John Booker

Drew Central High School

Monticello, Arkansas

Ireland, Sanitation/Agriculture

Ireland: A World of Negativity in a Necessary Endeavor

"Sometimes one day changes everything; sometimes a year changes nothing." This Irish quote, with no apparent origin, gives us an indication of our rapidly changing world. There is a definite need to make a difference in agriculture for not only the ones existing in our modern society but for those who will follow in future generations. In a rapidly changing world, it is vital that all-important entities work together to research, develop, and implement techniques that will be valuable for all who live and breathe within our existence. Too often, needs are not met and those issues lead to major detrimental problems that cause lasting physical and psychological effects. One major issue that has changed the agricultural mentality in Ireland is the negative impact that agricultural waste is having on the environment. Through extensive research and implementation, Ireland's world can be changed and agriculture can be considered a positive aspect in all fundamental areas.

Ireland, an island in the North Atlantic known for its extensive culture, food, and tourist locations, has an estimated population of approximately six million people. Considered one of the most famous countries in the world, Ireland attracts a large number of people yearly due to its famous traditions, scenic castles and breath-taking views. The average family size is four with over 75% of these families consisting of a household with two parents. The yearly family income per family in this country is around \$26,300.00 with much of this income coming from the agricultural industry and this is primarily animal based agriculture. "There are approximately 137,500 family farms in Ireland with over 84% of land devoted to some type of agricultural holdings" ("Agriculture in Ireland", 2017). Under this apparent agricultural strong hold, there are underlying issues that can be detrimental not only to the agriculture field but to the entire country as a whole.

Agriculture, both animal and plant, is a necessity for survival in virtually every part of our world. Many countries, including Ireland, rely on the field of agriculture to not just feed the families, but also boost economic endeavors. Economic activity in the agriculture and food sectors of Ireland's economy is crucial for many areas from the farming entity itself to the production and manufacturing of a large number of products. The Department of Agriculture, Food, and the Marine estimates "that the agriculture food sector in Ireland contributes a value of 24 billion to the national economy" ("Farming in Ireland Overview", 2016). Within Ireland alone, over two-thirds of the land itself is used for agricultural use. In addition to agricultural farming, Ireland has a monopoly on the meat and dairy industries with over seventy million chickens, six million cattle, three million sheep, and over one million pigs. The sheer volume of agricultural animal production indicates a wide diversity in agriculture but also sets the country

up for a multitude of negative issues that could adversely change the lands, production, and value of an economic industry.

As with any positive aspect in our agricultural world, there are also negative entities that can adversely affect the seeming strong hold that this necessary industry provides. According to James Donovan of the Vegan Sustainability Magazine, agriculture in Ireland is "the biggest source of over 90% of all agricultural pollution is related to animal agriculture" in Ireland. Agriculture, both plant and animal, is necessary and vital for the survival and existence of millions across the global world in which we live. However, in order to have continued productivity, the country of Ireland must first deal with issues plaguing agriculture and formulate solutions for this very necessary industry. One of the detrimental factors facing agriculture is chemicals including pesticides and fertilizers. According to the Water Directive, water quality standards that govern Europe's ecosystem states that "48% of rivers and 57% of lakes failed the water quality standards" ("Agriculture in Ireland", 2017). That is a tremendous amount considering that over 877 different pesticides are present in the water table in various locations as well as in the soil. While these chemicals are a necessary entity, the pollutions cause lasting effects on a country that desperately needs its land for agricultural needs, primarily animal agriculture. Even though this is a major problem in the country, there are possible solutions that can be explored to better deal with this serious situation. First, it is imperative that the correct amount of fertilizer should be applied at the correct time of the year. This reduces how much of these chemicals reach the water table and spreads throughout the water bodies. There should be a planned and carefully evaluated placement of the fertilizers in order to avoid water pollution. Due to the great deal of animal agriculture within the country, many farmers raise their own grains and hay to feed their livestock. Because fertilizers are a necessity for the production of animal feeds, this creates a never-ending cycle that affects the animal agricultural industry in any country, most notably Ireland.

Another serious issue with the animal agricultural field in Ireland is sewage and waste disposal from Irish farms. Ireland's cattle population alone produces "over twelve million tons of waste which has to be disposed of safely and /or used efficiently in the circle of production" (O'Donovan, 2017). Much of this waste is spread on agricultural land, which in turn, is washed in the water system. This creates serious problems with the fresh water systems, most notably eutrophication or the use of oxygen in the water due to the production of algae. Animal waste is also well known for causing bacteria, viruses, and worms that affect humans and other animal health. Some viruses such as E-Coli can actually be deadly to humans and can cause lasting chronic issues. As long as there is a major animal agriculture industry in Ireland, there will always be issues concerning the disposal of animal waste. Just as there are problems, there can also be possible solutions to this problem. First, farmers can plant various trees, shrubs, and types of grasses along the edges of their pastureland. This can provide a type of buffer and protections from the waste being washed from the fields into water bodies. In addition, farmers can actually place fences along water areas such as streams, rivers, and lakes to keep animals from the water sources and keep the animal wastes from entering the water itself. Another possible solution would be to create structures to store and dispose of animal waste rather than letting the animals free range and spreading their waste throughout the pastures and in open. It is apparent that as long as there are animals within the agricultural industry, there will be animal waste. It is how the waste is disposed that prevents a negative cycle to continue or how it can improve animal agriculture within the country of Ireland.

Finally, since it is necessary to raise food and forage for animals within the agricultural industry, this type of livestock operation should be very conservative in order to have continued crops and soil management. Often, farmers are lax in their growth of these crops and this adversely affects the industry and contributes to the negative waste within the soil and water systems. According to the Environmental Protection Agency, "fertilized soils are vulnerable to nutrient losses", which can be harmful to the success of important crops and should be managed appropriately ("The Sources and Solutions: Agriculture", 2019). In order for this problem to be eradicated and/or improved, there should be definite cultivation management techniques implemented for the farmers and surrounding farmlands. Fields should be carefully separated so that the contamination threat is reduced and the farmers can make the best use possible of their fields. Farmers can reduce how much and how often the fields are plowed so that it helps reduce erosion, runoff, and soil issues, which can reduce the chance of pollution issues and can improve the production of needed food crops for the agriculture industry.

Undeniably, the Irish government has taken measures to ensure that necessary agricultural needs are met and at the same time, ensuring the protection and sustainability of valuable land. Various mandates have been developed that promote environmental protection without creating drastic economic issues in a world that is facing financial turmoil. Standards must be implemented and enforced on the higher end, but at the same time, these standards should become a way of life for all citizens within the farming and the agricultural communities. Irish citizens, realizing how valuable their land actually is for economic growth and survival, should push for stricter regulations to ensure their overall protection. Stronger incentives such as those identified by the Irish Sustainability Water Network (SWAN) identifies the quote "the unrelenting drive for the intensification and expansion of agriculture but yet identifies principal problems of farming practices in the entire country" (O'Donovan, 2017). Granted, not all of Ireland is agricultural; however, for this country to achieve overall greatness, both the agricultural and non-agricultural communities must realize the overall importance of their land and work in collaboration to achieve unity as well as a healthier economic structure.

Animal agriculture is a vital part of Ireland's sustainability and economic well-being. Because of waste management issues within the industry, there has been a loss of production and financial growth that, with the proper solutions, could be rectified and changed for the better. As with any solutions to a major problem, there could be considerable costs involved, however with any successful endeavor; the ultimate end could outweigh the costs involved. Animal farmers should carefully consider all options and better formulate their animal farms to best utilize all aspects of the farming world. For a country that depends on the animal agricultural world, it is in the best interest of all farmers and the economy in general to research the best options for each farm. In order for Ireland to maintain a monopoly on the agricultural world and keep one of the top places in the world for animal agriculture, a great deal of work has to be done. "Sometimes one day changes everything; sometimes years change nothing."

Works Cited

"Agriculture in Ireland." <u>www.teagasc.id/rural-economy/agri-good-business.com</u>, 2017. Accessed 3 February 2020.

"Farming in Ireland Overview." <u>www.askaboautireland.ie/sustainable-living.com</u>, May, 2016. Accessed 4 February 2020.

"Land Use Project." www.osu.edu/landuse.com, March 1, 2016. Accessed 4 February 2020.

O'Donovan, James. "Water Pollution and Animal Agriculture." www.vegansustainabilility.com/water-pollution-and-animal-agricultural, July 2017. Accessed 4 February 2020.

"Sustainable Water Network." <u>www.swanireland./threats-to-our-waters.com</u>, February 2016. Accessed 4 February 2020.

"The Sources and Solutions: Agriculture." www.epa.gov, April 15, 2019. Accessed 4 February 2020.