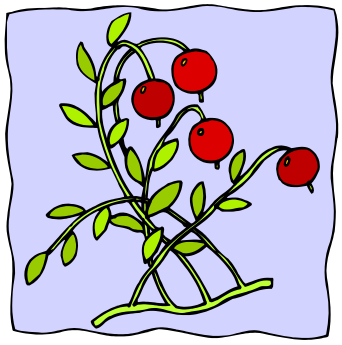
Maryland Ag in the Classroom

Crazy about Cranberries



When you think of cranberries, what comes to mind first? Do you think about cranberry sauce with turkey or dried cranberries as a snack? Let's take a look at this amazing little berry which is a fruit packed with Vitamin C!

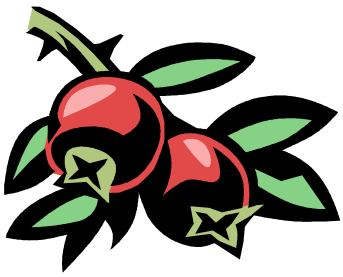
How Did Native Americans Use Cranberries?

The Native Americans introduced the Colonists to the cranberry and its many uses. The Native Americans mixed together dried strips of meat or fish, some fat and cranberries that had been pounded into a paste. This mixture was shaped into a cake that was dried in the sun. It was called *pemmican* and could be considered one of the first "energy bars." The cranberries acted as a preservative and kept the bar from spoiling. Since the bar stored well, it could be used as a meal on long journeys or saved as food for the winter. The Native Americans also used cranberries as a dye for rugs and blankets and as a medicine to prevent illnesses. Mashed, unripe cranberries were made into a poultice and used to heal scrapes and sores.

How Do Cranberries Grow?

Cranberries grow on vines in special beds that have layers of sand, peat, gravel and clay. In some places these beds are called *bogs* and in other places they are called *marshes*. Cranberries need plenty of water and a long, cool growing season which usually lasts from March to November.

What Special Properties Do Cranberries Have?



The properties of a cranberry are rather unique. They have a tart taste which comes in part from its ascorbic acid or Vitamin C content. When you touch a cranberry you will notice that it is not only red and round but it has a waxy coating. This waxy coating allows it to maintain its freshness after being picked. In fact, the cranberry's Vitamin C

content and its "long life" because of the waxy coating allowed it to be packed in wooden barrels and taken on sea voyages in Colonial Times. When sailors ate cranberries, the Vitamin C protected them from a terrible disease known as *scurvy*.

Although cranberries don't have much of a smell, they do have a beautiful red color. When dropped in water, cranberries will float. This property allows them to be harvested by flooding the bog with water. A harvesting wheel gently beats the vines and loosens the berries. Then the floating berries are harvested and sent to a processing plant where some will be turned into juice or sauce. Other cranberries will be dried and sweetened and made into dried cranberry snacks.

The most interesting property of cranberries is their ability to bounce. If you drop a fresh, ripe whole cranberry it will bounce. Old or damaged berries won't bounce. This bouncing ability at the sorting mill allows berries pass the quality test. This property determines which berries will be sold as bagged berries and which berries will be turned into juice.

Cranberries are a super, little, colorful fruit that are good for you!

Name: _____

Date: _____

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Crazy about Cranberries – Reading Passage
Directions: Read each question and fill in the best answer

1. Cranberries good for you because they

- O A. bounce
- O B. have a waxy cover
- O C. contain Vitamin C
- O D. float

2. Which is NOT true of pemmican?

- O A. made into cakes
- O B. keeps well
- O C. used to dye rugs
- O D. carried on long journeys

3. Cranberries need a long, cool growing season.

- O A. true
- O B. false

4. Which is **not** a property of a cranberry?

- O A. They bounce when ripe.
- O B. They float.
- O C. They are waxy.
- O D. They smell good.

5. What was the author's purpose in writing this article?

- O A. to entertain you
- O B. to inform you
- O C. to persuade you

6. According to the article how are cranberries used **today**?

- O A. as medicine
- O B. as a dye
- O C. for juice and sauce
- O D. to protect sailors from a disease called scurvy

Extended Response: Choose either question.

1. How are the growing, producing, and uses of apples and cranberries alike?
2. How are the growing, producing, and uses of apples and cranberries different?

Use details from your own experience and information from the article in your response.

Cranberry Trivia

* John Webb, the first recorded New Jersey grower, was also the first person to notice that good cranberries bounce. Because he had a wooden leg, John couldn't carry his cranberries down the stairs, so he dropped them instead. He soon noticed that the firmest berries bounced to the bottom but the rotten ones stayed on the steps.

* Small pockets of air inside the berry cause the cranberry to bounce. Air also causes berries to float in water. Cranberries are almost 90% water.

* There are approximately 333 cranberries in a pound, 3,333 cranberries in one gallon of juice and 33,333 cranberries in a 100-pound barrel.

* White cranberry juice drinks are made from regular cranberries that have been harvested after the fruit has matured, but before they have attained their characteristic dark red color.

* The average number of cranberries used per can of sauce is 200.

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A Fun Science Experiment for You to TRY…

Cranberry Dyed Eggs

Mash two cups of cranberries or whir them in the blender. Place them in a saucepan with two cups of water. Get an adult to help you place the pan on a burner and bring it to a rapid boil. Then, simmer it for 10-to-20 minutes, turn off the heat, put a cover on the pan and let it steep (sit there with the cranberries still in the pan) for at least an hour. Once that's done, strain out the cranberries and put the dye in a bowl. Add several hardboiled eggs and let them sit over night. The eggs will look like they were that color when they were hatched! Peel and enjoy.

√ Check out these books:

Cranberries: Fruit of the Bogs by Diane L. Burns

This photo book reveals the cranberries versatility and importance to the Native Americans and Pilgrims. A tour of two cranberry farms depicts what happens during the planting, growing and harvesting seasons.

Harvest Time by Jennifers Waters

Text and photographs describe how several different crops, including pumpkins, corn, potatoes and cranberries are picked and gathered by humans and by machine.