Iowa Cowmaker Elite Heifer Development Program

The **Iowa Cowmaker Elite (ICE) Heifer Development Program** is designed to help Iowa's beef producers select, manage, develop, and market better bred heifers year after year. Information generated from ICE heifers will be compiled, analyzed, and utilized for constant improvement in Iowa's cow herd. These females will be selected for longevity to thrive in Iowa's various environments. In turn, these females will generate more desirable feeder cattle backed with reliable herd health, performance, and carcass information.

Heifers may be developed at cooperating central locations or on-farm as long as the following requirements are met.

Minimum Program Standards to participate:

- Minimum of 150 days of age upon delivery or start of the development program. (Verified by end of the calving season for herds without individual birth dates.)
- A weight taken once between 160 and 250 days for farm raised heifers (weaning weight) or a weight taken at receiving for purchased heifers.
- A weight taken once between day 320 and 440 days (yearling weight).
- Reproductive tract score minimum of "3" prior to breeding.
- Pelvic height and width will be collected prior to breeding with any culling decisions made by the owner. Suggested minimums are 12 cm height X 11 cm width, or area > 132 cm^2.
- Pregnancy confirmed and fetal age determined by veterinarian exam.
- Visible individual ID (tag, freeze brand, EID) and IDALS premise ID.
- All health protocols on the next page are followed.
- Minimum sire requirements based on the most recent EPD provided by the respective registry.
  - Must be registered by the respective national breed registry and have complete EPD information.
  - CED: Top 30% of the respective breed or breed registry where the EPD appears. When CED is unavailable, BW will be used.
  - WW: Top 80% of the respective breed or breed registry where the EPD appears.
- Heifers that are bred artificially may not be exposed for natural service for a minimum of 14 days, regardless of the heat detection or synchronization protocol used.
- Two additional female classifications will be noted based on the sire of the bred heifer:
  - Maternal Matron: Heifers sired by a bull that ranks in the top 30% of the respective registry for any maternal, fertility, or longevity index and/or EPD (Baldy/British Maternal Index - $BMI, All-Purpose Index - $API, Weaning Index - $W, Stayability EPD – STAY, etc.).
  - Maternal Matron-Plus: Heifers that have additional individual information collected for carcass ultrasound, feed efficiency, or DNA will be given the designation of Maternal Matron-Plus. Heifers may be tested with any genomic prediction panel approved by Iowa State University Extension and Outreach.
- Centralized development sites may require additional protocols prior to heifer arrival.
- Disqualifying conformation & defects (determined by veterinarian or ICE personnel):
  - Poor disposition
  - Eye Problems
  - Body Condition Score
  - Bob-tails/Frozen Ears
  - Structural Injuries/Lameness
  - Performance (85% of mature cow weight should be achieved by calving)

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Weaning 160-250 days of age	**Yearling/Pre-breeding** 320-440 days of age	**Breeding**	**Pregnancy Exam** < 90 days post start of breeding season
Program protocol: *Vaccinations* • IBR, BVD, PI 3, BRSV, and Clostridia (7-way) • Calfhood Brucellosis (BANGS) vaccinated between 120-365 days of age • Parasite control as needed *Procedures* • Individual ID (tag, freeze brand, EID) • Designate farm or IDALS premise ID • Evaluation for conformation and defects/blemishes	Program protocol: *Vaccinations (30-60 days prior to breeding)* • Booster for IBR, BVD, Leptospirosis (5-way), L. hardjo-bovis, and vibriosis • Calfhood Brucellosis (BANGS) vaccinated between 120-365 days of age • Parasite control as needed *Procedures* • Service sire election and confirmation that EPD's meet program requirements • Reproductive tract scoring (minimum of 3) • Pelvic area measurement (suggested minimum of 132 cm^2 at a year of age) • Tested and guaranteed BVD-PI Negative	Program protocol: *Breeding (sire classification)* • Natural service sires • Artificial insemination (AI) sires • Sires (AI or natural service) that do not meet EPD requirements	Program protocol: *Vaccinations* • Leptospirosis (5-way) and L. hardjo-bovis • Parasite control as needed *Pre-calving vaccinations* • Scour vaccination based on calving date (read and administer according to manufacturer's label)
Data collection: • Weaning weight • Date of birth (if available)	Data collection: • Brucellosis tag number • Yearling weight • Breed/color description • Reproductive tract score • Pelvic height and width • Hip height (if available)	Data collection: • Synchronization method • Heat expression • Individual heifer AI records	Data collection: • Assign program tag number • Days pregnant • Body Condition Score
Other value-added program options: • Feed efficiency tested (minimum of 35 day test) • DNA/genomic testing including fescue tolerance score	Other value-added program options: • Feed efficiency tested (minimum of 35 day test) • DNA/genomic testing including fescue tolerance score • Carcass ultrasound (320-440 days of age)	Other value-added program options: • Feed efficiency tested (minimum of 35 day test) • DNA/genomic testing including fescue tolerance score	Other value-added program options: • DNA/genomic testing including fescue tolerance score • Fetal aging and sexing (65-90 day window post breeding)