## Computers Love/Hate Relationship

A near scare of a wiped out laptop was not how I wanted to spend my day! I was in mourning over the one report that was due, not knowing what else I had lost. Luckily it was one of the I- D- 10- T problems. This time the IDIOT was me. Animal breeding, genetics, and genomics is the branch of science concerned with maximizing desirable genetic traits, such as producing animals that have leaner meat. Animal geneticists have identified elements within genes that can enhance animal growth, health, and ability to utilize nutrients. These genetic advances can increase production while reducing environmental impacts.

Animals and livestock contribute 40 percent of the global value of agricultural output and contribute to the livelihoods and food security of almost a billion people worldwide. Advances in animal breeding, genetics, and genomics are facilitating a more efficient industry. For example, the number of cattle has decreased over the past decade, yet the total production of beef and milk has increased. This was largely possible because genetic advancements led better animal feed efficiency, which is critical to improving livestock production and lowering costs for producers.

The production of animal goods; such as meat, dairy, wool, and leather; is a multi-billion-dollar-per-year industry and accounts for over half of the value of U.S. agricultural products. Further, livestock products supply about 13 percent of energy and 28 percent of protein in diets consumed worldwide. Technological advances and the development of science-based management practices and standards have enabled the United States to make vast strides in the efficient and economical generation of higher-quality animal foods and fiber products.

To meet projected demand for animal products, the industry must streamline production and advance capacity to prevent, detect, diagnose, and treat animal diseases.

The health and quality of livestock is influenced by genetics, care, nutrition, and environment. The quality of animal products is affected by production methods and marketing practices. Scientists study the conditions in which animals are raised as well as how animal products are manufactured and marketed in order to produce:

Good quality of life for animals, healthy livestock that reach full production potential and a nutritious and safe food supply.