

Shagun Pal

Professor Doerr

INTL-27-201

26 April 2021

Tea Bags

I chose tea bags for my commodity presentation. My slideshow consists of tea bag origin, trade, biggest corporations that produce, production process, issues regarding tea bags and what we as a society can do to help.

Thomas Sullivan worked as a tea merchant in New York 1904 where he “accidentally” invented tea bags. He had distributed out bags of tea and people began to use the tea bags as infusers rather than brewing the tea normally. This method allowed people to make a single cup of tea rather than making an entire pot and cleaning out the leaves afterward. When it comes to trade Pakistan was the leading tea bag importer in 2018 with about 571 million U.S. dollars in trade value. China, India, Kenya, Sri Lanka, and Vietnam are rated as the world’s largest tea-exporting countries. The world’s largest maker of tea is Unilever. This corporation owns Lipton as well as several smaller brands such as PG Tips and Magnum. The company has stated that consumption has declined in the U.S. and Europe over the years as consumers increasingly turn to other drinks. Tea bags are made up of two main ingredients: processed tea leaves and filter-paper. The top tea leaves and leaf buds are handpicked from the plant and then undergo several processes such as withering, rolling, drying, cutting, blending, measuring, and eventually tea bag assembly. Each process differs in intensity and duration based on the type of tea. The filter paper is primarily made up of abaca, also known as Manila hemp, the leafstalk of Phillipine bananas. Withering - manually spreading the leaves into thin layers and exposing them to the

open air for 18-20 hours. This process oxidizes the polyphenols, the key active ingredient, which then turns the tea leaves a coppery color. Rolling - leaves are crushed either by hand or rolling machines. Both methods twist the leaves so they are ultimately broken down into smaller pieces and are covered with their own juices. Drying - this process varies depending on the type of tea leaves. For example, black tea leaves are dried using a high temperature machine to seal in juices and flavors whereas herbal tea leaves are bundled up and hung upside down to air dry. Cutting - leaves are cut with a rotating blade depending on the degrees of fineness varying on the different types of leaves. They are then refined by sifting through mechanical strainers with meshes of varying grades. Blending - different types of tea leaves are blended together according to company recipes to achieve a uniform taste and texture. May also included an addition of natural flavorings such as cinnamon, nutmeg, peppermint, etc.. Measuring - Processed and combined tea leaves are gathered in hoppers that hold up to 800 lbs. of tea. Air pushes the leaves through a flow tube and into a wheel which then divides the tea leaves into chambers of pre measured amounts, usually two grams. Tea Bag Assembly - each chamber releases the tea onto a piece of filter paper which is then sandwiched between another layer after which a heat sealing drum seals the paper. This process is monitored closely since too much heat would negatively affect the tea itself. A single plastic tea bag can release billions of tiny particles of plastic into your cup. Even the most environmentally friendly tea bags are not biodegradable completely. They can only be biodegradable up to 70-80%. Most of the material will eventually breakdown and change into the soil. But the 20-30% remaining is made up of plastic and will not break down entirely. These small wrappers will be polluting the ocean. According to the Environmental Audit Committee, tea bags are the major source for polluting our water system due to the non-recyclable components. Some ways we can help are switching to buying loose-leaf tea and

using a stainless steel strainer when making tea in mugs or pots. Some popular organic loose leaf tea brands are Good Earth, Numi Organic Tea, and Golden Moon Organic Tea. If using tea bags is unavoidable in your daily life, The Worldwide Responsible Accredited Production advises that used tea bags should be thrown into compost bins. According to the Environmental Audit Committee, tea bags are the major source for polluting our water system due to the non-recyclable components. Take it a step further and donate to organizations like the Plastic Soup Foundation, dedicated to achieving their goal of no plastic in our waters or our bodies!