

As the world's population continues to grow, the world is faced with increased demands for food production, healthier living and a cleaner environment. Agriculture has a keen interest in fulfilling these demands and has been working at solving these problems through new technology that increases the amount of production, lowers the amount of pollution created and increases nutrition. By researching and developing new technology, agriculture will continue to sustain these problems as we continue into the future.

Increasing food production is enhanced by the farmer's use of genetically modified crops to make them more tolerant to the climate and resistant to diseases and insects. Genetically modified crops put more nutrients and energy into the seeds instead of the stems. Production is increased with the use of variable seeding and fertilization rate, which maximizes soil usage by varying the amount of fertilizer and seed to specific areas that need more or less depending on the nutrients that are already available. The use of zero tilling keeps earthworms and other organisms alive so they can help the growth of crops in the following year; also the stubble protects the top soil from erosion.

The livestock industry is also doing their part with increasing food production by taking advantage of science and research information to economically improve their operations. Research development in the fields of feed conversion, hybrid forage varieties, and winter feeding options all have added solutions to lowering costs. Intensive livestock operations are used to create a superior product in a shorter amount of time. Red meat has become a large part of the human diet and intensive livestock operations have to make sure their meat is of good quality. Better quality plant matter for feed provides the animal with more nutrients, which in turn allows the animal to grow larger and quicker, and provides the world with a good source of protein.

Environmental issues have become a strong interest within the agriculture industry. With all the controversy over global warming, agriculture has to make sure they do their part to promote a healthy

environment. Machinery companies are coming out with new fuel efficient machines, which help save our fuel supply and does not create as much air pollution. Biofuels, made from canola and corn, are an environmentally cleaner burning fuel and their use, as an additive with petroleum, decreases the amount of fossil fuels. Zero till is another way of reducing air pollution. By limiting the amount of passes the machinery has to make in the field, we are lowering our carbon footprint on the world. Agriculture has done such a good job of this over the last few decades that carbon credits, from farmers, are being bought by large manufacturing companies to offset their over production of emissions.

By increasing food production and promoting a healthier environment, agriculture is doing its part to help solve the problems facing the world. Increasing our knowledge and research in agriculture is a key to the continued growth of the world population.