Eric Nelson

May 5, 2009

Freshly Frozen? Canned? Or grown?

There has been much controversy over the years about the quality, tastiness, and nutritional value of frozen or canned produce compared to freshly grown and non packaged organic produce. With so many views, opinions, and preferences among individuals it is hard to say how well each process is compared to the other and why.

"Fresh Frozen" is probably one of the most common phrases you'll find on bags of frozen produce. But what does that really mean? With the methods and techniques used in the frozen food industry today, it is hard to say how much "freshness" is still in the fruit or vegetable when all is said and done. The frozen produce you find in your grocers freezer is not picked directly from the farm or orchard and thrown into a bag. Instead it has to go through a multistep process in order to unsure its quality and freshness long after it was grown. The most common process used on all fruits and vegetables before packaging is called blanching (Lester). Blanching involves taking the fruit or vegetable and placing it in boiling water or steam for a short period of time. Afterwards it is placed in an ice water bath and cooled to prevent it from being cooked (Lester). By doing this many unwanted enzymes are destroyed; Enzymes that would normally cause a loss in vitamins/minerals, color, and most importantly flavor. This process also kills many forms of bacteria and parasites that may be in/on the fruit or vegetable (Jul). Not only does blanching affect the integrity of many fruits or vegetables, but so does the freezing process itself. Freezing as you may know is done to prevent and/or slow down the

Nelson 2

growth of any unwanted bacteria that may still be inside. Unfortunately this may cause damage (ex. Freezer burn) to the fruit or vegetable depending how quickly it was frozen and how long it has been frozen (Lester). This could result in a lower quality and less tasty product.

Canning of food, as you may know, is the process of sealing food in an air tight container for extended amounts of time (Larouse, Brown). Before the canning process can begin, many alterations must be done to the fruit or vegetable in order to prevent the food from spoiling and to give it the well desired shelf life. In order for this to happen, two different processes must be used depending on whether it is a fruit or vegetable. Blanching [as mentioned earlier] is used once again on vegetables, but not on fruit. This is because vegetables have no natural acidity and therefore cannot prevent bacteria and parasites from growing (Larouse, Brown). Fruits on the other hand are naturally acidic and do not need to go through the blanching process. However, fruits must go through a preparation process in which they are peeled, pitted, halved and even cored before the canning process can begin. This can either be done by hand or by machine. Once the fruits and vegetables are canned, citric acid or other preservatives such as salt may be added to the container upon being sealed. This ensures that the container is at the preferred pH of 4.5 (Larouse, Brown). After the can/container has be sealed, "Heat sterilization" is used to kill any bacteria that may have been trapped inside the container. This is done by heating the can and the contents inside to roughly 212 degrees for several minutes in an oven and thn cooled to room temperature. This will eliminate any unwanted bacteria or parasites that may have been trapped. Once all this is done the canned product is ready to be labeled and shipped to its desired location.

Nelson 3

The freshness of organic food has become a topic of interest among many Americans over the last few years. With so many healthful advantages and the "all natural" view we have on it, it is hard to see why anyone would not want to eat organic. According to the National Organic Program, organic food are items that are produced, processed and packaged without the use of chemicals, pesticides, antibiotics, etc. In order for produce to be considered "organic" it must be grown on a certified organic farm. Meaning that the farm in which the produce is grown has been 100% certified organic by the USDA (United States Department of Agriculture). However, certain foods can be considered organic if they are 95% organically grown, and others can be considered to have organic ingredients if 70% organic (NOP). Be careful not to confuse organic with "natural". Natural is a term used loosely by many grocers for food that has been minimally processed with some preservatives (NOP). According to a recent study by the USDA there is actually little evidence to prove that organic produce is more or less nutritious than its "conventional" counterparts. The difference lies in the fact that there are no artificial preservatives or pesticides added to the food while being grown or packaged. Eating organic is also very beneficial and supportive of small community farmers from in or around your local area. Shopping at organic whole sale food stands is also a great way to make ties with community farmers and learn of new and delicious products.

Of course there are instances in which not all methods mentioned are used. Today you can find commercially grown and frozen/canned organic foods at your local grocery store. Organic food can also be grown oversees in other countries and shipped to America in semi sanitary crates (NOP). New ideas and methods are being developed everyday to improve the quality and efficiency of frozen and canned food. No matter what the case may be, it is possible to enjoy (fresh) and delicious fruits and vegetables regardless of your views, opinions, and perspectives on certain processes.

Works Cited:

http://www.webharvest.gov, The National Organic Program, 2 May 2009

"Food Canning Technology", Larousse Jean, Brown E. Bruce, 1997

"Freezing effects on food quality", Jeremiah E. Lester, 1996

"The Quality of Frozen Foods", Jul Mogens, 1984