Fertilizer is something we use every day in our lives. We may not purchase it every day but it is constantly affecting our lives the day after we buy it and apply it to our gardens and farms. Fertilizer is like any other common mass-produced good. It has a product life cycle, which can be slightly different from a lot of other products. But like others, it starts with the same process that is research.

The research of fertilizer started many years ago. It started as a way to find out what chemicals added to the growth of plants. Then companies began to find ways of producing the chemicals and implementing them into the soil. The main goal of the research portion of the cycle is to find the cheapest and most efficient way of implementing the chemicals needed for plant growth. Most fertilizers today now are synthetic fertilizers, which is mainly consisted of chemicals added together, and no real raw materials. This is a never-ending part of the cycle; once a new fertilizer is produced the next best thing is being researched. This group of scientists has a never-ending job of constantly improving their product.

The next step in the life cycle is the marketing portion of the life cycle. This is a simple part of the life cycle. This includes any way the company is getting its product name out to the public, this may be done by saying how they improved the product for
eco-friendliness, or how it is greatly improved from the previous product. The forms of marketing include things like TV advertisements, magazine ads, and billboards. The company wants people to know that their product is the best product on the market. This cycle may last about a month to a year. Depending on the size of the product and how much advertising and marketing the company wants to do. If they want to put a lot of money in marketing then the cycle will last longer, if they apply less money it is a short cycle.

The manufacturing process is a complex process, which involves taking nitrogen out of the air. This involves removing the oxygen and burning all of the natural gases. This will leave only nitrogen left in the vessel. The nitrogen is then combined with ammonium to produced ammonium nitrate. This is the key element of fertilizer. This chemical is then granulated and blended with the phosphorus and potassium components. This process varies from company to company. This is where the competition comes from in the market. The companies want to do this process as quick and as cheap as possible. They can then be the cheapest product and result in an increase in sales.

The packaging, sales, distribution, and transportation process takes place immediately after the production process. The fertilizer after being produced is put into large bags. Then the bags are filled by being held open and vibrated to allow a maximum amount of fertilizer to fill the bag. The bags are then loaded into trucks and they are shipped out. It follows the path of going from the plant, to the distributer, to the consumers/farmers. Farmers will receive the fertilizer off the tucks in large pallets of fertilizer, which they can then use for their crops. A regular consumer though goes to the distributer and buys the bags. In general the farmer pays a discounted price since it goes
straight from the plant. This process may vary from company to company on length. It all depends on how far away the farm or distributor is. It is generally a short process though, because the company wants to get their product sold as quickly as possible.

The following cycle is the consumer use. The consumer use is used just as an everyday person going to a store like home depot or Lowes, and buying a bag of fertilizer. The consumer generally does this in the spring and will apply it to their garden or potted plants. The fertilizer then lasts all season. So the average consumer life cycle depends on where you live. In our area of State College we generally apply fertilizer in the spring around April or May and this lasts until the fall season in September or October. The average consumer life cycle for us then is 5-6 months. Farmers are generally the same. They get the fertilizer and use it for their crops. They generally last longer than the consumer because they live in climates where it permits.

The last cycle is the final disposition cycle. There is no recycling or disposition of fertilizer. Fertilizer dissolves into the ground and becomes part of the planet. There is a problem with the decomposition of the fertilizer though. The fertilizer seeps nitrogen into the water supply. This can affect people who live near the farms and plants. This can lead to urinary and kidney disorders from drinking nitrates in water. This problem is being looked into on how to remove the nitrogen from draining into the waters. This process doesn’t really have a final time. It just occurs over time from rain and the fertilizer decomposing into the soil.

The cycle of a fertilizer being created to being decomposed varies from company to company. This cycle has been the concept though, just how efficient and how cost effective it gets completed. The cycle does need to be improved, we cannot have the
decomposition continue to hurt our environment. It is a solid process that needs minor tweaks to make sure we continue to extend the life of our planet.
Work Cited