**Honey**

1. **What is Honey?**

A natural, sweet, yellow-ish brown liquid produced by honey bees from the nectar of plants.

1. **History of Honey**
   1. Honey dates back to 2100 B.C. in written history and is presumably even older than that.
   2. The name comes from the English “hunig”.
      1. Aristotle called honey “the nectar of the gods”
   3. Honey was the first and most widespread sweetener used.
      1. Honey has been used in food and beverages, but also to make cement, in furniture polishes and varnishes, and for medicinal purposes such as dressings for wounds and burns.
   4. Honey continued to be of importance until the Renaissance when sugar first arrived in Europe.
      1. By the seventeenth century, honey was being used less due to the increased use of sugar.
   5. Beekeeping is thought to date back to 2500 B.C.
      1. The 19th century brought improvements to beekeeping, paving the way for commercial honey production.
      2. In 1852, Reverend L.L. Lanstroth perfected a wooden hive for commercial honey production.
2. **Nutrition & Health Benefits**
   1. Honey offers natural benefits
      1. Honey is a natural sweetener
      2. Honey is a natural throat soother
      3. Honey provides quick energy
      4. Used in many skin care products, such as hand lotions or soap
      5. Honey contains a wide array of vitamins, minerals, amino acids, and antioxidants such as, vitamin B6, thiamin, niacin, riboflavin, and pantothenic acid, calcium, copper, iron, magnesium, manganese, phosphorus, potassium, sodium, and zinc.
      6. Several different amino acids have also been identified in honey
      7. Honey contains several antioxidant compounds including, chrysin, pinobanksin, vitamin C, catalase, and pinocembrin.
3. **Fun Facts**
   1. There are more than 300 unique kinds of honey in the United States, originating from diverse floral sources.
   2. Honey bees may travel as far as 55,000 miles and stop at two million flowers to gather enough nectar to produce a pound of honey.
   3. There are about 2.68 million honey producing colonies in the United States
   4. In general, lighter colored honeys are mild in flavor, and darker honeys are usually stronger in flavor.
   5. The bee was the symbol of the Greek goddess Artemis
   6. Nectar contains about 85-90% water, and needs to be dehydrated down to less than 18.6% water to be honey.
   7. The crystallization of honey does not indicate spoilage
      1. Honey has a two year shelf life, but as long as honey is in the bottle it will not spoil
   8. The worker honey bee is always female, and they make about 1/12 of a teaspoon of honey in their lifetime
   9. The average consumption of honey in the United States is about 1.3 pounds per person per year
   10. It takes about two tablespoons of honey to fuel a honey bee’s flight around the world
   11. North Dakota is the leading state in honey production, with a production of 33,120,000 pounds of honey produced.
   12. Honey bees are the only insects that produce a food consumed by humans.
   13. The U.S. Department of Agriculture estimates the human diet to be made up of about one-third from insect-pollinated plants, and that honey bees are responsible for about 80% of that pollination.
   14. Honey bees produce an average of about 80 pounds of surplus honey per year.
4. **Production, Storage, Preparation and Cooking**
   1. Production (from beehive to bottle): Honey starts as flower nectar collected by bees and naturally broken down into simple sugars stored in honeycombs. Evaporation takes place due to the design of the honeycomb as well as constant fanning by the bees’ wings and creates honey.
   2. The color and flavor of honey can vary from hive to hive based on the type of flower nectar is collected by the bees.
   3. Beekeepers harvest honey that is sealed off in the cell walls of the honeycomb by scraping off the wax cap on each cell made by the bees. After the wax is removed, an extractor that acts as a centrifuge to spin the frames forces the honey out of the comb and the honey is collected. After extraction, the honey is strained to remove any wax or other particles that remain. Next, it is bottled, labeled, and distributed to retail outlets.
   4. Honey comes in a variety of forms including liquid, whipped, and comb.
   5. Storage: Honey should be stored at room temperature, the kitchen counter or a pantry shelf is ideal.
   6. In cooking, honey can be used as a sweetener(slightly sweeter than sugar), for flavor, as an emulsifier(act as a binder or thickener), or as a humectant (to provide and retain moisture).