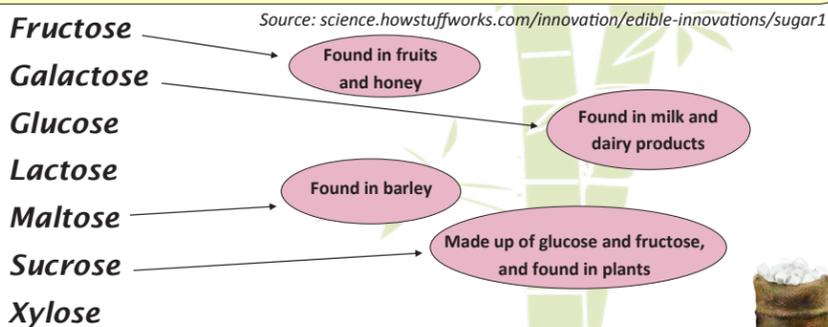


# Agriculture Adventure for Families

Who doesn't love a sweet treat as a reward for tolerating the cold, dreary month of February? With Valentine's Day being a focus every February, sugar is usually around us in some way, shape or form. Sugar comes from the baking aisle for most of us, but once again we need to acknowledge a whole lot of farmers who work hard to produce and harvest a sugar crop. Does your family know where sugar comes from? What's the difference between the milk chocolate and dark chocolate hearts? How do those words get on the conversation hearts? Enjoy a small glimpse of sugar this month! Happy February!

 There are numerous types of sugar, although most people might first think of basic table sugar, the white crystals used in most homes and in much cooking. This sugar is called sucrose and comes from sugar beets or sugarcane. Sucrose appears in other plants, too, along with glucose and fructose. It's actually in every plant since sugar and oxygen are products of photosynthesis. But unlike sugar beets and sugarcane, other plants don't produce sucrose in sufficient quantities for harvesting. Other types of sugar include:



## What is Sugarcane?

Sugarcane is grown primarily in the tropics and subtropics. In the United States, sugarcane is grown commercially in Florida, Louisiana, Hawaii and Texas. Cane for sugar was 31.1 million tons in 2017.



The process of separating sugar from the sugarcane plant is accomplished through two steps: sugar mill crushing and sugar refinery extraction. Sugarcane is initially processed into raw sugar at mills near the cane fields. Because cane is bulky and relatively expensive to transport, it must be processed as soon as possible to minimize sugar deterioration. The raw sugar is then shipped to refineries to produce refined sugar. The final products of refining include powdered, granulated and brown sugar, which is sugar that contains some molasses.

Source: [www.agmrc.org/commodities-products/grains-oilseeds/sugarcane-profile](http://www.agmrc.org/commodities-products/grains-oilseeds/sugarcane-profile)

## What is a Sugarbeet?

The sugarbeet is a root crop that flourishes in temperate climates where the growing season is about five months long. Farms can be found in California, Colorado, Idaho, Michigan, Minnesota, Montana, Nebraska, North Dakota, Oregon, Washington, and Wyoming. Factories generally operate around the clock, seven days a week, from October through April. Beet sugar represents about 54% of domestically-produced sugar. Some beet sugar brands you might recognize are: Crystal Sugar, Holly Sugar, Western Sugar, Big Chief Sugar, Pioneer Sugar, White Satin, and Spreckels Sugar.



Source: [www.americansugarbeet.org/who-we-are/what-is-a-sugarbeet/](http://www.americansugarbeet.org/who-we-are/what-is-a-sugarbeet/)

## 3 Main Types of Chocolate



**Dark Chocolate:** (*The bare essentials*) Dark chocolate is simply chocolate liquor (the centers of cocoa beans ground to a liquid), extra cocoa butter, sugar, an emulsifier (often lecithin) and vanilla or other flavorings. Dark chocolates may contain milk fat to soften the texture, but they do not generally have a milky flavor. Unsweetened chocolate, or baking chocolate, is 100 percent chocolate liquor and is typically very bitter and astringent. Darker chocolates often have a higher percent cacao, which means they have a higher proportion of cocoa beans in them than other chocolates do.



**Milk Chocolate:** (*All of the above, plus milk solids*) Surprisingly, sweet and creamy milk chocolate isn't usually made with cold, frothy milk. It's usually made with dry milk solids, which look like powdered milk. Milk chocolate has at least 10 percent cocoa liquor by weight, and at least 12 percent milk solids. It's the most common kind of eating chocolate.

**White Chocolate:** (*Cocoa butter takes center stage*) White chocolate features cocoa butter—think milk chocolate minus the cocoa solids. In addition to the cocoa butter, sugar, milk solids, lecithin and vanilla, white chocolate may contain other flavorings. It has at least 20 percent cocoa butter, 14 percent milk solids, and no more than 55 percent sugar.



Source: [www.candyusa.com/story-of-chocolate/what-is-chocolate/kinds-of-chocolate/](http://www.candyusa.com/story-of-chocolate/what-is-chocolate/kinds-of-chocolate/)

## Candy Conversation Hearts

It is told that American colonists made candy with love notes scratched on the surface for Valentine's Day. So in the mid 1800s The New England Confectionery Company thought this might be a good idea to capitalize on and created the conversation heart. Shortly thereafter, Daniel Chase, brother of NECCO founder Oliver Chase, invented a process to print sayings on the candies. Sweet Hearts, the name used for candies with sayings inscribed directly on them, were invented in 1900. Initially other shapes were made that included horseshoes and baseballs. This was done to allow for more words and longer sayings. Eventually the sayings became shorter. These hearts are one of the most popular Valentine's Day candies. They are given as gifts to loved ones and of course seem to make their way into every schoolroom.

### How many different Sweetheart sayings are there?

There's about 80 different sayings each year. Each year about 20 new sayings are added, keeping 30 to 35 of the older ones like "Be Mine." The rest are a mix of ones from previous years or phrases that are popular enough to be added. Check out the difference between the "classics" and those most recent.



Then		Now	
Marry Me	Kiss Me	Text Me	Girl Power
Love U	Hug Me	You Rock	LOL
Be True	XOXO	#LOVE	Tweet Me

Source: [www.candyfavorites.com/blog/conversation-hearts-from-brach-from-necco-and-from-the-enlarging-machine/](http://www.candyfavorites.com/blog/conversation-hearts-from-brach-from-necco-and-from-the-enlarging-machine/)

## February Word Search

- |              |           |
|--------------|-----------|
| Be Mine      | Love      |
| Cacao        | Necco     |
| Candy        | Sucrose   |
| Chocolate    | Sugarbeet |
| Conversation | Sugarcane |
| Fructose     | Sweet     |
| Heart        | Text Me   |
| Lecithin     | Valentine |

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

Name: \_\_\_\_\_

Phone #: \_\_\_\_\_

Membership #: \_\_\_\_\_

(Membership # is located on front of paper)

If you were to win, check your preference:

\_\_\_ Beggar's Pizza GC \_\_\_ HRI GC \_\_\_ 3 Movie Tix

(If a choice is not made, movie tickets will be sent)

Deadline is the 20th of each month.

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Choices include a \$25 Beggar's Pizza Gift Card, a \$25 Home Run Inn Gift Card, OR \*3 AMC Movie Tickets \*AMC Yellow tickets not valid in California, New York & New Jersey.

Complete the Word Search puzzle for your chance to win! Winners will be contacted by mail.

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Complete and submit an entry every month all in 2019 and your name is automatically entered into an "End of Year" drawing for a gift basket full of ag themed goodies. Good luck!

## Last Month's Word Search Winner Is

Claudia Siboda

