

## **GUIDELINE 4: FREEZE BRANDING IN CATTLE**

Developed by the Sheep and Beef Special Interest Branch.

### **Explanation**

The Animal Welfare (Sheep and Beef) Code of Welfare 2010 states in Minimum Standard 13 that “hot branding must only be used with pain relief”. Provision of suitable anaesthesia or analgesia is impracticable in most situations where fire branding is conducted. Therefore it is recommended that alternative forms of permanent identifications are used. Such options include freeze branding, electronic identification (EID) and tattoos.

Freeze branding is an ideal way of marking animals for an easy and convenient identification. It involves the relatively painless process of altering the pigment-producing cells in the hair follicles by applying intense cold to an animal's hide. This process causes the hair to grow white, thereby providing an effective identification mark on animals with darker hair. For light coloured animals, applying the freeze brand for extra time kills the hair follicle completely, leaving a bald brand, which is still quite visible. However, freeze branding can give variable results depending on the operator experience. It is highly recommended to get assistance from an experienced operator when starting to freeze brand cattle.

### **Guidelines**

- It is advisable to freeze brand when cattle are over 6 months of age, in order to minimise distortion of the brand.
- Suitable facilities should be provided to comfortably restrain cattle to allow only minimal body movement during the application.
- No analgesia or anaesthesia is required to be given although it is recommended as best practice in the code.
- The branding site should be clean and dry.
- The area to be branded should be clipped free of hair to provide close contact between the branding iron and skin.
- The branding iron should be made from a metal that will transfer temperature well – e.g. copper alloy.
- The branding iron should be clean and free from organic material and oxidation.
- Liquid nitrogen or dry ice in denatured alcohol are satisfactory sources of freezing medium for freeze branding.
- The branding iron needs to be put in such mediums for a period of time until the medium has stopped boiling (initially 15-20min) – this must be repeated between each animal that is to be branded.
- Methylated spirits or denatured alcohol should be applied to the area of skin to be branded immediately prior to applying the brand.

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**PERMANENT IDENTIFICATION POLICY AND GUIDELINES**

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- The contact time for the brand on the skin is variable depending on the following factors:
  - Whether liquid nitrogen or dry ice in denatured alcohol is used
  - What type of metal the brand is made from
  - The thickness of skin, which will vary with:
    - Age (the older the animal the longer the contact time required)
    - Breed.
  
- The following are guidelines for brand contact time.

Branding Method	Hair Coat Colour	
	Dark	Light (Bald Brand)
Dry Ice / Alcohol	45 – 50 seconds	75 – 90 seconds
Liquid Nitrogen	20 – 45 seconds	45 – 50 seconds

**Freezebranding Kits Are Available From:**

Shoof International Ltd Private Bag 522, Cambridge,  
 Phone: 07 827 3902  
 Fax: 07 823 0651  
 Email: [shoof@shoof.co.nz](mailto:shoof@shoof.co.nz)  
[www.shoof.co.nz](http://www.shoof.co.nz) or [www.freezebranding.com](http://www.freezebranding.com)  
 Leader Products  
 Phone: 09 444 6180  
 Fax: 09 444 1220  
[www.leaderproducts.co.nz](http://www.leaderproducts.co.nz)

**Freezebrand manufacturer:**

Castech Ltd  
 PO Box 10004  
 Hamilton 3241  
 Phone +64 7 849-3814  
 Fax: + 64 7 849-3880  
 Mobile: 0274 993-015  
 Email: [info@castech.co.nz](mailto:info@castech.co.nz)

**Commercial freeze brander:**

Stuart Makgill  
 Phone: 07 322 1076  
 Mobile: 025 293 5537  
 Email: [makgill@nzwidefreezebrand.co.nz](mailto:makgill@nzwidefreezebrand.co.nz)  
 Website: [nzwidefreezebranding.co.nz](http://nzwidefreezebranding.co.nz)