The Greatest Challenge Facing Agriculture over the Next 5 Years

Recently agriculture has experienced a vast amount of transformations. In 1900, 41% of the American workforce was employed in agriculture (Dimitri et al., 2005). As the years progressed, American agriculture experienced a tremendous transformation in the 20th century. Early 20th-century agriculture was labor-intensive, and it took place on many small, diversified farms in rural areas where more than half the U.S. population lived at the time (Kassel, 2019). However, the number of farmers and farms have decreased throughout the decades through urbanization. In 2000, 1.9% of the American labor force were employed in agriculture (Dimitri et al., 2005). According to the U.S. Department of Agriculture, there were 2.04 million farms and ranches in the U.S. in 2017, down more than 3% from 2012 (CNBC, 2019). Agricultural production in the 21st century, are now concentrated on large-scale, specialized farms in rural areas. To compensate for the depletion of farms and farmers, programs such as cooperative extension are educating farmers on ways to use their resources sustainably and efficiently.

Within the next 30 years, agriculture faces several long-term challenges, such as feeding a growing population, providing a livelihood for farmers, and protecting the planet’s natural resources. The imbalances of the current systems are not environmentally, economically, and socially sustainable. For example, in food production, overfishing in numerous bodies of water have led to several species of fish becoming endangered. Another example in regard to pollution, people fail to limit the amount of fossil fuel's being produce simply from the gas emission from a car, everyone is affected by the subsequent climate change. These systems are being used excessively without thought of future implications. This is called “The Tragedy of the Commons.” “The Tragedy of the Commons is an economic theory that describes how people often use natural resources to their advantage without considering the good of a group or society as a whole. When a number of individuals consider only their own welfare in this manner, it leads to a negative outcome for everybody, as the natural resource becomes depleted. Additional problems that some people have connected to "The Tragedy of the Commons" are deforestation, overpopulation, depletion of gas and oil reservoirs, and harm to groundwater” (“Learning Theories,”, 2017).

The greatest challenge for the agricultural community in the next five years is for future generations to be more sustainable with the hope that the increase in sustainability has a positive impact on the environment. The Food and Agriculture Organization published a report in 2009, which suggested that by 2050, agricultural production will have to rise by 70% to meet projected demand. Since most land suitable for farming is already farmed, this growth must come from higher yields and implementing new technology (“The Economist,” 2016). The question now is, “What does the future have in store for agriculture? “How do we effectively and efficiently feed a growing population through agricultural systems we currently have in place, without depleting more of the planet’s natural resource for future generations?” If appropriate modifications are not made, our ability to produce sufficient amounts of high-quality food and preserve the ecological and social environment which can support a growing population will be impaired. Joanna Macy and Chris Johnstone said, “Future generations will look back at the time we are living in now. The kind of future they look from and the story they tell about
our period will be shaped by the choices we make in our lifetimes. The most telling choice of all may well be the story we live from and see ourselves participating in. It sets the context of our lives in a way that influences all our other decisions. The Great Turning is such a story."

Developing the mindset of sustainable agriculture, it is up to us as future agricultural leaders to educate the farmer about the benefits of sustainable agriculture and how the small changes now will offer a valuable long-term effect for the farmer and consumer.

References


