

## **Impact Writing Examples for EXCITE Seminar -- July 2000**

### ***Beef Quality Assurance Program***

#### **Issue: (Who cares and why?)**

As the nation's leader in beef cattle slaughter, bolstering consumer confidence in the quality of beef is critical to Nebraska's economy. Equally crucial is improving cattle profitability all along the food chain.

#### **What has been done?**

University of Nebraska Cooperative Extension collaborates with the Nebraska Cattlemen, the Nebraska Beef Council and the Nebraska Veterinary Medical Association to provide Beef Quality Assurance (BQA) training. The voluntary training helps participants focus on management skills and science-based production techniques to avoid defects, improve beef quality and safety, encourage high industry standards and boost consumer confidence in beef. More than 3,000 Nebraska producers are now BQA-certified and oversee more than 40 percent of the state's feeder cattle.

Nebraska BQA materials now are used by 15 other states. Materials have been distributed to 30 states and are available on CD-ROM or the Internet.

#### **Impact:**

Demand for BQA-certified cattle has tripled since 1998. Under contracts signed with meat packers for 2000, 52,000 head of BQA-certified cattle are expected to be sold in the Nebraska Corn Fed Beef program. Packers agreed to pay \$16 per head more for BQA-certified cattle. This represents \$832,000 of added value for BQA participants. Demand for cattle of this type and quality was so high in 1999 that approximately half of the cattle that met BQA specifications sold in premium programs other than the Nebraska Corn-Fed Beef Program.

#### **Summary:**

University of Nebraska Cooperative Extension collaborates with beef industry groups on the Beef Quality Assurance program, which teaches producers management and production techniques that improve beef quality and safety, encourages high industry standards and boosts consumer confidence in beef. Demand for cattle certified under this program tripled from 1998 to 2000. For 2000, packers agreed to pay about \$16 more per head for an estimated 52,000 head of BQA-certified Nebraska cattle expected to be sold in the Nebraska Corn-Fed Beef Program. That represents \$832,000 in added value for the state's 3,000-plus BQA participants, who are responsible for 40 percent of Nebraska's feeder cattle.

### ***Monitoring Bt Susceptibility***

#### **Issue: (Who cares and why?)**

The long-term effectiveness of Bt corn, which produces its own natural insecticide toxic to European corn borers, hinges on preventing this multimillion dollar corn pest from becoming resistant to Bt. Early detection of potential changes in the insect's susceptibility to Bt is critical to nationwide resistance management efforts.

#### **What has been done?**

University of Nebraska entomologists developed tests to detect changes in European corn borer

susceptibility to Bt. They use them to check corn borer populations nationwide for Bt resistance annually. NU entomologists began working with seed companies in 1993, before Bt corn was commercialized, to establish baseline information on corn borer susceptibility to Bt across North America. Baseline information allows them to detect potential changes in corn borer susceptibility as Bt plantings expand. While there are limits to the tests' sensitivity, researchers have seen no change in the five years that Bt corn has been registered. Corn borers nationwide remain susceptible to Bt toxins.

This NU lab is responsible for assessing and keeping records on corn borer Bt susceptibility nationwide. This research is funded by seed companies, which must provide annual susceptibility measurements as part of federal requirements for selling Bt seed corn.

**Impact:**

Baseline data, diagnostic tests and annual monitoring are important for preserving Bt's effectiveness. Annual tests should provide early warning if resistance begins to develop in certain corn borer populations. The goal is to detect changes before resistance becomes widespread so further steps can be taken to preserve Bt's effectiveness.

**Summary:**

If European corn borers begin developing resistance to Bt corn, which produces an insecticide toxic to the major corn pest, University of Nebraska entomologists are likely to spot it first. An IANR entomologist developed tests to detect changes in corn borers' susceptibility to Bt toxins. He uses it to check corn borer populations throughout U.S. corn-growing regions. He's seen no changes in the five years Bt corn has been registered but he'll keep checking. His lab is responsible for assessing and keeping records on corn borer Bt susceptibility nationwide. The goal is to spot potential changes before resistance becomes widespread. Monitoring and early detection of potential susceptibility changes are vital to preserving Bt's effectiveness.

***Selenium Protein Patented***

**Issue: (Who cares and why?)**

There's strong evidence that selenium, a trace element essential to a healthy immune system, helps prevent some cancers and slow the progression of HIV/AIDS. A human protein discovered by a University of Nebraska biochemist may help explain and tap selenium's disease fighting potential.

**What has been done?**

The University of Nebraska and the National Institutes of Health recently patented the new human protein, which contains selenium. The IANR biochemist identified the previously unknown protein while working at NIH and has studied it since joining NU. His team is scrutinizing the new protein at the biochemical and molecular levels in an effort to answer important basic questions about selenium's importance and anti-cancer potential. The protein's novel characteristics show promise as the basis for tests that could predict or detect some cancers.

**Impact:**

If this and other research proves selenium's protective powers, people likely to develop certain cancers might be advised to take more selenium. Research on this protein also could lead to new tools for early cancer diagnosis or to identify people at risk of developing cancer, especially

prostate cancer.

**Summary:**

The University of Nebraska and the National Institutes of Health have patented a protein that might help prevent some cancers and slow HIV/AIDS progression. An NU biochemist discovered the protein, which contains selenium. There's strong evidence that selenium protects against some cancers and benefits people with HIV/AIDS, but scientists don't understand how that happens. NU scientists think this protein might provide some answers. Researchers also hope they eventually can harness the protein's novel characteristics to develop early cancer detection tests or to identify people at risk of developing certain cancers, especially prostate cancer.

***Economic Development***

**Issue: (Who cares and why?)**

Adequate job opportunities are essential to small town survival and growth. Some rural Nebraskans are creating their own jobs and businesses with help from a University of Nebraska Cooperative Extension program.

**What has been done?**

Nebraska EDGE (Enhancing, Developing and Growing Entrepreneurs) is an umbrella organization for rural entrepreneurial training programs hosted by local communities, organizations and associations. Entrepreneurs provide the course instruction to help Nebraskans who want to start a business or business owners who plan to expand or sell their businesses. Training includes a nine-week feasibility study, 10-week agricultural and 12-week business plan development courses.

Participants say the program provides efficient and practical business techniques, such as how to evaluate product lines, pricing structures and suppliers of raw materials. They also learn to analyze cash flow, which is critical to the longevity of any business.

**Impact:**

Since the program began in 1993, EDGE participants have created more than 500 full-time jobs in Nebraska. Enrollees in the 1998-99 training year alone created the equivalent of 59 full-time and 19 part-time jobs in small towns around Nebraska. A 1999 participant said he learned the importance of budgeting and projecting cash flow, adding that the program "... kept us from closing our doors."

**Summary:**

Creating jobs is key to growing and sustaining Nebraska's small communities. An NU Cooperative Extension program helps rural and small-town residents start or expand small businesses. The Nebraska EDGE (Enhancing, Developing and Growing Entrepreneurs) training includes multi-week training on developing feasibility studies, agricultural and business plans, and analyzing cash flow. Since the program began in 1993, EDGE participants have created more than 500 full-time jobs in small towns around Nebraska. A 1999 participant said the EDGE program "... kept us from closing our doors."

## ***Extended Education***

### **Issue: (Who cares and why?)**

Many Americans feel time-crunched but distance poses additional barriers for rural residents who want advanced college degrees. Facing long drives to the nearest college or university besides juggling work, family and community responsibilities, many rural residents put their educational dreams on hold.

### **What has been done?**

The University of Nebraska's College of Human Resources and Family Sciences' extended education program bridges barriers of distance, time and students' personal commitments, enabling them to earn a master's degree miles from the main campus. Launched in 1994 with satellite delivery and a toll-free number for class discussions, the program moved to World Wide Web-based instruction in 1999.

The extended education effort expanded in 1999 with the addition of a master's degree program in textiles, clothing and design. Nebraska and six other universities also will offer an inter-institutional master's degree program in family financial planning starting in fall 2000.

### **Impact:**

Forty-one University of Nebraska students earned master's degrees through the three-year program since 1997 without stepping foot in a campus classroom. Among the graduates was a Nebraska farm widow who completed the program while managing the farm and raising her family. The advanced degree helped her land a salaried position instead of the \$5.75 per hour she earned at a part-time job. Originated to offer university educational opportunities to rural Nebraskans, the program has expanded worldwide with students from 25 U.S. states, France, Guam and Thailand now enrolled.

### **Summary:**

NU's College of Human Resources and Family Sciences offers a World Wide Web-based extended education program that bridges barriers of distance, time and students' personal commitments. Over 40 students who earned their master's degrees without stepping foot on the main campus. Grads include a Nebraska farm widow whose advanced degree helped her move from a \$5.75 per hour part-time job to a salaried position. A master's degree in clothing, textiles and design was added in 1999 and NU teamed with six other universities to offer a master's program in family financial planning starting in fall 2000.