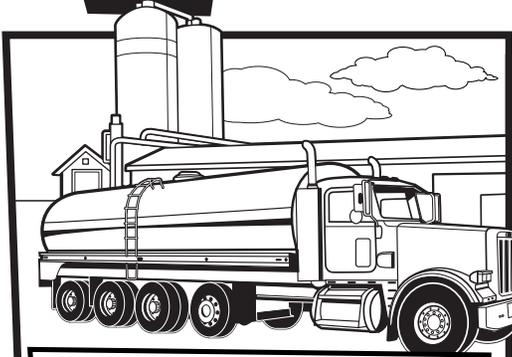
This vitamin is needed to keep your skin and eyes healthy. **TMINAAVI**

Name the major nutrient that helps build muscles for a strong body. **RITENOP**

Sometimes called the "Sunshine Vitamin," it is needed to help deposit calcium in your bones and teeth. **TMNIADVI**

**How Milk
Becomes
CHEESE**

The Art of Cheesemaking in Wisconsin



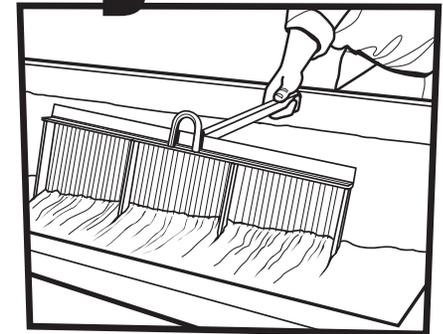
1. Milk-Insulated tanker trucks pick up quality milk from Wisconsin dairy farms and deliver it to cheese factories.



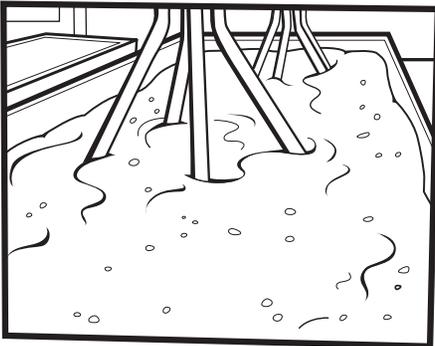
2. Standardize-The milk is carefully tested, then quickly heated or pasteurized, for freshness and safety.



3. Coagulate-Starter cultures and enzymes are added for flavor. One enzyme, rennet, helps the milk coagulate turning it into a yogurt-like substance.



4. Cut- Now it's time to start cutting! This begins the process of separating the liquid, called whey, from the milk solids, called curds.



5. Heat, Stir, Drain-The curds and whey are stirred and cooked until the curds are the right amount of firmness. The whey is drained and saved for other uses.



6. Transform-The cheesemaker blends, mixes and forms heaps of curds, which are then chopped and salted for extra flavor.



7. Press-The curds are then pressed into different forms and shapes by mechanical pressing machines.

I ♥ WISCONSIN CHEESE



8. Cure- Finally, the cheese is moved to a curing room to age. Then it is wrapped and shipped, ready to be enjoyed by cheese lovers everywhere!



Many types of cheese contain little or no lactose.

Vitamin A
to assist with normal vision and help you see in the dark.

Phosphorus
to strengthen bones and help cells make energy.

Calcium
phosphorus and other components in cheese may help prevent cavities.

Protein
to grow and build muscles.

Sphingolipids
a healthy type of fat needed to protect the body from some types of cancer.

Calcium
for strong bones and teeth.

Zinc
to grow and repair tissues and muscles.

Vitamin B-12
to help produce red blood cells.

Choose Wisconsin cheese for good health.

Wisconsin cheese supplies calcium and other healthy nutrients and can be part of your three daily servings of dairy foods. Eat cheese for a healthy and hard-working body.



CHEESE GROUP

CHEESE

Wisconsin cheese and other dairy products are especially important for preteens and teenagers when the body is forming nearly half of all bone mass and about 15% of adult height is added.

Get a tape measure out and see how much you've grown lately.

How tall are you?

One and one-half ounces of natural cheese has the same calcium and protein as a glass of milk.

Word Scramble

Now that you have learned about the nutrients found in Wisconsin cheese, **UNSCRAMBLE** the answers to these questions about the nutrient functions in your body.

Cheese has small amounts of which carbohydrate?

SOETCLA

Which fat found in cheese and other dairy products helps protect the body against some types of cancer?

SSPHGOLIIPNID

Which vitamin helps your body make red blood cells and is also needed to make DNA?

TANBMIIV-12

Name a vitamin that helps you see in the dark.

MAVTINIA

What mineral helps grow and repair tissues and muscles?

NICZ

Which mineral helps build strong bones and teeth?

IUMCCLA

Working Words on a Dairy Farm



Wisconsin dairy farmers use many words which you may not know. Find the terms listed below in the Word Search box. If you don't know what some of these words mean, look them up to help you understand more about Wisconsin's dairy industry.

- Bovine
- Calcium
- Conservation
- Cream
- Cud
- Fertilizer
- Harvest
- Heifer
- Homogenize
- Lactation
- Nutrients
- Pasteurize
- Silage
- Tillage
- Udder
- Whey



Dairyland Code

Use the code below to answer these brain teasers!

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26

Who brought the first dairy cow to America?

3 8 18 9 19 20 15 16 8 5 18 3 15 12 21 13 2 21 19

What product uses approximately 90% of Wisconsin's milk?

3 8 5 5 19 5

What is milk mostly made of?

23 1 20 5 18

Which state is #1 in cheese production?

23 9 19 3 15 14 19 9 14

Cows spend an average of six hours each day doing what?

5 1 20 9 14 7

What is the most popular ice cream flavor?

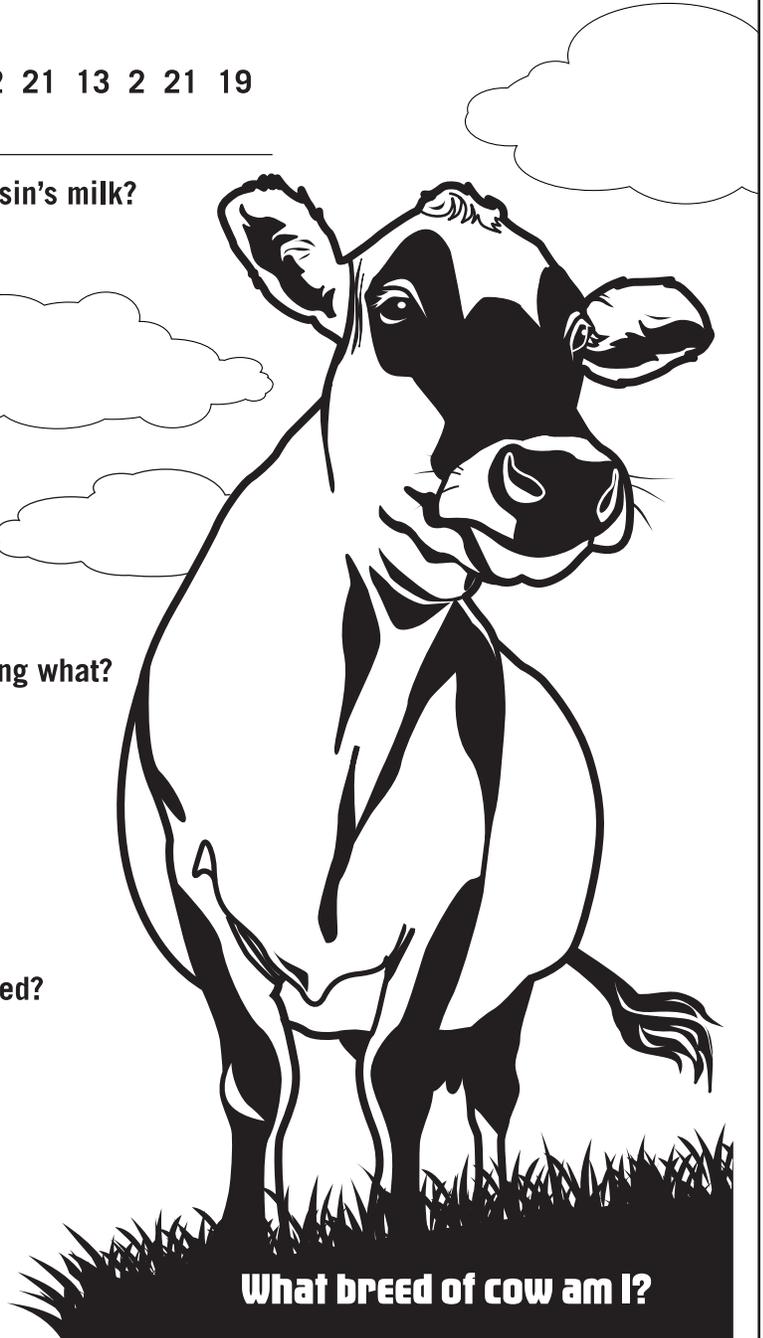
22 1 14 9 12 12 1

90% of all dairy cattle in Wisconsin are what breed?

8 15 12 19 20 5 9 14

The average cow produces nearly
2,500 _____ of milk each year.

7 1 12 12 15 14 19



What breed of cow am I?

USDA Plate

Are you making good choices when it comes to eating?

One way to find out is to go to

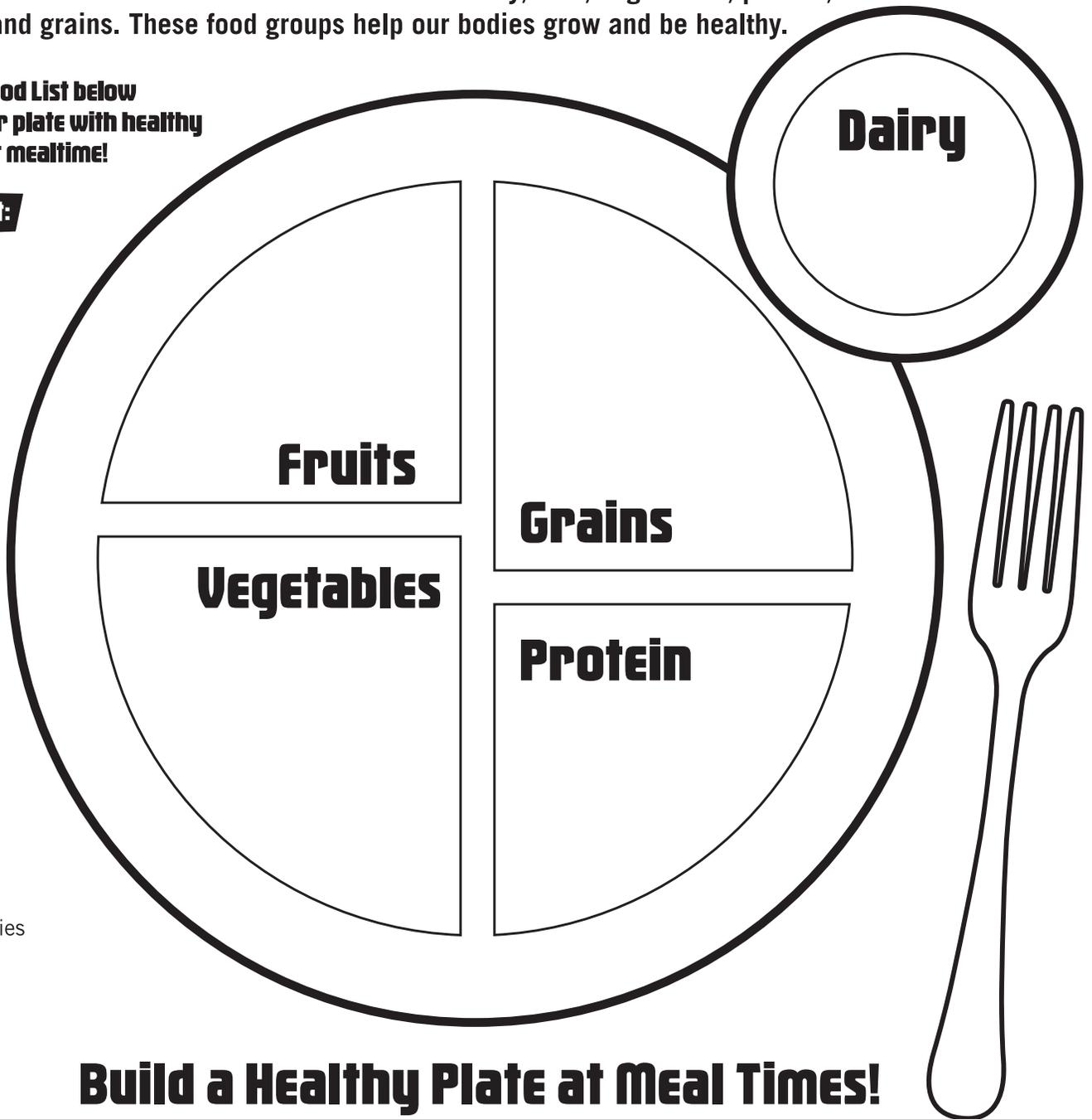
www.ChooseMyPlate.gov

This food icon helps us build a healthy plate at meal times and reminds us to include low-fat dairy, fruit, vegetables, protein, and grains. These food groups help our bodies grow and be healthy.

Use the Food List below to fill your plate with healthy choices at mealtime!

Food List:

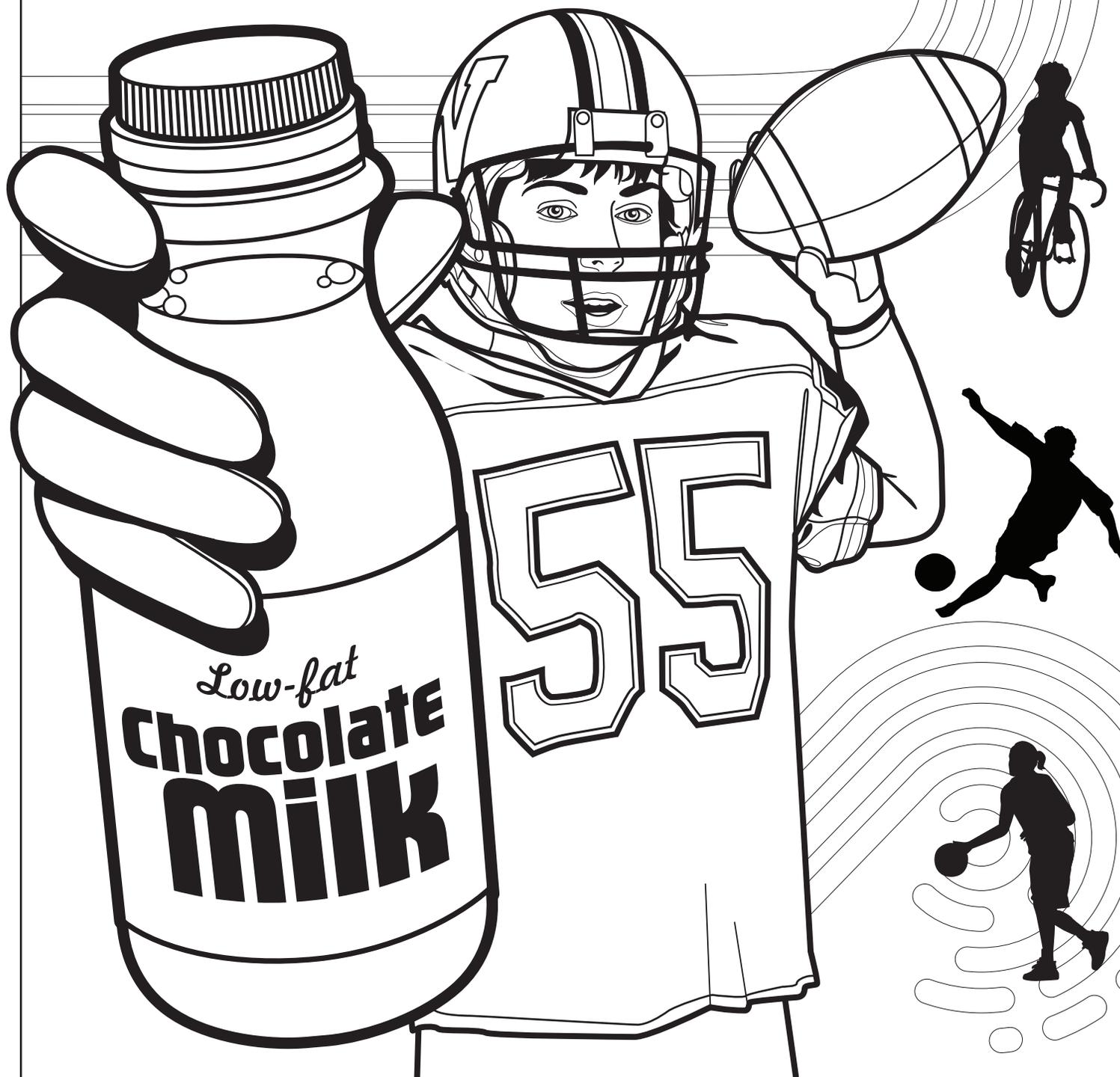
Apples
Steak
Carrots
Muffin
Grapes
Yogurt
Cherries
Pasta
Fish
Milk
Bread
Corn
Bagel
Cereal
Cheese
Broccoli
Beans
Chicken
Bananas
Strawberries



Build a Healthy Plate at Meal Times!

REFUEL with Chocolate Milk!

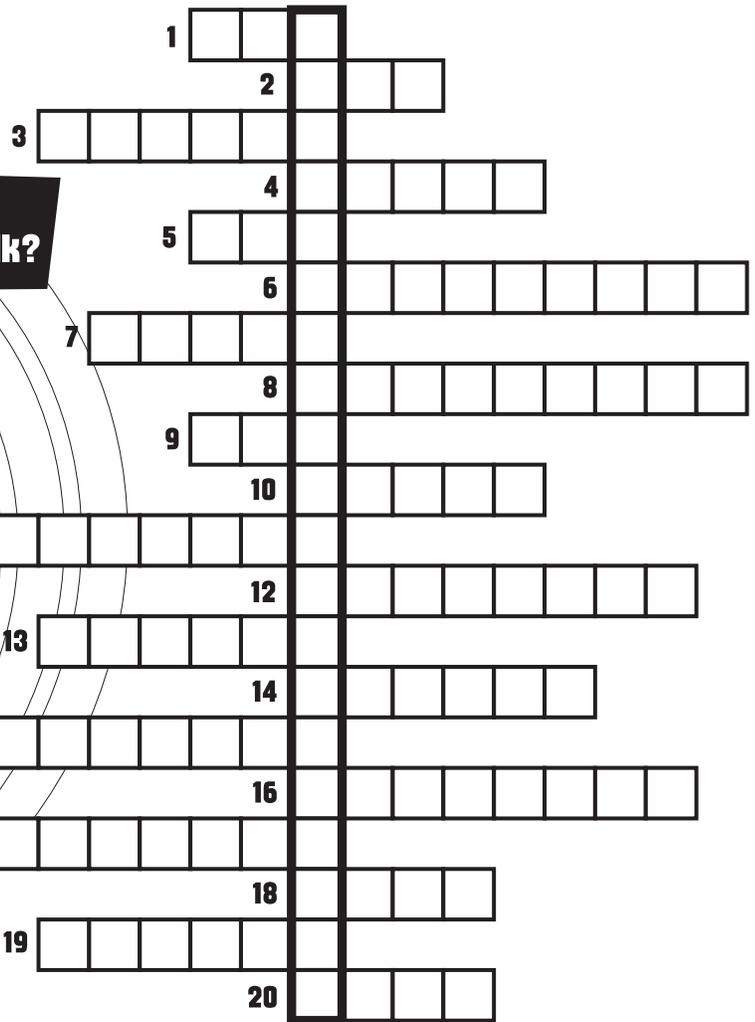
Low-fat chocolate milk has the right mix of nutrients to keep student athletes healthy—and tastes great, too!



Dairy Word Power Puzzle

Answer questions 1-20 “across” to reveal the highlighted “down” answer to the following question:

Who works in America's Dairyland, raising crops and cows, to produce milk?



1. The average Wisconsin dairy _____ gives 112 glasses of milk each day.
2. Drink milk _____ cold.
3. Milk, cheese and yogurt are one of the Five Food _____.
4. Top off a bowl of fruit with whipped _____.
5. Guess _____ says “moo”?
6. Calcium is one of the _____ found in milk.
7. Calcium helps keep your _____ and teeth strong.
8. The opposite of “REAL” is _____.
9. It takes _____ pounds of milk to make one pound of cheese.
10. Most children should _____ 3 glasses of milk each day.
11. _____ cheese is used to make pizzas.
12. Vanilla is America's favorite _____.
13. _____ is a special ingredient in cookies.
14. Creamy _____ is often flavored with fruit.
15. Some people use _____ & _____ in their coffee.
16. The _____ breed of cow is white with light to deep cherry red patches.
17. _____ cheese is yellow and good in sandwiches.
18. All dairy foods are made from _____.
19. More than 600 varieties, types and styles of _____ are made in Wisconsin.
20. The “_____” Seal means a food was made from cow's milk.

HELP WANTED!

You don't have to come from a farm to choose a career in the dairy industry. There are dairy-related jobs everywhere for anyone. With more than 300 different careers associated with Wisconsin's progressive dairy industry, the possibilities are numerous.

2 ACROSS
I am a scientist who studies microorganisms.

7 Down
I design and construct machines.

1 Down
I help you choose healthy foods to eat.

6 Down
I raise cows on a farm.

10 ACROSS
I make your food in a restaurant.

5 Down
I take care of animals.

3 ACROSS
I know how to grow plants and take care of the soil.

12 ACROSS
I make cheese from milk.

9 ACROSS
I know the law.

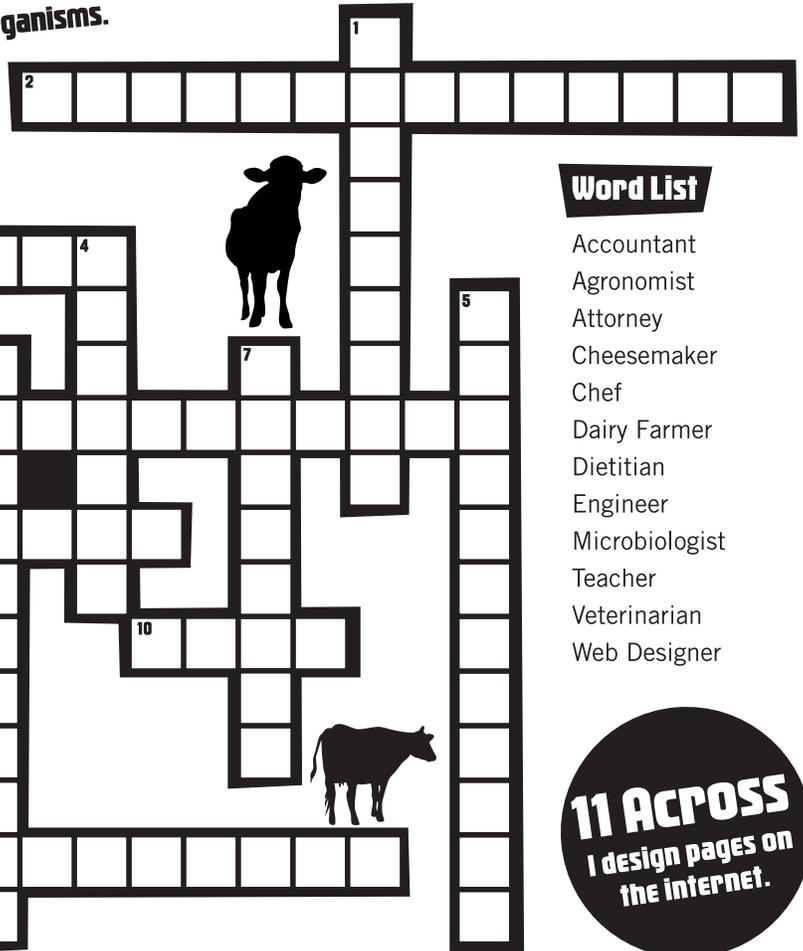
4 Down
I help you learn.

8 ACROSS
I'm good with numbers.

Word List

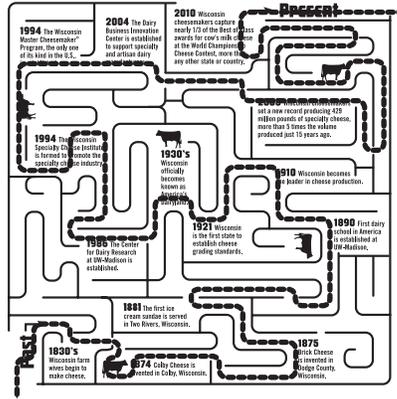
- Accountant
- Agronomist
- Attorney
- Cheesemaker
- Chef
- Dairy Farmer
- Dietitian
- Engineer
- Microbiologist
- Teacher
- Veterinarian
- Web Designer

11 ACROSS
I design pages on the internet.



ANSWER KEY

Dairy Heritage Maze



Dairyland Riddles

1. Moosical chairs!
2. Calves!
3. Swiss Cheese – it's full of holes!
4. Moo-sic class!
5. A Holstein wearing too much lipstick
6. Hol-stains!
7. A Cow-asaki Moo-torcycle!
8. Bull-dozing
9. Nacho cheese!
10. Because it is "pasture" bed time!
11. Take her to a scary movie!
12. In the "cow-boose"!
13. On sundaes!

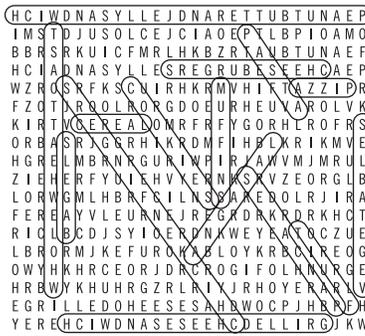
All About Cows

1. weigh
 2. pounds, drink
 3. four
 4. milk
 5. eating
- "HOLE" milk

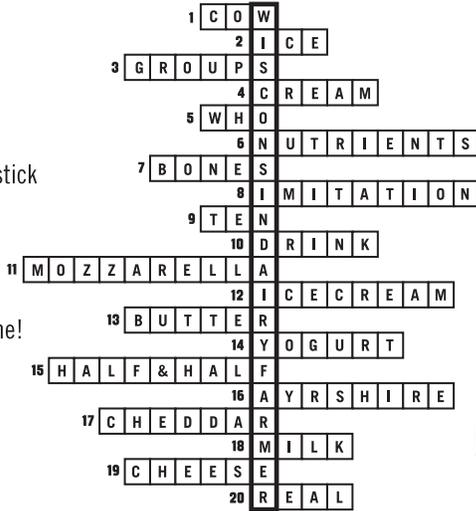
Dairyland Code

- CHRISTOPHER COLUMBUS
CHEESE
WATER
WISCONSIN
EATING
VANILLA
HOLSTEIN
GALLONS
JERSEY IS MY BREED

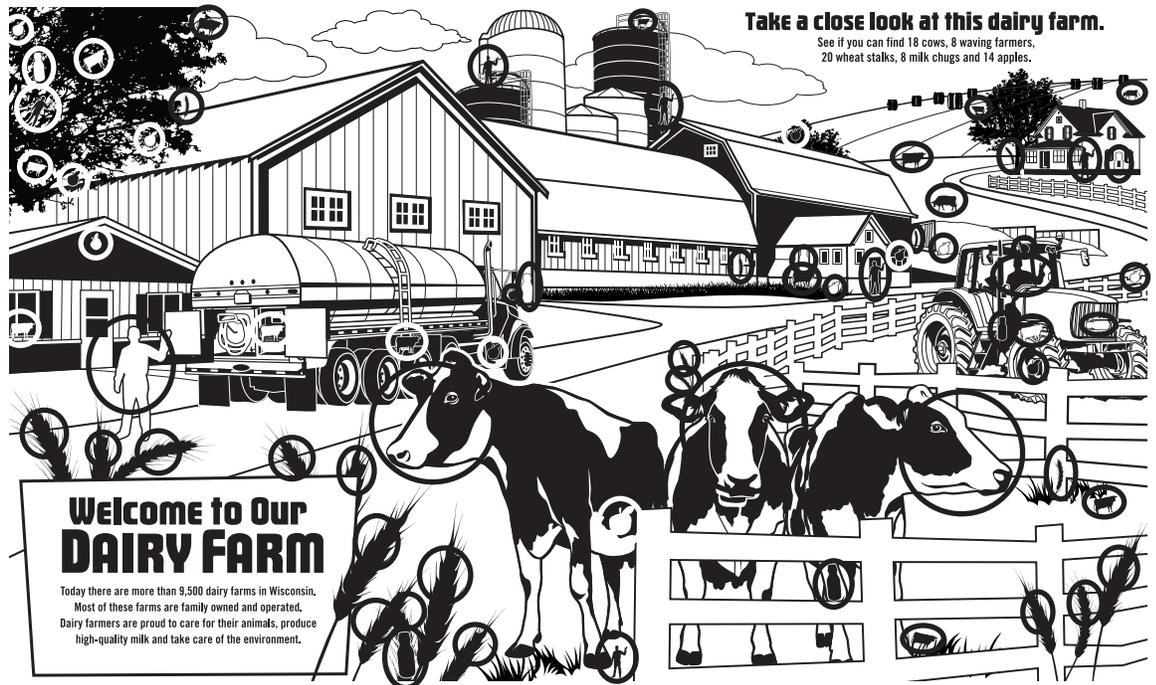
Word Search



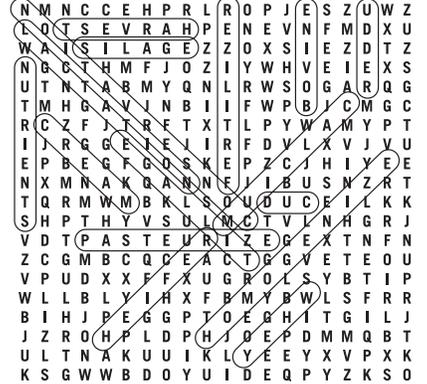
Dairy Word Power Puzzle



Hidden Items



Working Words on a Dairy Farm



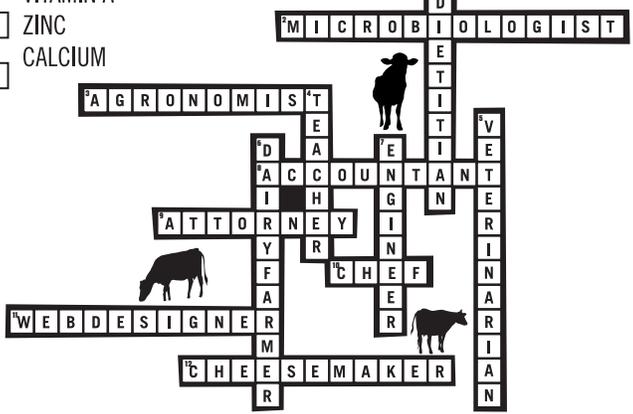
Milk

- Word Scramble**
CALCIUM
WATER
PHOSPHORUS
VITAMIN B-12
POTASSIUM
NIACIN, RIBOFLAVIN
VITAMIN A
PROTEIN
VITAMIN D

Cheese

- Word Scramble**
LACTOSE
SPHINGOLIPIDS
VITAMIN B-12
VITAMIN A
ZINC
CALCIUM

HELP WANTED!



Take a close look at this dairy farm.

See if you can find 18 cows, 8 waving farmers, 20 wheat stalks, 8 milk chugs and 14 apples.