

# SISKIYOU STOCKMAN

*What's New in the "Top of the State". A report for Siskiyou Livestock Producers put out by the Farm Advisors Office, Cooperative Extension of the University of California, located at 1655 South Main Street, Yreka, California 96097*

**August 2011**

## **Crossbreeding in two easy steps**



- Crossbreeding in two easy steps
- Cattle Tour

### **Calendar**

August 25	Annual Cattle Tour City Hall Dorris, CA.
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While the benefits of crossbreeding are well known the marketplace has favored black cattle. Many people have shifted to all black cattle. Successive generations have resulted in herds essentially all Angus. There have been many favorable impacts from this change but a significant disadvantage is the lack of hybrid vigor or heterosis seen especially in reproduction. Further restrictions occur due to the lack of effective EPDs (Expected Progeny Differences) for reproduction (fertility) and the low heritability for reproductive traits, making selection and improvement in reproduction/fertility very difficult. Since reproduction is far more important for profit than growth it is especially important to focus on improving reproductive traits. This is best accomplished by crossbreeding. Most producers understand the basic concept of a two breed rotational crossbreeding system. Females sired by Breed A are bred by bulls of Breed B, and females sired by Breed B are bred by bulls of Breed A. My observation is that this is seldom accomplished. The actual breeding is much less planned, and the resulting calves and cows are of varied breed composition, resulting in less uniformity than desired and less heterosis than theoretically possible. A successful planned crossbreeding program can be accomplished by following two easy steps: sort and tag. These two steps entail sorting the cow herd into two groups at the start of the breeding season, followed by tagging calves during or at the end of the breeding season. Usually before the breeding season begins cows are worked getting vaccinations so sorting is not an extra step. Similarly, calves during the breeding season are processed so tagging them is also not an extra step. The details follow. If these details are followed all of the calves from half the herd will be at least 69% Angus and for the first 4 years all of the calves from the other half of the herd will be eligible

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for Certified Angus Beef. Moreover, if the breed for crossbreeding is carefully chosen, black color may remain the dominant color of all calves.

At the start of the first breeding season (we will call this year 1) cows are divided into two groups and each group receives some sort of identification that can be easily used to sort them. For example, cows could be given either a yellow or blue ear tag so they could easily be sorted into a yellow or blue group (Fig 1 – Year 1). The only really important step at this time is that **cows should remain as a yellow or blue group for the rest of their time in the herd.** So for the first year only one (1) step is required: cows are sorted into their two groups. Breeding pastures can be used the same as previously used. In our example we will call the yellow females the “Angus” group and the blue females will be the “Other” group. Other stands for the breed that will be used for crossing. The yellow “Angus” group will get bulls of the “Other” breed. The blue “Other” group will get Angus bulls. During or at the end of the breeding season for year 1 no special tagging of calves is done. After the breeding season all the cattle can be managed together, there is no reason to keep them separate after the breeding season.

For the second breeding season (Fig. 1-Year 2) , cows are sorted again into their yellow and blue groups for the breeding season. They are already tagged with yellow or blue tags so this isn’t a big challenge. Bulls are assigned like before: yellow cows get “Other” breed bulls, and blue

cows get “Angus” bulls. Sometime during the breeding season or at the end of the breeding season **when the cows are still in their breed groups**, female calves are tagged or otherwise identified. **Heifer calves are identified with the opposite color or mark of their dams during the breeding season.** So calves that are with yellow females are given a blue tag. Calves that are with blue females are given a yellow tag. Only the heifer calves need to get a colored tag. They will be sorted into their respective groups after being selected as replacement heifers. It is required that the heifer calves be given their appropriate tag during the breeding season so that their correct sire-breed is identified, and they can then be easily sorted for breeding into the proper group. If desired for marketing purposes all calves from the “blue” herd could get their “yellow” tags because all calves from the “blue” females will be at least 69% Angus and thus qualify for Certified Angus Beef. For the first 4 years all calves from the “yellow” herd which receive a “blue” tag will also qualify for Certified Angus Beef.

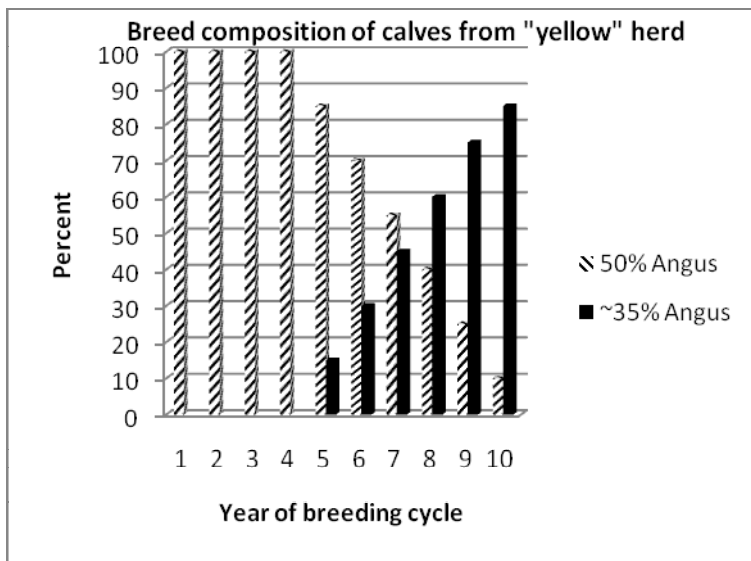
After the second year, these two (2) steps of sorting and tagging are done each year. Cows don’t change “color” or group. Heifer calves are tagged during the breeding season and some become replacement heifers. With this system a planned consistent breeding program is implemented and crossbreeding is accomplished. Sort and tag.

**Breed composition from crossbreeding**

The time for the breed composition of calves and cows to reach a steady state will vary depending on replacement rate and calf crop. Using a 15% replacement rate and calf crop of 90% and culling older cows before younger cows I have calculated the breed composition of calves for 10 years.

For the “yellow” herd (the calves from the “yellow” herd would have a “blue” tag).

Year	% calves that are	
	50% Angus	~35% Angus
1	100	
2	100	
3	100	
4	100	
5	85	15
6	70	30
7	55	45
8	40	60
9	25	75
10	10	85

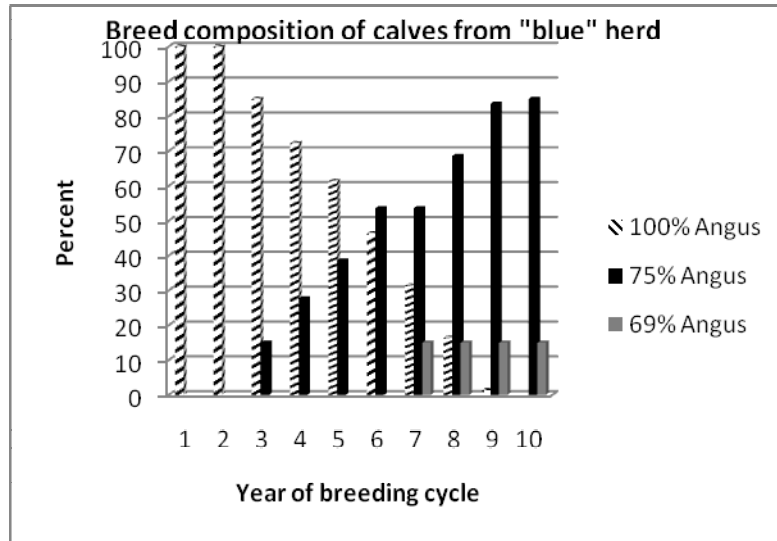


For the first 4 years all of the calves from the “yellow” females will be 50% Angus and 50% Other. Eventually replacement heifers will enter the herd and the calves will gradually become about 35-50% Angus. Depending on the “Other” breed used they may still be mostly black.

For the “blue” herd (the calves from the “blue” herd would have a “yellow” tag).

Calves from the blue herd for the first 10 years will all be at least 69% Angus. All of these calves could meet the breed requirement for Certified Angus Beef (CAB©) and would easily be identified by their blue tags.

Year	% calves that are		
	100% Angus	75% Angus	69% Angus
1	100		
2	100		
3	85	15	
4	72	28	
5	61	39	
6	46	54	
7	31	54	15
8	16	69	15
9	1	84	15
10		85	15

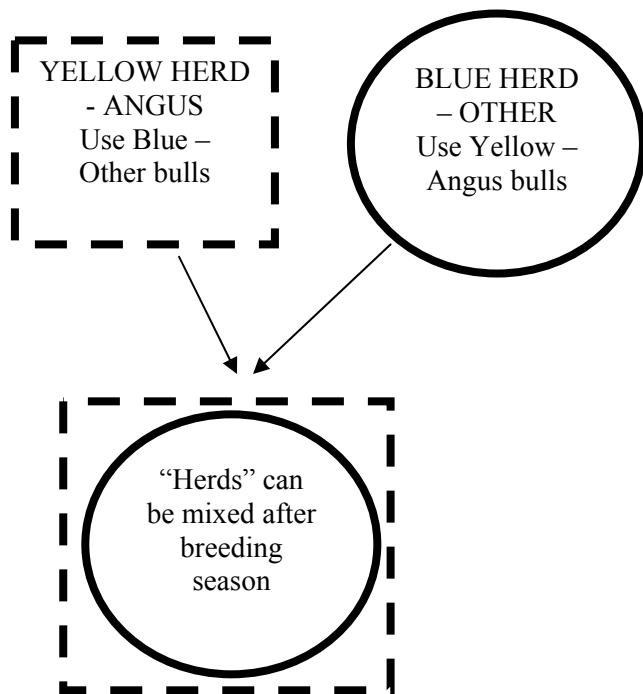


With this system it would be better to select breeds that are similar in type and frame size. Both should be maternal type breeds that have easy calving and the proper amount of milk for your feed conditions. To maintain polled cattle the “Other” breed should be polled. The “Other” breed should have similar growth potential or the benefits of crossbreeding will be reduced due to inferior growth potential from the “Other” breed.

The lack of adoption of crossbreeding has never been due to lack of appreciation for its benefits. But when implemented in a haphazard manner it can result in variation or reduced uniformity and less than desired levels of heterosis. “Sort and tag” is a method to easily implement a planned, consistent crossbreeding program with low cost. With careful consideration of the “Other” breed for crossbreeding the impacts on marketing black cattle can be minimal and the benefits from increased fertility and longevity substantial.

**Figure 1. To implement crossbreeding follow year 1 and year 2 guidelines. Sort cows, and tag heifers**

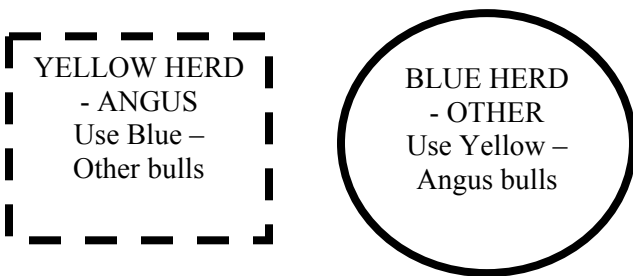
## YEAR 1



### Year 1: Breeding season

1. split herd into 2 groups. Use a colored ear tag so they can be sorted easily at breeding.
2. Yellow – Angus cows get bulls of the Blue – Other breed
3. Blue – Other cows get bulls of the Yellow – Angus bulls
4. Cows must stay in their same group for their lifetime.

## YEAR 2



### Year 2 Breeding season

1. Sort cows into groups, already tagged, assign bulls
2. During or at end of breeding season give colored ear tags to heifers.
3. Heifers get the opposite color of their dams. This means their sire was the color of their ear tag.

- Heifers get the opposite color ear tag of their dams
  - Heifers born in the Yellow herd get Blue ear tags
  - Heifers born in the Blue herd get Yellow ear tags.
- Heifers get sorted into their color herd and get bulls of the opposite color

# Cattle Tour

## August 25, 2011

### Dorris, CA

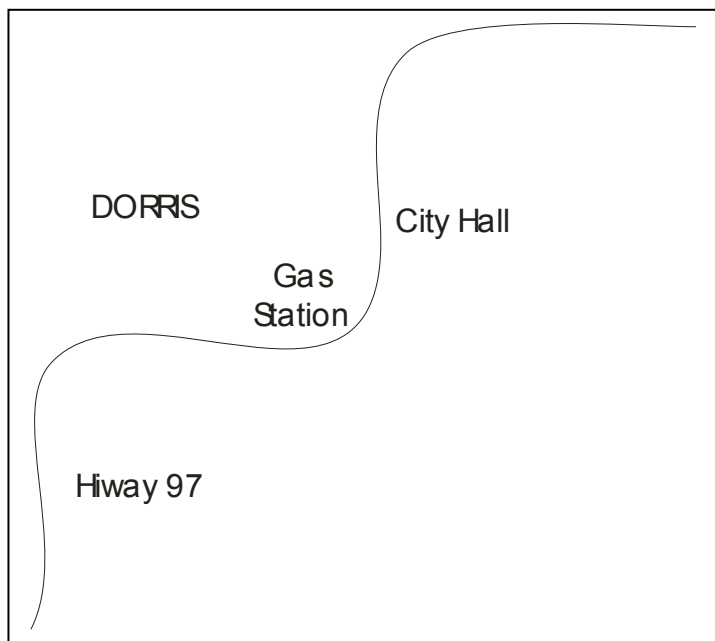
Mark your calendars for the 62<sup>nd</sup> Annual Cattle Tour. This year the tour will be in Dorris, CA at the city hall. Time flies and it is time to renew Beef Quality Assurance (BQA) certificates for those that participated 3 years ago. For those without BQA certification, it is an opportunity to become certified. The BQA training will be part of a day-long program for all interested persons.

#### Agenda

10:00	Beef Quality Assurance certification
11:30	What are herd bulls accomplishing in multisire pastures. Dan Drake, Farm Advisor, Siskiyou County.
Noon	Lunch, City Hall, Dorris
1:00	Presentations on current topics from officers of the California Cattlemen's Association
2:00	Local events, concerns and elections from Siskiyou County Cattlemen's Association President Joe Sammis, Presentation of Cattleman of the Year award

The 2011 Cattle Tour starts and ends at the City Hall in Dorris, CA, located at 307 South Main Street.

The morning educational program is much more than giving shots. Beef Quality Assurance is a comprehensive program to address the most pressing marketing issues of beef. Producers and non-producers allied with the industry will want to learn more about what can be done to keep and even improve the food safety, production and environmental issues associated with beef production.



This is your copy of the Siskiyou Stockman, which you requested, or which we thought would be of interest to you.

Sincerely,



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**Annual  
Cattle  
Tour**

**Thursday  
August 25**

**City Hall  
Dorris, CA**



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