Trends in the Production and Marketing of Grass-fed Beef
*(History, Science, Production, & Marketing)*

Jason Schmidt
Kansas Rural Center
• History
• Science
• Production
• Marketing
History

• “You and I are pioneers of something that has never existed in North America” – Allen Nation

• Aided by cheap grain, large expanses of rangeland, and centralized meat-packers grain-feeding has a long history.
1925 – Governor Pierce of Oregon with prize bull

1943 – Real Onward, prized bull out of Nebraska

1962 – Prized bulls at Newark Agricultural Show

1951 – John Holden’s prize Hereford bull

2010 – Prize bull, Phocle Bonanza, “a gentle giant”
History

– 1916: Industry divided into grass-fed (summer) and grain-fed (winter)
– 1930s & 1940s: Scientific studies appear on forage-finishing
– 1950s: Subsidized grain led to dominance of the feedlot industry
– 1950s, 1970s, 2000s: Renewed interest in forage-finishing during periods of high grain prices

“In the future, it is quite possible that the cereal grains will become too expensive to feed to ruminants in large quantities because of the direct competition with the rapidly expanding human population.” – Oltjen, 1971

– 1970s: Studies revealed decreased overall acceptability of forage-finished beef compared to grain-finished beef
– 2000s: Studies focus on the positive attribute of finishing cattle on forages including lower total fat and higher concentrations of health promoting fatty acids and antioxidants
Science

Negative Perception: Low animal performance

Dispelling Perception: Well managed, high quality forages can produce high daily gains
Science

Negative Perception: Low carcass yield & grade

Dispelling Perception: High quality forages, appropriate animal genetics, and slaughtering at a common endpoint vs. age, reduces carcass quality differences
Science

Negative Perception: Low consumer acceptability

Dispelling Perception: Lean and unsaturated fats may cause low acceptability, finish on appropriate forages, choose genetics that marble, dry age 14-days, slow cook
Fat Science

- Unfavorably unsaturated fat to saturated fat (P:S) ratio
- Saturated fats are linked to increased “bad” cholesterol
- Monounsaturated fats lower “bad” cholesterol and raise “good” cholesterol.
- Polyunsaturated fatty acids are generally beneficial
- Essential Fats must be consumed through diet
  - Omega-3 fats (α-Linolenic – fish and plant fats) are most beneficial to human health lowering “bad” cholesterol
  - Omega-6 FA (Linoleic – grains and vegetable oils) are less beneficial, reducing both “good” and “bad” cholesterol
  - Health experts recommend reducing the omega-6 to omega-3 fat ratio (n-6:n-3) to 4 or less. American diet general has 11 to 30 times more omega-6 then omega-3 FA
- Conjugated linoleic acids (CLA) are unique trans fats to ruminants and have been linked to beneficial functions including the inhibition of cancer, reduced rate of fat deposition, increased immunity, and reduced cholesterol.
## Science

### Health Impacts of Grass-fed Beef

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
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<tbody>
<tr>
<td>Reduced total fat</td>
<td>Lower in Oleic FA (MUFA)</td>
</tr>
<tr>
<td>Lower in bad SFA (Myristic &amp; Palmitic)</td>
<td>Mixed results for P:S ratio</td>
</tr>
<tr>
<td>Higher in neutral SFA (Stearic)</td>
<td>On per serving basis, differences not significant</td>
</tr>
<tr>
<td>Lower n-6:n-3 ratio</td>
<td>Cannot be considered a source of health-promoting fats</td>
</tr>
<tr>
<td>Higher CLA content (466%)</td>
<td></td>
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<tr>
<td>Higher concentration of Vitamin E, Beta-carotene, and other antioxidants</td>
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<tr>
<td>Significantly more favorable fat profile</td>
<td>With supplementation, grain-fed can have similar fat profile</td>
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## Environmental Impacts of Grass-fed Beef

<table>
<thead>
<tr>
<th>Grass-fed Beef</th>
<th>Feedlot Beef</th>
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<tbody>
<tr>
<td>Extensive Grazing System</td>
<td>Confined Animal Feeding Operations</td>
</tr>
<tr>
<td>Recycled nutrients, no runoff</td>
<td>Concentrated nutrients, increased runoff</td>
</tr>
<tr>
<td>Reduced reliance on fossil fuels and chemicals</td>
<td>Heavy reliance on inputs: fossil fuels, fertilizers, pesticides</td>
</tr>
<tr>
<td>Carbon sink of well manage pastures</td>
<td>↑GHG emissions</td>
</tr>
<tr>
<td>↓ animal performance ➔ ↑ methane</td>
<td></td>
</tr>
<tr>
<td>Local / Regional</td>
<td></td>
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</table>
Production

3 Phases

Cow-calf
(Reproduction)

Stocker
(Muscle and Bone Growth)

Finishing
(Fat Deposition)
Production

Finishing on Grass

• Consistent Gains over 2 lbs/day

• High quality forages

• Forages in vegetative state
Production

Finishing on Grass

- Small to medium framed early maturing animals
  - Finished steer – 100 # heavier than mother
  - Finished heifer – 100 # lighter than mother

www.pharocattle.com

- Low stress handling
Marketing

go grass fed beef
say no to corn
Market Options

- Direct Marketing
- Cooperative Marketing
- Wholesale Marketing
Direct Marketing

- **Market Options:** CSA, Farmers Market, Halves, Quarters, Cuts
- **Pros:** Capture all the profits, direct connection with customers, flexibility, start out small
- **Cons:** Labor and skill for marketing, high processing costs, challenging to establish a market
- **Differentiate yourself:** Sell your story, labels, and certifications (American Grass-fed Association, Humane Treatment Certification, USDA Natural and Organic Certifications, Voluntary USDA Grass-fed Claim)
- **Web opportunities:**
  - Eatwild.com
  - Local Harvest:  www.localharvest.org
  - Our Local Food:  www.kawrivervalley.org
Cooperative Marketing

• Pros: Increased market access with increased volume, shared marketing and knowledge
• Cons: Increased risk due to under-capitalization, lack of markets, lack of mid-size processors
• Annie Wilson’s reflections on Tallgrass Prairie Producers Co-op: www.kansasruralcenter.org ➔ Publications ➔ “Romance vs. Reality”
Romance vs. Reality: Hard Lessons Learned in a Grass-fed Beef Marketing Cooperative

Published in Kansas Rural Center’s *Rural Papers* October, 2001

Written by Annie Wilson, member and former business manager, Tallgrass Prairie Producers Co-op

Editor’s Note: Tallgrass Prairie Producers Co-op operated from 1995 to 2000, raising and marketing grassfed beef from ten Kansas ranches. It ceased active operation in 2000. Below is the story of why and how. While the cluster continues to explore ways to work together, former business manager Annie Wilson offers the following as their "lessons learned" in the hopes that others will benefit from what they've learned.

The purpose of this article is not to discourage other producers from niche marketing, but to share our experiences in our five years of marketing grass-fed beef. The variables in any business effort are so endless that we cannot conclusively pronounce what will or won't work for others. Times change and undoubtedly some of the production and marketing realities we faced are different now. A new and different formula may work today. We only know what happened to us, and will try to communicate our perspective here.

Annie Wilson
Wholesale Marketing

- **Pros:** Reduces marketing costs, allows for increased volume and ability to enter the market, improves access to national markets
- **Cons:** Strict protocols, unstable markets, prices not much better than conventional markets
- **Market Opportunities**
  - US Wellness Meats:  www.grasslandbeef.com
  - Thousand Hills Cattle Company:  
    www.thousandhillscattleco.com
  - Tallgrass Beef Company:  www.tallgrassbeef.com
Books:


Magazines:

Graze ‘by graziers, for graziers’ - www.grazeonline.com
The Stockman Grass Farmer - www.stockmangrassfarmer.net