

Heifer Development for the Cow/Calf Producer & Stocker Operator

Tri-State Beef Conference
Abingdon, VA
August 8-9th, 2013

Justin Rhinehart
Beef Cattle Specialist





Justification

- Developmental period
 - Period from weaning to first calving
 - Influences lifetime productivity and longevity
- Properly developed heifers:
 - Calve early in the first calving season
 - Calve early in subsequent calving seasons
 - Wean heavier calves
 - Remain in the cow herd longer

Objectives

- Breed early in the first breeding season
- Minimize calving difficulties
- Wean acceptable calves
- Breed early in the second breeding season
- Minimize overall cost
- Optimize profit
- Improve genetics

Decide on Business Model

Decide

- Stocker Operator
 - Steers, Heifers or Cows
 - Owned or Contract
- Cow/Calf Producer
 - Retained or Purchased
 - Custom or Home Development



How much does a replacement cost?

	Retained	Purchased
Deferred Revenue*	\$1,050	-----
Development†	\$450	-----
Opportunity Cost‡	\$270	-----
Purchase Price ^Δ	-----	\$1,800
Total	\$1,770	\$1,800

* 700 pound heifer at \$150/cwt.

† Includes nutrition, breeding, labor and death loss.

‡ Revenue lost from running three fewer cows with the recourses that used to develop five heifers.

^Δ Estimated average purchase price for heavy-bread, superior genetic replacements in 2012

Do It

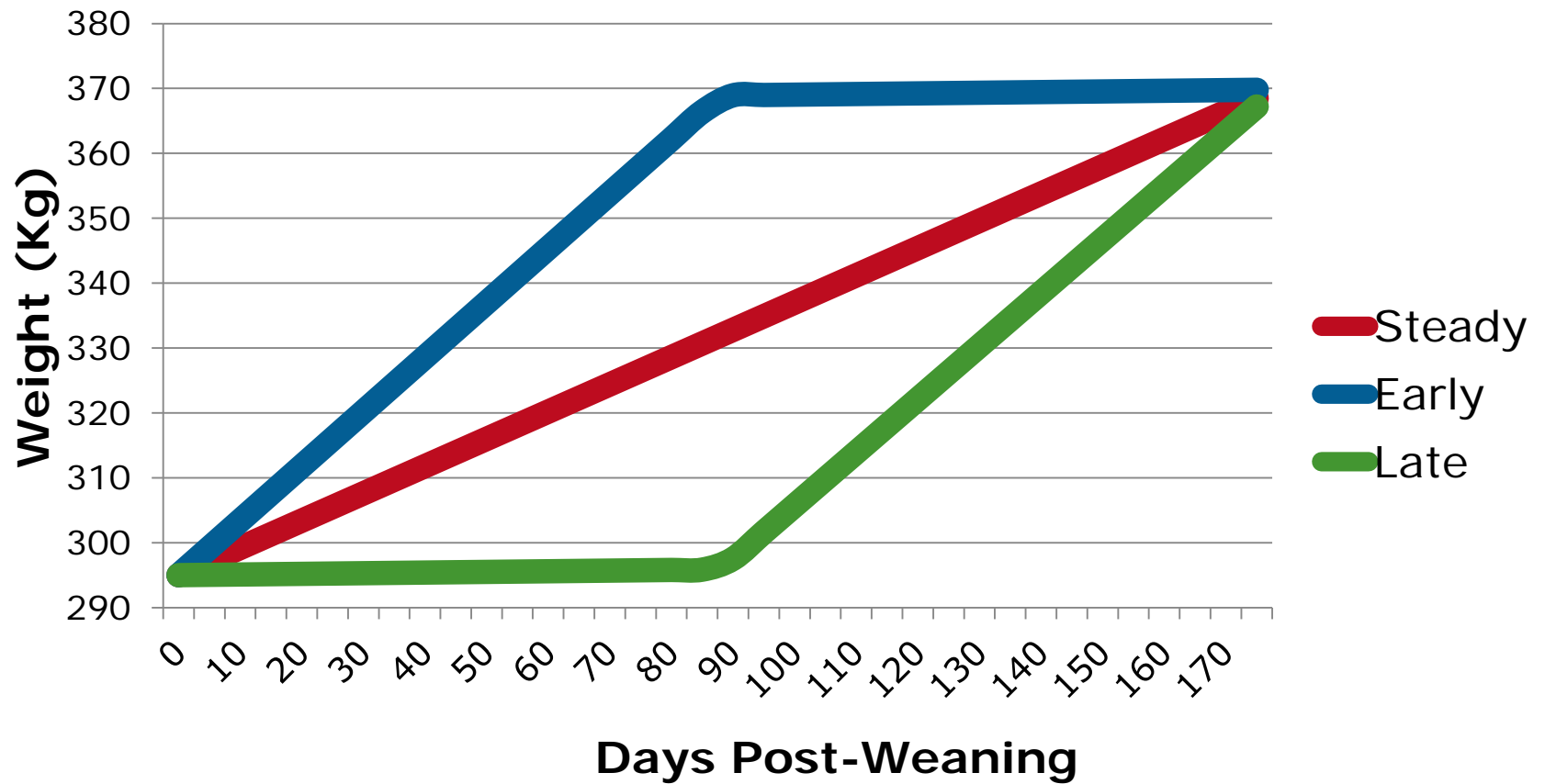
Steps in Heifer Development

- At weaning or purchase
 - Select oldest and heaviest heifers
 - Consider frame score and mature cow size
 - Select more than you need as replacements
 - Set target weight = 67% of mature cow weight
 - Set breeding date

Steps in Heifer Development

- Decide on growth pattern
- Develop ration(s) to gain appropriate weight
- Weigh heifers to ensure weight gain is on target
- Use body condition scoring (BCS)

Growth Pattern

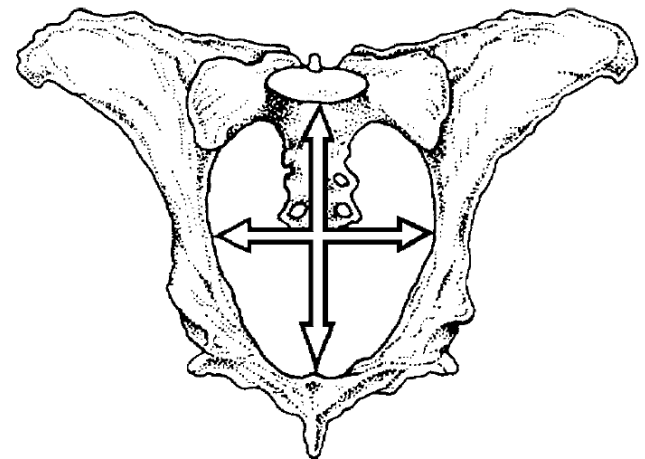


New Concepts in Nutritional Development

- Genetic improvement has advanced the age at puberty
 - The 60% target weight might now be out of date
 - Can reduce input cost of purchased feed
- Intensive management systems might maximize pregnancy rates but do not optimize profitability

Steps in Heifer Development

- One month before breeding season
 - Perform pelvic area measurements
 - Cull heifers with unacceptable pelvic area
 - What is an unacceptable pelvic area?



Steps in Heifer Development

- One month before breeding season
 - Reproductive tract scores (RTS)
 - Cull heifers that are sexually immature



Steps in Heifer Development

- 1 month before breeding season
 - Vaccinate against Vibrio, Lepto, and respiratory/reproductive disease complex (IBR, BVD, etc.).
 - Develop synchronization system (use some type of progestagen)



Steps in Heifer Development

- Post – breeding
 - Pregnancy check
 - Cull open and late-bred heifers until replacement number is reached

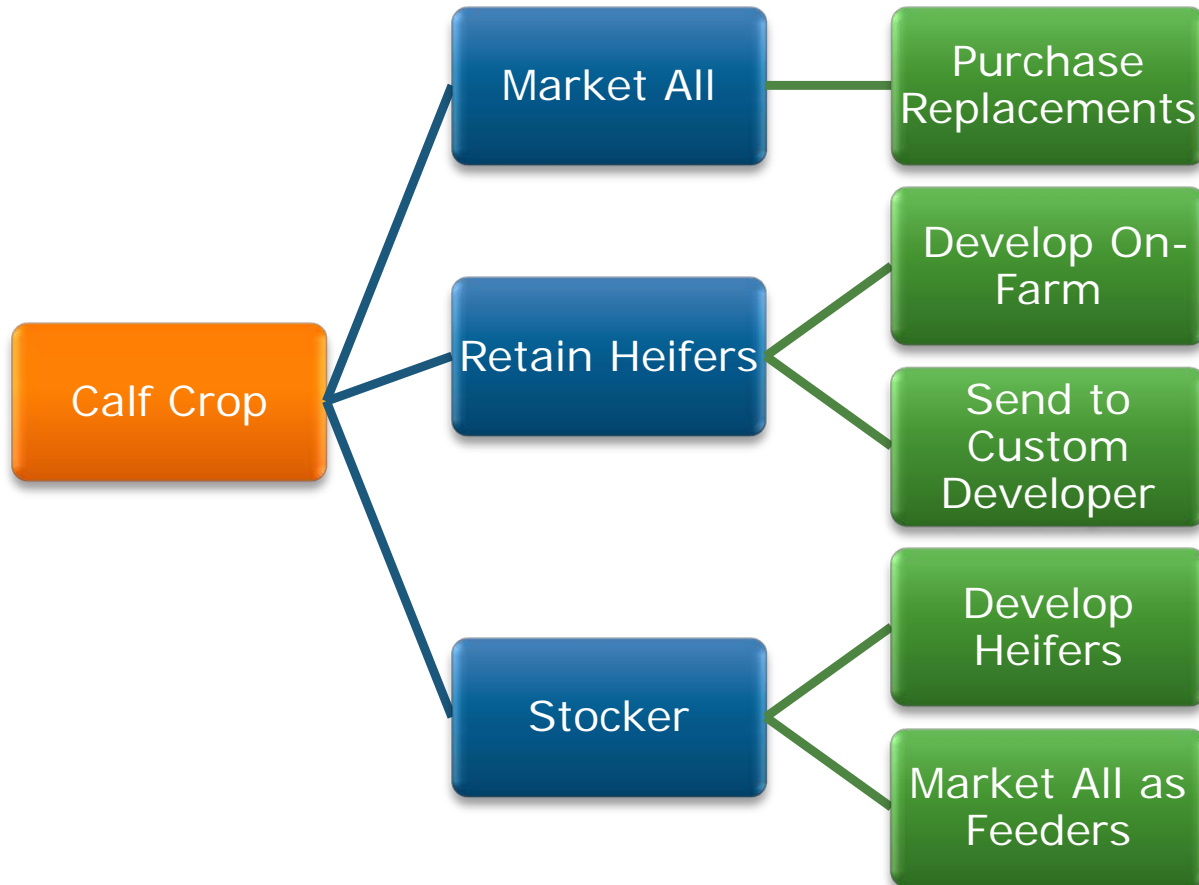


Steps in Heifer Development

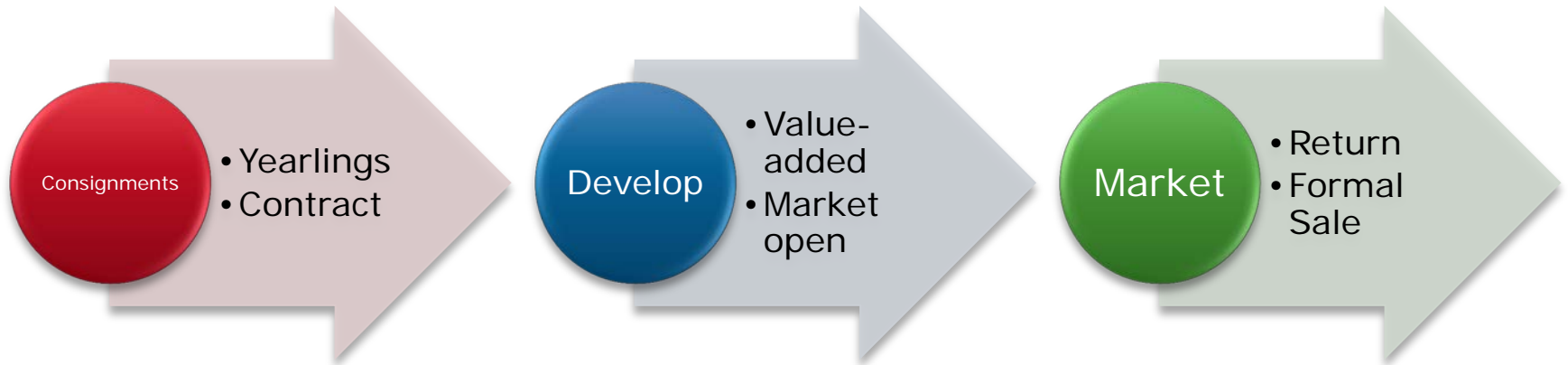
- Post – breeding
 - Heifers should weigh approximately 85 to 90% of mature weight at calving
 - Usually results in 1 lbs./day until calving
 - Maintain BCS of 6
 - More critical analysis of selection traits
 - Give special attention during calving
 - Maintain BCS 5 until re-breeding

Scenarios

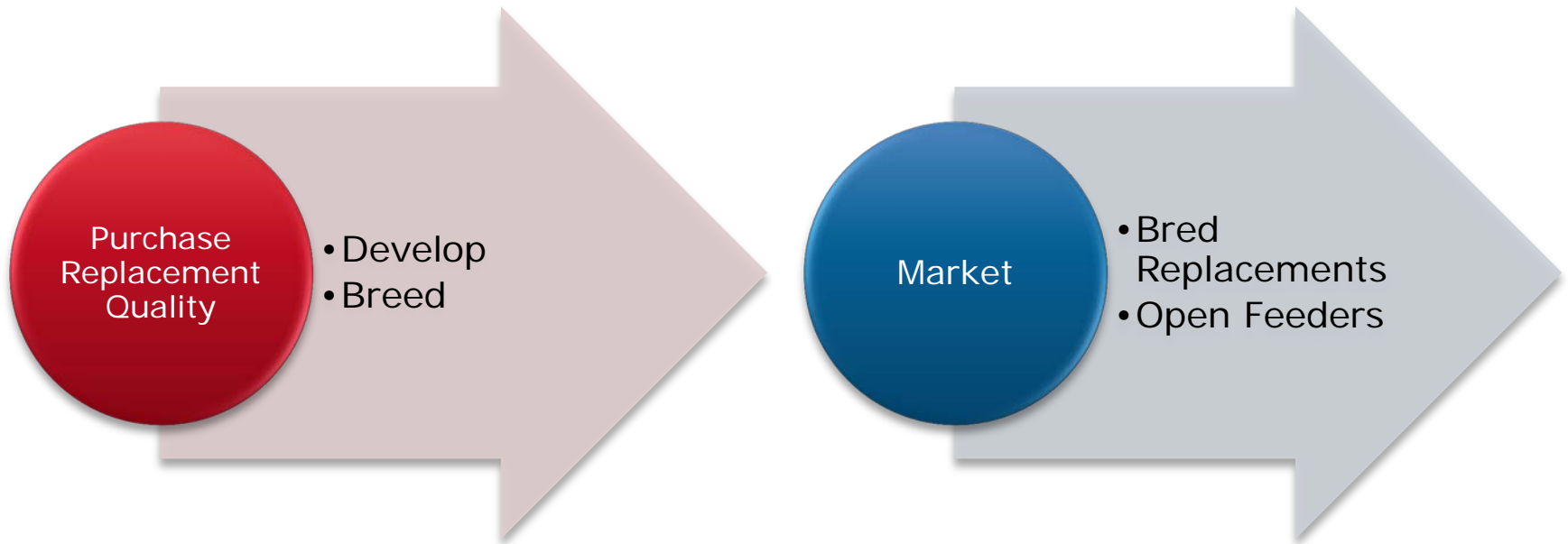
Cow / Calf



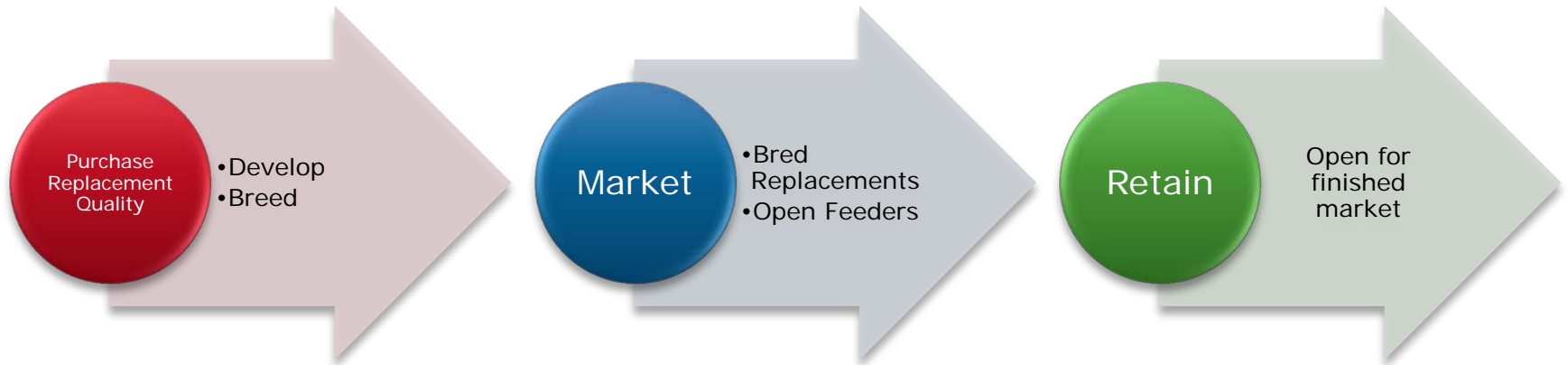
Custom Developer



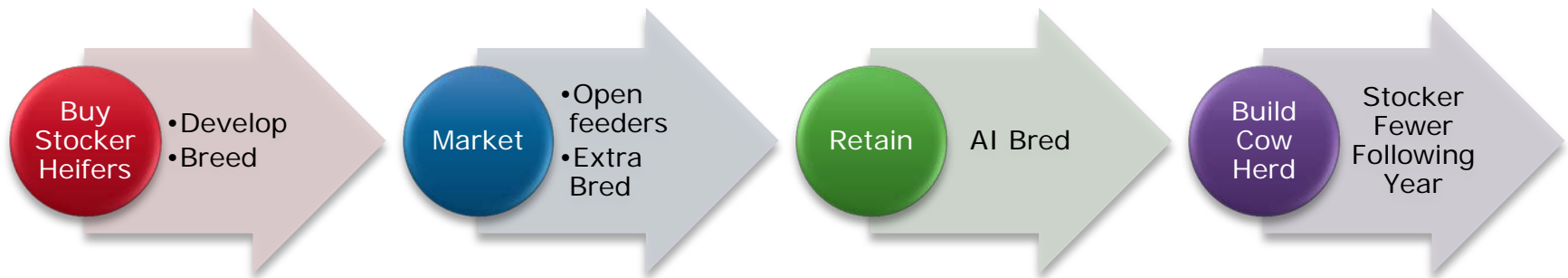
Stocker Operation



Diversified Stocker



New Producer Entry



Take-Home Message

- Developing heifers is the “make or break” period for their value as cows.
- There is a tremendous expense associated with developing heifers.
- In all cases, pregnancy check early!!
- Consider diversification and non-traditional methods (both management and business models).

SOLUTIONS

THE UNIVERSITY of TENNESSEE 

INSTITUTE *of* AGRICULTURE