Ethanol processing, government farm program incentives for corn, and increased corn yields have contributed to a sudden increase in the need for corn storage in Iowa. In the fall of 2004, there were many grain piles and other temporary grain storages utilized, with mixed success. Outdoor piles experienced up to 90% mold damage in some cases. Since 2004, there has been a steady increase in storage construction, but not at the rate of increase in corn production. A web-based training program was started in 2006.

On June 9, 2006, Bioterrorism Recordkeeping Rules (FDA) became effective for the majority of Iowa grain handlers and food industries. These rules require the one-step backward, one step forward 24-hr traceability of all food products in the USA. The IGQI has developed a web-based training module and has been active in explaining the rules throughout the grain industry. ISU studies have demonstrated that organized quality management systems (i.e. ISO9000 or 22000) have to potential to address a number of procedures-based needs and simultaneously produce operating cost savings within organizations.

**Objectives for FY2009**

1. Project the needs for corn quality traits to meet shifting usage and storage patterns.
2. Project the need and types of storage (maximum cost; minimum damage) that will be needed to meet usage patterns.
3. Continue web-based programming for farmers, elevator operators and associated grain industry professionals in optimum storage structure design and quality grain management, given demand, cost and quality constraints. Link with other training organizations as possible. In 2009, the focus will be on storage cost and structure design.
4. Expand the bioterrorism training module and deliver to Iowa grain handlers/processors as needed.
5. Connect with the GEAPS-NGFA Agroterrorism Committee member to target development of a National Bioterrorism Training program.
6. Connect Iowa State training programs with the GEAPS electronic training program; contribute a module on quality management systems.

**FY2009 Expected Outputs**

- Inventory of existing corn storage capacity, with projections for future needs, types, and locations for storage.
- Spreadsheets to evaluate storage performance versus construction and operating costs.
- Spreadsheets to integrate and evaluate time and capacity relationships among harvest, transportation and drying operations.
- A major effort documented through web programs, meetings, and print materials to provide awareness and training for producers and elevator operators in current storage/quality needs and interactions.
• Training modules (web and print) for traceability, bioterrorism rules and quality management systems, individually targeting producers, handlers and processors.
• Training course (off campus) incorporating procedures based operations in a quality management systems format.