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## Livestock Identification and its Importance

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### Introduction

Livestock identification plays an important role in cattle ownership assignment, vaccination management, production management, cattle traceability for research or agricultural purpose, biosecurity control, records allow to producers to track animal growth, treatment records, movement as well as respond to disease outbreak if needed, identify the animal suffering from diseases of zoonotic importance for control of diseases. Animal identification is an important management tool in raising and caring in livestock. Animal identification methods such as ear notching, tattooing, branding, or even some electrical identification methods such as Radio Frequency Identification (RFID) are not able to provide enough reliability to the cattle identification due to theft, fraudulent and duplication. Therefore, the need to a robust cattle identification scheme is vital requirement.

**Method of Identification:** There are two methods of animal identification, permanent and temporary.

### Temporary methods

**Ear Tags-** An ear tag is a plastic or metal object used for identification of domestic livestock and other animals. An ear tag usually carries an Animal Identification Number (AIN) or code for the animal, or for its herd or flock. The optimum age for ear tagging should be done usually before 6 months of age. In some farms, it is practiced within 20 days of birth while some farmers tag their females sequentially as they reach puberty and enter the herd. The common tag site is the proximal half of the ear, between the upper and lower cartilage. It should be placed neither too close to the



head, else it may sever the thicker cartilages and cause necrosis. Some necessary steps should be taken during ear tagging.

- Identify the tagging site on the animal's ear.
- Tags should be applied in the middle third of the ear between the upper and lower ribs.
- It is important when using electronic identification (EID) tags to apply the tag with the visual panel, the male portion, of the tag on the outside back of the ear with the EID button, female portion, of the tag on the inside of the ear.
- Proper hygiene and cleanliness during the tagging process is necessary to reduce the risk of infection. Use rubbing alcohol or a disinfectant solution to clean the jaw of the applicator. Also, clean the tagging site of the animal's ear.
- Place each half of the tag onto the applicator. The stud must be inserted completely onto the applicator pin and the panel/button portion placed under the opposite clip.
- Before tagging the animal, check the alignment of the tagger by closing the jaw of the applicator to the point where the two halves meet; the stud should be centered with the hole.
- Position the applicator in the identified tagging site on the animal's ear. Firmly close the applicator in a fast manner and release.

**Paint brands-** Paint branding is a temporary form of branding often used with other permanent forms of identification. Traditional branding irons are used to print painted marks on the animals back. These temporary marks are useful for animals that must be segregated but returned to a particular herd. They can also be useful for pairing parents and offspring. Paint branding is an effective temporary identification method for sales and/or exhibitions because they're easily visible and can match a sale directory. Paint branding informs potential buyers what they're inspecting. Paint brands are usually applied to the animal's left side and from head to tail.

**Marking crayons/ paint marks-** This method of marking for the identification of animals is adopted for identification of large herds of animals. Many types of colors and pants are used in this method. To identify different animals of the same owner in the herd like sheep, goats, camels, horses and donkeys, the same type of color is applied to the same part of the body of these animals. Although this is an ancient and temporary method of identification, but when several traders come together to jointly takes their animals to a fair, this method is considered to be the best way to identify them. It is an easy method and takes less time in the identification of animals. It is a cheap method as it does not require any equipment.



### **Permanent methods:**

**Ear Notches-** Ear notching is a simple and handy method to identify animals individually from a distance. Ear notching is a very traditional method of identification in swine in which pigs are identified based on their birth order within a given farrowing. This method is commonly used for sheep, goats, pigs and rabbits. Ear notching provides a permanent, inexpensive identification system, and Individual identity for all animals. The right age of ear notched in pigs is 1-3 days of age. After a pig is notched in its right and left ear, it has a unique identity. Ear-notching helps identify a pig's litter and which one of the litters it is, giving each pig a unique identity number. Remember, the reference to left and right ear refers to the pig's left or right ear, as viewed from the rear of the pig. Use a V-ear notcher to notch piglets weighing less than about 25 pounds and ensure the depth of notches is 3/16 to 1/4 inch deep and for larger pigs, a notcher that makes notches 1/2 inch deep is recommended.

**Litter Mark-** The right ear is used for the litter mark, and all pigs in the same litter must have the same notches in this ear. The right ear is on the pig's own right. The litter mark ear is divided into five sections, and each section has a numerical value, either 1, 3, 9, 27, or 81.

**Individual Pig Marks-** The left ear is used for notches to show an individual pig's number in the litter. Each pig will have different notches in the left ear. The left ear is divided into three sections, with values of 1, 3, and 9.

The notches, each symbolizing specific numbers, are added together in each ear to identify a litter number followed by an individual number.

**Branding-** Branding is the placing of permanent identifying marks on the hide of an animal and it cause damage to the hair follicles. Branding is best done when the animal is young. Branding irons can be letters, numbers or symbols. There are two types of branding- Hot Iron Branding: It destroys the hair follicles and prevents hair regrowth and painful. Freeze branding- A freeze brand is super-cooled in liquid nitrogen stored in a large vacuum flask. It uses ultra-low temperatures to destroy the skin and hair cells that produce pigmentation. It causes less pain to the animal at the time of application, but equal pain later.

**Tatoos-** Tattooing is one of the oldest permanent tagging methods, which involves needle-like projections on animal skin, and permanent mark is placed in an unobtrusive area, mostly on one ear of animal. It consists of a pattern of closely-spaced dark dots depicting numbers, letters or a combination of the two, imbedded in the bare skin using black ink, generally on the inside of the ear.



Tattoo pliers are designed to accommodate a combination of easy-change standard 3/8” character dies that cannot be inserted upside down. It is suitable for all livestock – cattle, sheep, goats, horses, pigs, game animals, and even dogs.

- Clean the fat/wax layer off the ear surface with alcohol and remove any hair. When tattooing piglets, clean the outside of the ear.
- Place the tattoo character dies (letters and/or numbers) in the appropriate sequence and position in the pliers.
- Slip the pliers over the ear in the position where the tattoo is to be placed.
- Close the pliers with a quick, firm motion so that the tattoo character pins pierce through the ear. Open the pliers immediately and remove.
- Spread a small amount of tattoo ink on the tattoo area and rub it into the holes made by the pins.
- The excess ink will fade in time, while the ink in the holes of the tattoo will leave a permanent mark when the skin recovers. Tattooing ink has antiseptic properties that promote healing.

## **References**

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