Commodity: Apples

The most consumed fruit in the U.S. is apples. It is also one of the easiest fruits to eat.

All you need to do is bite into one. However, there are so many ways to enjoy apples.

They can be eaten raw, sliced up as a snack, baked or cooked, and the list goes on!

Farmers across the U.S. grow 240 million bushels of apples each year. People enjoy their pleasing shape and color, their firm and juicy texture, and their sweet, or tart, taste. Apples make for healthy eating. They are packed with vitamin A, vitamin C, thiamine, riboflavine, calcium, phosphorous, and potassium. They are also a great source of fiber.

Apples are popular around the world as well and hold meaning for many cultures. They appear as symbols in paintings and stories throughout history.

Apple History

Wild crabapples are native to the U.S. and have been here for thousands of years. The kind of apples you buy in the store are domesticated apples. The origins of those apple trees are in Central Asia. That's where the first apples were cultivated.

They spread to Africa, throughout Europe, across the Americas, and into Minnesota. In the 1850s, there were many different varieties growing on farms. Horticulturalists at the University of Minnesota began listing them so that they could create a system to breed

apples more uniformly. This breeding program, where scientists look for the best apple qualities, led to the development of many of the apples we eat today.

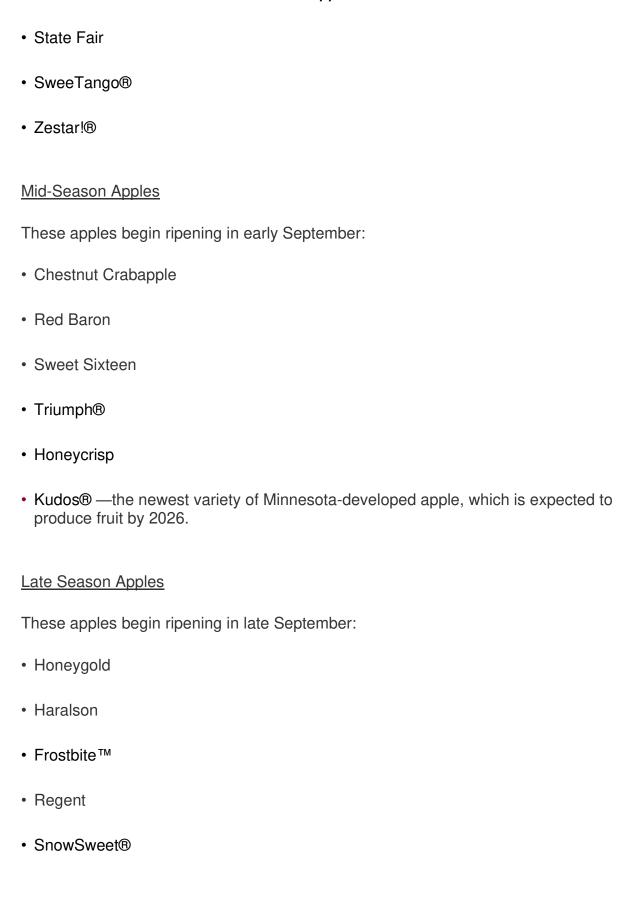
Types of Apples [photos of each variety to be inserted here]

There are many different types of apples—over 7500 varieties! Over 200 varieties are grown in the U.S. Some of the most popular apples in the U.S. are Red Delicious, Gala, Granny Smith, Fuji, Golden Delicious, Honey Crisp, McIntosh, Rome, Cripps, Pink Lady and Empire.

Because of Minnesota's harsh climate, not just any apple tree can grow in the state. Trees need to be able to survive average winter temperatures that range from 15°F to 25°F and even colder. Through years of selecting and testing different apple trees, scientists at the University of Minnesota have developed over 29 unique varieties that can grow well in our cold winter climate. Apples are categorized into early, mid-, or late season, depending on when they become ripe.

Early Season Apples

- Apples that begin ripening in August are:
- Beacon
- Centennial Crabapple
- First Kiss®
- Rave®



- Fireside/Connell Red
- Keepsake
- Prairie Spy

How Apples are Used

Historically, apples were eaten as a treat and used as a sweetener, before cane and beet sugar were readily available. They were also dried and made into dolls. Today, apples are primarily grown for eating. But that's not the only use of this popular fruit. Apples are also made into applesauce, baked into pies and other pastries, pressed into juice and cider, dried into fruit snacks and other processed apple products. Horses eat apples as a treat. People play games with them, such as bobbing for apples. Apples are even used in some cosmetics. Apple parts are also composted and used to fertilize other crops.

<u>Growing</u>

Like many fruits, apples have seeds at their core. If you were to plant one of those seeds, an apple tree would grow. But it might look and taste completely different than the apple it came from. That's because each seed has its own unique genetic material. Farmers want to be able to grow the same type of apple each season. So instead of planting apple seeds, commercial farmers use a growing technique called grafting.

Grafting is the process of combining a "cultivar" or specific type of tree with a rootstock of another that can support the tree. A cut is made into the rootstock. Next, a small bud

is inserted into the cut. The bud fuses with the rootstock to create a new tree! This process ensures that the tree will produce exactly the same type of fruit each time.

Once a tree has been grafted, it produces blossoms. The blossoms need to be cross pollinated, usually by bees or other pollinating insects. Once the flowers have been pollinated they develop into apples. Apples continue to grow and change color until they ripen. It takes between 80-105 days for apples to grow. The earliest apples ripen in August, and the latest in late October. When the apples are even in color, firm to the touch, and drop easily from the tree, they are ripe and ready to pick.

<u>Harvesting</u>

In Europe, apples that are grown for cider might be harvested mechanically. Most apples grown in the United States are picked by hand because apples are quite fragile, and bruise easily. Apple pickers use a special harvesting bucket, with straps on top, a soft lining, and a bag or 'skirt' rolled into the bottom. Pickers strap on the bucket, which helps them continue to pick the apples as the bucket get heavy. When the bucket is full, it can be unrolled from the bottom to gently release the apples without damaging them.

Some apples are sold right away at farm stands. Others are packed to sell at nearby stores or farmer's markets. Many apples are refrigerated, and others are placed in controlled atmosphere storage. This is a special room that maintains the right temperature, light, and other conditions so that the apples do not spoil and stay fresher

longer. It's as if the apples are asleep. Some apples can be stored for as long as 7 months or longer. From storage or refrigeration, apples are then packed and shipped to stores across the country.

Apples in Minnesota

There are 20 million pounds of apples grown in Minnesota each year. And, Minnesota has 330,660 acres of apples growing in the state.

Apples are celebrated each September at the annual Applefest celebration in La Crescent, Minnesota, the apple capital of the state.

The Honeycrisp apple was in development for 31 years! It became the official state fruit of Minnesota in 2006. It is the highest-selling variety of apple in the United States.

Fun Facts

Most of the apple's nutrients are found in the skin. Put down the peeler and eat the peel!

Nearly one in three apples grown in the United States is exported to another country.

Apples are related to roses. Along with pears, peaches, and plums, apples are part of the Rose family.

According to the Guinness Book of World Records, the heaviest apple in the world was grown in Hirosaki City, Japan by apple farmer Chisato Iwasaki in 2005. It weighed 4lb 1 oz (1.849 kg)!

October is National Apple Month. It first began as National Apple Week in 1904, then expanded. It is a time to celebrate apples with recipes and apple crafts.

Apples float in water because they are less dense than water. Air makes up 25% of their volume!