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Appliances for animal identification

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ABSTRACT

The search for the ultimate method of animal identification has occupied the minds of animal control officers, welfare societies and shelter operators and legislative authorities for some time. This paper presents the alternatives available from which we can choose, and the advantages and disadvantages of each system.

INTRODUCTION

Let us first define our optimum requirements in animal identification appliances:

1. link an animal to its keeper (owner);
2. remain with the animal during its entire lifetime;
3. be unique within a municipality and preferably between municipalities;
4. be discernible visually;
5. be unable to be defaced or altered;
6. be able to be interrogated without difficulty.

APPLIANCES COMMONLY USED

These may be divided in to three categories: non-permanent, permanent and ultimate identification devices.

1. Non-permanent identification devices

These appliances are external devices and are attached to an animal. Usual types:

Tags

discs - polypropylene or nylon or metal, for example, aluminium attached to collars by split rings.

wrap around - nylon strips self fastening attached to collar or D ring directly.

Details of municipality, registration expiry date, identification number are all stamped on the surface of the material, making visual interpretation effective and easy.

Other markers

These include collars and other neck bands which carry details of identification either embossed or engraved on to them.

2. Permanent identification devices

These appliances are either attached directly to, or implanted in, the animal's body.

***1) Tattoos*:** widely used in the greyhound industry and for certain other dog breeds.

***2) Microchips*:** implanted into the body, these are small electronic devices that have their identification number read by a special scanner waved over the animal.

3. Ultimate identification devices

The ultimate identification is the DNA profile. This is the unique identification code that is present in the nucleus of every cell within the animal's body. Identification is established by taking a blood or tissue sample that is analysed using special laboratory techniques.

ADVANTAGES AND DISADVANTAGES OF THE APPLIANCES AND DEVICES USED

1. Non-permanent systems

Disc tags

Advantages
- readily visible;
- inexpensive.

Disadvantages
- non-permanent, therefore no absolute identification;
- difficult to attach to collar (for example, by aged or arthritic keepers) using split rings;
- can only attach to D ring or collar and because they hang, can snag or are subject to chewing from companion dogs.

Wrap around tags

Advantages
- readily visual;
- inexpensive
- attach readily to collars, therefore snagging is unlikely.

Disadvantages
- non-permanent, therefore no absolute identification

Other markers

Advantages
- *none* over discs or wrap around tags as the identification and band or collar are all in one.

The exception is a collar of specific type or colour to designate a particular *group* or *class* of animals. The most recognised example is a dangerous dog's collar. A universal Australia wide design shape and colour will assist both the public and animal control officers to recognise this class of animal easily. The optimum system also includes a numbered single colour wrap around tag and a microchip to identify dangerous dogs anywhere in Australia.

Disadvantages
- non-permanent, therefore no absolute identification;
- expense precludes widespread use by local government for individual identification.

2. Permanent markers

Tattoos

Advantages
- permanent identification; cannot be readily removed from the body.

Disadvantages
- difficult to apply;
- may require an anaesthetic to be performed humanely;
- keeper/owner reluctance;
- disfigurement;
- can be tampered with readily, for example, a 3 or 5 can be changed to an 8.

Microchips

Advantages	- permanent identification; - unique identification not only across municipalities in Australia, but globally; - only needs to be applied *once* in the animal's lifetime; - scanned identification can be electronically recorded within the scanner, therefore there is no possibility of error, and the system is valuable legally because of continuity of evidence.
Disadvantages	- procedure requires implantation by veterinarians; - needs *scanners* to interrogate the number.

3. Ultimate identification - DNA profile

Advantages	- unique identification.
Disadvantages	- invasive procedure, blood sample or tissue sample needed to read the identification; - cost is approximately $80 per test; - usually used to prove offspring did *not* come from particular parents, which also need to be submitted to the test.

CONCLUSION

No one appliance provides a perfect identification system. There is a growing trend to first define the particular requirements for animal identification systems and then choose a selection of appliances which best suit the particular need.

We see in general animal identification systems used in many areas, the increasing use of the 'ultimate trilogy' of identification utilising:

1. DNA profile - to provide absolute animal identification;
2. microchip implantation - to provide permanent unique identification with the scanner providing a cost effective interrogation method;
3. external identification - to provide a visual supplementary system.

In many states there is increasing use of DNA profiles for identifying particular breeds or groups of animals. Areas in which the profiles are used include the harness racing industry, ostrich industry, and in greyhounds and endangered species such as the Black Cockatoo.

Local government in Australia is increasingly using the numbered external wrap around nylon tag in combination with cross linking to the microchip number. In this way, ready visual access using an external system can be used with the security of permanent identification using the microchip.

Among other users, the ACT Government has selected a system of using wrap around tags manufactured by Tagmaster, cross linked to microchip numbers of the animal implanted with TROVAN microchips and registered through Central Animal Records.

Clearly, the future of animal identification appliances and systems lies in integrating both the method of identification and the medium of information storage, so that identification is not limited by municipal boundaries.

We are all part of the global information superhighway that is literally unrolling in front of us.

The time is approaching rapidly when animals will be scanned with either walk by or portable readers that are linked either directly to information databases or via CD ROM, and the keeper (owner) name, address, and telephone number as well as pet details will immediately appear on the screen.

Big brother? I think not. Just improved animal control flowing on from improved methods of identification encouraged by legislation embracing responsible pet ownership.

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