

## The ABC s of FOOD

### Aa

**ABALONE:** (ab-a-low-nee) These ear-shaped shellfish are found on rocks in the warm waters of the Pacific Ocean from California to Alaska. The molluscs are generally red or pink in warmer southern waters, orange colored in the northern waters. They are also found in other oceans, except the western Atlantic.

In southern California waters, abalone average six inches, but have been found growing up to a foot in length. Red is the favorite species. In Alaskan waters, the shell is much smaller, with an average of about three inches. Some shells are used to make mother-of-pearl buttons.

The abalone has a large, oval foot muscle it uses to adhere firmly to rock, especially when disturbed. It takes a crow bar to remove the larger abalones and strong hunting-type knife to dislodge the smaller ones. It is the foot that is the edible part.

Commercial abalone fishing is forbidden in United States waters. Except for man, its main enemy is the sea urchin.

Before it is cooked, the tough muscle needs to be tenderized, which is done by pounding with a mallet. Larger muscles should be cut into thin strips before pounding. The delicious clam-like muscle adds flavor to chowder and can be found canned in specialty food markets. If sliced thin and tenderized, the muscle can be sautéed in butter and eaten like a steak. **Nutrition facts:** A 3-ounce serving has 89 calories, 6 calories from fat, .7g total fat (1%), .1g saturated fat (1%), 72.3mg cholesterol (24%), 256mg sodium (11%), 5.1g carbohydrates (2%), zero fiber, 14.6g protein (29%), zero vitamin A, 3mg vitamin C (3%), 26mg calcium (3%), 2.7mg iron (3%), and 213mg potassium.

### HUNTING THE ELUSIVE ALASKAN ABALONE

by Richard S. Calhoun

Living on the water in southeastern Alaska has advantages, especially if you like fishing, and that's my favorite pastime. I was just waking up when Pete walked into my bedroom and asked, "Richard, do you want to pick some abalone?"

"What time is it?" I asked.

"It's four-thirty," Pete answered. "There's a minus tide; picking should be easy."

"Okay!" I reached for my hip boots.

"You're not going to wear hip boots are you?" Pete asked. "It's not wise to wear hip boots in a skiff," Pete commented.

"But, it's all I have. I only have one pair of shoes and I can't get them wet or Mom will kill me."

I looked in to see if Dad was awake. Both he and Mom were still asleep. Pete was already down on the dock and in the skiff. He was waving for me to hurry up. "We'll row over to that island," Pete said as he pointed to an island about a mile away. "There should be lots of abalone over there."

"But that's nothing but a rock pile. We can't even get ashore."

"We're not going ashore," Pete replied. "We will pick them from the skiff."

"How are we going to do that?" I asked. "When I lived in California, divers in wet suits swam down and pried them off the rocks with tire irons."

"California abalone are bigger than ours. See this pole? I tied a fish hook on the end of it. We will pick the abalone with this pole."

We crossed the channel to the island. The water was kicking up with about a foot chop. Every once in awhile a wave splashed over the sides. With a bucket, I bailed out the water. Once at the island the water was calmer, but with some surges up on the rocks. Pete looked over the edge of the skiff into the water. "See any abalone?" I asked.

"No, not yet, just a bunch of gum boots."

"What's a gum boot?"

Pete put the pole in the water, hooked a gum boot and pulled it up. "Here's one just for you," Pete laughed.

The gum boot was black on top, about four inches long and an inch wide. I turned it over and saw it had one big yellowish sucker muscle. The black side was arched, but there wasn't a hard shell.

"Are they good to eat?" I asked.

"I don't know," Pete answered. "I have never heard of anyone eating one. I suppose if you were real hungry, you could."

We pushed the boat along the rocks. Pete continued to peer in the clear water off the bow of the skiff. The water wasn't very deep and the bottom was sandy.

"See any yet?" I asked.

"No, there's too much sand. Sand clogs up the abalone gills. Also there are many starfish and sea urchins and not enough seaweed."

"What does starfish have to do with abalone?" I asked.

"Starfish eat abalone, as do the sea urchins."

"Oh, I get it. Does the abalone eat seaweed?"

"Yes," answered Pete.

Just then a surge of water pushed the bow of the skiff up on the rocks and the stern went under water. Pete grabbed for the rocks and was out of the skiff. I stood up trying to grab a rock, but couldn't get to one. Cold water started to fill up my hip boots and I couldn't swim or even dog paddle because of the water weight in my boots. I felt like I was in one of those gangster movies where someone had their feet cemented in a wash tub and being dumped in the ocean. Pete saw I was in trouble and threw me the bow rope.

"Here, catch the rope!" he commanded, as he held on to the other end of the rope. He pulled me over to a rock and I grabbed hold for dear life. The water was still surging and banging me up against the rocks. With all my strength I slowly pulled myself out of the water.

"Wow!" I exclaimed. "I thought I was a goner in that ice cold water."

Pete and I managed to pull the skiff up on the rocks and dump out most of the water. It was hard work, because we were not on level ground and a skiff full of water is really heavy. We climbed back into the skiff. I managed to remove my hip boots and dumped out the water.

"Now you see why you don't wear hip boots in a skiff!" Pete exclaimed.

"I see what you mean," I replied.

Pete rowed around to the calmer side of the island where the water wasn't surging so much. Even though we were both wet and cold, we continued to look for abalone.

"I found some!" Pete yelled. "Hand me the pole."

Pete hooked one after another and before long we had a couple dozen abalone. They were small, about three inches in diameter and the shell was black. The muscle foot was a yellow-orange in color.

"What do we do with them now?" I asked.

Pete grabbed an abalone and with his knife cut the muscle out of the shell. With the butt handle of the knife he hit the middle of the cut muscle with one sharp blow. "That tenderizes them," he said. He threw the shell in the water.

"Hey, don't throw the shells away, I want to save them," I requested.

Pete handed me his knife and said, "They're all yours. You clean them as I row back to shore."

I picked up one and cut it out of the shell and hit the muscle with the handle of the knife. "That's not hard enough," Pete ordered, "Hit'em hard or they will be tough like shoe leather."

We tied up to the dock and Dad was there to greet us. "Richard, where have you been?" he shouted.

"Pete and I went abalone picking." I answered.

Dad looked at the abalone muscles in my hand and said, "They are too small. That's against the law."

Pete interrupted and said, "They don't get much bigger in Alaska."

"Richard, why are you all wet?" Dad asked angrily. "Did you have to dive down to get them?"

"No," I answered. "The skiff filled with water when we ran up on the rocks and I fell in."

Mom met me about halfway down the boardwalk and asked, "Where were you? Why are you all wet?"

I repeated what happened as we walked to the house. "I'm going to change my clothes. You can cook the abalone for breakfast."

"I don't know how to cook abalone," Mom replied.

"I will show you how," said Pete.

I changed my clothes and returned to the kitchen. Pete fried the abalone for a couple of minutes, while Mom made some buttermilk biscuits. The abalones had sort of a sweet clam taste and were surprising good, much better than clams.

"The next time you plan to go out in the skiff, you tell us where you are going," ordered Dad. "You would have drowned if Pete wasn't there to save you."

"Okay." I didn't argue. From *Cheechako*, by Richard S. Calhoun,

**ACEROLA:** Native shrub of tropical America with a red, juicy, sweet, sometimes tart fruit. Eaten fresh, made into juice, or ice cream. Low in calories, it has a fair source of vitamin A and is one of the best sources of vitamin C in the world with 100 times more than oranges, ounce for ounce. .

**ACORN:** Acorns are the nuts borne by oak trees. Most types are not edible by humans but certain kinds that grow around the Mediterranean are similar to chestnuts. Other types have been eaten in times of famine. In North America a few species are edible and helped keep the Native Americans and Colonists alive during the long bleak winters. Acorn meal or acorn flour was used much like cornmeal. The best of the group is from the California black oak.

**ACORN SQUASH:** This fall and winter vegetable belongs to the gourd family and is native to America. Like other members of the squash family, it may have originated in Peru. When the first European settlers arrived in America, the acorn squash was introduced to them by the Native Americans. The name comes from the word "*asquash*" which means "eaten green." The acorn squash has a hard green shell and can grow up to eight inches long. The sweet inside has a yellow-orange flesh with many seeds. Generally, the acorn squash is baked. It is cut in half, seeds and fiber scraped out. It is placed, cut-side down, on a cookie sheet and baked in a hot oven for up to an hour. The squash can also be cut into rings and steamed. **Nutrition facts:** A ½-cup serving has 28 calories zero fat and sodium, 7.3 g carbohydrates (2%), zero fiber, 6g protein (1%), 239 IU vitamin A (5%), 8mg vitamin C (13%), 23mg calcium (2%), .5mg iron (3%), and 244mg potassium.

#### **ADDITIVES:**

OH NO! I JUST ATE TETRAHYDROFURAN!

That's right. You just finished a refreshing cold beverage, a scoop of ice cream and downed a little cream filled cake, and now you're reading the ingredients on the labels. What are all those names that few of us can pronounce and why are they in foods?

Real home-made ice cream contains milk, cream, sugar and fruit. So what are monoglycerides, cellulose gum, and carrageenan found in some ice creams? And why didn't my cookbook call for them? Food additives are in almost everything. Are they safe? The answer: Yes and no.

One thing consumers have going for them: The Food and Drug Administration (FDA) must approve all food additives before they can be used. However, some people are sensitive to some natural foods, such as soy products and dairy products. Being exposed to just one ingredient might cause you no harm, but by combining with other ingredients, a chemical reaction could take place and could make you very ill.

The good news is many additives are added to protect you. Some **fight bacteria**, others retard spoilage, another adds nutrients, and some just add flavor. Back in the late 1930s, a slogan was introduced, "Better Living Through Chemistry," and many thought that to be true. Yes, it was

true in many ways, but not for everyone. It was found that some of those chemicals caused cancer, infections and other health problems.

Take **nitrites** for an example. Nitrites prevent botulism, yet when added to your natural stomach chemicals, they can cause cancer in some people. The problem, no one really knows just how much of a good thing (chemicals) will cause a bad thing (illness) to happen. When food is cooked, it loses color, so **dyes** are added to make food look more appetizing. The Romans used saffron to color rice dishes yellow and at the same time it added flavor. Annatto, seed of the tropical lipstick tree, is a vegetable dye that has been used in butter for more than 700 years. Now annatto is used to color margarine and cheese. Green coloring is added to mint products, because when mint extracts are used there is no green color. People just expect mint products to be green.

Again, coloring just makes food more appetizing. **Red Dye Number Two** was suppose to cause cancer in some lab animals, but how much red dye must be consumed for the same reaction in people - a pint, a quart, or a gallon a day? It's unknown and few of us would even consider drinking a glass of red dye. Nevertheless, Red Dye Number Two was removed.

Additives are not just added to packaged foods. Additives are added to fruits and vegetables growing in the fields, and additives are added to live animals as well. Additives have been around for thousands of years. **Salt and sugar** were used as preservatives. As you know, too much salt and sugar is not good for you. When you see the word "sodium" you know that salt is involved in that additive. When you see the words "**calcium**" or "casein" it probably came from milk. And the word "gum" came from plants that you might eat anyway.

Oh yes, **tetrahydrofuran** is a synthetic flavoring for beverages, ice cream and other sweets. It is not known to be toxic. Hope that makes you feel better, or does it? If you are concerned about food additives or would just like to know more about them, plan a visit to your library and check out the book *Consumers Dictionary of Food Additives* by Ruth Winter. This book is written in everyday language that you will understand. You can find what is safe for you, and what might cause you harm. Some people think if you can't pronounce it, you shouldn't eat it.

### THOSE LITTLE CREAM-FILLED CAKES

That little cream-filled cake you ate has all kinds of additives. Some of the chemical names you may recognize, but others you will not, unless you are a food chemist. Here are a few types. **Mono and diglycerides**, a vegetable emulsifier derived from soybeans and used to keep the cream filling from separating into water and fat. **Calcium caseinate** is a protein derived from milk that adds body and flavor to the cream filling. **Sodium stearyl lactylate** conditions the dough to make it tender and extends the life of the cake, some think up to a dozen years or more. **Cellulose gum** is made from the interlining of plants and is used to prevent sugar from crystallizing in the icing, and also is a thickening agent.

**ADOBO**: Native of Madagascar. A 2-inch green fig. Low in calories, high in fiber.

**ADZUKI BEANS:** Originating in China, these small, reddish-brown beans with a white ridge along one edge, have a sweet, nutty flavor. Adzuki are also called *aduki* and *azuki* beans. They are grown in the Midwestern United States, as well as Asia. In China, adzuki beans are often served on New Year's Eve to bring courage and good fortune in the coming year. Also ancient Chinese folk wisdom says that the kidneys govern the emotion of fear. The adzuki bean is considered a source of courage that helps people meet challenges bravely.

They are lower in fat, have more iron, are easier to digest, and produce less gas in the stomach than most beans. Adzuki beans combine well with other foods. For example, add some cubes of peeled winter squash during the last 30 minutes of cooking. Also rice, onions, and celery can be added to make patties and fried. Adzuki beans are available in most health food stores. In China and Japan, adzuki beans are processed into a sweet red paste and are added to vegetable recipe mixtures. **Nutrition facts:** A ½ cup serving has 147 calories, zero fat and sodium, 28.5g carbohydrates, zero fiber, 8.7g protein (17%), zero vitamins A and C, 32mg calcium (3%), 2.3mg iron (13%), and 612mg potassium. One cup of cooked adzuki beans has as much iron as four ounces of lean steak, more folate than a cup of cooked spinach, and about as much protein as four tablespoons of peanut butter.

**AFRICAN OIL PALM:** Native of Africa. The branches are loaded with reddish to blackish fruits in clusters of 200 fruits. Source for palm oil. Sap is made into wine. Very high in calories and fats, especially in saturated fat.

**AGARICUS MUSHROOMS:** They are commonly known as White Mushrooms. Agaricus account for about 90% of all mushrooms cultivated in the United States. They vary in color from creamy white to light brown and range in sizes from small (button) to jumbo (stuffers). They have a mild and woody flavor when eaten raw, and the flavor intensifies when cooked. Freshly picked have closed veils (caps that fit closely to the stem) and a delicate flavor. When mature, with open veils and darkened caps, they develop a richer, deeper taste.

Use fresh in salads and for dips. Can be sautéed, braised, stir-fried, and grilled on shish kebabs. Use in casseroles. Great on pizzas! Can be marinated with garlic and thyme. --*Mushroom Council*

## **AGRICULTURAL LIBRARY**

### **NATIONAL AGRICULTURAL LIBRARY**

Imagine a library with a bookshelf 48-miles long. Yes, 48- miles! On this shelf are more than three million volumes of books that covers all aspects of agriculture. Along with the books are related journals, computer software, audio visuals and other materials in many formats. The collection is in 75 different languages.

All this describes the American National Agricultural Library (NAL). Of course the bookshelf is not all one length, but if all the shelves are added up in this building, they would measure 48-miles in length.

Formed in 1862, the NAL is the largest agricultural library in the world. The library serves everyone who needs agricultural information. This includes students along with farmers, scientists, policy makers, and school teachers.

Suppose a farmer would like to convert a chemically-intensive crop production to alternative modes of insect and weed control. The farmer would find this information at NAL. At the same time a chicken rancher is looking for suppliers of hatchery equipment. The rancher only needs to consult with the NAL. Also eager school teachers who want to develop a nutrition education program for students, will find the NAL has the answers. One way to obtain this information is on the Internet.

In addition to the Internet, NAL provides traditional library services, which include programs that teach how to identify, locate and obtain needed information.

Scientific research supported by NAL information is a potent weapon in food safety. such as elimination of pests and diseases. The information and database services of the NAL are vital to sustain a viable agricultural economy, in a healthy environment. NAL users ensure safe, abundant, affordable and high-quality agricultural products for American consumers. Additional information on the NAL is available by writing: **United States Department of Agriculture**, Agricultural Research Service (ARS), National Agricultural Library, 10301 Baltimore Avenue, Beltsville, MD 20705-2351 or call (301) 504-57555. [www.nal.usda.gov](http://www.nal.usda.gov)

**AKEE** is the fruit of a North African tree in the same family as the lychee. It looks peachy on the outside but has segments similar to an orange. It is eaten raw or cooked.

**ALA:** See BULGUR WHEAT

**À LA CARTE** (a-la-kart) is used to describe a restaurant menu where each dish is ordered and paid for separately.

**À LA KING** is a white sauce with a combination of chopped vegetables and poultry, seafood, or eggs. Useful as a food stretcher, it is usually served over toast, pasta, rice, or potatoes.

**À LA MODE**, in America, means to top a dessert with a scoop of ice cream.

**ALBACORE:** Albacore is the queen of the tuna family (see TUNA). Its pure white meat is the best for canning, and is usually in cans marked, "solid pack." Fresh albacore is available in some seafood markets. Albacore can be used for all recipes calling for tuna or other canned fish.

**Nutrition facts:** A 3-ounce serving (tuna) has 122 calories, 39 calories from fat, 4.2g total fat

(6%), 1.1g saturated fat (5%), 32.3mg cholesterol (11%), 33.2mg sodium (1%), zero carbohydrates and fiber, 19.8g protein (40%), 1,857 IU vitamin A (37%), zero vitamin C, 7mg calcium (1%), .9mg iron (5%), and 214mg potassium.

**ALFALFA SPROUTS:** A member of the legume family, alfalfa originated in southwestern Asia. Alfalfa is one of the most nutritious crops, because it is rich in protein, minerals, and vitamins. The main use for alfalfa is farm animal feed. It's also an excellent source for the honeybees. Alfalfa is used to increase the vitamin content in prepared foods, and serves as a base for many multivitamins. Alfalfa seeds produce quick sprouts. Sprouts taste good mixed in salads and in sandwiches. Sprouts can be added to soups and omelets. They can even be marinated, steamed, and sautéed. Never cook sprouts more than five minutes. (see BEAN SPROUTS and SPROUTS) **Nutrition facts** per ½ cup 5 calories, zero fats and sodium, zero carbohydrates, .4g fiber (2%), .7g protein (1%), 26 IU vitamin A (1%), 1mg vitamin C (2%), 5mg calcium (1%), and .2mg iron (1%).

**ALLIGATOR:** Unlike the crocodile, which is found in several parts of our world, the alligator is only found in the freshwater swamps, lakes, and bayous of the southeastern United States, and in the basin of the Yangtze River in China. They are hunted for both their meat and their hides.

The best meat is about a foot-long section just behind the back legs. This white meat is tender and juicy, and has a taste like a combination of chicken, pork, and fish. The tail is cut like pork chops, then salted, peppered, floured and fried until golden brown.

Alligator can be substituted in many veal recipes, and is especially good in scallopini. The meat is available in many meat markets in Louisiana and nearby states. **Nutrition facts:** Alligator is a food, low in both calories and fat; high in vitamin B-12 and iron and good for the heart. .

### ALLIGATOR AT WILDLIFE GARDENS by Betty Provost

Would you like to feed an alligator? You can at Wildlife Gardens. In our park you can relax on the porch and feed alligators as they swim by without fear of an attack. You can explore nature trails and see native plants, deer, owls, otters, turtles and other wild animals, or take day or night boat tours into the back water of the swamp. My husband will also fix you a Cajun breakfast with a crayfish omelet, 7-UP biscuits, and his specialty, "Alligator A La James."

Here's how he makes it:

1. He makes a marinate of 7-UP, mustard, lemon juice, Tony Chachere's Creole seasoning (a mixture of salt, cayenne pepper and garlic powder), and hot sauce.
2. Slices 1 pound of alligator meat into 1 inch cubes.
3. Marinates the meat for 3 days in the refrigerator.
4. Drains the marinate and reserves it.

5. Dices 4 onions and sautés in butter until brown.
6. Piles the alligator meat in the middle of an iron skillet and tops with the cooked onions. Pours the marinade on top and cooks over medium-high heat until all the sauce is gone. His recipe makes 4 servings.

If you would like to visit with us, write: Wildlife Gardens,  
5306 North Bayou Black Drive, Gibson, LA 70356.

**ALLSPICE:** The allspice berry grows in the West Indies and is related to the myrtle family. It is picked green and dried in the sun, which intensifies the flavor and the aroma. Don't let the name fool you. Allspice is not a combination of spices, but just one spice. It received its name because it resembles a combination of cinnamon, nutmeg and cloves in taste. Allspice is also known as Jamaica pepper, and Jamaica seems to have a monopoly on the spice, but it is available throughout the American tropics.

Allspice is available both whole and ground. It is used in countless recipes for meats, vegetables, breads, and other baked goods. Also used in pickling and preserving meats, fruits, and vegetables.

When Columbus sailed across the Atlantic, he became the first European to find allspice, and he took it back to Spain on his return trip.

### **Activity**

Do a taste and smell test to see how allspice is alike or different from cinnamon, nutmeg and cloves, or combined. Can you tell allspice from apple pie spice? Pumpkin pie spice? How do the tastes compare?

**ALMOND:** The almond is related to the peach tree and is believed to have originated in the Mediterranean region. The almond tree is a robust, long-lived tree with gorgeous pink and white blossoms. All it requires, it has been said, is hard, dry ground. The famous Spanish almonds of Valencia, Spain grow in such ground, kept alive by their long roots that grow deep into the ground. Spain harvests over 33,000 tons of almonds every year.

There are two kinds of almonds, sweet and bitter, with many varieties of each. The bitter variety contains prussic acid, a poison, which must be processed-out first before almond flavoring is made.

Almonds were brought to the United States by early Spanish missionaries and are now commercially grown in California.

Almonds are mentioned in the Bible, first in Genesis (43:11-12): *"Their father Israel said to them, '... then do this: take in your baggage, as a gift for the man, some of the produce for which our country is famous: a little balsam, a little honey ... and almonds. "*

Because almond flowers appeared before any other, the ancient Phrygians believed the blossoms to be the father of all life. The ancient Greeks honored the almond as a symbol of fertility. And, the almond is the mark of heavenly hope to the Moslems.

Almonds are used in countless recipes. Almost any recipe can be given added texture and interest with the crunch of almonds. Almonds are main ingredients in baking by the Scandinavians, Spanish, Greek, and Near Eastern countries. Oriental artists and poets grow almonds as much for beauty as for food.

Marzipan can be made with tinted almond paste, molded into confectionery fruits, animals and other fun shapes. Germany and Denmark are famous for their marzipan. The famous Spanish candy called turrón is almond nougat. See TURRON. **Nutrition facts** per 1/4 cup: 209 calories, 156 calories from fat, 18.5g total fat (29%), 1.8g saturated fat (9%), zero cholesterol and sodium, 7.2g carbohydrates (2%), 3.9g fiber (15%), 7.1 g protein (14%), zero vitamins A and C, 94mg calcium (9%) and 1.3mg iron (7%). [www.almond.org](http://www.almond.org); [www.almondsarein.com](http://www.almondsarein.com); [www.bluediamondgrowers.com](http://www.bluediamondgrowers.com).

**ALMOND OIL.** Almond oil is popular in many European countries and available here in health food stores. For thousands of years, almond oils have been used in cosmetic creams to soften the skin.

**ALOE VERA:** A member of the lily family and originally a native of the Mediterranean. Grows well in pots and on window sills. When commercially grown, powder or juice can be sold as a digestive aid or laxative. Keep a plant at home for quick burn relief. Low in calories, and a good source for vitamin C. Aloe Vera drinks are available in health food stores.

**ALTOIDS®,** The Original Celebrated Curiously Strong Mints ® were first produced in England at the turn of the 19<sup>th</sup> century during the reign of King George III. Smith and Company (established 1789) the small London firm which later developed the original curiously strong recipe, later became a part of Callard & Bowser, a prestigious English confectionery founded in 1837. Today Altoids are made to the same exacting standards as the original recipe developed nearly 200 years ago. In its familiar red tin, the candy has recently become popular in the United States among lovers of peppermint because of its truly bold flavor. Altoids also come in equally bold cinnamon and spearmint.

**AMERICAN DAIRY ASSOCIATION:** An organization for the promotion of dairy products. [www.diarycenter.com](http://www.diarycenter.com)

**AMERICAN DAIRY FARMERS:** For milk product information see [www.ilovecheese.com](http://www.ilovecheese.com).

**AMERICAN DIETETIC ASSOCIATION:** Organized to serve the public through the promotion of optimal nutrition, health, and well-being. Nearly 70,000 members, the ADA sets standards of quality for professional practice in all areas of dietetic practice. It was founded in 1917 under the leadership of Lulu C. Graves, first president and Lenna F. Cooper, co-founder, in Cleveland, Ohio. The ADA Foundation funds new and existing programs with scholarships and awards, education and research projects that promote public health and well-being.  
[www.eatright.org](http://www.eatright.org).

**AMADINE:** There are several kinds of almond-based pastries under this name. It may be a tart, pie or fancy cake, large or small.

**AMARANTH:** This grain was a staple of the Aztecs of Mexico and has recently been rediscovered. It can be found in some health food stores. The tiny grain has a nutty, spicy flavor and is high in protein. Amaranth can be popped like corn, made into flour for making pasta, and is found in some breakfast cereals. **Nutrition facts** per ½ cup cooked cereal: 365 calories, 56 calories from fat, 6.4g total fat (10%), 1.6g saturated fat (8%), zero cholesterol, 20.5mg sodium (1%), 64.5g carbohydrates (22%), 14.8g fiber (59%), 14.1g protein (28%), zero vitamin A, 4mg vitamin C (7%), 149mg calcium (15%), and 7.4mg iron (41%).

**AMARANTH LEAVES:** Also known as mirah and redroot and mistakenly called pigweed. Green amaranth, when steamed, tastes just like spinach with a nutty flavor. Spinach grows best during the cooler spring months, whereas, amaranth likes the hot weather. Amaranth is harvested from late spring to early fall. Look for soft, fuzzy, light green leaves that sprout from a beet red root in early summer. The crinkled heart-shaped green leaves have deep purple veins. Amaranth is native to the Americas. However, most of the Amaranth is imported from southeast Asia. **Nutrition facts:** A ½ cup serving has 31 calories, 3 calories from fat, .4g total fat, zero saturated fat, 23.7mg sodium (1%), 4.7g carbohydrates (2%), zero fiber, 2.5g protein (6%), 3,451 IU vitamin A (69%), 51mg vitamin C (85%), 254mg calcium (25%), 2.7mg iron (15%), and 723mg potassium.

**AMARANTH SEEDS:** Once green amaranth begins to flower, the leaves turn tough and bitter, the seeds start to mature. By the end of summer, the flower spikes may hold hundreds of dark seeds. The seeds are used for making cereal and flour.

Spanish conquistadors first learned of amaranth seed cakes when they saw the Aztecs devote pastry cakes to worshipping their gods. Later the Spanish forbade the growing of amaranth to help stamp out pagan worship. The same mealy pasta Aztecs thought good enough only for gods is used today in tamales.

As a cereal, amaranth becomes very sticky when cooked. Best to mix with corn, onions and beans as a side dish at any meal. When made into flour, it has a strong, sweet, spicy, nutty flavor. Adventurous cooks use it to accent wheat flours for making cookies, muffins, pancakes, waffles, and other baked goods. Substitute 1 part of amaranth flour for 3 parts of whole wheat flour.

Whole amaranth seeds can be sprinkled on dinner rolls like poppy seeds before baking. Because it requires little water to grow, amaranth are among the seeds being tested to flourish drought stricken parts of the Third World. **Nutrition facts:** Amaranth seeds are high in calories, fat, fiber, protein, calcium, iron, and are a fair source for vitamin C and potassium. Since Amaranth seeds are used in small amounts, exact daily values percentages are not available.

**AMAZON TREE GRAPE:** Native of Brazil. Small fruit with a single seed, thin skin, and sweet flesh.

**AMBARELLA:** Native of the South Pacific. Large, yellow, oval, sweet fruit, with a spiny stone seed. Eaten fresh, made into preserves or jelly.

**AMBROSIA:** Said to be the food and drink of the Greek gods, who would give immortality to those who partook of it. Today it is a dessert made by combining fruits, juices, and coconut.

**AMERICAN BEAUTYBERRY:** Native of Florida. A small 1/8-inch fruit, eaten fresh.

**AMERICAN CHEESE:** A processed pasteurized cheese product made from one or more different kinds of natural cheeses. The cheese(s) are ground and heated, then stirred with an emulsifier and water to make a smooth cheese. American cheese is easy to slice and to melt. American cheese is a good choice when making sauces for vegetables and pasta. American cheese also comes as a spreadable cheese in jars, tins, and squirt bottles. Kraft American Processed Cheese was introduced in 1916 by J.L. Kraft and Brothers of Chicago. Sales proved Americans loved American cheese. **Nutrition facts:** A 2-ounce serving has 213 calories, 159 calories from fat, 17.7g total fat (27%), 11.2g saturated fat (56%), 53.5mg cholesterol (18%), 368.6mg sodium (15%), zero carbohydrates and fiber, 12.6g protein (25%), 686 IU vitamin A (14%), zero vitamin C, 349mg calcium (35%), .2mg iron (1%), and 92mg potassium.

**ANCHOVIES:** These finger-sized fish are found mostly in the Mediterranean Sea, with some schools in the warm currents from Peru to California. Unfortunately, El Nino and pollution have taken their toll on the anchovy. Because they deteriorate quickly when exposed to air, fresh anchovies are not found in seafood markets. The small fish are caught in nets and immediately salted to preserve them. Anchovies are available in most supermarkets canned with salt and oil. You may find them canned flat or rolled around a caper, or as anchovy paste. Anchovies are generally served as appetizers, or used as a topping on pizzas. If the anchovies are too salty for your taste, soak them for about 15 minutes in cold water or milk, drain, and pat dry. Anchovies are also the key ingredient in some sauces, such as Worcestershire and Caesar dressings, and is the basic ingredient in Southeast Asian fish sauces. **Nutrition facts** per tablespoon: 19 calories, 7 calories from fat, .7g total fat (1%), .2g saturated fat (1%), 8.9mg cholesterol (3%), 15.4mg sodium (1%), zero carbohydrates and fiber, 3g protein (6%), zero vitamins A and C, 22mg calcium (2%) and .5mg iron (3%).

**ANGEL FOOD** is a high, delicate cake using egg whites as the leavening agent and containing no fat in the recipe.

**ANGELICA:** An herb grown commercially in northern Europe (Germany and France), which, except for a few private gardens, is not grown in the United States. All parts of the plant--seeds, leaves, stems and roots--are used in cooking from soup to desserts. The stem is imported, but not the leaves. The taste is similar to juniper berries. In Europe the stems are eaten as a vegetable, like cooked celery. The leaves are added to salads and candied for cake decorations. The plant was called "angel's plant," because herbalists believed it to have heavenly powers against disease. The distilled oil of angelica seeds is treasured by perfume makers. Check your vegetable department. It can be found in some American markets. Also, candied stalks have been sold in the US, called French rhubarb. Candied angelica is a specialty of Niort, France.

**ANISE:** (Pronounced either *an-is* or *an-ees*) Also called Aniseed. While anise is used as a spice, it is really an herb, because it belongs to the parsley family. The plant grows about two feet tall, has feather-type leaves, and the tiny fruit is gray-brown in color. The taste is similar to licorice and is often used to flavor licorice candy.

Anise originated in the Mediterranean, where it is still grown commercially (especially in Turkey) and has been used by the Greeks, Hebrews, and Romans for centuries. Emperor Charlemagne in the 8th century grew it in his German gardens and it has been popular ever since. Scandinavian cooks flavor their breads with crushed aniseeds. In Italy it is a flavoring used in liqueurs. The Chinese add it to meat and vegetable combinations, and Europeans use it to flavor stews, seafood, and vegetables such as carrots, cauliflower and beets.

Aniseeds are sold whole, so to release the flavor, crush them between two sheets of wax paper with a rolling pin.

Anise is also used in medicines, as a flavor and as a stimulant. Both the smell and the taste come from an oil which contains anethole. It's the anethole that is used to make perfumes and flavorings. The Chinese anise comes from a plant related to the magnolia and is known as "star anise." This oil is used the same as aniseed oil.

**ANNATTO** (also called the Lipstick Tree): From tropical America. Red, spiny pods, 1 ½-inches long in clusters. Used to color margarine.

**ANNONA FAMILY:** The atemoya, pond apple, soursop, guanabana, sugar apple, custard apple, and sweetsop are one family the annona. .

**ANTELOPE:** There are no true American antelope. They are native to Africa and Asia. The antelope found in America are descendants of zoo animals that were introduced in the wild in the 1940s. Antelope resemble deer in both body and eating habits. In the U.S., there are more than 150 ranches which have herds for domestic use. The meat is much leaner than beef. The male is

.8% fat, the female is 5.2% fat. This makes it an important meat for those on low fat and low cholesterol diets. The meat is sometimes available in supermarkets; often sold as venison. The meat can be roasted, broiled, or braised, and is usually coated with lard or wrapped in strips of salt pork before cooking. **Nutrition facts:** A 3-ounce serving has 97 calories, 16 calories from fat, 1.7g total fat (3%), .6g saturated fat (3%), 80.8mg cholesterol (27%), 43.4mg sodium (2%), zero carbohydrates and fiber, 19g protein (38%), zero vitamins A and C, zero calcium, .27mg iron (1%), and 300mg potassium. [www.brokenarrowranch.com](http://www.brokenarrowranch.com).

**ANTIPASTO** is an Italian term for a first course which contains no pasta. It means the food before the pasta. It is usually served as the salad course, an attractive arrangement of vegetables, cold meats, and cheeses with Italian dressing. You may also see it spelled antepasto.

**APPETIZER** is a small portion given prior to a meal to help create an appetite. Various appetizers include canape, dips, hors d'oeuvre, nibbles, and relishes. .

**APPLE:** Ever since Eve picked that first apple off the tree in the Garden of Eden, apples have played a part in mythology, science, art, and history. Archaeologists argue about the Garden of Eden story, because they believe Eve ate a peach, a quince or an apricot, since apples were unknown in the Middle East during the time of Genesis. When the Christians told the story about the Tree of Knowledge, it was the Northern Europeans who assumed it was the apple.

Newton discovered the law of gravity when an apple fell on his head, and in recent history, John Chapman, better known as **Johnny Appleseed**, scattered seeds across Ohio.

The apple is a member of the rose family. Today there are more than 7,000 different kinds, however, only about 50 are grown commercially in the United States.

Apples come in red, green, yellow, and combinations. The flesh is white, yellow, or pinkish. The taste can be anything from tart to sweet. Apples are eaten raw, can be cooked, frozen, canned, or dried. Prior to refrigeration, apples stored in a cool place were about the only fruit that could make it through the winter months without spoiling.

There's a saying, "**An apple a day will keep the doctor away.**" Here's why. **Nutrition facts:** An apple has 81 calories, 4 calories from fat, .5g total fat (1%), zero saturated fat and sodium, 2 .1g carbohydrates (7%), 3.7g fiber (15%), .3g fiber (15%), .3g protein (1%), 73 IU vitamin A (1%), 8mg vitamin C (13%), 10mg calcium (1%), .3mg iron (1%), and 159mg potassium. [www.usapple.org](http://www.usapple.org); [www.apples.ne.com](http://www.apples.ne.com); [www.bestapples.com](http://www.bestapples.com);

## NORTH CAROLINA APPLE FESTIVAL

This annual apple festival is held over the Labor Day weekend during harvest time in Hendersonville, North Carolina. The event begins Friday morning with an apple pancake breakfast followed with an apple recipe contest and auction. Also included: an open house at the

historic Johnson Farm, orchard tours, bake sales, and the Big Apple Breakfast on Sunday. Additional events: antique cars, tennis tournament, doll show, gem and mineral spectacular, model railroad displays, antique aircraft, and a street dance. Festival ends on Monday with Joe's Super Smiling Kids Parade and the King Apple Parade. For complete information write: **North Carolina Apple Festival Headquarters**, P.O. Box 886, Hendersonville, NC 28793 or phone (828) 697-4557.

**APPLE BUTTER** is only similar to butter in that both are a spread for bread. Apple butter is a thick apple sauce, made sweeter and spiced with cinnamon for eating on bread and cakes. Apple butter gets its unique taste from the addition of apple cider. Apple butter has been around a long time, since it has always been one of the best ways to preserve ripe apples. There are also peach, plum and other fruit butters. **Nutrition facts** per tablespoon: 36 calories, zero fats and sodium, 9.3g carbohydrates (3%), .6g fiber (2%), zero protein and vitamin A, 1mg vitamin C (2%), zero calcium and iron, and 38mg potassium.

### THE NATIONAL APPLE MUSEUM

Scotch-Irish settlers established apple orchards in Biglerville, Pennsylvania prior to the arrival of the Germans. With shipping by the railroads and new fruit processing methods, today this area is one of the most intensive fruit culture regions in the country. The Biglerville Historical and Preservation Society has done much research on pioneer families, land settlements and genealogy.

In 1990 the Society opened The National Apple Museum to honor the founders of the apple industry. This one-of-a-kind museum displays exciting exhibits in the 1857 restored bank barn. Some of the exhibits include early deeds and warrants written on sheepskins with plot plans of the early settlers identified; window-maker ladders, sprayers, portable forge and other machinery; quality control display of peelers, cider presses and a vinegar generator; an 1800s kitchen with dough tray, dry sink, woodstove, and table and chairs; early orchard photos; a honey bee display; and an historic country store with authentic fixtures, advertising and original merchandise.

Guided tours are available weekends April through October. The museum is located just seven miles north of Gettysburg on route 394. For more information write: **The National Apple Museum**, 154 West Hanover Street, Biglerville, PA 17307 or phone (717) 677-4556.

### WASHINGTON APPLE COMMISSION VISITORS CENTER

Washington state, with its 3,500 apple growers, produces ten-billion apples annually, which is more than half of all fresh apples grown in the United States. To honor the apple industry, the Washington Apple Commission has opened a Visitor Center north of Wenatchee, along the Columbia River, in central Washington. Visitors have the opportunity to sample a variety of apples and apple juices from the crunchy red delicious to the tart Granny Smith. The center answers an assortment of questions: Why do apples turn red? (It takes cool nights to turn apples from green to red.) Why do some apples crunch? (It's tiny water cells that explode when you bite

into them.) Why does "An Apple A Day Keep the Doctor Away"? (It's the fiber.) These and other questions are answered in their apple industry movie. The gift shop offers apple souvenirs from apple t-shirts to apple telephones. For more information call (509) 663-9600 or write to the Washington Apple Commission, P.O. Box 18, Wenatchee, WA 98807. There is also a visitor center in Yakima, Washington

## THE APPLE BLOSSOM FESTIVAL

In the spring, fragrant apple blossoms, as well as peach and cherry blossoms, adorn the mountain air in Pennsylvania's Adams County. During the first full weekend of May, the Apple Blossom Festival is held in Arendsville. Along with homemade arts and crafts, watch apple bobbing and apple pie eating contests, antique cars, antique tractors and rides, antique gas hit-and-miss engines, an antique cornmeal engine, orchard tours, and lots of live entertainment. Food is foremost with all kinds of apple treats, cider, fritters, pies and lots more. If you don't receive your fill of apples during this spring event, plan to return in early October for the National Apple Harvest Festival. While in Adams County, plan to visit the National Apple Museum in nearby Biglerville. For more information write: **Adams County Fruit Growers Association**, P.O. Box 515, Biglerville, PA 17307 or phone (717) 677-7444. - *Kathy Kleiner*

**APPLE MOLASSES:** Whoa! Isn't molasses made from sugar cane? True! But it can be made from other foods containing sugar. Benjamin Franklin in March 1741 in his *The General Magazine and Historical Chronicle* published an article on a new way to make molasses from apples. In part it read:

*"The Manner of Making it is thus; you must grind and press the Apples, and then take the Juice and boil it in a Copper till three Quarters of it is wasted, which will be done in about 6 Hours gentle boiling and by that Time comes to be of the Sweetness and Consistency of Molasses."*

### Apples in Early America

Unfortunately, it is not possible to duplicate Franklin's recipe. For the most part, early apples were hard, small, and sour, sometimes referred to as "pig apples" and often were fed to pigs. Grafting a branch onto an existing tree is the only way to guarantee the variety of apple to be produced. One of the more interesting varieties produced was the Wolf River apple. It had a circumference in many instances of fourteen inches, large enough to make an apple pie from just one apple!

The apple used to make apple molasses was called the "Summer Sweeting." This and other apples faded away, especially in the 1930's when the WPA destroyed all abandoned apple orchards. Even though the Summer Sweeting is no longer available, apple molasses can be made from any quality cider. However, the sweetness and quality will not compare to the original apple molasses as describe by Franklin in his magazine.

## You Can Make Apple Molasses

You can make apple molasses by boiling down one gallon of cider for about three hours, until it is about one-sixth the original volume. Care must be taken not to overcook, because the liquid thickens considerably while cooling. In fact, it could cool down to a jelly. If this happens, mix in a little cider to bring it to the desired consistency. In Vermont, apple molasses is known as boiled cider where it is still made by the Willis Wood family of Springfield and sold. October 1985  
*Early American Life*

**APPLE PIE:** One of American s favorite pies, made with spiced apples baked in a crust.

OH MY! THAT'S SOME APPLE PIE!  
by Gretchen Huesmann

Ever dive into a pie as long as a swimming pool? Ever sink your teeth into a dessert a foot deep? That's just what the city of Wenatchee, Washington did when they created (and ate!) the World's Largest Apple Pie!

Why?

While doing some research, Pauline Sweeny, secretary to the North Central Washington Museum, ran across photographs of a 2,200 pound apple pie made by Wenatchee residents in 1938. With further research, she found a clipping from England in 1982 that an English chef baked a 30,000 pound pie. When Keith Williams, director for the museum heard, he thought it was un-American to have England hold this record, after all, "Mom and apple pie" seems to be an American motto. Wenatchee decided to beat that record and baked a 38,000 pound apple pie.

What did it take to make the Titanic-size tart? The recipe included the usual ingredients: flour, sugar, and apples. However, this mammoth pie required mammoth amounts:

3,927 pounds of sugar and brown sugar,  
3,175 pounds of flour,  
100 pounds of cinnamon  
1,227 pounds of shortening, and  
16 pounds of salt!

Oh yes, and 36,333 pounds of Red and Golden Delicious, Fuji, and Granny Smith apples! That's enough ingredients for **70,000 servings of apple pie**, or enough to feed all the fans at a major league baseball stadium.

While several local businesses donated the pre-mixed crust, filling, and topping ingredients, the main ingredient needed was volunteers. Hundreds of people gathered on the morning of August 16, 1997 to assemble and bake the pie in one day. Before dawn the volunteers began washing,

coring, and slicing truckloads of apples. Others worked on the giant pie crust, rolling gobs of dough onto table-size aluminum foil and hoisting it into the rectangular pan. As the crust took shape, the prepared apples were dumped into the pan. **Football players in surgical clothing used cement spreaders** to level the fruit and to stir in brown sugar and cinnamon. A crumb topping provided the finishing touch.

### Just How Do You Bake the World's Largest Apple Pie?

That question proved to be the biggest challenge. A committee of architects and engineers had to create a one-of-a-kind oven, big enough to cover the enormous pie pan (set on concrete highway barriers) and provide the heat as well. They designed a dome-like structure made of steel tubing covered in chicken wire, aluminum foil, and insulation, a material which holds in heat. Propane gas heated the oven. In all, 600 gallons of propane gas were used, that's about 133 barbecue's worth! Computerized sensors inside the oven and pan controlled the temperature.

A towering crane carefully lifted the oven and set it over the pie. An average pie bakes about an hour. This spectacular sweet slowly baked the rest of the afternoon. As the sun tipped toward the western mountains, a crowd of spectators, tired volunteers, and the media gathered for the official ceremonies. The people hushed when the crane slowly lifted the oven. A warm spicy scent drifted overhead. Someone whispered, "Oh my! That's some apple pie."

The official judges measured the colossal creation: 44 feet long, 24 feet wide, and 11 ½ inches deep! "We have the world's largest apple pie!" the announcer declared.

The crowd cheered. It had been a long exhausting day, but there was just one more task to complete. With plates, bowls, and buckets, the hungry crowd massed around the pool-size pan for their all-you-can-eat portion of the World's Largest Apple Pie.

When Pauline Sweeny was questioned, "Will Wenatchee compete if a larger apple pie is baked somewhere else?" She replied, "Not in my lifetime, if I have any say about it!"

### NORTH CENTRAL WASHINGTON MUSEUM

Wenatchee, Washington calls itself "**The Apple Capital of the World.**" More than half of all the apples grown in the United States come from the state of Washington, and the town of **Wenatchee** is in the center of this industry. The North Central Washington Museum has an excellent apple exhibit. Of special interest is a working antique apple sorting and packing line containing an apple wiper and a catapult sorter. There's also an audio visual presentation. The apple exhibit is connected by a skybridge from the main museum, which houses pioneer and Native American exhibits, and provides demonstrations and cultural programs of this agricultural region. For more information, write: **North Central Washington Museum**, 127 South Mission Street, Wenatchee, WA 98801-3039, or phone (509) 664-3340. --*Pauline Sweeny*

## WHEN IS AN APPLE NOT AN APPLE?

At a church picnic, everyone enjoyed an apple pie. Afterwards they were amazed to learn the pie had no apple at all but was made from zucchini squash. The "green squash" in that apple pie recipe bakes up exactly like apples. The zucchini has no flavor of its own so the taste comes from the apple pie spices. See PIE HISTORY and ZUCCHINI.

### Activity

#### SLICE AN APPLE, EXPLORE THE WORLD

You're on a giant spaceship, speeding through space. Like lost in the wilderness, you are going around in circles. Do you know where you are? You're on the Spaceship Earth, traveling around and around a big ball of fire, year after year, going in the same direction. Are giving much thought to this excursion and the spaceship you are on?

Let's take an apple and explore the spaceship Earth. Cut an apple into four equal pieces, from top to bottom. Set three of the segments aside for a moment. The one remaining segment is the land on your spaceship. Cut this segment in half. One piece represents uninhabited land. Land that is too dry, too wet, too hot, or too cold for you. This includes deserts, swamps, river basins, mountain tops, and land covered with ice. The other piece, or one-eighth ( $1/8$ ) of the spaceship is part of the land where you live.

Take this usable land piece and cut it into four equal pieces and set aside three of these segments. One segment, or one-thirty-second ( $1/32$ ) of the habitable spaceship is where you can grow food. Pretty small, isn't it? Take this small piece and cut a tiny slice. This represents three-one-hundredth ( $1/300$ ) of the spaceship surface. All of your water comes from this area and is the reason you must help to protect this water for your survival.

Now go back to the three large segments first cut, each represents a quarter ( $1/4$ ) of the spaceship Earth. All of these segments represent the spaceship's oceans. Take one segment and cut it in half. This one-eighth of the spaceship surface represent the productive zones of the oceans. The rest supports very little life. Now cut this one-eighth segment into four equal pieces. One piece (one-thirty-second) represents the productive ocean area along the Pacific coast of North America, one of the richest regions of the ocean. Take this one-thirty-second segment and cut off a very thin slice. This tiny segment represents the top three hundred feet of the ocean through which light can penetrate and support photosynthesis. Without light there would be no life. Almost all of the ocean's life is concentrated in this narrow surface region.

Now examine the leftover pieces of your spaceship Earth. It's all garbage, little used, and of no value. Now look at the few pieces that are of value. Pretty small isn't it? Now you understand the spaceship Earth and why you and your friends need to protect it for food and water and everyone's survival.

## **APPLESEED, JOHNNY:**

### THE LIFE AND LEGEND OF JOHNNY APPLESEED

Yes, Johnny Appleseed was a real live person. His correct name was John Chapman. He was born in Leominster, Massachusetts, September 26, 1774. He spent his boyhood years in East Longmeadow. In his late teens, Johnny migrated to western Pennsylvania and settled for a time in Warren, near Pittsburgh. From there he traveled west by horseback, canoe (usually two canoes tied together, one of which carried apple seeds he had gathered from western Pennsylvania cider presses), and by foot into the Ohio valley. He lived the life that many folks today relegate more to legend than history.

According to legend, Chapman was a strange looking man of medium height, raggedly dressed, barefoot (even in the winter). To cover his long, brown hair, he used a tin pan, which served the dual purpose of hat and a stew pot in which he cooked his food -- often just cornmeal mush. He wore little clothing, mostly cast-off garments from the settlers, or a garment made from a coffee sack with holes cut in it for his head and arms. He said clothes should not be worn for adornment, only for comfort. He was a vegetarian, eating no meat or fish, since he believed it was wrong to take the life of another just to procure food. This belief contributed to his zeal for urging people to plant vegetables and grow fruit trees. Except for later in life when he lived with a relative in Mansfield, Ohio, he had no home, and as he traveled he preferred to sleep in the forest. As times he would sleep indoors during foul weather, on the floor, in front of the fireplace with his kit as a pillow.

### LEGEND MIXED WITH FACTS

As he traveled he would inform the settlers that his name was John Chapman, that he was a Swedenborgian Christian preacher, and he came to plant apple seeds. As he traveled the streams and rivers he would stop and plant apple seeds wherever he found suitable ground. He not only kept ahead of the settlements, but returned each year to care for the trees he had planted. His favorite apple was the rambo. His visits were looked forward to with delight and no cabin door was ever closed to him. To the men and women he was a news carrier. To the children he was a friend and a playmate. He taught the boys to make sleds and wagons, and for the girls he gave them ribbons for their hair. He became first known as the "apple seed man," later known as John Chapman, and finally given the nickname of Johnny Appleseed.

For fifty years he traveled Ohio, Indiana, and fringes other states planting and caring for his apple trees, teaching farmers apple culture, and assisting them in planting and caring for orchards, and preaching of good news. Today, it is rare thing to find a farm in the country he traversed that does not have at least a couple of his apple trees. He had several apple tree nurseries and it was at one of those he was tending that the weather became cold and soon snow fell. That night he spent in a home of a friend, and by morning he had developed pneumonia, and died soon thereafter. He was buried just north of Fort Wayne, Indiana. He had become a living legend during his seventy one

years, fifty of which were planting apple seeds. Johnny was survived by a half-sister, who related stories about him. She told of his love for the sight of flowers on the open prairie, the undisturbed forests, and looked upon nature as his friend. He was never known to injure or kill any living thing except one rattlesnake, and that he always regretted killing that snake.

### THE REAL JOHNNY APPLESEED

Half poet, half philosopher, half mystic, perhaps out of phase with the goals and aspirations of his contemporaries, but infinitively attuned to the larger harmony of the universe, John Chapman, better known as Johnny Appleseed, occupies a special place in the long line of dreamers, innovators, and statesmen who have contributed to America's greatness. --*International Apple Institute*

### JOHNNY APPLESEED'S PRAYER

O, the Lord is good to Me,  
And so I thank the Lord, For giving  
me the things I need, the sun,  
the rain and  
the apple seed.  
The Lord is good to me.  
Amen

**APRICOT:** The apricot tree originated in Asia, where it still grows wild, and is related to the peach. The Chinese have cultivated apricots for more than 4,000 years. The tree doesn't do well in a cold climate, because a late frost will kill the blossoms. Apricots do well in the Middle East and the Mediterranean countries.

The first apricots in the United States were brought by the Spanish to California in the 1770s, where they are still grown commercially in the Santa Clara valley. Most apricots are picked green, because a ripe apricot must be eaten almost immediately. Let the green apricot ripen at room temperature. They can be refrigerated for up to five days. Apricots are also available canned, dried, and made into preserves.

It is believed only about five percent of the population in the United States has tasted a tree ripened apricot, because they don't ship well. In fact, the tree ripened apricot is so delicate, it can almost spoil being hand-carried from the tree to the house. But anyone who has tasted a tree ripened apricot will never forget the honey- sweet, tangy taste. Pure ambrosia! **Nutrition facts:** An apricot has 17 calories, zero fat and sodium, 3.9g carbohydrates (1%), .9g fiber (3%), .5g protein (1%), 923 IU vitamin A (18%), 4mg vitamin C (6%), zero calcium, .2mg iron (1%), and 105mg potassium. [www.apricotproducers.com](http://www.apricotproducers.com)

**AQUACULTURE:** The farming of fish and shellfish is playing an important role in meeting the global demand for fishery products as the population continues to expand and fishery stocks

approach their biological limits. Some of the United States fresh and salt water fishery farms raise: Catfish (see CATFISH FARMING), crayfish, lobsters, mussels, oysters, salmon, shrimp, tilapia, and trout. Aquaculture is more than the taking of eggs and producing fish for table food.

Balanced feed for fish and shellfish must be produced; female sex control with hormones must be studied; care must be taken for recirculating water systems and water temperatures. There are diseases that can wipe out whole ponds in a short time. Waste management from the ponds is another problem. Students who would like to enter the Aquaculture profession, write to: **World Aquaculture Society**, 143 J.M. Parker Coliseum, Louisiana State University, Baton Rouge, LA 70803.

**ARACA:** Native of South America. Small, yellow, subacid fruit, used to make jam and jellies.

**AROMA**, in cooking, means an agreeable fragrance from food and cooking.

**ARROWROOT:** Arrowroot is a starch obtained from tropical plant tubers. Arrowroot is used as a thickening agent in place of flour or cornstarch in puddings, sauces, and soups. Easy to digest, arrowroot is often used in baby food, and for those with digestion problems. Arrowroot is not as popular in American cooking as it is in Great Britain, where cookbooks are full of arrowroot recipes. Arrowroot is best used in low temperature cooking, such as making puddings with eggs. Arrowroot can be substituted for flour or cornstarch in recipes, but use only half as much. Cook the recipe only until thick, without excessive stirring. The name comes from its use by Native Americans in the treatment of arrow wounds.

**ARTICHOKE:** The artichoke, a member of the thistle family, is one of the most misunderstood vegetable foods. It has been cultivated in Europe for centuries before arriving in America. The French settlers brought artichokes to Louisiana, and the Spanish missionaries brought them to California. Today, they are also grown in Florida. The plant likes to grow in a cool, foggy, and frost-free climate. **Nutrition facts:** An artichoke has 60 calories, zero fat, 120.3mg sodium (5%), 13.5g carbohydrates (4%), 6.9g fiber (28%), 4.2g protein (8%), 237 IU vitamin A (5%), 15mg vitamin C (25%), 56mg calcium (6%), 1.6mg iron (9%), and 474mg potassium.

#### HAVE YOU EVER EATEN AN ARTICHOKE? Here's How!

First time eaters might question the artichoke for a couple of reasons. First, it's a thistle, and aren't thistles prickly plants? Who wants to eat something that has stickers?

Second, the name has the word "choke" in it, and the question is, "Will I choke when I eat it?" Don't worry, there are no stickers to eat, and by following these simple directions, you won't choke.

#### Cooking an Artichoke

Cut off stem at base; remove small bottom leaves. If desired, trim tips of leaves and cut off top 2 inches of the artichoke. Stand the desired amount artichokes upright in a deep saucepan in a single layer. Add boiling water 2-inches deep in the pan. Cover; simmer gently 35 to 45 minutes. Test for doneness when base pierces easily with a fork. Be careful to avoid steam. Drain; serve or chill for later. Artichokes are good hot or chilled.

### Eating Is Fun and Easy!

Pull off one leaf at a time, holding it by the pointed end and dip the base of the leaf, if desired. Pull the base of the leaf through your teeth to remove the soft, pulpy portion. Discard the remaining leaf. When the leaves have been eaten, spoon out the fuzzy center at the base; discard. The bottom, or heart of the artichoke is entirely edible. Cut into small pieces. Dip if desired, and enjoy.

### Artichoke Dips

Artichokes are tasty plain, but dips do add flavor, bringing out more of the artichoke taste. Some like to dip it in melted butter; others prefer mayonnaise, salad dressing, or sour cream. Try making your own dip:

**Creamy Ranch Dip:** Combine 1/4 cup nonfat plain yogurt and 1/4 cup lowfat Ranch salad dressing. Mix well.

**Honey Mustard Dip:** Combine 1/4 cup prepared mustard with 2 tablespoons each of cider vinegar and honey. Mix well. -- *California Artichoke Advisory Board*

**ARTIFICIAL SWEETENERS:** First there was saccharine, an artificial sweetener that was discovered about 100 years ago. It has been used in soft drinks and chewing gum for years. However, even though it has a sweet flavor, it leaves a bitter aftertaste.

In 1981 along came **aspartame**, which was an improvement, however, when heated, it broke down and lost its sweetness. Recently two new sweeteners have been introduced, **acesulfame K** and **sucralose**. Both have been added to diet beverages.

Laboratory scientists are still looking at **saccharin**, because in massive doses it was found to develop cancer in the urinary tract system of rats. However, vitamin C given to rats also produced problems with the rats urinary system, so the final result on saccharin is inconclusive.

Even with these artificial sweeteners, Americans overall have gained weight. There's still fat in most foods and even replacing sugar with an artificial sweetener in a doughnut will not turn that delight into a health food. It was also found that by cutting the calories in half on many products, many thought it was okay then to eat twice as much.

A plus for artificial sweeteners is that they are helpful for diabetics and they don't cause tooth decay.

While the food industry is celebrating, consumers still should use caution, as some health experts say artificial sweeteners are nothing to cheer about. Some nutritionists think if artificial sweeteners were only a minor food additive, it wouldn't matter very much, but they are being used in enormous quantities, and experts are still not sure if it is safe. Weigh the choices. The best solution is to learn to enjoy the natural taste of as many foods as possible so that you won't want added sugar or artificial sweeteners.

**ARUGULA:** The leaves have a peppery, sweet-tangy flavor, adding pizzazz to even the blandest lettuces. It adds the same punch as green onions, but without the aftertaste. Arugula can also be added to other greens, nuts, and even fruit, such as apples and pears. In France it is known as *roquette*, and in England they call it "rocket salad." In Italy it grows wild and they call it *rucola*. It has the taste of regular arugula, but is a little more tangy and spicy. In Italy the leaves are added to almost everything including most hardy dishes, pasta, and pizza. Even the spicy, yellow flowers are edible and are added to garnishes. **Nutrition facts** per ½ cup: 3 calories, zero fats and sodium, zero carbohydrates and fiber, .3g protein (1%), 237 IU vitamin A (5%), 2mg vitamin C (3%), 16mg calcium(2%), and .2mg iron (1%).

**ASAFETIDA:** An aromatic gum, a member of the parsley family. Asafetida is mainly grown in Iran and India. It smells like strong garlic. It is dried, crushed, and sold as powder. In the distant past, people wore it in small bags like a necklace around their necks, as protection from disease. The smell was so bad it was believed to keep away anything, even diseases. It is still used, in very small amounts, to break down the indigestible enzymes in beans and cruciferous vegetable, such as cabbage. It is available in powdered and lump form in Indian and Mid-East markets. Medically, it has been used to prevent spasms and flatulence.

**ASIAGO CHEESE:** A creamy Italian cheese with a hard shell made from whole milk. Asiago is used for eating and cooking. It has a piquant flavor. Asiago is also aged and grated.

**ASPARAGUS:** The fifth most popular vegetable in America is the asparagus. It is a member of the lily-of-the-valley family. Asparagus is native to Asia Minor where it still grows wild. It was first brought to Europe about 200 BC. Our pioneers brought it to America and it quickly spread across the United States. Green asparagus is available fresh from early February to late June.

A white variety is also available, which is milder in flavor, and generally more tender than the green variety. Some think the smaller the stalk, the more tender they are. This is not true. It's the greener ones that are the most tender, whether the stalks are thin or thick.

Both green and white asparagus is available canned. Asparagus can be eaten raw or steamed, hot or chilled. Asparagus is not just a dinner food; it is enjoyable at any meal. Try steamed or canned asparagus topped with poached eggs for breakfast, or an asparagus sandwich for lunch made with

deviled ham and pimiento cheese. If you tried canned asparagus and thought it was too mushy and didn't enjoy it, don't be prejudice, give fresh asparagus a chance, either steamed or raw with a dip.

**nutrition facts:** A ½ cup serving has 15 calories, zero fat and sodium, 3g carbohydrates (1%), 1.4g fiber (6%), 1.5g protein (3%), 391 IU vitamin A (8%), 9mg vitamin C (15%), 14mg calcium (1%), .6mg iron (3%), and 183mg potassium. [www.calasparagus.com](http://www.calasparagus.com); [www.washingtoasparagus.com](http://www.washingtoasparagus.com).

## STOCKTON ASPARAGUS FESTIVAL

It's the celebration of the Rolls Royce of vegetables. The Stockton Asparagus Festival features mouth-watering flavors and aromas that fill the air with such delights as asparagus pasta, beef-n-asparagus sandwiches, asparagus stir fry, and the all time favorite deep fried asparagus. These dishes and more are all prepared fresh on site in the 8,000 square feet Asparagus Alley Kitchen. For the "I don't eat asparagus crowd," there's asparagus pickles, asparagus jelly, asparagus salsa, and even an asparagus cake. Give it a try, you will like it. This event is held the fourth weekend in April during the height of the asparagus harvest in Stockton's (California) Oak Grove Park. Events include a 5k fun run, an arts and crafts show, lots of entertainment for all ages, and the *Concours d'Elegance* with more than 200 makes and vintages of cars. There are also cooking demonstrations by celebrity chefs where you will learn the ins and outs of preparing asparagus. Between events, take a stroll along the lake, where you are followed by geese and ducks looking for a handout, or take a nap in the shade of a giant oak tree. For information write: **Stockton Asparagus Festival**, 306 East Main Street, Suite 310, Stockton, CA 95202, or phone (209) 467-8001.

**ASTRONAUT FOOD:** Special provisions have to be made for eating when traveling in outer space. Food not only has to be preserved but has to take up as little space and weight as possible. Weightlessness is a special condition that affects the way astronauts eat in space. Space travelers can eat standing up, sitting down, or floating throughout the cabin upside down. Astronauts eat with a baby-size spoon, and they must eat slowly and carefully so that food doesn't fall off the spoon and float around the cabin.

Try eating like an astronaut. Place a mat on the floor next the wall. Stand on your head and rest your feet against the wall (might need a friend to hold up your feet). Take a bite of a piece of fruit, chew and swallow. What happens? Try eating a cookie. Do all the crumbs go in your mouth or do you drop some on the floor? Try eating something messy, like spaghetti with sauce. What happens? Try eating chocolate pudding. What happens? Try the same experiment by sitting in a chair with the back lying down on the floor. If you do this experiment with friends, see who does the best job of consuming the food with the least mess.

### Activity

#### BE A NASA ASTRONAUT AT HOME

You can experience many of the astronaut foods at home, only under different conditions.

**DISCOVER YOUR RDA WITH THE FOOD GUIDE PYRAMID** All astronauts must receive Recommended Dietary Allowances (RDA) of vitamins and minerals necessary to perform in the environment of space (see the Food Guide Pyramid to plan your balanced daily meals).

### FIND YOUR BEE DAILY REQUIRED CALORIE INTAKE

Caloric requirements are determined by the National Research Council formula for Basal Energy Expenditure (BEE). To figure your BEE, use the following formula:

For females:  $655 + (9.6 \times \text{your weight in kilograms}) + (1.7 \times \text{your height in centimeters}) - (4.7 \times \text{your age}) = \text{BEE}$ .

For males:  $66 + (13.7 \times \text{your weight in kilograms}) + (5 \times \text{your height in centimeters}) - (6.8 \times \text{your age}) = \text{BEE}$ .

With the answers you will need to know the amount of daily calories needed for space travel.

### CALORIE COUNTDOWN

Today's space lunch menu has the following foods and calories:

- Macaroni and cheese, 309 calories
- Asparagus with sauce, 85 calories
- Green beans with sauce, 63 calories
- One slice of bread, 75 calories
- One shortbread cookie, 45 calories
- Chocolate pudding, 175 calories

1. For lunch, one astronaut ate an extra slice of bread and two extra cookies. What was the total calorie count of the meal?
2. One astronaut had one extra portion of green beans with sauce, but no asparagus. What was the total calorie count of the meal?
3. How many more calories did the first astronaut eat than the second?

### MAKE A SPACE SHUTTLE BREAKFAST

You will need:

- Powdered eggs (available as camping stores)
- Tang
- Freeze-dried banana
- A breakfast roll

- Step 1. Add water to Tang.
- Step 2. In a non-stick pan, add powdered eggs and water per instructions, stir, beat, and scramble on medium heat.
- Step 3. Rehydrated the freeze-dried bananas per instructions.

## Step 4. Eat.

Compare this space breakfast to your Earth breakfast.

### GO SHOPPING

Visit your supermarket and see how many packaged foods can you find. Make a list. Only foods packaged in paper, foil, or plastic. No metal cans or glass jars, and no large packages, only individual servings. Visit the food section of a camping store and make a list of available dehydrated and freeze-dried foods. With your list, plan a six-day menu for the Space Shuttle. For the fun of it, make a meal with some of the foods from your list for you and your friends. Be sure to sample some freeze-dried ice cream for dessert. Make notes who likes what and why, and what foods are disliked and why. Plan a day long hike and take only space foods from your list. Report on how each one worked in the wild. --*National Aeronautics and Space Administration (NASA)* See SPACE.

**ASPIC:** a nonsweet jelly made from vegetable juice or meat stock, such as cold chicken broth. Aspic salads are made by adding bits of vegetables, meats, or eggs, and molding it with gelatin into various shapes.

**ATALANTIA:** Native of India. A 3/4-inch yellow bitter fruit, eaten fresh.

**ATLANTIC SALMON:** Unlike the Pacific Ocean, the Atlantic Ocean only has one species of salmon. Atlantic salmon are found in the northern waters from North America to Europe Atlantic salmon. Unlike the Pacific salmon, Atlantic salmon swim upstream to spawn two or more times. Nutrition Facts per 3 ounces: 121 calories, 50 calories from fat, 5.4g total fat (9%), .9g saturated fat (4%), 46.8mg cholesterol (16%), 37.4 mg sodium (2%), 0 carbohydrates and fiber, 16.8g protein (34%), 0 vitamin A and C, 10mg calcium (1%) and .7mg iron (4%).

**ATEMOYA:** Native of tropical America. A member the annona family, and considered the best of the family. Atemoya is a large, smooth, sweet fruit, eaten fresh, made into a drink, or ice cream.

**AU GRATIN** (awe-grah-tin) is a cooking process done in a hot oven or under a broiler, which produces food with a crisp golden crust.

**AU JUS** (awe-zhoo) is a natural meat juice which is served with the meat. It is not a gravy.

**AU NATUREL** means food plainly done without special sauces and seasonings. A food in a natural state.

**AVOCADO:** Although it's a fruit, the avocado is usually eaten as a vegetable. In Nicaragua they cook the avocado. In Ecuador it is made into a soup. Brazilians make avocado ice cream. Well, it is a fruit!

Spanish explorers found the avocado in the early 1500s. Central American natives called it *ahucati* and the Spanish modified into *aguacate*. It is also known as an "**alligator pear**."

Avocados are grown in southern California, along the Rio Grande in Texas, and in Florida. Peak period is from early winter into mid spring. Available in supermarkets almost year 'round.

Avocados grown in the United States are about the same size and shape as a pear. Central American varieties can weight as much as a small watermelon. The avocado has a nutty flavor with a buttery texture. Coarse dark green skin makes them easy to peel. Avocados are usually eaten raw, often made into a dip such as guacamole. Sliced avocados make a neat sandwich with mayonnaise (and a thin slice of onion). **Nutrition facts:** Unlike most fruits, the avocado is high in both fat and calories. A ½-cup serving has 186 calories, 146 calories from fat, 17.7g total fat (27%), 2.8g saturated fat (14%), zero sodium, 8.5g carbohydrates (3%), 6.8g fiber (27%), 2.3g protein (5%), 707 IU vitamin A (14%), 9mg vitamin C (15%), 13mg calcium (1%), 1.2mg iron (7%), and 692mg potassium. [www.avocago.org](http://www.avocago.org); [www.calavo.com](http://www.calavo.com)