

Colorado State University-Pueblo

Orange Juice:

Putting the Sunshine in Your Breakfast

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When an American hears the words “orange juice” more often than not they would think of breakfast and the uniquely satisfying golden drink sitting on a Sunday morning table surrounded by home cooked breakfast foods. What most Americans do not think of is what made orange juice a breakfast item and what influenced us to buy and consume this citrus drink. Orange juice became an integral part of the American breakfast after World War II, due to the unique production methods which allowed for a longer shelf life and the unique marketing of the orange drink. Although processed orange juice consumption has been decreasing over the past several decades due to the increasingly high prices and the concern over the juices overall health benefits, orange juice is still consumed by many Americans during the first meal of the day.

With the laborious task of squeezing fresh orange juice and the issue that arises with shelf life, preservation, and availability of oranges, the advertisement campaigns and product loyalty made the success of orange juice a “Cinderella story.” Geography and the distance of consumers from the groves played into the originally high prices of the citrus juice and also the issue of proper storage for the easily spoiled juice. The rise and fall of the orange juice market over the last five decades has been caused by several factors that were out of the control of the producers. Several of these unanticipated factors actually benefited the marketing and the overall sale of the citrus drink. The initial success of the marketing of the juice was clever because the orange juice market has faced factors like weather, wars (World War I and World War II), and vitamin C scares that could not be controlled by the producers and impacted the orange juice market in ways that could have not been foreseen. Although these factors could have not been predicted, war changed the face of the orange juice itself and health concerns coming from average Americans only made the drink a more appealing option. Orange juice producers had to form a market surrounding their unique product and they achieved this over the

course of a fifty year period. Orange juice would become one of the most popular and well recognized breakfast drinks in America.

Orange juice also had many limiting factors including price, the concern over a substantial shelf life, and even availability of the actual drink in places far away from the groves and production houses in Florida and California. Marketing changed these limiting factors and soon making orange juice in its various forms appealing to families all across the United States. With the invention of concentrated orange juice in both powdered and frozen form during World War II, Americans interests and consumption soon peaked when hearing about a juice that could easily be preserved while still maintaining many health benefits. Orange juice was then mass marketed through television, radio, newspapers, and other forms of media that reached the general population of the United States and making orange juice an everyday part of the American breakfast table.

Oranges are not a fruit native to the North America, thus making this a great success story of the orange juice industry and their ability to take a product and change its form and to make it more appealing and available to the masses. According to Clarissa Hyman, author of *Oranges: A Global History*, oranges originated in the “‘Monsoonia’, the mountainous parts of southern China and northeast India where most commercial species and cultivars originated.”¹ Oranges were introduced to North and South America, “the Spanish took the bittersweet orange to both Florida and South America.”² Although oranges had been introduced to the United States in the 1500s, oranges were not an important part of the trade to Europe until orange groves became more established, a bit more than three hundred years later, in the late 1800s. Groves in

¹ Clarissa Hyman, *Oranges: A Global History* (London: Reaktion Books Ltd, 2013), 8.

² Hyman, 19.

California and Florida mostly produce Valencia, Hamlin, and Navel oranges which are all used in the creation of the various types of concentrate and fresh orange juice.³ Oranges soon found a second home in the United States in the state of California. Florida and California's climates are conducive to citrus growth, making these two states key producers of orange products. It would take several decades but by the late 1940s, Florida and California would be known for their orange production and most importantly the orange juice products that would come from these states.

Orange juice had not always come in the frozen concentrated form that we think of every time we walk down the frozen food section of the grocery store. O.J. also had not been available in plastic or paper cartons until more recently. Originally, orange juice had to be hand squeezed at home, but this process was time consuming and required a large amount of fresh oranges, something that would have not been a luxury to all classes of people or even available in all seasons of the year or states. Humans have consumed orange juice as long as they have had citrus fruits, but the act of creating pre-prepared orange juice for the masses has been a fairly recent task. Before World War II pre-made orange juice was canned, this is not to be confused with what would eventually become the norm of frozen concentrated orange juice.⁴

The story of orange juice did not reach its full potential until orange groves in both Florida and California exploded in production and after research, which was conducted during World War II in the realm of orange juice production. Before World War II there had not been a large scale orange juice production due to the availability of oranges (seasonal), the issue with shelf life, and the problem with creating a juice with uniform taste and texture. Oranges had

³ Alissa Hamilton, *Squeezed: What You Don't Know about Orange Juice* (New Haven: Yale University Press, 2009), 10.

⁴ "Florida Fruit Canners Preserve Orange Juice," *Seald-Sweet Chronicle*, October 1, 1930, 3.

been processed into canned orange juice before the war but the overall taste, texture, and appearance was less than appealing to the average American. The juice would have been processed through vacuum evaporation and then the juice would have been put into tin cans. These cans would be opened at home and the juice would be served in a glass, no preparation necessary. The issue with storage and the concern over a stable shelf life deterred the common American from squeezing their own fresh orange juice, leaving them with a limited amount of options for “fresh juice”. Orange juice must be refrigerated if it is freshly squeezed and during the late 1800s and early 1900s this was an issue for the average American due to lack of home refrigeration. Pasteurization helped keep the orange juice from spoiling, but it did not improve its flavor. This left the consumers who drank the original canned orange juice wanting more, and their demands would soon be resolved in the 1940s. The other option during the early 1900s was orange juice preserved through vacuum evaporation and then stored in tin cans. The processes of vacuum evaporation drastically changed the appearance of the orange juice and made the taste unrecognizable and overall unappetizing for the consumer.⁵ Americans during this time opted to drink fresh squeezed orange juice if the supply of fresh oranges were available where they resided, over having the unappetizing canned juice.

There was little to no marketing of the original canned orange juice, marketing was geared more towards oranges themselves and the industry as a whole rather than the juice product. Although there were a limited amount of advertisements for the actual juice itself, other drink products that used orange juice advertised a more appealing option to the unpalatable canned juice. In 1919 a company named Orange-Crush came along and remade the image of orange juice, introducing it a carbonated drink. Companies like Orange-Crush marketed

⁵ Hyman, 66.

alternative options for the orange juice by adding carbonated water as a way to appeal to consumers who had not been pleased with other preserved orange juices. According to a marketing advertisement from 1919 concerning the Orange-Crush company it states, “Every ordinary size glass or bottle of Orange-Crush contains approximately the same amount of purest citric acid that is found in an ordinary ripe orange.”⁶ Advertisements before the 1950s were not always specifically aimed at selling just canned orange juice, because marketers were trying to sell alternative drinks like Orange-Crush since canned orange juice was not all that appealing just yet. It was not until World War II that Americans saw orange juice in its full shining potential in the form of concentrated orange juice.

Oranges have been squeezed and made into juice for hundreds of years before the invention of the frozen concentrated orange juice in 1948.⁷ Fruit juices had been squeezed by hand for as long as people have consumed fruits. But the problem that arises with fresh fruit juice is if it is not properly pasteurized and stored after preparation the juice will begin to spoil immediately. This problem would eventually be resolved with the use of home refrigeration and freezers but until then, fresh juice was a luxury for those who had the time and money. Before the more sophisticated and technologically advanced ways of mass producing orange juice for the consumer there were also problems with what to do with waste from the oranges used in the making of orange juice. Weather also played a contributing factor in the large number of waste. Freezing temperatures and inclement weather damaged large amounts of the crops periodically and this was an issue that concerned orange growers and even juice producers. Weather would eventually change the whole orange market, allowing Brazil to become the world's number one

⁶ “The Story of Orange-Crush: Interesting Facts About the Preparation of “the Drink Irresistible”,” *Big Sandy News*, July 11, 1919, accessed March 3, 2015, ProQuest Historical Newspapers.

⁷ Cedric D. Atkins, L.G. MacDowell, and E.L. Moore. *U.S. Patent No. 2453109: Method of Preparing Full-Flavored Fruit Juice Concentrates* (Washington, D.C.: U.S. Patent and Trademark Office, 1948).

producer of oranges and eventually a leader in juice production. Florida and California groves have seen their fair share of damaging freezes. These periodic freezes ruin the oranges and affect not only the overall orange market but also the production of orange juice. Oranges cannot be under-ripe nor have damages from cold, disease, and handling damage. Oranges that have defects are not used in the production of orange juice so the availability of fresh and properly ripe oranges is a key to making a uniform flavored and colored juice. In 1914, “At the packing houses any orange showing a defect in shape, color, or size, or a slight injury to the skin is rejected.”⁸ The processing of oranges for the sake of orange juice does produce a great amount of waste but not all of this waste is discarded as trash. In the early twentieth century, “There are various uses to which rejected oranges could be put, and a small number of them are now used in the manufacture of various citrus by-products.”⁹ These other by-products never became successful products but the versatility of oranges gave orange growers and even orange producers the opportunity to create a market for orange juice.

Although orange juice did not become popular in the American home until the end of World War II, people had been consuming fresh hand squeezed orange juice if they had access to ripe oranges. It wasn't until the creation of frozen and powdered concentrated orange juice that it appeared in the average household across all of America. Access to home refrigeration also gave concentrated orange juice a huge boost. The popularity of the frozen concentrate would come several decades after the invention of the original canned orange juice and it would not be until after World War II that Americans would be consuming this citrus drink every morning alongside their breakfast.

⁸ W.V. Cruess, *Utilization of Waste Oranges* (Berkeley: University of California Press, March 1914), 157.

⁹ Cruess, 157.

Before World War II, there had not been a great demand by the consumer for a juice in which they could easily prepare. As World War II began, the United States government soon took the task of creating a juice that was convenient for those in a combat situation but also nutritious to help maintain a proper level of vitamin C. The research that went into finding the best way to create a frozen concentrated orange juice took several years, but the results changed the citrus industry in both California and Florida and caused a boom in the consumption of the newly developed frozen concentrated orange juice.

Before and during most of World War II, orange juice had not been part of the American breakfast diet, but with the introduction of new production and packaging of the frozen and concentrated form made this drink more appealing to the consumer and easier to save and store. For almost a half a century Americans chose to drink freshly squeezed orange juice if they had the time, money, and supplies to make and save orange juice. People also needed access to an orange juicer and even a refrigerator for preservation of the fresh squeezed orange juice. The only other option was canned orange juice which did not always have the same uniform taste and consistency that we imagine with the orange juice that we consume today. According to author Alissa Hamilton, “The year 1948 was like no other in the history of Florida citrus. After almost a decade of research a group of scientists honed a process for making a prepared orange juice that was better than the canned juice that had been around since the turn of the century.”¹⁰ 1948 would bring immense change to the juice industry in the United States and help shape the consuming habits of Americans.

¹⁰ Alissa Hamilton, 18.

World War II brought several major changes to the orange juice industry with the research and innovation conducted by the Florida Citrus Commission beginning in 1944.¹¹ Orange juice research was conducted due to the United States Army's overwhelming need for "an easily transportable and tasty juice that would function as the primary vehicle for delivery of a key nutrient, vitamin C."¹² The experimentation for finding a new technique of preservation which increased shelf life, taste, and ease of preparation led to the researching of powdered and ultimately frozen concentrated orange juice. Experimentation into several new preservation techniques of orange juice were being researched during the war. The two scientists in charge of the project, Edwin L. Moore and Cedric D. Atkins were commissioned to create a concentrated form of orange juice that overall had better flavor and this resulted in frozen concentrated orange juice. These two researchers worked for the United States Department of Agriculture and were the key figures in developing the process which would make frozen concentrated orange juice (FCJO). The United States Patent Office granted the men working with the Florida Citrus Commission Patent Number 2,453,109: Method of Preparing Full-Flavored Fruit Juice Concentrates on November 9, 1948.¹³ This patent changed orange juice and the orange juice industry. According to the patent, "The principal object of this invention is to prepare a concentrated fruit juice containing a substantial portion of the original aroma, flavor, and palatability."¹⁴ By changing the way in which the orange juice is produced, soon changed how American's viewed, purchased, and consumed orange juice. The United States Army commissioned the research for a better tasting vitamin C supplement for soldiers on the front

¹¹Steven Nagy, "Frozen Concentrated Orange Juice," *Citrus Science and Technology* 2, (December 1977), 212.

¹² Alissa Hamilton, 16-17.

¹³ Cedric D. Atkins, L.G. MacDowell, and E.L. Moore. *U.S. Patent No. 2453109: Method of Preparing Full-Flavored Fruit Juice Concentrates*, 1948.

¹⁴ Cedric D. Atkins, L.G. MacDowell, and E.L. Moore, *U.S. Patent No. 2453109: Method of Preparing Full-Flavored Fruit Juice Concentrates*, 1948.

lines and soon this technology would reach the American household after 1948. With these advances and technology, the frozen concentrated orange juice market would take off and would soon become an overnight marketing success. According to Abigail Carroll, “Like milk, orange juice served patriotic purposes during wartime. The military saw citrus groves as veritable vitamin factories and hired scientists to develop ways of preserving the processed crop and transporting it to the troops.”¹⁵ The craze for vitamin C in the diets of the average American would continue after the war and become one of the strongest selling points of the mass marketed concentrated orange juice.

The process of creating concentrated orange juice is one in which the orange goes through a series of procedures with the end result being a uniform frozen concentrated juice product. The main component of the frozen orange juice concentrate process is the use of evaporators. Orange juice went from being processed with the use of vacuum technology which altered the overall taste and texture, to the use of evaporation which maintained most of the original flavors of the orange juice. First the oranges were inspected for abnormalities, and then they were sent to be peeled.¹⁶ After the inside or juicing part of the orange was extracted, the useable part of the orange was sent to the concentrator for juicing and eventually the evaporation processes.¹⁷ At the orange juice processing plant the concentrated form of orange juice would have been packaged in a freezer safe can and stored at the proper temperature until the finished product was sent to various grocery chains across the United States, and eventually prepared by average family and to be consumed at the breakfast table. The results of early forms of canned orange juice did not require refrigeration but frozen concentrate did, however in order to

¹⁵ Abigail Carroll, *Three Squares: The Invention of the American Meal* (New York: Basic Books, 2013), 152.

¹⁶ “How Orange Juice is Processed and Frozen,” *New York Times*, February 5, 1967, accessed February 20, 2015, ProQuest Historical Newspapers.

¹⁷ “How Orange Juice is Processed and Frozen,” *New York Times*, February 5, 1967.

preserve the flavor and keep the drink from spoiling the concentrated orange juice needed to be kept in a frozen state until it was prepared and reconstituted for consumption.

The convenience of frozen concentrated orange juice reaches far beyond just the kitchen of the person who buys it. The technology created by the Florida Citrus Commission in the mid-1940s allowed for an easier and more convenient product when it came to producing and shipping. No longer did juice have to come in a big bulky glass jar or container which took up a lot of space when shipping or also on the shelves of a grocery store.¹⁸ Juice could now be shipped in a can specially designed to hold the citrus slush. These cans were made from tin and eventually a waxed paper form that would have a top that would come off, for easy preparation. These cans had to be kept frozen but the more compact packaging design kept the concentrated juice fresh until it was to be reconstituted and served. Reconstitution would take place at home when the can was opened and the orange citrus slush was poured into a container with several parts water depending on the amount of dilution that was wanted and stirred until dissolved in the water and served cold. This easily prepared drink would become one of the most recognizable breakfast items in the twentieth and twenty-first centuries.

The research that went into making frozen concentrated orange juice yielded two new ways of producing juice. The first being the use of evaporation in the making of the actual concentrate which is made up of the juices from the orange concentrated down into a sludge form, and secondly the use of the “degrees Brix”. The degrees Brix was, “Specific gravity, figured according to a special scale for sugar solutions, is the measurement of concentrate.”¹⁹ As the orange juice is produced into the concentrated form the degrees Brix continues to rise as the

¹⁸ Nagy, 212.

¹⁹ John McPhee, *Oranges* (New York: Farrar, Straus and Giroux, 1967), 129.

juice become more and more concentrated. The concentrate is then mixed with a “cutback”. McPhee notes that a, “Cutback is mainly fresh orange juice, but it contains additional flavor essences, peel oil, and pulp.”²⁰ This process is conducted with a series of formulations regarding the amount of juice being produced. At this point orange juice becomes chemistry, with the Brix system and the components of mixture with the essence and oils.²¹ This formulation of juice created through the evaporation and the degrees Brix system created a product that was both uniform in taste and quality.²² The research conducted by the Florida Citrus Commission changed the quality of orange juice making it a product that Americans would find appealing through its ease of preparation and quality taste after its reconstitution. The research conducted during the years of 1943-1948 change the face of orange juice forever, impacting not only the orange market but the frozen food market in the United States, making easy prepared drinks and meals more acceptable in American households and more specifically at the breakfast table.

The research and the results which created a new product frozen concentrate O.J., spurred multiple marketing campaigns all targeted at the American housewife. The nineteen fifties were a time in which women did most of the family’s shopping and so orange juice companies like Tropicana and Minute Maid utilized this fact to sell their products. Selling a product to the American public was a task that each company had to research and evaluate their target market to make decisions on how to promote this new product in hopes to sell the most juice. When making decisions about marketing, companies like Tropicana and Minute Maid had to target the strengths of their product. Marketing for many of these orange juice companies revolved around the health of children and the ease of preparation of the products in which they were trying to

²⁰ McPhee, 131.

²¹ J.N. Boles and Sidney Hoos, *Oranges and Orange Products: Changing Economic Relationships* (Berkeley: California Agricultural Experiment Station, 1953), 54.

²² J.N. Boles and Sidney Hoos, 53.

sell. Housewives at this time were seeing changes in the products that they had once bought and made for their family. A homemaker no longer had to take time out of her busy day to buy oranges, if they were available and squeeze them for their juice. Instead, she could go straight to the store's freezer section and pick a pre-canned frozen concentrated orange juice or even refrigerated orange juice that did not require any preparation and the juice would be ready to consume at breakfast time for her family.

The unique marketing of orange juice began with the health concerns that many Americans had during the early 1900s concerning children's health. Orange juice, which was naturally loaded full of vitamin C, was another benefit in the overall marketing of this hugely popular breakfast drink. Mothers across the United States felt that if they served their families orange juice every day for breakfast, they were doing their duty to not only their family but the overall health and wellbeing of the nation.²³ Many major advertisement campaigns conducted by companies like Tropicana, Minute Maid, and Snow Crop touted the benefits of drinking one glass of orange juice every day. By aiming their advertisements at the overall health of the consumer, marketing no longer was just about selling for the sake of consuming a delicious drink. It now became the goal of making it an everyday part of the healthy American breakfast. Had the marketing teams for the orange juice companies missed the opportunity of the health craze, orange juice may have never been the success story that it would eventually become.

Americans had been concerned with their intake of vitamins since World War I but with the impact of another world war and the concern of whether soldiers were getting the correct amount of vitamins during their deployments overseas. Soldiers who had been enlisted and or been conscripted for wars had been said to malnourished and the push for more vitamins by

²³ Carroll, 152.

drinking both orange juice and milk was the solution.²⁴ Civilians at home in the United States had already had health scares particularly with in the case of vitamins. An article from 1930 published in the *Seal-Sweet Chronicle* states that oranges and even the juice from oranges are, “Wholesome, beneficial, and we were informed, no other fruit could equal it in antiscorbutic vitamin value.”²⁵ The vitamin C scare or concern that plagued the United States over these three decades helped the sale of orange juice. The market targeted the consumer by advertising that many of these brands were high in vitamin C and would be beneficial to the overall wellbeing of anyone who had one glass of orange juice a day. Campaigns soon arose out of the vitamin craze such as the Sunkist “Drink an Orange”. “In 1907 California citrus growers banded together in a cooperative called the California Fruit Growers Exchange, which later sold its products under the brand name Sunkist. In 1920 the cooperative began to advertise that its products contained vitamins (first identified in the previous decade), particularly emphasizing vitamin C. Three years later, the co-op distributed 100 million promotional brochures. Florida growers followed Sunkist’s lead, emphasizing the therapeutic qualities of lemons and oranges.”²⁶

Families received information regarding their family’s health and the information about the health benefits directly from the fruit growers and the companies who produced the juice. Breakfast would have been logically the meal to consume these important vitamins, making this juice an important part of the ritual of eating a wholesome breakfast which included drinking one glass of O.J. Companies like Sunkist, Tropicana, and Minute Maid used the vitamin C concerns of mothers to market their products in their favor, of making more sales hence increasing their

²⁴ Carroll, 150.

²⁵ Fred Peasley, “Oranges Important? Well They May Precipitate A War,” *Seald-Sweet Chronicle*, December 15, 1930, accessed February 17, 2015, <http://ufdc.ufl.edu/UF00075292/00012/4j?search=frozen+%3dconcentrate+%3dorange+%3djuice>.

²⁶ Andrew F. Smith, “Fruit Juices,” in *The Oxford Encyclopedia of Food and Drink in America* (Oxford: Oxford University Press, 2013), 40.

profits. Factors such as personal health changed the face of the orange juice market, by improving the overall image and drinkability of the golden nectar.

Orange juice producers in Florida and California had to keep up with the rate of consumption, as consumers flocked to the stores to purchase the new frozen concentrated orange juice. The progress of juice consumption was on the steady rise after the 1950s when the reputation of the orange juice companies was positive in the eyes of the consumers. Tropicana and Minute Maid tried to meet the wants and needs of the consumers and this would only work if their products were on par with the expectations of the consumer. Juice had become an integral part of the American breakfast by the 1950s, making its way into almost every American refrigerator, and breakfast table.

Although women went to the grocery store and picked out the food and drinks that would be consumed by their families, they did not make these decisions alone. Tropicana, Minute Maid, and other brands targeted the health concerns of mothers, especially the health of their children. The author of *Three Squares* states, “At the start of its popularity, mothers gave orange juice to infants to prevent scurvy and to young children to cure gum problems and ward off tooth decay.”²⁷ The health campaigns reached Americans families through television advertisements, radio jingles, newspapers, billboards, and even word of mouth from family to family. The result of the health campaigns was an ever growing demand for orange juice among housewives and their families. As popularity grew across America the price of orange juice slowly ticked up alongside the demand.²⁸ The prices never became over escalated since the juice being produced in Florida and California sufficiently covered the demand within the states. Newspapers began

²⁷ Carroll, 152.

²⁸ Marshall Godwin, “Consumer Reaction to Varying Prices for Frozen Orange Concentrate,” *Florida Experiment Station*, Bulletin 589, August 1957.

printing information about the price and consumption of orange juice, and its success in the early years helped its image. According to one *New York Times* news article from 1953, “The price of frozen orange juice is going up because Americans are drinking it faster than it can be processed, an Agriculture Department spokesman said today. The official estimate that household purchases alone are currently running at a rate of about 55,000,000 gallons a year...”²⁹

Americans are now buying orange juice at an increased rate, making it one of the most important drinkable breakfast items.

By the mid-1950s oranges were no longer seen as exotic and celebratory treats. Before the orange had been mass produced into various forms of ready to drink juice, they were eaten on holidays such as Christmas and as a special treat during the summer if available at markets or grocers. With better transportation and storage, oranges would be available to eat on all special occasions and during all seasons of the year; oranges could be purchased at grocery stores and local markets throughout the year, alongside other orange products like orange juice. Marketing reimagined the overall appearance of the orange, making it a symbol of health and can be even said to be a symbol of American ingenuity. Orange juice sat directly next to your breakfast food and glass of milk, ingraining itself into the diets of children and adults alike. Orange juice could have been considered a failure if it had not been for the alluring marketing strategies concocted by the companies who processed oranges from their original state.

Many factors had affected the success of orange juice including the problem over storage and shelf life. Proper storage was the key when creating a product that would require it to be kept in a frozen and or chilled state until it was to be prepared (reconstituted) and consumed.

²⁹ “Frozen Orange Juice In Greater Demand,” *New York Times*, August 6, 1953, accessed February 11, 2015, ProQuest Historical Newspapers.

The orange juice industry tried to solve this problem making crystalized or powdered orange juice but the overall terroir that was to be expected from a juice made from orange did not come out. Powdered and the first canned orange juice was sour and once reconstituted, a brown unappetizing color. Refrigeration and the use of home freezers was the answer to making orange juice a staple in the American household. By the 1950s refrigeration had made its way into many of the consumers' homes, making frozen concentrated orange juice and canned orange juice that more appealing. Jane Nickerson states, "Storage, according to an expert to whom we put this question yesterday, is the factor that most influences taste."³⁰ Orange juice had to taste fresh as if it were freshly squeezed and so the importance of proper storage was key in making the drink something that a family would have every day for breakfast. It wasn't enough that the orange juice was convenient it had to taste good too.

Without the accessibility to home refrigeration orange juice may have not been the success story that it is today. Grocery stores now had proper storage for the frozen concentrated orange juice and also storage for canned and cartons of cold or chilled juice. According to a bulletin published by the California Agricultural Experiment Station in 1953 regarding shelf life and preservation of the juice was, "Of importance also was the fact that facilities were available in most homes to store frozen concentrate: for limited periods in refrigerators; and for longer periods as low-temperature home cabinets or "deep freezers' became more widely distributed."³¹ "Ice boxes" kept the frozen concentrate from thawing before use, keeping the original integrity of the drink intact. The overall convenience of having a home refrigeration system make the appeal to buy several cans of the frozen concentrate and thus more cans would be sold which

³⁰ Jane Nickerson, "Flavor of Frozen Orange Juice Depends on Storage, Both in Shop and at Home," *New York Times*, September 10, 1952, accessed February 6, 2015.

³¹ J.N. Boles and Sidney Hoos, 50.

created more profit for companies like Tropicana and Minute Maid. Beginning in the early 1950s there were many changes regarding not only the production and marketing of orange juice but also the changes in lifestyle and technology in the United States at this time. According to author Clarissa Hyman, “From then on, the growth of the giant Tropicana and Minute Maid brands were built on the post-war baby boom and the rise of the suburban lifestyle, in which the act of peeling an orange was considered time-wasting and tedious, as well as new kitchen innovations: refrigerators, frozen dinners and those iconic little tins of FCOJ.”³² Had the technology or price of home refrigeration not been up to par by 1948 with the creation of frozen concentrate, the story of orange juice may have not been as astounding.

Advertising had been used to promote oranges and their byproducts like orange juice by the Florida Citrus Exchange since the 1920s.³³ Many of the early advertisements for orange juice came from newspapers including the *Seald-Sweet Chronicle* which was a bi-monthly paper dedicated to the orange industry which included the production of canned orange juice. “During the 1921-22 marketing season for Florida grapefruit and oranges, the Seald-Sweet advertising of the co-operating Florida growers appeared in more than twenty-five million copies of nine of the leading home magazines of the United States...” according to the *Ocala Evening Star* in 1922.³⁴ So by the 1950s Americans consuming habits were beginning to be influenced through advertisement and marketing campaigns on television, radio, newspaper advertisements, billboards, and other forms of media. Orange juice and more specifically the orange juice companies like the two major ones in the United States, Tropicana and Minute Maid have influenced the American consumers purchasing habits through their unique advertising.

³² Hyman, 67.

³³ “Who does the real Advertising of Florida Grapefruit and Oranges?,” *Ocala Evening Star*, Monday, May 29, 1922.

³⁴ “Who does the real Advertising of Florida Grapefruit and Oranges?,” *Ocala Evening Star*, Monday, May 29, 1922.

Tropicana's marketing campaign for their orange juice products was "It's the closest thing to freshly squeezed orange juice you can get and not have to do the work yourself."³⁵ Tropicana's marketing scheme is brilliant. They manage to show that it tastes like it is consistently homemade without having to go through all of the hard work to make it homemade. Coca-Cola and Pepsi Company would eventually buy the various companies like Tropicana (Pepsi Co.) and Minute Maid (Coca-Cola) and make their marketing even more strategic, since these two big named brands are now competing with each other.

The introduction of television and radio marketing opened new doors for all orange juice companies, because they reached new audiences that may have not been reached with just newspaper advertisements or even billboards. Television gave companies like Minute Maid and Tropicana the ability to bring well known and trustworthy figures to your home and have their endorsement of these products sway your purchasing habits. One of the more well-known television advertisements comes from Anita Bryant who worked for the Florida Citrus Commission making television advertisements.³⁶ Anita Bryant was an American singer and one of the most well-known brand ambassadors for Florida orange juice. Television advertisements mostly focused on the health benefits of the juice if it was consumed every day. Individuals like Anita Bryant assured the consumer that the choice to drink orange juice for breakfast was one that would be overall beneficial to not only your health but most importantly your children's health. The Florida Citrus Commission's focus on the health of the consumers shows the United States concern for vitamin C deficiency in youths. Other major marketing campaigns came from magazines, radio, and newspaper advertisements. All of these sources of media reached the average household and were mostly seen by the individual who does the shopping, most likely

³⁵ McPhee, 134.

³⁶ "Anita Bryant Florida Orange Juice Ad." YouTube. April 3, 2010. Accessed March 16, 2015.

females of the household. Without the strategic marketing campaigns from all of the major orange juice producers, this juice may have never become a staple at the breakfast table.

Another overall marketing strategy invented to entice the interest of the consumer to buy the ever growing popular breakfast drink, included celebrity endorsements. Radio had been used for advertising purposes and orange juice producers used this media form to promote their products. According to one bi-monthly newspaper the *Seald-Sweet Chronicle* from December 15, 1930, “Millions of housewives will “listen in” and hear of the virtues of Florida citrus and the latest in tasty citrus recipes courtesy of the National Broadcasting Company...”³⁷ One of the most influential celebrity endorsements was that of the “Crooner” Bing Crosby. Radio and television personality said, “Minute Maid frozen concentrated orange juice, Crosby implied, could similarly deliver uniform quality every day of the year, no matter what the weather outside.”³⁸ Uniformity was also a selling point of the juice. Americans did not want to buy a drink that was delicious and sweet one time and sour and unappetizing the next. The availability of orange juice also was a marketing selling point. Grocery stores and the orange juice companies alike could advertise the “like fresh squeezed” orange juice year round in all parts of the United States. Orange juice never again had to be a seasonable item and only available in the states surrounding Florida and California. The ability of these marketing campaigns which included various forms of advertisements was remarkable, considering that just a few simple phrases could influence the purchasing habits of the consumer and more specifically the women who were doing the purchasing.

³⁷ “Radio To Tell Nation Value Florida Citrus,” *Seald-Sweet Chronicle*, December 15, 1930, accessed February 17, 2015.

³⁸ Shane Hamilton, “Cold Capitalism: The Political Ecology of Frozen Concentrated Orange Juice,” *Agricultural History Society* 77, no. 4 (Autumn 2003):558, accessed January 6, 2015, <http://www.jstor.org/stable/3744935>.

Newspapers and magazines also contributed to the visual appeal of orange juice products. Seeing visually stimulating photographs before the purchase of the actual product helped the shopper make decisions about their purchases as they made a grocery list, even before stepping foot in the store. The orange juice companies had to design advertisements that appealed to the ease and something that a family would want to drink on an everyday basis. Examples of magazine advertisements can be seen in the *Ladies Home Journal* and *Time Magazine*, giving them maximum exposure to their target audience. An advertisement printed in the *Ladies Home Journal* in 1950 has a list with eight benefits you will receive from drinking Florida Orange Juice either fresh or canned.³⁹ Advertisements like the one in the *Ladies Home Journal* had been created by the Florida Citrus Commission, showing that the orange industry took steps to make their product appealing in the form of ads in magazine which will influence the buying power of the consumer. The *Ladies Home Journal* ad also showed the health benefits of the juice, “Florida’s extra-juice oranges, with the vitamins, mineral and vigor, help you feel all alive from head to toe!”⁴⁰ Although this advertisement was not for a particular brand like Tropicana or Minute Maid the imagery of a woman smiling and drinking O.J. would become one of the most recognizable ads in the 1950s and 1960s.

These advertisements would make a lasting impression on the consumer and sway their purchases, in favor of more appealing brands. Advertisements would often use the image of a child drinking a tall glass of juice promoting increased health benefits if they drank a big glass every day. Advertisers would also target the wife and mother of a family by having a cheerful looking woman easily preparing the frozen or concentrated O.J. “In retail introduction in significant quantities in the 1947-48 season was accompanied by spectacular

³⁹ “Florida Orange Juice Fresh or Canned,” *Ladies Home Journal*, March 1950.

⁴⁰ “Florida Orange Juice Fresh or Canned,” *Ladies Home Journal*, March 1950.

publicity...Promoted before the end of the decade by big show business names of the day- Bing Crosby, Kate Smith, Arthur Godfrey, Sid Caesar and Imogene Coca among others-it qualified on every basis for outstanding success.”⁴¹ Endorsements by these wholesome and influential actors, actresses, singers, and comedians pioneered not only on their own shows, movies, and stages but also as a driving force behind many of the advertisements in multiple forms of media.

Orange juice is a drink that can be said to give a person a natural boost of energy since orange juice has been marketed as a breakfast item this gives the juice more appeal as a drink with the first meal. Although later consumers would opt for a quick cup of coffee over the citrus juice, for several decades’ canned or frozen concentrate would be served at every breakfast meal alongside a glass of milk. Being consumed at the first meal of the day had its advantages because breakfast it usually fairly regulated with fewer options for drinks than that at lunch or dinner. Juice is also a sweeter option, making it more appealing to youths. Orange juice did not have to compete with milk since the two were consumed for different health purposes. Many advertisements had the image of a bright eyed child promoting the “one glass a day” with a suburban looking mother opening a frozen can of orange juice and mixing it with water, preparing it to be served to their wholesome looking family. Had orange juice been marketed as a drink for later in the day it success among suburban families may have not been as popular. The modern American breakfast goes hand in hand with orange juice and vice versa. The regularity and symbolism of the actually drinking orange juice became ingrained in the culture created around the first meal of the day.

Orange juice companies which include Florida’s Natural, Tropicana, Minute Maid, and Simply Orange all have the task of keeping the consumer interested in their product as the price

⁴¹ “Concentrates: The Industry Goes Big Time,” *Frozen Food Age*, December 1992, 96D.

of orange juice continues to rise and as breakfast eaters drink less sugary drinks. Caffeinated drinks have become the norm in the early hours of the day and juice has been pushed to the backburner while coffee has leapt forward. The options for brands and types of orange juice has expanded over the years and now there are many more options for orange juice than just frozen concentrated orange juice. Juice is now available in waxed cartons, plastic containers, canned frozen concentrate, and even options like Tang which is powdered juice. Americans now even have the option of less preparation with “not from concentrate” juice, which is fresh squeezed juice processed and pasteurized and packaged for ready to serve. “Less Sugar”, not from concentrate, and less calories are just some of the options for the modern consumer who are looking for a more natural and healthy juice.

Since the innovation of processed orange juice in all of its forms including powdered and frozen concentrate, America has steadily decreased its consumption of freshly squeezed orange juice. The average American consumer consumes more processed orange juice than freshly squeezed due to the ease of going to the grocery store and buying premade juice or frozen concentrate and just adding water. Overall orange juice consumption is down in the last decade due to the competition it has with other breakfast drinks which include coffee and energy drinks. This trend can be seen in several ways. It is the current trend that the modern American breakfast is a quick bite to eat and orange juice is a quick option with the prepackaged bottles and boxes. Americans are no longer eating breakfast at home, and if they are they are opting for a quick and easy bite to eat making the daily glass of orange juice a breakfast item of the past. Americans are also more health conscious than they were in the past several decades, many people opting for less sugary drinks including orange juice due to its high level of calories and carbohydrates attributed sugar content. Companies like Tropicana, Minute Maid, Florida’s

Natural, Simply Orange and other off brands continue advertisements and marketing to gain the interest of younger and more health conscious consumers. The thirty second advertisements on television are attempting to rejuvenate the orange juice demand in the United States through celebrity endorsements. Marketing in this day and age is not like last century, since our lives are inundated with constant advertisements for various products. Marketing today mostly relies on television advertisements unlike the advertising and marketing campaigns of the past which utilized almost all forms of media.

Orange juice production slowly began to change in the early 1960s and continued through the 1970s when United States was no longer the predominate country where the oranges that were used for orange juice were grown. Brazil entered the market with the ability to produce large numbers of oranges and thus frozen concentrated orange juice (FCOJ). According to the United States Department of Agriculture, “Abundant supplies of processing fruit and the ability to produce a competitive product enabled Brazil to surpass the United States as the world’s leading exporter of FCOJ and eventually go on to capture three-fourths of the world export market.”⁴² Brazil tried to meet the demand for oranges in the United States and with the damage done to the oranges in one of the great freezes that has occurred and damaged many of the orange groves in both California and Florida.

The 1960s and 1970s were not good times for the orange producers in the United States since damaging frost had harmed many of the groves in both California and Florida, negatively affecting the orange juice producers who could not keep up with demand when their supplies had

⁴² John H. Wilson, “Brazil’s Orange Juice Industry,” *U.S. Department of Agriculture, Foreign Agricultural Service*, April 1980, Accessed April 3, 2015. Hathi Trust, 1.

fallen short.⁴³ Brazil was the United States option for salvaging the faltering orange juice supply. Within a few years the United States would be dethroned from their position of the number one producer of oranges for the use of creating juice and that title would move onto and stay with Brazil for the next five decades. Brazil would become globally the largest orange juice producer and exporter. The United States at this point had been working towards another orange juice option such as the not from concentrate (NFC), and Brazil would take this idea and run with it. In the 1980s, “competition from Brazilian oranges nearly pushed Florida orange growers into bankruptcy. Florida growers have since responded with efforts to market more fresh juice, advertising “100% Pure Florida Orange Juice” as more tasty than imported concentrate.”⁴⁴ The United States had to respond to the growing competition with Brazil and promoting a more natural and American product was their response.

To this day you can still purchase frozen concentrated orange juice in your local grocery store in the freezer section and go home open the can and prepare yourself a glass of orange juice that would taste like any other orange juice consumed in the United States. People are less inclined to prepare their own freshly squeezed orange juice in the United States thanks to production technology, refrigeration and the ease of purchasing what you need at the local grocery store. The need to make orange juice by hand is obsolete and since 1940 fresh squeezed orange juice consumption has been on the steady decline, meaning Americans are opting for the easy and reliability of frozen concentrated orange juice and premade orange juice, which you can buy in the refrigerated section of the grocery store. Furthermore the health benefits of orange juice have also been called into question by nutritionists and consumers alike. O.J. has been said to be unhealthy due to the high sugar and calorie content especially when consumed during the

⁴³ Wilson, 1-2.

⁴⁴ Shane Hamilton, 575-576.

first meal of the day, although orange juice is still most commonly drunk during breakfast. In recent times the ever loved citrus juice has to face hurdles that it had not faced in the 1950s. According to Brad Tuttle, “Sales of orange juice, once considered a must-have component of a healthy American breakfast, have hit a 16-year low. By some measure, orange juice sales have fallen 40% since the 1990s.”⁴⁵ In the future we may see more advertising to increase the demand for orange juice by the American consumer, but until that day it seems that the American breakfast is slowly phasing out orange juice.

As the consumption of orange juice continues down a slow but steady decline away from the breakfast table of Americans we still see companies making an effort to win over the hearts and taste buds of the consumers. Many companies advertise the low calorie options or juices with less sugar, “fresh squeezed”, organic, and all natural. Commercials still air on television and with the variety of options from frozen concentrate to the refrigerated cartons with options like “pulp free”, calcium added, the consumer does not buy just strictly for taste anymore. Other factors like calorie intake and sugar levels now concern the modern juice consumer. Women also are no longer the sole person who makes purchases for the family so advertising is targeting all consumers. By having the purchasing power in the hands of different age groups and genders (now including males) paved the way for change in how advertisers target their audience. Advertisements have moved away from the benefits of drink a glass a day for vitamin C rather it has just become a familiar drink that baby-boomers and their children have grown up on and continue to buy and drink at breakfast.

⁴⁵ Brad Tuttle, “Why Sales of Yet Another Traditional Breakfast Staple Are Tanking,” *Money*, October 14, 2014, accessed March 24, 2015.

Orange juice has become synonymous with breakfast and will continue to be one of the key breakfast items that Americans consume during their first meal of the day. The orange juice industry has had to take many uncontrollable factors into account when promoting and marketing frozen concentrated orange juice and not from concentrate juice. Orange juice today is not expressly made from oranges from the Florida and California, unless the packaging expressly says the orange were grown and produced into orange juice in the United States.⁴⁶ These changes to the orange juice industry have changed the habit of drinking orange juice at breakfast. Orange juice, in all forms, became an integral part of the American breakfast thanks to research, mass production and heavy advertising. The marketing and production changed this citrus fruit from a seasonable edible snack, to a drink that could be consumed at any time of the year, across the United States', even in places where the sweet fruit oranges could not grow. With the unique production of orange juice in all of its forms including frozen concentrate and the wide spread marketing of this delicious nectar of the Gods, orange juice became one of the more recognized breakfast items in the United States.

⁴⁶ Hyman, 63.

Bibliography:

“Anita Bryant Florida Orange Juice Ad.” YouTube. April 3, 2010. Accessed March 16, 2015.

The video shows a sample of the type of advertisements used to promote the health benefits and nutrition of orange juice. This is an example of one type of media used in the advertisement of orange juice. This was an excellent primary source, to show how the Florida Citrus Commission used health to promote their products.

Atkins, C.D., MacDowell, L.G., Moore, E.L. (1948). *U.S. Patent No. 2453109 (Method of Preparing Full-Flavored Fruit Juice Concentrates)*. Washington, D.C.:U.S. Patent and Trademark Office.

This is the patent written regarding the first frozen concentrated orange juice. This relates to the information regarding World War II and how after the creation of FCOJ the orange juice industry and market changed. I used this primary source to explain the research that went into FCOJ and why it was revolutionary.

Boles, J.N. and Sidney Hoos. *Oranges and Orange Products: Changing Economic Relationships*. Berkeley: California Agricultural Experiment Station, 1953. Hathi Trust.

I used this source in several places one regarding to the actual marketing of the juice and also to how the juice is actually made regarding the frozen concentrated orange juice and information on the O.J. industry. This source had many useful charts and graphs regarding the production orange juice.

Carroll, Abigail. *Three Squares: The Invention of the American Meal*. New York: Basic Books, Perseus Book Group, 2013.

I originally had the inspiration to write about orange juice from this book and I used it when explaining the vitamin C craze and the importance of the research conducted during World War II which resulted in the creation of FCOJ.

“Concentrates: The Industry Goes Big Time.” *Frozen Food Age* (December 1992). Accessed February 10, 2015. <http://www.crec.ifas.ufl.edu/about/History/frozenconcentrate.shtml>.

This was an article that was useful to helping explain that changes that when into the orange industry and the sequence of events that took place in chronological order to get a product that was marketable and liked by the consumer.

Cruess, W.V. *Utilization of Waste Oranges*, Berkeley: University of California Press, March 1914. Accessed February 17, 2015. Hathi Trust.

This was another wonderful primary source from Hathi Trust in which I explained the problem that arose with the large amount of waste created by not only the creation of orange juice but also when oranges are excluded from the making of orange juice due to defects caused by weather and other damages.

Florida Citrus Commission, “Florida Orange Juice Fresh...or Canned (Advertisement),” *Ladies Home Journal*, March 1950.

This is an example of a primary source in the form of an advertisement from the *Ladies Home Journal*. The advertisement show all of the health benefits of drinking orange juice fresh or canned including energizing properties, digestion help, and a daily dose of vitamin C.

“Florida Fruit Canners Preserve Orange Juice,” *Seald-Sweet Chronicle*, October 1, 1930.

Accessed February 17, 2015, <http://ufdc.ufl.edu/UF00075292/00007/3j?search=seald-sweet+%3dchronicle>.

This is a bi-monthly chronicle that was written as “Florida’s Only Citrus Newspaper” this source had a lot of relevant information about the actual production of orange juice in its earlier forms from the 1930s.

“Frozen Orange Juice In Greater Demand,” *New York Times*, August 6, 1953. Accessed February 11, 2015. ProQuest Historical Newspapers.

I utilized this newspaper primary source to show the increasing demand of frozen O.J. in the early 1950s.

Godwin, Marshall, “Consumer Reaction to Varying Prices for Frozen Orange Concentrates,” *Florida Experiment Station*, Bulletin 589, August 1957.

This bulletin displays that difference in pricing of the all different brands of orange juice and also the different types of juices.

Hamilton, Alissa. *Squeezed: What You Don’t Know About Orange Juice*. New Haven: Yale University Press, 2009.

This book was enlightening, I surprisingly enjoyed reading this. This book showed the progression of orange juice from World War II until today and the trials and tribulations it has faced in the growing world market and also the problems orange juice has faced with labeling and also federal regulations.

Hamilton, Shane. "Cold Capitalism: The Political Ecology of Frozen Concentrated Orange Juice." *Agricultural History Society* 77, no. 4 (Autumn, 2003): 557-581. Accessed January 6, 2015. <http://www.jstor.org/stable/3744935>.

This article published in this journal helped me understand the marketing that went into making orange juice a recognizable breakfast drink in the United States, a more comprehensive take on the industry itself. This also showed the immense power of advertising.

"How Orange Juice is Processed and Frozen." *New York Times*, February 5, 1967. Accessed February 20, 2015. ProQuest Historical Newspapers.

This newspaper article shows the process that oranges go through from the arrival at processing plants until the final product of frozen concentrated orange juice is canned.

Hyman, Clarissa. *Oranges: A Global History*. London: Reaktion Books Ltd, 2013.

This book gave some good background information on the global history of oranges and I found the chapters on orange juice itself helpful especially when it came to explaining Brazil's takeover of the FCOJ market and production of oranges from grove to juice.

McPhee, John. *Oranges*. New York: Farrar, Straus and Giroux, 1967.

This book gave a firsthand account of what Florida and the orange juice production looked like first hand. I learned a lot about the degrees Brix process when it came to creating FCOJ and it helped me explain this in the paper. In an almost diary like style McPhee showed the industry in Florida through the creation of FCOJ.

Nagy, Steven. "Frozen Concentrated Orange Juice." In *Citrus Science and Technology, Vol. 2: Fruit Production, Processing Practices, Derived Products and Personal Management*, 211-216. Avi Publishing Co Inc, December 1977.

This source was all about the process of actually producing FCOJ and the exact steps that were required to make the juice.

Nickerson, Jane, "Flavor of Frozen Orange Juice Depends on Storage, Both in Shop and at Home." *New York Times*, September 10, 1952. Accessed February 6, 2015. ProQuest Historical Newspapers.

I used this source to help me explain the importance of proper storage and refrigeration of the FCOJ at all steps including at the grocery store and at home. The newspaper does a good job of making it clear how the orange juice should be stored.

Peasley, Fred, "Oranges Important? Well They May Precipitate A War," from Chicago Morning Tribune published in Seald-Sweet Chronicle, December 15, 1930, accessed February 17, 2015,
<http://ufdc.ufl.edu/UF00075292/00012/4j?search=frozen+%3dconcentrate+%3dorange+%3djuice>.

This newspaper article shows the growing importance of the orange juice industry and how the factors that went into making orange juice influenced the economy.

"Radio To Tell Nation Value Florida Citrus," *Seald-Sweet Chronicle*, December 15, 1930. Accessed February 17, 2015. <http://ufdc.ufl.edu/UF00075292/00012/1x?search=seald-sweet+%3dchronicle>.

This source was important when it came to explaining the importance of the various forms of media utilized in making orange juice a part of the American breakfast.

Smith, Andrew F. "Fruit Juices." In *The Oxford Encyclopedia of Food and Drink in America*, edited by Andrew F. Smith, 39-41. Oxford: Oxford University Press, 2013.

This source was very helpful, it gave examples of some of the original advertising that went into promoting orange juice and also the concern over vitamin C which precipitated World War II.

This source also showed the changing in the juice industry over the course of five decades.

"The Story of Orange-Crush: Interesting Facts About the Preparation of "the Drink Irresistible"," *Big Sandy News*, July 11, 1919, accessed March 3, 2015, ProQuest Historical Newspapers.

This primary source was another interesting advertisement which depicts the problem faced with the early canned O.J. and the problems with taste. Orange-Crush tried to create an alternative drink using O.J. and carbonation to make the sour tasting juice more favorable and appealing to the consumer.

Tuttle, Brad. "Why Sales of Yet Another Traditional Breakfast Staple Are Tanking." *Money*, October 14, 2014, accessed March 24, 2015, <http://time.com/money/3506542/orange-juice-sales-breakfast/>.

This secondary source is an article which highlights the problems the orange juice industry is facing today when it comes to breakfast items like orange juice. The article shows the lack of interest and the increasing prices of the orange juice explaining that there are many factors why Americans are not drinking as much juice.

“Who does the real Advertising of Florida Grapefruit and Oranges?,” *Ocala Evening Star*,
Monday, May 29, 1922.

This newspaper article show that the Florida Citrus Commission was behind many of the advertisements.

Wilson, John H., “Brazil’s Orange Juice Industry,” *U.S. Department of Agriculture, Foreign Agricultural Service*, April 1980, Accessed April 3, 2015.

<http://babel.hathitrust.org/cgi/pt?id=uiug.30112018962172;view=1up;seq=3>.

This agricultural report shows Brazil’s takeover of the orange juice industry. As a primary source and government document it help me show change over time, especially the more recent events that have affected marketing and production of O.J.