

## Iowa Beef Center

### A.S. Leaflet R3054

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#### Introduction

The Iowa Beef Center (IBC) is Iowa State University's extension and outreach program to cattle producers. Our center has a dedicated group of faculty and staff from the College of Agriculture and Life Sciences, the College of Veterinary Medicine, and Iowa State University Extension and Outreach. We work together to develop and deliver the latest research-based information to improve the profitability and vitality of Iowa's beef industry.

The priorities of the IBC are to:

- Enhance the understanding and management of costs and risk for Iowa beef producers including controlling costs, managing market risk, and understanding the Farm Bill
- Improving environmental stewardship and adapting to risk associated with environmental conditions including facility design, manure management, and grazing management
- Improve beef cattle production efficiency through genetic selection, herd expansion, and adapting new technology
- Assist expanding, transitioning and new operators or enterprises
- Enhancing cattle value through supply chain information systems, quality management, animal care and traceability

#### Summary

During 2014, IBC staff made 394 presentations to more than 11,000 participants, conducted 682 personal consultations, and over 4,600 phone or email consultations. The 24 webinars or videos IBC produced were viewed more than 5,300 times, and the online software tools had 1,800

downloads. There were 196,000 website visitors and 19,150 social media contacts.

IBC funded 7 mini grant projects investigating current industry questions including:

- Measuring soil/water quality in pastures
- Evaluating factors affecting value of heifer replacements
- Improving cattle handling skills
- Improving lameness through genetic approach
- Evaluating composition of the wet fraction of wet distillers grains
- Updating existing decision aid tools
- Supporting sustainability speaker for a regional beef extension conference

Iowa Beef Center staff are also involved in current ISU Beef Research projects in genetics and nutrition affecting feed efficiency, fetal programming and estrous synchronization, and novel feed evaluation including new process distillers grains and algae meal. Beef team staff authored 16 2014 Animal Industry Research reports.

#### Heifer Development Series

In 2012, IBC in conjunction with the Iowa Cattleman's Association and a host of allied industry partners, conducted a state-wide meeting titled "Heifer Development: Rebuilding Our Future" which focused on best management practices for developing the yearling beef female. This series of meetings brought in over 600 producers from across the state. Because of the success of the first series, and the need to equip producers with knowledge that facilitates successful herd expansion, a second state-wide series on heifer development was conducted this time focusing on best management practices of first-calf females to promote longevity within the herd.

The program titled "Heifer development: Retaining Your Investment" was conducted at twelve locations around the state in January and February 2014. A total of 308 people attended the 12 meetings. A USB flash drive containing the PowerPoint presentation as well supplementary fact sheets, newly developed decision tools, and information pertaining to management of first-calf heifers were distributed. Additional print materials were made available upon request. Video recordings from this series of multiple best management practices have been made available through the IBC YouTube channel.

A follow-up survey was conducted in the summer of 2015 to monitor medium- and long-term impact.

- Attendees manage in excess of 30,000 cows annually and planned to develop almost 8,200 heifers in 2014. Approximately 6,400 of those replacement females are calved out on these operations.
- On average, respondents improved pregnancy rates of their 1st-calf heifers by 3%, and the program reduced culling rates of 1st and 2nd calf heifers by 3.5%.
- An impressive 90% of survey respondents implemented or plan to implement a new best management practice as a result of the 2014 program.

These figures indicate that the 2014 program results in retention of an additional 223 first- and second-calf females per year. Based on the current Net Present Value decision tool developed for this program, this program helped producers realize an economic benefit of \$303,726 from reductions in cull females. On average, respondents reported increased profitability by \$1,640 per year, resulting in a total economic impact of \$475,600 per year for the 2014 Heifer Development program.

When combined, the 2012 and 2014 Heifer Development programs have had an economic impact of \$1.04 million per year for the 900 attendees of the live series. Furthermore, through a sustainable virtual format, this program has educated an additional 4,400 people through YouTube, as well as helped drive economically sound decisions for an additional 3,450 producers through Ag Decision Maker downloads of Heifer Development decision aids and accompanying fact sheets.

This expansion of the cowherd will not only help support a strong cow-calf industry, but also adds value to Iowa's economy and ensures a consistent supply of high quality, affordable beef for the consumer.

### **Advanced Graziers Series**

While feeder calf demand has recently been at an all-time high, the acres of Iowa farmland devoted to grazing and forage production has decreased to record lows. Row crop production on marginal soils has negative impacts on soil erosion and water quality. The current beef cattle markets support returning many highly erodible fields back to forage production. A coordinated effort of creative programming was required to reach producers and staff interested in beef and forage production.

Working with numerous partners in Iowa, a week-long series of meetings and pasture walks were held in late August 2014. Grazing consultant Jim Gerrish was the key presenter at the workshops and pasture field days. Jim's experience includes more than 20 years of beef forage systems research as a University of Missouri faculty

member as well as 20 years of commercial cattle and sheep production on his family farm. In addition to Gerrish, local ISUEO beef specialists, key producers, and Natural Resources Conservation Service, Practical Farmers of Iowa, and Iowa Cattlemen's Association staff presented topics important for Iowa producers. These partners as well as the Leopold Center for Sustainable Agriculture, the North Central SARE program, the Iowa Forage and Grasslands Council, and the Southern Iowa Forage and Livestock Committee provided financial support to the program, along with participant fees.

Agenda items included maintaining plant diversity to increase production and environmental benefits, using annual and perennial forage crops in your grazing system, and reducing cow costs with extended grazing. Over 430 producers, staff, and stakeholders attended one or more of these grazing events. The pasture walk portions of the series showcased operations of Iowa Certified Grazier graduates and other advocates of grazing in Iowa.

A follow-up survey will be mailed in February 2016 to evaluate the success of the series delivery methods, changes implemented on participant farms, and determine future programming needs.

Maintaining a grazing-livestock based forage industry is critical to soil conservation and diversity of the Iowa farm economy. Current feeder cattle markets create profit opportunities in beef production, while lower row crop prices reduce the income potential of other land use choices. Well managed pasture can reduce soil erosion on many steeper, thinner soils in Iowa by 10-20 tons per acre compared to conservation tillage in corn and soybean rotations. This could reduce phosphorous and sediment delivery from these farms to Iowa's streams and lakes by over 90%.

### **Beginning Young Livestock Producer Network**

Beginning in 2012, and to some extent prior, ISUEO livestock program specialists along with county extension staff, council members, and local industry leaders have facilitated the organization of local peer groups known as the Beginning and Young Livestock Producer Success Network (BYLPN). The BYLPN program provides resources and programming to local and regional peer groups across Iowa. Fluid peer groups have developed in the following communities: NW Iowa, NC Iowa, NE Iowa, E Central Iowa, Eastern Iowa, SE Iowa, SC Iowa, and SW Iowa.

Between local leadership and extension resources, the development of peer group structure and programming has led to successful ways to reach young and beginning livestock producers. Groups utilize educational presentations, workshops, tours, and mentors to provide education and training. Additionally, it was found that a component of social networking through peer sharing, meals, and informal fellowship provide great educational value and enjoyment to participants.

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More than 280 young and beginning livestock enthusiasts participated in BYLPN activities. The meetings reached a wide variety of Iowans and types of agricultural enterprises. Many spouses and families jointly participated in the tours and workshops. While the greatest bulk of participation was from cattle producers, nine other types of agricultural production were also represented.

As a result of the program:

- 79% of attendants implemented or plan to implement a new or altered management practice as a result of BYLPN meetings.
- 74% of respondents have or plan to develop a business plan.
- 63% plan to or have developed a new marketing plan.
- 82% of participants grew their operations by an average of 12%.

Survey respondents attending BYLPN meetings averaged an economic improvement of \$3,166 per operation with a net financial impact across all 284 attendees of the BYLPN meetings totaling \$899,333.

## Feedlot Facilities Series

A series of workshops were held to disseminate the newly revised ISU Beef Feedlot Facilities Manual with over 200 people attending. An after meeting evaluation indicated that 98% of workshop participants had a better understanding of tradeoff between financial investment, cattle performance, and manure value after attending the workshop. 92% of attendees indicated having tools to assess their financial position to invest in a cattle feeding facility, and 94% reported more understanding or environmental risks and requirements for different types of facilities after the workshop. 89% said participating in the workshop would help them make better decisions on investment in a cattle feeding facility.

A decision aid was developed as a part of this program to aid producers in determining cost of production and return on investment for different facilities. About 75 people have downloaded the spreadsheet to date.

## Moving Forward

The faculty and staff of the Iowa Beef Center plan to continue to support the sustainable growth of the Iowa beef industry through new projects and activities, as well as the continuation and expansion of current projects and programs including the heifer development for longevity, beginning farmer networks, cow systems comparisons, and forage productivity. In 2016, the center will celebrate its 20<sup>th</sup> year of developing and delivering the latest in research-based information to improve the profitability and vitality of Iowa's beef industry.

## Acknowledgment

Thanks to the following organizations for support:

- Iowa Cattlemen's Association
- Natural Resources Conservation Service
- Practical Farmers of Iowa
- Leopold Center for Sustainable Agriculture
- North Central SARE program
- Iowa Forage and Grasslands Council
- Southern Iowa Forage and Livestock Committee
- North Central Regional Risk Management Education program (USDA)
- USDA National Institute of Food and Agriculture.
- Coalition to Support Iowa's Farmers
- Iowa Farm Bureau Federation
- Numerous local industry partners and program sponsors