Grass-Fed Beef:Opportunities & Challenges *Keith Underwood, South Dakota State University*

Iternative production systems such as organic, naturally raised, and grass-fed beef have become increasingly popular in recent years. This is due to increased demand for locally produced, lower fat meat products, as well as concern for sustainable production and humanely raised products. The grass-fed beef system may be enticing to producers because it requires resources that farmers and ranchers already possess and fewer additional inputs than finishing cattle in a feedlot. A milestone was reached in 2008 when over 20% of consumers reported purchasing natural or organic meat and poultry products during the previous three months, with natural and organic beef being the most highly purchased by 49% of consumers according to the Food Marketing Institute. With demand for these products increasing, some producers may consider switching to this type of production system or pursuing this market with some of their animals. As producers consider this production system, or perhaps already produce grass-fed beef, it is important to understand the opportunities and challenges that may be faced.

Grass-fed beef offers consumers a lower fat product with a fatty acid profile that generally reflects the forage consumed by the animal. Many grass-fed beef producers market their product on increased levels of conjugated linoleic acid, trans-vaccenic acid, and increased omega-3 fatty acids which all have healthful benefits. While levels of omega-3 fatty acids and conjugated linoleic acid are higher in grass-fed beef than in feedlot finished beef, their concentrations reported in scientific literature do not support the argument that grass-fed beef is a good source of either type of fatty acid. Conjugated linoleic acid and omega-3 fatty acids are higher in grass-fed beef and are perceived as a healthier product by many consumers, but this is not a scientifically valid claim.

Grass-fed beef does appear to have a market in the urban areas of the U.S. and specialty niche markets. Recently, it was shown that almost 20% of consumers preferred grass-fed beef in Chicago and San Francisco, and 19% of consumers in Denver and Chicago preferred grass-fed beef over domestic grain-finished beef. The major reason for this preference was a more intense beef flavor, which a portion of the population prefers. This flavor profile offers an opportunity for grass-fed beef producers to differentiate and market their products based upon taste.

Some challenges exist for grass-fed beef products, as much of the research shows grass-fed beef is tougher, has less external fat cover, produces lighter carcasses, and has less marbling or intramuscular fat. Lighter carcasses will require additional premiums in order for producers to be profitable. However, price is the most limiting factor as organic and natural meat products are considered significantly, or modestly, more expensive by 33% and 51% of consumers, respectively according to the Food Marketing Institute. Grass-fed beef encounters a very serious challenge in the Midwest and the northern U.S. as forages are not available year round due to winter conditions. Additionally, grass-fed beef is often very seasonal in its availability because dormant forages are often not able to meet the requirements of growing animals so that animals can maximize their full genetic potential. Producing animals that are ready to slaughter in the winter months is very challenging and leads to this seasonality of production and inconsistent availability for retail and wholesale markets. With inconsistent availability it will be extremely challenging for grass-fed beef to grow beyond that of a niche market.

In conclusion, grass-fed beef producers have opportunities to capitalize on a unique flavor profile that a portion of consumers prefer; however, this is not a production system that should be entered into without research to develop a market for the product or at least investigate the opportunities within the region.