

FREEZE BRANDING COOLING PROCEDURES

Use dry ice and alcohol or acetone and dry ice or liquid nitrogen. Dry ice and alcohol has a temperature of -90 degrees F. Liquid nitrogen has a temperature of -240 degrees below 0.

Methyl, ethyl, or isopropyl alcohol can be used for the alcohol portion. These coolants can be purchased from drug companies, welding supply firms and animal health suppliers.

1. Cool the irons 15-20 minutes prior to the first branding, thereafter, cool until the bubbles rising from them in the liquid are reduced to a minimum. No less than one to two minutes should be allowed between brands with the same iron.
2. Clip the hair of the areas to be branded, clip the hair as close to the hide as possible. Time required for branding varies with the amount of hair remaining.
3. Brush the clipped area to make sure to remove any dirt and loose hair.
4. Soak the clipped area with 99% alcohol using a plastic squeeze bottle or spray bottle.
5. Rub off the liquid with a cloth or brush.
6. Re-soak the area and apply the cold branding irons, applying 35-40 pounds of pressure rocking slightly in a circular motion. Time the branding with a stop watch.

Use the chart below for the correct branding time.

COOLANT		
	DRY ICE AND ALCOHOL	LIQUID NITROGEN
Cow	50-70	25-40
Calf	25-40	15-25
Horse	20-35	10-20
Colt	15-25	7-15
<i>Note: All times are shown in seconds.</i>		

POST BRANDING RESULTS	
TIME	BRAND SITE
15 seconds	Indented pattern shows
5-10 minutes	Swelled pattern shows
5 days	Swelled pattern disappears
1 month	Top layer of skins sheds
2 months	White hair starts growing
3 months	White hair growth complete