

# ANIMAL IDENTIFICATION OPTIONS

Tattoo or Brand (Hot Iron or Freeze) are acceptable forms of permanent identification for all cattle registered with the International Brangus Breeders Association.

The holding brand or breeder prefix tattoo signifies the original ownership of an animal. When registering Brangus, you must submit your holding brand and location of the brand, or your breeder prefix tattoo and location to the Association. All cattle registered by that member must bear the holding brand or breeder prefix tattoo in the designated location. Suggested locations for the holding brand are the jaw, shoulder, rib, flank, loin, hip or thigh (must also be consistent with respect to which side of the animal). Suggested locations for the breeder prefix tattoo are the right or left ear.

Each animal you register must be given an individual identification that is different than any other animal in your herd. Most breeders use a year designation as part of the private herd number. The International Naming and Numbering System designates a letter of the alphabet for each successive year so that a calf born in 2007 would be branded or tattooed with a 'T', and a calf born in 2008 will bear the brand or tattoo 'U'. Remember the private herd number is unique to that animal and is limited to 10 character spaces. The location of the private herd number is optional, but it is suggested a private herd number brand be placed on the left hip. A private herd number tattoo should be consistently placed in either the right or left ear.

## INTERNATIONAL IDENTIFICATION SYSTEM

The International Naming and Numbering System utilizes the alphabet to designate the year born in all brand and tattoo identifications of recorded Brangus. Including the Letter Year Designation in the identification number of every animal eliminates the chance for duplicate herd numbers of cattle occurring every 10 years. The system is as follows:

<u>YEAR</u>	<u>LETTER DESIGNATION</u>	<u>YEAR</u>	<u>LETTER DESIGNATION</u>	<u>YEAR</u>	<u>LETTER DESIGNATION</u>
2000	K	2007	T	2014	B
2001	L	2008	U	2015	C
2002	M	2009	W	2016	D
2003	N	2010	X	2017	E
2004	P	2011	Y	2018	F
2005	R	2012	Z	2019	G
2006	S	2013	A	2020	H
				2021	J

*NOTE:* Notice that the letters, I, O, Q and V are not used.

## FREEZE BRANDING

Among the methods of permanent identification is freeze branding. Freeze branding involves the use of very cold branding irons to an animal's hide. When applied properly, the melanocytes, pigment producing cells, are destroyed and the hair grows out white. Freeze branding is a relatively simple process which causes less hide damage than hot branding.

It is necessary to restrain cattle in order to get a good brand. Cattle should be restrained in a strong chute and headgate. The chute should be constructed so that branding may be accomplished from the side with ample working room. A squeeze chute is needed to prevent excessive movement. To run smoothly through a branding session, assemble the following equipment: copper or copper alloy branding irons, liquid nitrogen or dry ice, 99% isopropyl alcohol, styrofoam or plastic cooler, plastic squeeze bottle, electric clipper and a stiff bristled brush.

Branding irons used in freeze branding should be made of copper or copper alloy. A set of irons will consist of the numbers 0 through 9, a letter for the designated year and a holding brand iron. The handles should be about 18 inches long. Brand numbers, on grown cattle should be 4-5 inches high, at least 3 inches wide and have a three-eighths to five-eighths inch face. Calf irons should be 2 to 3 inches high. As a branded animal grows, the brand becomes larger.

Regular copper branding irons with one-quarter inch faces designed for hot branding have been used successfully when applied about five seconds longer than normal. Specially constructed freeze branding irons may be purchased at most livestock supply stores. Keep in mind that as you view branding irons, they appear backwards, but when applied to the animal, the brands will be correctly positioned. It is best to schedule your branding in dry weather with no rain in the forecast for the next few days.

After you have assembled your equipment, you are ready to begin branding. Restraining the animal in a head chute is important for your protection and to ensure clear, properly positioned brands. It is of utmost importance to

correctly identify each animal before branding. After a brand is made, it cannot be removed. Be sure to have accurate records available and that the brand on the animal corresponds to the brand on the recording form.

There are two common ways to chill the irons. One method is to place the branders in liquid nitrogen (-320° F). Place 3-4 inches of liquid nitrogen into a styrofoam cooler or insulated bucket. It will take about 5 liters (1 liter equals approximately 1 quart) of liquid nitrogen for 20 head of cattle.

The second method of cooling branders involves placing them in a mixture of 99 percent isopropyl alcohol and dry ice. To brand 20 head of cattle, use 1 gallon of alcohol plus 20 pounds of dry ice placed into a styrofoam cooler. Dry ice should be crushed into small pieces or can be purchased in cubes. The ratio of alcohol to dry ice is not critical, but one pound of dry ice per animal branded is a good rule of thumb.

Both methods require more refrigerant to cool the branders initially than to re chill between animals. Liquid nitrogen or alcohol and dry ice should be added as needed to ensure that the branders are covered by refrigerant.

Place branding irons in an upright position in the dry ice and alcohol or liquid nitrogen. Irons should be covered by at least one-half inch. The irons are ready for use when the refrigerant stops boiling. Initially, this will take about 20 minutes, and it will depend on how many branders you are trying to cool at one time. The cessation of boiling indicates that the brander has reached the temperature of the surrounding refrigerant.

Clip the area to be branded as closely as possible. This can best be done by using a number 30 or 40 surgical clipper or sheep head clippers. If necessary, a stiff-bristled grooming brush can be used after clipping to remove dirt, hair and dandruff.

Fill the plastic squeeze bottle with alcohol. A clean, household detergent bottle with a spray pump will be sufficient. Liberally apply the alcohol from the squeeze bottle over the branding site. Soak the area but don't waste alcohol. It need not be rubbed in. The brand should be applied as soon after the alcohol is placed on the area to be branded as possible.

Take the brander out of the refrigerant, and check the character to be used to be sure it is the right one. Apply the brander to the clipped, alcohol-soaked area, and apply pressure to the brander by leaning on it. See that the iron depresses the muscle equally at all points.

When either liquid nitrogen or alcohol-dry ice are used as refrigerants, the minimum time of application is 60 seconds. Extremes in outside temperature may affect branding time. In extremely cold temperatures, branding time may be somewhat shorter while hot temperatures may demand a longer branding time. Underbranding may produce a few white hairs, but the resulting brand is usually not legible. In some cases, the underbranded hair will remain colored but will grow faster than unbranded hair, while other cases result in a marked darkening of the branded hair. Overbranding will cause the brand to appear similar to a hot iron brand.

The calf usually will jump and squirm for the first 10 seconds after the brander is applied to the hide. The reason for this is that the extreme cold activates the nerve endings. After about 10 seconds, the nerve endings are frozen and inactivated and the animal usually stops moving. You should be ready for this and keep the brander in the same position for the entire time to ensure a good, clear freeze brand.

Apply one brander at a time. Two people can each apply one brander, but two branders should not be applied by the same person at one time because the chances of slipping and ending up with a poor brand are greatly increased.

Place the brander back into the refrigerant and make sure that the refrigerant covers the branding iron. If it does not cover the irons, add more liquid nitrogen or alcohol. If the alcohol-dry ice refrigerant does not seem cold enough, add more dry ice. Make sure that the brander is clean before placing it into the refrigerant.

Release the tension on the squeeze mechanism of the chute. Make sure the tailgate is dropped behind the animal. This prevents the animal from backing out of the squeeze chute and the next animal from slipping through the squeeze chute before you are ready. Release the headgate and allow the animal to exit.

Repeat these steps until all animals are branded.

The hide will be indented where the branders were in contact with the skin. This is normal because you have placed pressure on the branders and the surrounding skin has frozen. As the skin begins to thaw, a marked reddening of the skin occurs around the branded area. The skin may also swell around the area. Both of these occurrences are normal. Within one to two weeks after branding, some skin will slough off. The white hair will not grow until the next cycle of hair growth. For example, if the cattle are branded in late fall, the white hair may not appear in any quantity until the spring. When overbranding is used, the skin as well as hair may slough off in one to two weeks after branding.

## **HOT IRON BRANDING**

### **A. Branding Irons**

1. Branding irons can be constructed of iron, steel, stainless steel or copper. Over the past several years the use of an electric heating unit shaped into a particular design has become increasingly popular.
2. Branding irons for grown cattle should be 4-5 inches high, at least 3 inches wide with a 3/16 - 3/8 inch face. Calf irons should be 2-3 inches high with a 3/16 - 1/4 inch face. Handles can be made from 1/2 inch rod and should be at least 36 inches in length.
3. Sharp edges should be filed off.
4. Do not use thin or burned-up irons as they will cut deep into the hide and leave a thin scar which will cover with hair.

### **B. Heating the Iron**

1. Using either a bed of coals or bottled gas, the iron should be heated until it is gray in color. If it is black it will be too cold and won't burn deep enough. If it is bright cherry red it will burn too deep, possibly leaving a hard to heal sore and a blotched brand. The iron must be hot enough to remove the hair and the outer layer of skin.

### **C. Applying the Brand**

1. Normally, applying the iron 3-5 seconds will be sufficient to obtain a permanent brand. If the cattle to be branded are carrying extremely long hair, they should be clipped.
2. Be sure to press firmly and rock the iron slightly to get a uniform brand.
3. Do not brand animals that are damp or wet as it will result in scalding rather than burning and in most cases a blotched, slow-healing sore.
4. Restrain the animal to be branded as securely as possible to prevent their moving and causing a blotched brand.
5. Do not brand over an existing brand. If necessary, place your brand in front, behind, above or below an existing brand but as close to your registered location as possible.
6. A properly applied brand should be the color of saddle leather when the iron is removed.

### **D. Care of the Irons**

1. Keep your irons free of carbon buildup caused by scale and burnt hair. A bucket of sand or a wire brush at the branding table will aid you in this chore.
2. When you are through branding, the irons should be cleaned and reshaped by using a file or a rasp and be stored in a container of oil.

### **E. Brand Design**

1. Your brand should be as simple as possible. Avoid enclosed or intricate patterns which produce sharp corners. The concentration of heat will cause the brand to burn out and blotch.

## **TATTOOING**

A video on "How to Tattoo Cattle" is available from the IBBA office.

### **10 STEPS FOR LEGIBLE TATTOOS**

Materials/Tools Needed:

1. Chute to restrain animal.
2. Herd records to insure proper identification.
3. Alcohol.
4. Sponge (or rag).
5. Toothbrush.
6. Fresh green tattoo paste.
7. Tattoo digits and letter digits.
8. Tattoo pliers (with removable digits).
9. Scrap Cardboard.

#### Step 1

Check your equipment after you have decided on an identity system for tattoo identification in your herd and before you begin the actual job. You'll need a chute adequate to restrain the animal's head; herd records for reference; alcohol and sponge for cleaning the ear; at least two sets of tattoo digits and letters if used; a tube of fresh green tattoo paste; a toothbrush; and tattoo pliers with removable digits.

#### Step 2

Sterilize your tattoo set with alcohol or an equivalent disinfectant. (This is of major importance.) The use of dirty tattoo equipment can transmit wart viruses and other diseases from one animal to another. Warts will not only obscure the tattoo, but often spread to other parts of the body. Sanitation is always important in herd management and cleanliness is especially significant whenever the blood system is involved.

#### Step 3

Check your records to be sure of the exact tattoo you are going to use to identify the animal you have in the chute. If the tattoo is incorporated into the animal's recorded name and herd number, it will have more meaning to you later on, and will simplify your record keeping.

#### Step 4

Check each tattoo by testing it on a piece of cardboard before you apply it to an animal's ear. It is easy to put the tattoo digits backwards in the pliers, or to make a simple mistake when arranging the digits. This quick test will prevent mistakes. It's best to check and then re-check.

#### Step 5

Dampen a sponge with alcohol or "Pine-Sol" solution to remove the wax from the ear lobe. If the wax isn't removed, it will prevent the tattoo paste from penetrating the skin and making a permanent mark.

#### Step 6

Clean the ear at the upper lobe where the tattoo should be applied. The middle lobe of the right ear is where the Brucellosis tattoo should be used and the same lobe in the left ear is an effective place for the ear tag.

#### Step 7

Rub the green paste in the upper lobe before applying the tattoo. This is an optional step but many breeders believe this method increases legibility because some of the paste is driven into the ear as the tattoo digits are pressed into the skin. Some breeders recommend blunting the needle tips to increase the size of the holes and reduce bleeding.

#### Step 8

Tattoo the ear in the upper lobe and in the inner area where hair won't obscure the tattoo marks. Place the jaws of the tattoo pliers parallel with the ear ribs and press firmly enough to penetrate the skin. The needles shouldn't penetrate the entire ear, because this will increase bleeding.

#### Step 9

Rub the paste in with your thumb, finger or with a toothbrush. This should be continued until all bleeding has stopped and you are positive that the paste has filled the needle holes. This step is essential for obtaining a legible and permanent tattoo mark.

#### Step 10

Check all tattoos at weaning or at other times you have the animals in a chute. You should always check tattoos carefully before you offer your cattle for sale or exhibition.