

Make a Lasting

IMPRESSION

Experts share their best reasons and tips for freeze branding cattle.

BY LISA HAWKINS MOSER

Fire branding has been used by the American cattleman to identify his herd since the West was settled. While this branding method is still used today, many beef producers have traded in their red-hot branding irons for cool, copper ones used in freeze branding. The mark left behind by these two methods is very different. Rather than exposing the bare hide to show the fire brand, freeze branded cattle are identified with white hairs that appear following the branding. Both techniques involve pressing an iron on the brand site to make an impression that will last the animal's lifetime. The differences lie in the metal from which the irons are made, treatment of the irons and hide just prior to branding, length of time in the brand site and cost of supplies.

With fire branding the hide is pressed with a hot iron for about 10 seconds. Freeze branding irons are primarily made of copper, must be cooled before applying to the alcohol-treated hide and remain on the hide for up to a minute before the lasting impression is made.

Those who freeze brand their cattle believe it's more humane than hot branding. "Freeze branding is a lot less painful for the cattle than hot branding," Brett Barber, beef cattle manager at Michigan State University (MSU).

Barber manages MSU's herd of 35 Angus 40 Polled Herefords and 70 recipient cows. Prior to coming to MSU, Barber used hot branding techniques to identify the herd on his family's ranch.

For years former herd managers at Michigan State freeze branded the herd, however, that practice ended in the late 1980s with a change in management. Barber recently experimented with a new freeze branding technique on the recipient cows. If he likes the results, he plans to brand the Angus cows.

Barber lists at least two reasons for his possible return

to freeze brand identification.

"Because the cattle always seem to pull out their ear tags, I started thinking about freeze branding the Angus herd," says Barber. "Also, freeze brands are easier to see from a distance."

Barber places the MSU brand on the animal's left hip to easily identify each one as he drives by to check cattle at the feed bunk.

Another cattleman who places the freeze brand on the hips of his cattle is Richard McClung, managing partner of Wehrmann Angus, New Market Va. The Wehrmann Angus brand is placed on the right hip of the cattle.

"Since the head gates for our

chutes are controlled on the right-hand side, I decided to put the brand on the right hip," explains McClung.

He estimates he has been freeze branding at Wehrmann Angus for about 14 years. Like Barber, McClung has used both fire and freeze branding techniques. However, today all of the 500 cows at Wehrmann Angus are freeze branded.

Wehrmann Angus cattle are freeze branded for identification purposes. The brand is the same as their tattoos. It includes three to four digits and the farm brand. The first number represents the year, the next digit is the sire code and the following number tells the order of the calf born by that sire.

For example, the brand 6B10 tells McClung the calf was born in 1996 by the coded sire and it was the tenth calf born in 1996 sired by that bull.

McClung's and Barber's preferences for hip brands are concurred by Calvin Alford, Extension animal scientist at the University of Georgia. Alford has branded cattle since the early 1970s using both the freeze and fire branding techniques.

"The best place to freeze brand the animal is on its hip because you need muscle and fat under the branding area to get a good indentation," says Alford.

When is the best time to

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Many freeze brands include the number identification and a farm brand. This close-up photograph was taken at the University of Georgia's Angus farm.

freeze brand? All three sources agree it can be done at any time.

"I used to think to be successful you had to brand in January when it was really cold. But when things got busy during the winter at the farm, I started freeze branding in July. Now I get the best brands we've ever had," says McClung.

McClung and Alford follow the more traditional freeze branding technique, while Barber is experimenting with a newer method.

Anybody can apply a good freeze brand. If they follow the rules and go slow, their first freeze brand will be as good as their last.

The first step to branding for McClung and Alford is to check the weather forecast. "If it's raining, forget about freeze branding," says Alford.

McClung agrees and adds that he does not freeze brand on windy days. "On windy days, when I pull the irons out of the solution, the vapors fly off and the irons don't seem to brand the same as they do in good weather," he says.

One of the most important steps is to line up supplies. Along with dry ice, McClung and Alford use alcohol, Styrofoam coolers, branding irons, clippers, rags, spray bottles, a bucket, brush and time clock.

Each has a technique for cooling the irons. McClung sets the irons in the Styrofoam coolers and pours enough denatured alcohol to cover the head of the iron. Then he takes a hammer and a screwdriver and knocks off chunks of dry ice from the 50-pound block to put in the cooler.

"When you throw the dry ice in the cooler with the irons and alcohol, vapor will fly and the solution will boil and bubble," McClung says. "Wait six to 10 minutes."

After the vapor disappears, McClung says tiny bubbles will start forming around the edges of the irons and ice. Then frost will creep up the shaft of the iron. "When you see the frost on the iron, it's cold enough to brand," he says.

The next step is to put the animal in the chute. Both cattlemen recommend using a squeeze chute. Once in the chute, they use a brush to clean the dirt from the brand site. Then the area where the brand will be applied is clipped. Alford recommends using clippers with surgical heads that cut the hair close to the hide. In contrast, McClung prefers to use regular clippers that leave more hair on the hide.

"You need to leave a little bit of hair to hold the alcohol," explains McClung.

When applying the alcohol, both men believe it's important to saturate the brand site. Alford uses a spray bottle filled with 95 to 99 percent pure alcohol, while

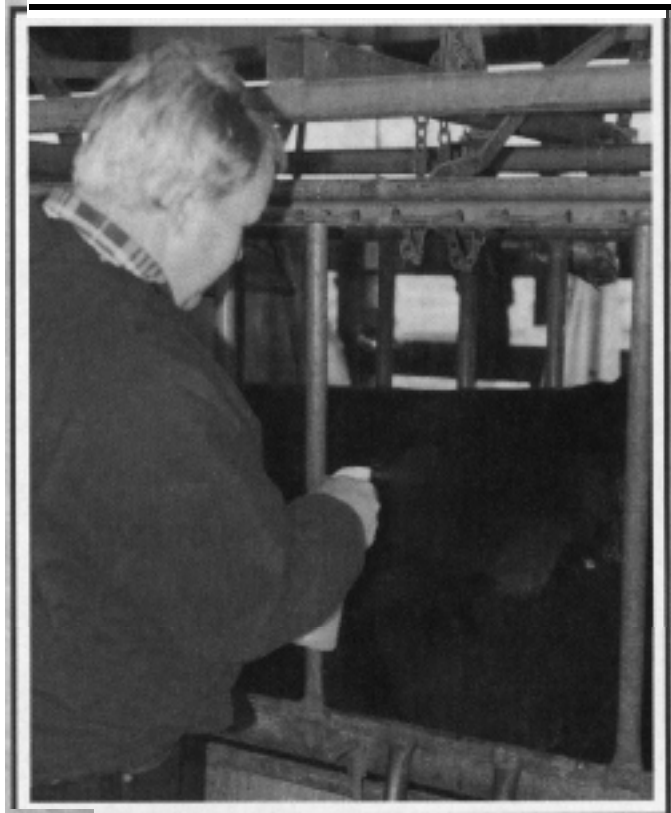
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Freeze Branding Steps

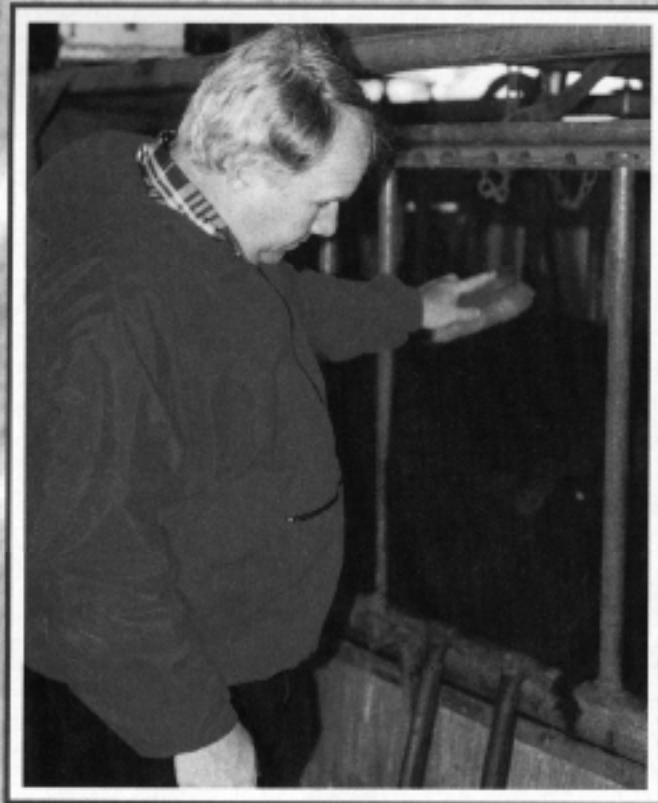
The following steps to freeze branding are demonstrated by University of Georgia Extension Animal Scientist Calvin Alford in the following photos.



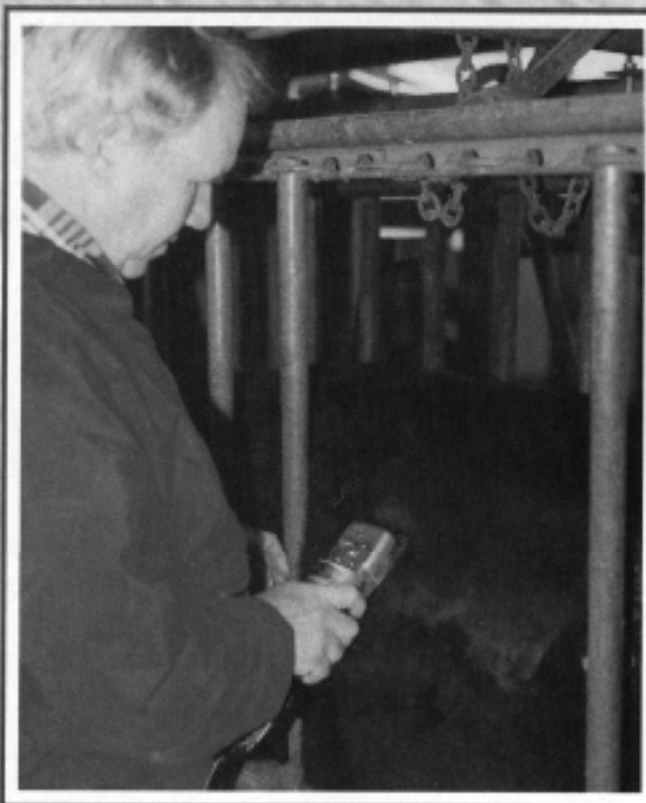
1 One of the first steps to freeze branding is organizing the supplies. Pictured above are some of the common tools used by beef producers when freeze branding



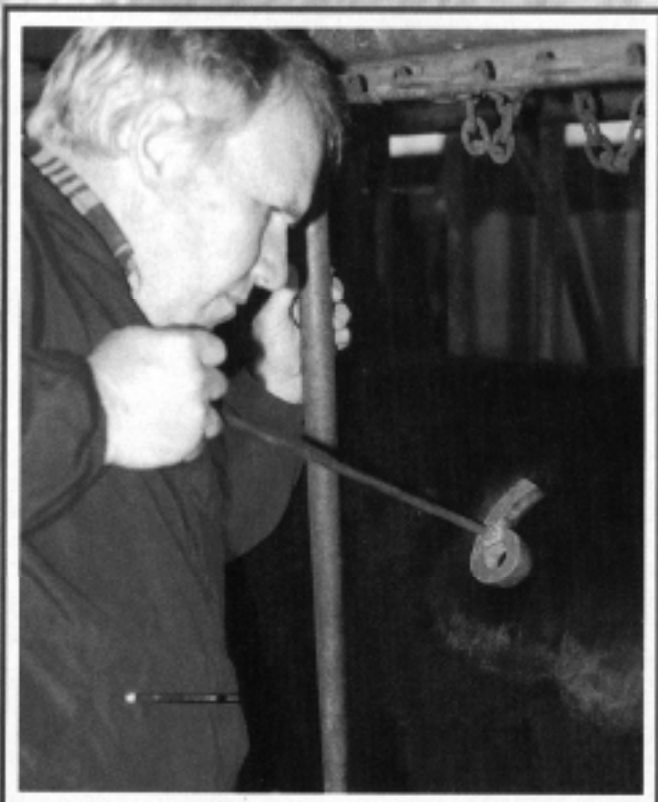
4 The brand site is saturated with alcohol.



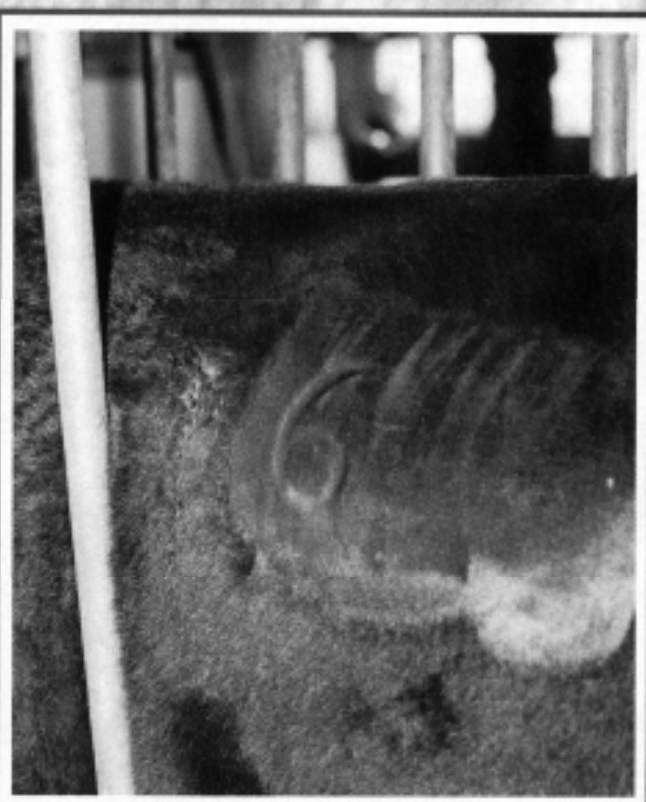
2 Once the animal is in the squeeze chute, it's important to remove the dirt from the brand site with a curry comb or a brush.



3 The brand site is clipped. Some producers prefer to use surgical clippers, while others use regular flathead clippers.



5 Alford demonstrates his technique of firmly applying the digit to the hide for one minute.



6 This is an example of the digit impression left after the iron is removed. To make sure the brand took to the hide well, the freshly branded site should feel like wood when touched.

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McClung prefers a rag soaked in a pan of denatured alcohol.

McClung explains his technique, "Take the alcohol-soaked washcloth and put it on the hide on top of the brand site where you are going to put your first iron. Then squeeze out the cloth." The alcohol helps to remove excess dirt and dandruff.

Next, the iron is applied firmly to the hide. McClung always wears leather gloves to protect his hands from the cold iron. He starts a time clock when the iron is placed on the hide and after 45 seconds he returns the iron to the Styrofoam cooler. Alford leaves the iron on the hide for a minute and keeps time by watching a clock he hangs in the work area.

Both men apply great pressure to the iron while it's on the hide. "When you pull the iron off you should see an indentation on the hide from where the iron was," says McClung.

To assure himself, McClung removes his glove and taps the fresh brand with his fingernail. "If it feels like you are pecking on wood or a pipe, then you are guaranteed to have a good brand," he says.

The process begins again with the alcohol application for each digit of the brand. "Some people will clip the brand site and cover the entire brand surface with alcohol. By the time they get to their last digit, that alcohol has run off or evaporated. You've got to squeeze alcohol on before you make each digit of the brand," says McClung.

Those brands that appear light or pale happen because the person branding did not let the irons cool properly, says McClung. The irons need to cool in the solution at least as long as they are on the animal.

Instead of using alcohol, some beef producers prefer to use liquid nitrogen. Both McClung and Alford discourage using this product.

"I tell people not to use liquid nitrogen," says Alford. "The timing is much more critical and the results are inconsistent."

Barber's freeze branding technique does not involve irons or dry ice. After restraining the animal in a squeeze chute, Barber and his Michigan State crew use a blower and curry comb to remove the dirt from the hide. The brand site is closely clipped.

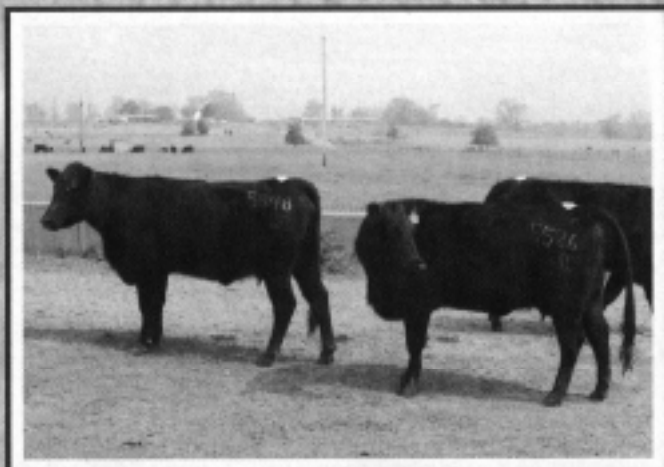
Next, Barber applies rubbing alcohol to the brand site. Then he selects a three-inch stencil, places it in a plastic holder and holds it against the brand site. He takes an aerosol can filled with the coolant, Tetrafluoroethane, and covers the stencil with the spray.

Barber recommends spraying the coolant in short bursts. "I spray the stencil, let it frost up and spray it again," he says. Each digit is sprayed eight to 10 times before he moves on to the next digit. He spends between 30 seconds and two minutes applying each digit.

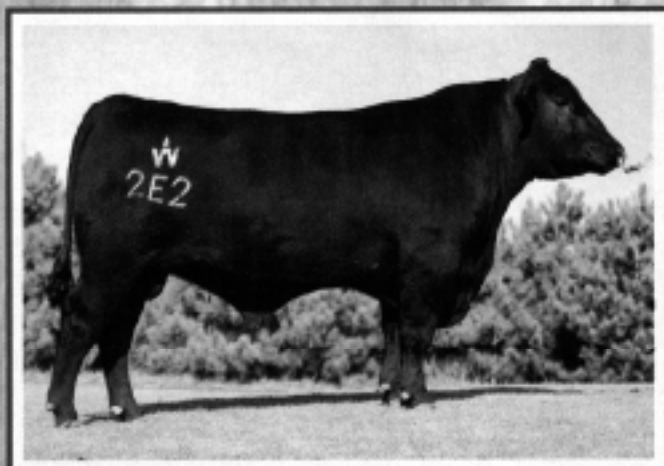
With either freeze branding technique, remember it takes time before you see the results of the branding.

"After the first month, the hide will start to peel (at the brand site) and white hair will grow in around the edges," says McClung. Usually, two months following the procedure the brands are visible.

While Barber's method is easier to apply, it's more costly than McClung's and Alford's methods of freeze branding. After the initial investment in the stencils, Barber estimates the branding cost at \$2.50 per head. Alford's branding supply bill comes to \$1 per head.



Many cattle producers brand their animals on the hip as shown here on the University of Georgia Angus cattle.



Wehrmann Angus cattle are freeze branded with their tattoo and farm brand on their right hip.

All three sources agree that freeze branding is more expensive and time consuming than hot branding. Still, they believe freeze brands are more legible on black Angus cattle than hot brands. Additionally, they believe freeze branding has an advantage over fire branding in respect to hide damage.

Unlike hot brands that damage the hide, freeze brands only damage the hair follicles.

Long term, Alford believes if producers receive discounts for fire branded hides, an increasing number will begin freeze branding.

McClung foresees an increasing use of freeze branding in the beef industry. "I get at least three phone calls a month from people wanting advice on freeze branding. I believe it will increase in popularity because it's a great method of identification," he says.

For those who are contemplating freeze branding, Alford offers this final bit of encouragement: "Anybody can apply a good freeze brand. If they follow the rules and go slow, their first freeze brand will be as good as their last."