

FREEZE BRANDERS

Freeze branding uses super-cold irons to kill the pigment-producing cells. Colorless or white hair will grow at the branding site.

EQUIPMENT NEEDED:

- **GLOVES & EYE PROTECTION**—Safety first!
- **BRANDING IRONS**—Made of heavy copper or brass with rounded faces.
- **REFRIGERANT**—Dry ice is the most commonly used along with at least 95% alcohol (methyl, isopropyl or ethyl alcohol works fine). Liquid nitrogen is also used with good results.
- **DRY ICE**—20 lbs. should be sufficient for a small herd.
- **CONTAINER**—Styrofoam coolers are fine, but should be set inside another container because they are easily broken.
- **CLIPPERS**—Cutter and combs should be sharp in order to get as close to the hide as possible.
- **BRUSH & PLASTIC SQUIRT BOTTLE**—A stiff brush is good for brushing away loose hair and anything else. Any plastic squirt bottle works well for applying the alcohol to the site to be branded just before applying the branding iron.

CHILLING THE IRONS:

1. If using dry ice, break the ice into very small pieces for better cooling. Keep some larger chunks for sustained cooling. **NEVER TOUCH THE DRY ICE OR LIQUID NITROGEN WITH BARE HANDS.** Be sure to wear heavy gloves while handling both. Coming in contact with either refrigerant will cause severe burns.
2. Add enough alcohol to the dry ice to cover the irons by at least one inch. The contents will bubble profusely. It normally takes at least five minutes to reach optimum temperature. Contents will bubble at a slower constant rate when the correct temperature is reached.
3. While the animal is restrained, clip the area closely and brush away any loose hair.
4. Right before the brand is applied, squirt the area with the plastic bottle containing the alcohol.
5. Apply the branding iron immediately after wetting the area with alcohol. Firm pressure with a very slight rocking motion in all directions should be used. This will produce a more even brand.
6. Place the iron back in the cooling solution when done. The iron will take a few minutes to chill for the next animal.

BRANDING TIMES:

With dry ice, mature cattle will take about 50 seconds to achieve a good brand; calves about 35 seconds. Mature horses take 35 seconds, and colts about 25 seconds.

Liquid nitrogen cuts these times almost in half. These branding times are only a reference point: times will vary depending on many variables. Always keep accurate records on timing and results. Adjust times as needed to achieve optimum results.

THE BRAND:

An indentation will appear after branding, and then the area will swell and appear raised. This swelling will go down within a few hours. In a few weeks the branded area will begin to peel. The colorless or white hair will then begin to grow at the brand site.