



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

**Constraints to Value-Added Management Practice
Adoption for Cow-Calf Producers**

by

Shannon R. Sand
Graduate Research Assistant
Department of Agricultural Economics
Shannon.sand@okstate.edu

Kellie Curry Raper
Assistant Professor
Department of Agricultural Economics
Kellie.raper@okstate.edu

and

Doug McKinney
Assistant Extension Specialist
Value Added Beef
Department of Animal Science
Doug.mckinney@okstate.edu

Selected Paper prepared for the Southern Agricultural Economics Association Annual Meetings, Orlando, Florida, Feb. 7-9,2010. Authors are Assistant Professor of Agricultural Economics, Graduate Research Assistant in Agricultural Economics, and Assistant Extension Specialist, Animal Science at Oklahoma State University.

Copyright 2010 by Shannon R. Sand, Kellie Curry Raper and Doug McKinney. All rights reserved. Readers may make verbatim copies of this document for non-commercial purposes by any means, provided this copyright notice appears on all such copies.

Constraints to Value-Added Management Practice Adoption for Cow-Calf Producers

In Oklahoma, beef production contributes nearly half (47% in 2006) of agricultural production value (USDA National Agricultural Statistics Service). Beef production is big business overall, but most Oklahoma beef producers are not very large, with 70% owning less than 100 head of cattle, based on data from Oklahoma State University's (OSU) Master Cattleman program (collected from March 2004 through July 2006). Most firms have traditionally been producers of "commodity beef"; however, several opportunities now exist for adding value to cattle prior to marketing for those willing to adopt certain management practices. The Oklahoma Quality Beef Network (OQBN) is one example of producer adoption of specific management practices that may add value to calves in the marketplace. Ward, Ratcliff, and Lalman (2004) report that average OQBN premiums from 2001 through 2003 ranged from \$3.42/cwt to \$5.85/cwt, depending on calculation method. Another example is U.S. Premium Beef's recent extension of \$35/head premiums for Age and Source verified calves (U.S. Premium Beef, 2009). However, some producers are hesitant to adopt value adding management practices due to uncertainty regarding market premiums over additional cost. Others lack information regarding access to value adding programs and opportunities. Additionally, policy issues such as Country of Origin Labeling (COOL), National Animal Identification System (NAIS), and export specifications add to the layer of information to be sorted and processed by producers.

Master Cattleman survey data indicated fewer than 10% of Oklahoma cow-calf producers participate in some sort of value-added program (e.g., preconditioned calf sale, a cooperative, alliance, or marketing program), although 54% wean their calves for a minimum of 45 days prior to marketing, 78% vaccinate their calves and 55% individually identify calves at birth.

Obviously, a significant number of producers are already taking many of the “value-added” steps required for source and age verification and for process verification programs, although most of these producers are not taking advantage of those practices from a marketing standpoint. Raper, et al (2005) surveyed cattle producers who were current or previous alliance members and found that the three greatest challenges to alliance participation were changing animal health practices, sorting methods, and marketing methods. They also reported, however, that alliances gave sufficient help in the area of changing animal health practices. To expand adoption of marketing opportunities that currently exist in Oklahoma, there is a need to determine what prevents participation in value-adding programs for calves. The ultimate goal of this research is to better understand the impediments and necessary incentives to develop effective educational programs and to encourage a higher rate of value-added marketing adoption among cattle producers.

Data

The Oklahoma Beef Management and Marketing Survey was mailed to 17,511 Oklahoma beef cow operators, representing roughly 30% of Oklahoma cow herds, in August, 2009. The survey sample was stratified across herd size and across quadrants of the state. A copy of the survey is available upon request from the authors. The Oklahoma field office of the National Agricultural Statistics Service assisted with sampling, survey implementation and data entry. This survey not only addresses important questions regarding cow-calf producers’ views of constraints to value-added activity, but the results will also feed directly into extension programming. The objective of the survey is to establish a baseline of current Oklahoma producer participation in value-added management and marketing practices and identify producers’ constraints in implementing value added practices. Overall, survey results will

inform development of outreach programming that (1) increases cattlemen's awareness of and participation in value-adding production and marketing activities and (2) educates them on the role that value adding activities can play in enhancing short term income opportunities as well as increased profitability and long term sustainability of their operations. This particular study focuses on what producers of different sizes view as constraints to participation in selected value added management and marketing activities. What obstacles need to be overcome?

Survey response rates by geographical quadrant and by size are reported in Table 1. Producer response rates were relatively evenly distributed across both quadrant and size. Producer response by size is reflective of the size distribution of cattle and calves enterprises across the state (NASS 2009). This study consolidates the size groups into Less than 100, 100-249, 250-499, and 500 or greater.

Results

Tables 2 through 5 report summary statistics for producer responses by size group regarding their use of and attitudes toward selected value added management and/or marketing practices. Producers were presented with a list of value added practices and a list of possible responses to the practice. The first four responses characterize the degree of participation in a specific activity. The responses that characterize the degree of participation are: "I am not familiar with this practice"; "I am familiar with this practice but don't use it"; "I use this practice but don't know how to use it in my marketing"; and "I market my calves to sellers based on this practice". The other possible responses characterize what producers view as constraints to participation. Such constraints range from labor and finance issues to doubts about whether premiums exist for participation. Producers were encouraged to check all responses that were applicable.

Table 2 reports responses from producers with less than 100 head. Age and Source Verification garnered the highest percentage of producers who were not familiar with the practice at 11.8 percent. Implanting was next at 8.6 percent. In general, small producers are familiar with value adding management and marketing practices. However, they may not employ their use in herd management or they may employ a practice but not market their cattle in a way that takes advantage of it. For example, 24.9 percent of small producers report that they are familiar with Age and Source verification, but do not use it in their operation. However, 4.5 percent say that they do Age and Source verify but do not know how to market their cattle as Age and Source verified. A small percentage of these small producers do market their calves to sellers based on Age and Source verification (5.6%).

Tables 3.1 and 3.2 report summary statistics for producers with 100-249 head. Overall, producers in this size group are more likely to respond that they use value added activities to market their cattle than the small producers. For example, nearly 13 percent report that they market their cattle based on the practice of two rounds of respiratory vaccinations and nearly 17 percent report that they market their calves as already used to a feed bunk. Over 10 percent market calves based on individual identification. Interestingly, 9 percent of producers this size believed that buyers do not pay a premium for age and source verification. Additionally, labor requirements appear to be a greater issue than financing issues for this group.

Producers with 250-499 head (see Tables 4.1 and 4.2) are also more likely than small producers to report that they market their calves to sellers based on a value added management or marketing practice. Over 15 percent of producers of this size report that they market their calves based on age and source verification, while 19 percent report that they market calves to sellers as already used to feed bunks. A higher percentage of producers in this size group also believe that

buyers do not pay a premium for individual calf identification (15%) or age and source verification (9.6%).

The largest producers in the study have 500 head or more but represent the smallest sample in the study. Summary statistics from this group are reported in Tables 5.1 and 5.2. These producers exhibit the highest awareness regarding value adding management and marketing practices, but that does not appear to translate to higher percentages of value added marketing from this group. Only 10.5 percent report marketing based on two rounds of respiratory vaccinations or having calves that are used to feed bunks. Similar to the producers with 250-499 head, a higher percentage of the large producers see labor as more of a constraint than financing.

Conclusions

Summary statistics suggest that large producers are more aware of value adding management and marketing practices than are the smallest producers. It appears that large producers may simply choose not to implement a value adding practice, while small producers may not implement a value adding practice because they are unsure of how to do it and how to market it. While higher percentages of mid-sized producers may see labor as a primary constraint and financing as a secondary constraint, few large producers indicated financing as a constraint. This may be due, at least in part, to the benefits that often come with economies of scale such as a larger capital base and greater access to credit.

References

“USPB Extends Its \$35 Per Head Age and Source Verified Premium.” U.S. Premium Beef. Available at <http://www.uspremiumbeef.com/DocumentItem.aspx?ID=56>. Accessed September 11, 2009.

Raper, Kellie Curry, J. Roy Black, Michael Hogberg, and James H. Hilker. “Assessing Bottlenecks in Vertically Organized Beef Systems.” *Journal of Food Distribution Research* 36,1(2005):151-155.

Ward, Clement E., Chandra D. Ratcliff and David L. Lalman. “Price Premiums from the Oklahoma Quality Beef Network.” Oklahoma Cooperative Extension Service. Fact Sheet AGE-599. Stillwater, Oklahoma 2004.

Table 1. Survey Response Rates by Quadrant and by Size

By Quadrant			
	Sampled	Returned	Response Rate (%)
NW	3811	427	11.2
NE	4605	578	12.6
SE	4781	601	12.6
SW	4314	505	11.7
State	17,511	2111	12.1

By Size			
	Sampled	Returned	Response Rate (%)
1-24	3351	332	9.9
25-49	6125	765	12.5
50-99	4633	623	13.4
100-249	2707	317	11.7
250-499	558	52	9.3
500+	137	22	16.1

Table 2.1 Oklahoma producer use of and attitudes toward value added management and marketing practices by producers with less than 100 head of cattle.

	I am not familiar with this practice	I am familiar with this practice but don't use it	I use this practice but don't know how to use it in my marketing	I market my calves to sellers based on this practice	Haven't done it in the past and have done okay	I don't really know what value it adds	I thought about it but need help with the specifics
Castrate	3.8%	10.5%	7.3%	18.4%	1.1%	1.4%	0.3%
Dehorn	3.1%	13.1%	5.3%	12.8%	1.0%	1.1%	0.3%
Weaned at 45 days	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%	1.3%
Two rounds of Respiratory vaccinations	6.2%	18.9%	3.9%	7.5%	2.1%	2.7%	1.4%
Deworm	2.8%	7.3%	9.7%	14.6%	0.9%	1.0%	0.3%
Get calves used to feed bunk	4.8%	11.8%	7.0%	12.6%	1.4%	2.0%	0.6%
Implant	8.6%	32.7%	2.4%	5.1%	2.5%	3.1%	1.6%
No antibiotics	0.0%	0.0%	0.0%	0.0%	0.0%	2.7%	1.1%
Records of vaccinations	4.1%	19.4%	6.1%	8.0%	2.0%	0.0%	0.0%
Records of medical treatments	3.9%	21.1%	5.9%	7.1%	2.1%	2.7%	0.8%
Birthdates	0.0%	0.0%	0.0%	0.0%	0.0%	2.8%	0.9%
ID calves	5.1%	20.3%	7.1%	8.3%	2.6%	3.8%	1.7%
Age and Source verification	11.8%	24.9%	4.6%	5.6%	5.5%	7.4%	4.0%
Country of Origin Labeling	0.0%	0.0%	0.0%	0.0%	0.0%	8.5%	4.2%

Table 2.2. Oklahoma producer use of and attitudes toward value added management and marketing practices by producers with less than 100 head of cattle.

	I am hesitant to ask for financing to pay for the upfront costs	my lender says no to financing the upfront costs	Other cattlemen tried it and it didn't work	Requires too much labor	Didn't have enough calves to mess with	buyers don't pay premium for it	buyers don't pay enough of a premium for it	I don't want to commit to selling calves through a specific company or group	my buyers do it themselves once they have cattle	I Don't know where/how to market cattle
Castrate	0.6%	0.4%	0.2%	3.0%	0.4%	3.2%	3.4%	3.1%	1.1%	0.7%
Dehorn	0.4%	0.3%	0.2%	2.9%	0.3%	2.4%	2.1%	3.2%	0.5%	0.4%
Weaned at 45 days	0.0%	0.0%	0.0%	0.0%	0.0%	8.6%	1.7%	4.7%	0.7%	0.9%
Two rounds of Respiratory vaccinations	0.4%	0.2%	1.1%	2.6%	0.2%	5.8%	3.0%	2.8%	0.4%	0.6%
Deworm	0.2%	0.3%	0.2%	1.1%	0.3%	3.1%	1.9%	1.1%	0.4%	0.4%
Get calves used to feed bunk	0.5%	0.4%	0.5%	2.7%	0.4%	3.7%	2.2%	2.9%	0.4%	0.6%
Implant	0.9%	0.2%	1.0%	2.9%	0.2%	3.6%	2.7%	3.0%	0.6%	1.1%
No antibiotics	0.0%	0.0%	0.0%	0.0%	0.0%	3.1%	1.1%	1.5%	0.8%	1.2%
Records of vaccinations	0.4%	0.2%	0.6%	2.6%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Records of medical treatments	0.4%	0.1%	0.7%	2.4%	0.1%	2.9%	1.1%	2.6%	0.4%	0.9%
Birthdates	0.0%	0.0%	0.0%	0.0%	0.0%	2.8%	0.6%	2.7%	0.4%	1.0%
ID calves	0.9%	0.6%	0.9%	4.1%	0.6%	4.0%	1.5%	4.5%	0.8%	1.3%
Age and Source verification	0.8%	0.6%	2.6%	4.2%	0.6%	4.9%	1.1%	4.4%	0.9%	2.4%
Country of Origin Labeling Documentation	0.0%	0.0%	0.0%	0.0%	0.0%	4.9%	1.7%	4.9%	1.4%	2.6%

