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## **BRIGHT FUTURE FOR FOOD SYSTEM JOBS**

At our Nebraska Extension Fall Conference in Kearney last week, Ronnie Green spoke who is the Harlan Vice Chancellor for the Institute of Agriculture and Natural Resources. He started in his role July 19th and also serves as University of Nebraska Vice President.

Green was previously Global Technical Services senior director at Pfizer Animal Health. From 2003-08, he was national program leader in Food Animal Production at the U.S. Department of Agriculture's Agricultural Research Service after serving as vice president of cattle operations and assistant vice president and director of genetic operations for Future Beef Operations.

You can feel his excitement about agriculture's future and the innovation park and potential needs in agriculture with food related research. The purpose of Nebraska Innovation Campus is to develop a premier private/public-sector sustainable research campus, which capitalizes on research growth and expertise of UNL faculty. Agricultural research will be a key focus on this campus.

The world's population reached one billion in 1804, two billion in 1927, three billion in 1960, four billion in 1974, five billion in 1987, and six billion in 1999. It is projected to reach seven billion by late 2011, and around eight billion by 2025. By 2045-2050, the world's population is currently projected to reach around nine billion. In a short period of time we will need to increase the world food supply by 70%. The need to increase our technology advances in agriculture to increase food reserves is key. No longer can we leave agriculture knowledge on the shelf at universities. The need to develop interdisciplinary "Big Tents" with the agricultural industry to connect closer exists.

A four-year degree in many areas of agriculture is becoming more important. The enrollment at the college of agricultural sciences and natural resources (CASNR) is up 6.8% this fall and experienced a 40% growth in the last five years. Nutrition Sciences, Agronomy, Agribusiness, Animal Sciences, Community Development and Education Fields and Rural Health Fields, to name a few, will need more kids with four-year degrees. All of this while less than 2% will be involved in farm production.

Employment of agricultural and food scientists is expected to grow by 16 percent between 2008 and 2018, faster than the average for all occupations. Job growth will stem primarily from efforts to increase the quantity and quality of food produced for a growing population. Additionally, an increasing awareness about the health effects of certain types of foods and the effects of food production on the environment, will give rise to research into the best methods of food production.

Emerging biotechnologies will continue to play a large role in agricultural research, and applying these advances will provide many employment opportunities for scientists. For example, they may use findings from genomics to create agricultural products with higher yields and resistance to pests and pathogens. New developments will also be used to improve the quality and safety of



prepared food products bought by consumers.

Food research is expected to increase because of heightened public awareness of diet, health, food safety, and biosecurity, preventing the introduction of infectious agents into herds of animals. Advances in biotechnology and nanotechnology should also spur demand, as food scientists and technologists apply these technologies to testing and monitoring food safety. Agriculture has a bright future with huge challenges ahead.

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