

**THE EFFECT OF THE RED ANGUS ASSOCIATION'S AGE AND SOURCE
VERIFICATION PROGRAMS ON THE SALE PRICE OF BEEF CALVES SOLD
THROUGH 94 SUPERIOR LIVESTOCK AUCTION'S VIDEO SALES FROM 2013
THROUGH 2016**

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Introduction

Lots of beef calves that were age and source verified have consistently sold for higher prices compared with similar calves that were not age and source verified when marketed through Superior Livestock Auction's video sales.

The Red Angus Association of America (RAAA) has two age and source verification programs. The Red Angus Feeder Calf Certification Program (FCCP) is a USDA approved program that verifies the group age and the ranch of origin of beef calves that are traceable to at least 50% Red Angus bloodlines. The FCCP was established in 1994. In 2012, the RAAA released the Allied Access marketing program to assist producers utilizing Red Angus in their crossbreeding systems. The Allied Access program offers the same age and source verification as the FCCP but without the genetic requirements.

The objective of this study was to quantify the effect of the Red Angus FCCP and Allied Access program on the sale price of lots of beef calves sold through video sales conducted by Superior Livestock Auction from 2013 through 2016. The reference population consisted of lots of Red Angus influenced calves that were not age and source verified by either of the Red Angus programs.

Materials and Methods

This study used sale data describing lots of beef calves that sold through all Superior Livestock Auction's video sales from 2013 through 2016. Since the Red Angus Allied Access program was not established until 2012 and only one lot of beef calves in this program sold in Superior sales during that year, the sale data that could be used for this study were from the years beginning in 2013.

Lots of beef calves that qualified for either the Red Angus FCCP or the Red Angus Allied Access program were identified in the sale catalogs in the Source/Age Verified section of the lot description. Lots in the FCCP program also had a special Certified Red Angus stamp shaped like an ear tag at the bottom of the lot description.

The reference population for this study consisted of lots of beef calves that were not enrolled in either the Red Angus Allied Access program or the Red Angus FCCP but were determined to be Red Angus influenced by one or more of the following criteria: the lot was classified as primarily Red Angus based on the information in the Breed Type section of the lot description, the lot was solely sired by Red Angus bulls, or the lot description contained the Superior Red Angus stamp at the bottom of the lot description.

Lots of calves with Brahman influence were not included in this study.

A lot of beef calves was the unit of analysis in this study to quantify the effect the Red Angus age and source verification programs had on the sale price of beef calves while adjusting for all other independent factors that significantly affected sale price. A multiple regression model was developed through a backwards selection procedure using the Mixed model function

of SAS. At each step of the backwards procedure, the factor with the largest P value was eliminated from the model. A value of $P < 0.05$ was used to maintain a factor in the final model.

Independent factors describing each lot of calves included in the original model were auction year, calf gender, mixed-gender status of the lot, Red Angus age and source verification status, flesh score, frame score, health protocol administered to the lot, area of the U.S. where the lot originated, weight variation within the lot, implant status, Superior Certified Natural program status, Non-Hormone Treated Cattle program status, Superior Progressive Genetics program status, BVD-PI Free status, lot size (linear and quadratic effects), base weight (linear and quadratic effects), and the number of days between auction date and forecasted delivery date. The model was also adjusted for the random effect of auction date within auction year.

Results and Discussion

A total of 1,412 lots of beef calves representing 131,975 head were used in this analysis to quantify the effect of Red Angus age and source verification programs on the sale price of calves selling through 94 Superior Livestock Auction's video sales from 2013 through 2016. With only four years of data to work with, definite trends in the number of lots enrolled in either the Red Angus Allied Access program or the Red Angus FCCP could not be determined. However, the participation in both of these programs appeared to be increasing during the last three years (Table 1).

Enrollment in the Red Angus FCCP significantly increased sale price by \$3.38/cwt when compared with Red Angus influenced calves that were not age and source verified by a Red Angus program (Table 2). The mean base weight for lots of calves in this study was 580 pounds. Thus, the additional value of FCCP calves in this study was \$19.60/head. Lots of FCCP calves also sold for a significantly higher price than calves in the Allied Access program.

Lots of calves enrolled in the Red Angus Allied Access program sold for similar prices as lots of Red Angus influenced calves that were not age and source verified by a Red Angus program ($P = 0.945$).

Other factors that significantly affected the sale price of beef calves in this study were auction year, gender of the lot, mixed-gender status, area of the U.S. where the lot originated, health protocol administered to the lot, the amount of weight variation within the lot, flesh score, Non-Hormone Treated Cattle program status, lot size, base weight of the lot (both linear and quadratic effects), and the number of days between auction date and forecasted delivery date.

Factors that had no effect ($P > 0.05$) on the sale price of beef calves in this study were implant status, frame score of the lot, BVD-PI Free status, Superior Certified Natural status, the quadratic effect of lot size, and Superior Progressive Genetics program status.

Summary

Lots of beef calves enrolled in the Red Angus FCCP were worth nearly \$20.00/head more than Red Angus influenced calves that were not age and source verified by a Red Angus program. There was no price advantage for calves in the Red Angus Allied Access program.

Table 1. Number and percentage of lots of beef calves in each Red Angus group sold through 94 Superior Livestock Auction’s video sales from 2013 through 2016 by year

Red Angus group	Number of lots	Percentage of lots
<u>2013</u>		
Enrolled in the Red Angus Allied Access program	11	3.2
Enrolled in the Red Angus Feeder Cattle Certification Program (FCCP)	204	59.0
Not enrolled in a Red Angus age/source verification program but were Red Angus influenced ^a	131	37.8
<u>2014</u>		
Enrolled in the Red Angus Allied Access program	26	8.2
Enrolled in the Red Angus Feeder Cattle Certification Program (FCCP)	155	48.9
Not enrolled in a Red Angus age/source verification program but were Red Angus influenced ^a	136	42.9
<u>2015</u>		
Enrolled in the Red Angus Allied Access program	26	7.5
Enrolled in the Red Angus Feeder Cattle Certification Program (FCCP)	162	47.0
Not enrolled in a Red Angus age/source verification program but were Red Angus influenced ^a	157	45.5

Red Angus group	Number of lots	Percentage of lots
	<u>2016</u>	
Enrolled in the Red Angus Allied Access program	35	8.7
Enrolled in the Red Angus Feeder Cattle Certification Program (FCCP)	222	54.9
Not enrolled in a Red Angus age/source verification program but were Red Angus influenced ^a	147	36.4

^aLots of calves in this group were not enrolled in either the Red Angus Allied Access program or the Red Angus FCCP but were determined to be Red Angus influenced by one or more of the following criteria: the lot was classified as primarily Red Angus based on the breed description of the lot, the lot was sired solely by Red Angus bulls, or the lot description contained the Superior Red Angus stamp.

Table 2. The effect of the Red Angus Association of America’s age and source verification programs on the sale price of Red Angus influenced beef calves^a sold through 94 Superior Livestock Auction’s video sales from 2013 through 2016

Factor	Number of lots	Least squares mean of sale price (\$/cwt)	Regression coefficient	P value of factor
Age and source verification status of the lot				<.0001
Enrolled in the Red Angus Allied Access program	98	189.85 ^b	-0.50	
Enrolled in the Red Angus Feeder Cattle Certification Program (FCCP)	743	193.73 ^c	3.38	
Not enrolled in a Red Angus age/source verification program but were Red Angus influenced ^d	571	190.35 ^b	0.00	

^aLots of calves that also had some Brahman influence were deleted from this analysis.

^{b,c}Prices without a common superscript differ ($P < 0.05$).

^dLots of calves in this group were not enrolled in either the Red Angus Allied Access program or the Red Angus FCCP but were determined to be Red Angus influenced by one or more of the following criteria: the lot was classified as primarily Red Angus based on the breed description of the lot, the lot was sired solely by Red Angus bulls, or the lot description contained the Superior Red Angus stamp.