



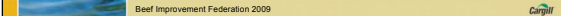
## Feedlot Marker Assisted Management

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Cargill Meat Solutions  
May 1, 2009





## Introduction

- Customer focus
  - Long term profitability is driven by how well you take care of your customer
  - Customer = Excel and their customers
  - Focus on carcass endpoint
  - Maintain production efficiency
  - Utilize technology
- Individual animal identification
  - Data management
- Alliance/Integration with Excel
  - Defined carcass target
  - Allows for substantial data collection





## Introduction

- What is the goal?
  - Optimize the capability of the animal
- Feedlot production management goals
  - Production efficiency
  - Carcass endpoint
- Management - simple to complex
  - Body weight
  - Breed composition/Hide color
  - Growth promotants
  - Feed additives
  - Ultrasound
  - Genetic information
  - Multi-Technology




## Opportunities

- Breed Composition
- Frame Size
- Body Weight


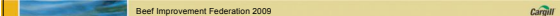



- Genetic Composition
- Genetic Potential




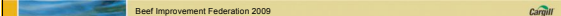
## Challenges

- Any management strategy has to be responsive to changing population dynamics
- Feedlot population is ever changing
  - Geographic trends
  - Seasonal trends
  - Background
- Complex Decisions
- No culls
- Account for weather

## DNA Collection Process

- Initial Processing
  - Vaccinate
  - Dewormed
  - Lot Tag
  - EID
  - Individual body weight
- All data entered into DB
  - Linked to purchase information

## DNA Collection Process

- DNA collected by nasal swab



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## DNA Collection Process

- Applied to an FTA card



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## DNA Collection Process

- Linked to EID



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## Reimplant

- Sorting decision is made at reimplant
  - Body composition
  - Individual body weight
  - Marbling MGW
- Implant decision
  - Implant?
  - Which implant?

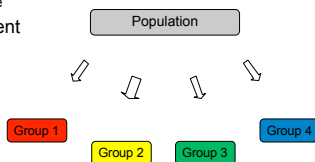


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## Group Management

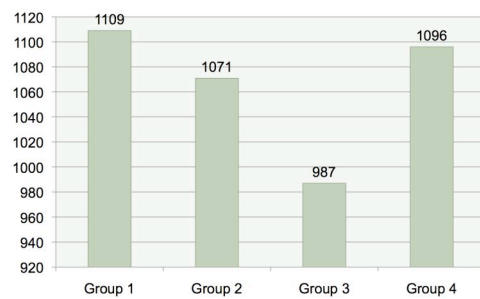
- Group Size
  - Ideal to manage individuals
    - Lot/Pen based system
  - Have to be able to fill pens
    - Manage group size
- Individual management
  - Growth Implants
- Group Management
  - Beta-Agonists
  - Rations



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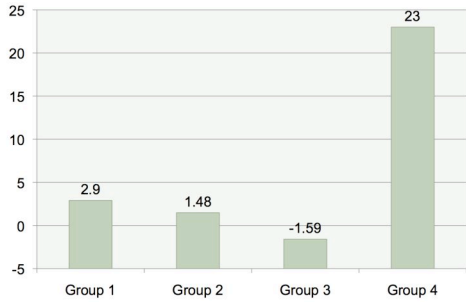
## Body Weight at Reimplant



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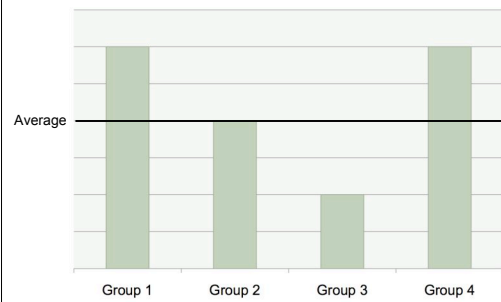
### Marbling MGV



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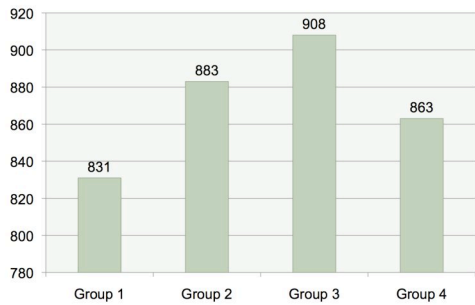
### Level of Fatness



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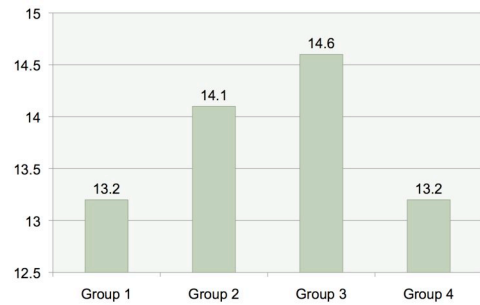
### Hot Carcass Weight



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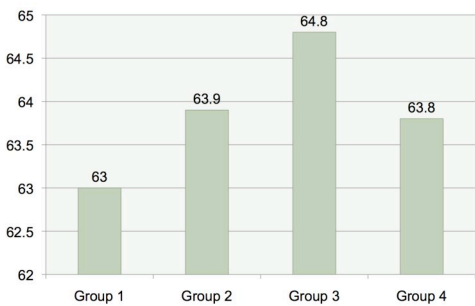
### Ribeye Area



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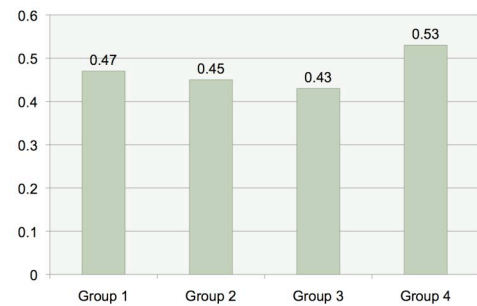
### Dressing Percentage



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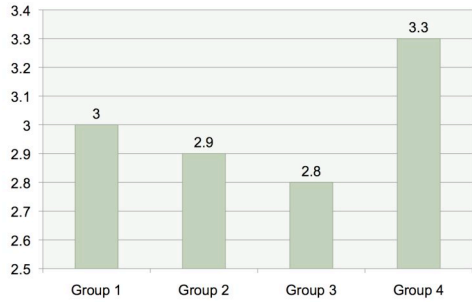
### Backfat Thickness



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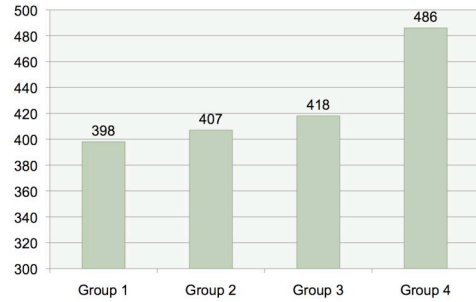
### USDA Yield Grade



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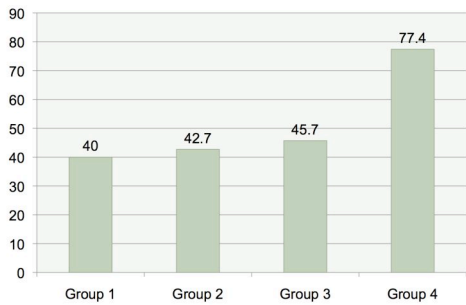
### Marbling Score



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### USDA Quality Grade - % Choice



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### Summary

- To incorporate MAM into an operation
  - Electronic identification
  - Data management systems
  - Benchmark technology
  - Endpoint target
- MAM allows for optimization of each individual
- MAM provides value to CCF and customer
  - Improved efficiency
  - Ideal product
  - Consistency
- Further adoption as the number of traits increase

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