**WSAVA Member Association Microchip Initiatives**

**National Microchip Efforts**

**Australia**

In Australia, we experienced many early problems relating to a lack of a common standard for RFID microchips in small animals. However, in spite of this problem, and in cooperation with the manufacturers, we managed to establish a very wide network of scanners which were capable of reading all the chips distributed by the three corporations, Destron-Fearing, AVID and Trovan.

On the international market, similar incompatibility problems let to the development of a standard type of chip and reader technology by the International Standards Organisation (ISO).

Following development of the International Standard, the Australian Standards Association was asked to develop the ISO standard to make it suitable for Australia and New Zealand. A consultative technical committee (IT 28), composed of manufacturer and user groups was established for this purpose.

The AVA has been one of the consumer groups represented on the technical committee (IT 28). The AVA representatives pointed out to the committee the need to separate the requirements of companion animal from farm and other animals, but this advice was initially ignored. It was only after many months of negotiation, that the Standards committee reluctantly conceded that companion animals, with the large numbers of animals already implanted with non-ISO compatible chips, needed to be dealt with in a separate manner to farm animals.

The major problem in adopting the International Standards 11784 and 11785 was that they failed to address the need to provide for scanners capable of reading the existing implanted non-ISO chips for the lifetime of the animal in addition to the newly implanted ISO compatible chips. The ISO standard only allowed for ISO scanners. The AVA, in conjunction with RSPCA (Australia) have tried to develop an amendment to make a true “universal scanner”, capable of scanning all the chips in Australia, part of the Australian Standard. At the last meeting of IT 28, it was resolved to include this amendment.

The development of a commercial reader or scanner capable of reading all types of chip has been delayed by court actions between manufacturers over patents rights. In spite of this there are now several readers manufactured that will read all the common types of chip, including the ISO compatible chips. At present only one of these, the Destron Pocket Reader EX is commercially available in Australia.
At the May 1998 AVA Conference, Allflex introduced its ISO compatible chip and reader onto the market. Unfortunately, the Allflex reader is only capable of reading the ISO compatible standard chips, so a veterinarian purchasing this manufacturer's reader would have to also purchase or possess another reader capable of reading the other three types of chip to be able to effectively scan animals in Australia.

Two other companies selling chips on the Australian market, Destron-Fearing (AEIDS / Lifechip) and AVID (VMN), both manufacture and sell ISO compatible chips in other countries. However, both companies have cooperated with the AVA in delaying release of these chips onto the Australian market because they realize the full implications of implanting this type of chip before the reader network is established.

The Committee has agreed that there will be a moratorium of nine months following acceptance of the Australian Standard, to allow all stocks of non-ISO compliant chips to be distributed and to allow the users to set up a network of readers capable of detecting and reading ISO chips as well as non-ISO chips. After the nine month period only ISO-compliant chips should be imported.

The primary purpose of any sort of registration tag, whether it be a collar tag or implanted microchip is the accurate identification of animals and to enable them to be re-homed when they are lost. The obvious benefits of a microchip is its permanence and the ability to rapidly identify the ownership through a computerised central registry available at all hours, seven days a week and 365 days a year.

Registry protocols
This brings us to the next critical step in the negotiations; the establishment of suitable protocols for the operation of Australia-wide integrated microchip registries. The AVA policy initially endorsed only one registry, the Australian Animal Registry (AAR), based at the NSW Royal Agricultural Society. However, it soon became quite obvious that there were several commercial registries operating in Australia and that the AVA had no way to enforce the use of one central registry. In fact to do so would be against Australian anti-competition legislation. Two of the main registries, AAR and Companion Animal Records (CAR) worked cooperatively together, but some of the other registries were not so cooperative and the AVA saw the need to develop protocols for the operation of registries which would allow them to communicate while preserving the integrity of the data, commercial and legal privacy obligations.

The Victorian Division of the AVA, in conjunction with the RSPCA and Cat Protection society Victoria, developed a suitable set of operating protocols for microchip registries, vesting ownership of the data in an independent community based body. The AVA sought to have a modification of these operating protocols incorporated into the Australian Standard. It would appear that Standards Australia is extremely reluctant to incorporate any operating protocols for registries into its draft standard a separate but cross-referenced Standard for microchip registries. The AVA has pointed out that all
registries need to integrate in some way to allow them to be effective across the whole country.

**NSW Register of Companion Animals**
The New South Wales Government has recently introduced a Companion animals Act, which makes microchipping an integral and mandatory part of the registration process for both dogs and cats. This Act has dictated that a registry will be set up in NSW for the purpose of holding data on behalf of the NSW Govt.

The regulations proposed for the Register of Companion Animals in NSW conform very broadly to the AVA protocols. Ownership of the data on this registry rests with the NSW Director General’s dept. and this department has the power to limit access to the data to authorised personnel. Hopefully all registered veterinarians will be included as "authorised personnel". There is no obligation for the NSW registry to communicate with other microchip registries in Australia, although the AVA will continue to work towards such integration. All local government bodies and veterinarians need to be aware that microchip identification is an Australia wide scheme. Although legislation in any one State may influence details of the overall scheme, the national scheme must be fully integrated for the recovery system to work effectively.

The NSW Dept. of Local Government has recently invited companies to register tenders to operate the registry of registered dogs and cats on behalf of the Government of NSW. All normal details of registration, including details of microchip identification will be included on this registry on behalf of all the 177 Councils in NSW. The NSW Act requires owners of dogs and cats to have their animals microchipped at the point of sale and later to include these details as part of the registration process at 6 months of age. From this information, the NSW Govt. will be able to identify all animals which are microchipped, but NOT registered with the local council.

**Microchip in NSW to be ISO - compliant**
The NSW Govt. will have the power to specify that the microchip used will have to comply with the Australian Standard. This will effectively mean that all companion animals in NSW will have to be implanted with a chip that conforms to the Australian ISO Standard. Animals already implanted with another type of chip will be able to use this chip identification for the purposes of registration and will NOT require re-implantation, but the details of this identification will have to be entered on the NSW Register of dogs and cats. The cost of this is unknown.

**Implanters in NSW to be Govt. "approved"**
The NSW Govt. will also require the NSW register to keep a list of "approved / accredited” implanters and records of bulk distribution of microchips from suppliers to implanters. It is highly probable that veterinarians will be included in the "approved implanters" but approval will not be limited to vets and some councils and welfare groups may choose to use "approved" lay implanters for registration purposes.
The AVA strongly believes that veterinarians are the most appropriate persons to implant companion animals and will be actively promoting this point of view in the community. AVA Accredited microchip centres will be part of this promotion.

AVA Accredited Microchip centres

One of the objectives of the AVA is to promote the veterinary profession to the community. Veterinarians, as the primary providers for the health and welfare of animals should be the prime implanters of microchip in companion animals. As part of this objective, AVA Accredited Microchip centres will be promoted to State and local government and the community as the preferred location for animal owners to have their companion animals implanted with an identification microchip. AVA Accredited Microchip centres will have to agree to comply with the following protocols in order to become accredited.

Protocols for AVA Accredited microchip centres

AVA member practices seeking AVA Accreditation must agree to abide by the following protocols. They must:

* Be an AVA member
* Agree to adhere to AVA’s microchip policy
* Keep an acceptable inventory of microchips to meet normal demands
* Possess a scanner(s) capable of identifying all the commonly used chip technologies (This includes the ISO Standard)
* Scan the animal prior to implantation to ensure that it is not carrying a chip.
* Scan the chip before and after implantation to ensure it is functioning effectively.
* Forward registration details of the owner and animal to the registry within a maximum of five days, preferably the next working day.
* Register animals on an AVA endorsed microchip registry.
* Must only offer lifetime registration of microchip details. (Not to be confused with Council registration).
* Keep statistics of all animals microchipped and registered for audit purposes to assess the effectiveness of the scheme.
* Follow sterile procedure - single chip and sterile single use needle - in accordance with AVA microchip policy.
* Report all adverse reactions to the AVA
* AVA Accredited microchip centres can use the AVA logo and advertise as an AVA Accredited Microchip Centre.

Application forms are now available on the AVA Web page. Details are also included in the Feb 1998 AVJ.
Application form:- Please fill out, detach and return to; AVA, Microchip Accreditation, c/- PO Box 371, Artarmon, NSW 1570

Name of practice ..............................................................................................................................................
Directors / partners ...........................................................................................................................................
Address ...................................................................................................................................................................
..............................................................................................................................................................................
Phone .................................................................... Fax ................................................
E-mail ..........................................................................................................................................................

Declaration: We the undersigned have read and agree to abide by the protocols for an AVA Accredited Microchip Centre. We possess a scanner/scanners (Transceiver) capable of scanning microchips (transponders) manufactured by AVID, Destron, Trovan and all ISO - compatible microchips, commonly used in Australia.

We wish to apply for accreditation as an AVA microchip centre. Furthermore, we understand and agree that accreditation of our practice will be removed if we fail to continue to abide by the above protocols.

Signed ........................................................................................................................................
on behalf of (practice name) ..................................................................................................
Date..........................................................................................
Witnessed..............................................................................................................................................
Date..............................................................................................................................................

Britain

The British Small Animal Veterinary Association (BSAVA) remains actively involved in issues related to microchip identification and has worked with the FECAVA and WSAVA microchip committees on a number of issues of mutual concern.

Of particular interest are the following:

Adverse reactions to microchip implantation
The use of body implants or injections can result in outcomes contrary to what is expected. For microchip implants, these can include migration and failure to function - currently there is no formal process for reporting or recording these events. The BSAVA and FECAVA have developed a form to facilitate adverse reaction reporting as well as providing annual reports as to their findings.
Code of conduct
Manufacturer and/or distributor behaviour in the microchip marketplace has a direct
impact on user confidence in the technology. In order to facilitate a high standard of
behaviour, the BSAVA has developed a Code of Conduct, similar to the initiatives of ISO
and ICAR with the text and information on those that have signed available for review.

BSAVA Position statement on microchipping

BSAVA supports the permanent identification of all companion animals using an
implanted microchip transponder manufactured to ISO 11784/5. BSAVA recommends
that the transponder should be implanted according to the WSAVA list of implant sites.
BSAVA recommends that the details of all implanted animals should be maintained on a
central database or databases which can be accessed by a single well publicised phone
and internet portal that is manned at all times.
BSAVA recommends that identification microchips for companion animals should only
be supplied sterile with an appropriate devise which enables implantation to be carried
out aseptically and that the registration fee for the database should be included in the
purchase price.
BSAVA recommends that manufacturers of identification microchips, suppliers and
operators of the databases should comply with the Codes of Practice drawn up by the
Microchip Advisory Group and the Dog identification group (DIG).
BSAVA also recommends that its members only purchase products and services from
companies who comply with these Codes. Details of the current Codes and those
companies subscribing to them can be found on the BSAVA web site.

FN / 2 January 2005

Canada

The National Companion Animal Coalition (NCAC), comprised of the Canadian
Veterinary Medical Association (CVMA), the Canadian Federation of Humane Societies
(CFHS), the Canadian Kennel Club, and the Pet Industry Joint Advisory Council, with
participation from Agriculture & Agri-food Canada, announced that effective December 1,
2004, NCAC has adopted a new standard for electronic identification of companion
animals based on the ISO standards (11784 and 11785). This follows earlier
announcements by both the CVMA and the CFHS of their support for ISO microchip
technology and replaces the previous Canadian User-Based Standard that was based
on the old FECAVA standard. As part of the NCAC announcement, August 1, 2005,
becomes the date when only microchips adhering to the ISO standards will be
recognized by the NCAC as suitable for companion animal identification in Canada,
including registration within supportive databases. While the NCAC has no regulatory
authority to mandate adherence to their stated position, they will support those
manufacturers/distributors that comply through a voluntary review process that evaluates available microchip technology with respect to three categories - the microchip, the reader, and the supportive database. Those companies in compliance will be recognized by the NCAC as providing product/service compatible with their stated position and hence, in keeping with their long-term vision of ensuring that Canadian microchip technology is compatible, regardless of manufacturer, and supported with appropriate backward/forward compatible readers and a robust database that is available for pet recovery regardless of any eventuality.

**Electronic identification products recognized by the NCAC**

A review process has been established by the National Companion Animal Coalition (NCAC) that allows for the recognition of those manufacturers/distributors that provide an electronic identification product for companion animals that meet the requirements of the revised Canadian Standard. Users now have a valuable resource to assist in selecting a viable manufacturer/distributor when sourcing these products. To date, 5 companies have successfully completed the NCAC review process for their submission of their product models.

**A Canadian ISO success story!**

In February 2005, a dog that had been found wandering unattended was presented to the Toronto (Canada) Animal Control services. It was obvious that the dog had an owner, as it was older yet appeared well cared for, having a number of physical handicaps that would have prevented its survival as a stray. The dog was immediately scanned for a microchip under Toronto Animal Control services unique microchip recovery program that ensures all stray animals are scanned for a microchip at first contact and if a microchip is present and the owner identified, the animal is driven home without ever entering the shelter facility. The City of Toronto supports this program by encouraging microchip implantation through the establishment of a differential license fee structure, resulting in a free lifetime license for the city of Toronto if the pet is both sterilized and microchipped. This particular dog was scanned and found to have an ISO standard microchip implanted; however, the unique ID number was not registered with any of the Canadian databases. This prompted an e-mail request for assistance to the WSAVA which was then forwarded on to the WSAVA Microchip Committee. The 15-digit unique ID number contained on any ISO standard microchip has been constructed so that the first 3 digits identify either the microchip manufacturer or the country of origin as a result, Committee members were able to quickly established both the specific manufacturer of this dog’s microchip and the country where it had been implanted, which in this case was Portugal. Through subsequent contact with both the manufacturer’s distributor and supporting database in Portugal, the owner of the dog was quickly identified and based on information contained on the database, he was traced to an address in Toronto. Needless to say, the reunion was joyous occasion for both owner and pet, with the owner having given up all hope of seeing his dog again not recognizing that the means of pet identification he had purchased in Portugal would extend its reach.
across the ocean to Canada. This story underscores the value that adopting the ISO standards for microchip technology has brought to this industry. Through the use of a single, common microchip technology, compatibility between the various microchips and readers is ensured, regardless of manufacturer and where one lives in the world, replacing the historical multiple different forms of the technology many of which were incompatible (see related microchip story under News From Around the World). In addition to ensuring technological compatibility between products, the unique format of an ISO microchip (15 digits with the first 3 identifying either the country of implantation or microchip manufacturer) provides valuable assistance in pet recovery, particularly when the animal was microchipped in a different country (as was the case with this dog), or should the pet owner information not be traceable to a specific database. In the latter scenario, the first 3 digits allow the dog to be identified by way of the manufacturer and through their distribution network to end implanter. Had this dog not been implanted with an ISO-standard microchip, it’s unlikely that a successful pet recovery would have occurred.

Japan

The microchip (MC) system of Japan, has adopted the ISO standards (International Standards Organization).

As such, a true ISO microchip resulting in a 15 digit numeric ID code comprised of the following categories: 3-digit national country code Japan (392); 2-digit animal identification category (pets, 14); a 2-digit national manufacturer code (Digital Angel, 80; Datamars, 10; AVID, 30); and an 8-digit animal ID number.

Japan has a database available to all (run by AIPO-Animal ID Promotion Organization) but currently only used by AVID and Datamars. Another database in Japan (Dainippon Sumitomo Seiyaku-Hitachi) is used by Digital Angel as their registry.

USA

*Microchip Status in the United States 2007*

In 2006, the United States Congress Agricultural Affairs subcommittee asked the United States Department of Agriculture (USDA) Animal and Plant Inspection Service (APHIS) to evaluate the incompatibility between various pet microchip technologies. APHIS conducted six public hearings throughout the United States during 2006. It was hoped that the Congress would support legislation to mandate universal scanners and,
hopefully, to support the ISO standard for companion animal microchips. The result can be best explained by quoting the AVMA Journal report, Vol 231, No. 8, page 1184:

More than two years after Congress directed the Department of Agriculture to weigh in on the debate over incompatible pet microchip technology, the USDA has determined it lacks the regulatory authority to mandate a national standard for microchips or microchip scanners for privately owned pets.

In a letter dated July 30 to the Senate Appropriations Committee then Agriculture Secretary Mike Johanns explained that the federal Animal Welfare Act does not grant the USDA Animal and Plant Health Inspection Service power to mandate standardization for pet microchips or the scanners that read them.

According to the USDA, of the some 60 million dogs and 70 million cats privately owned in the United States, 3 percent to 5 percent are electronically identified.

The AVMA, the American Animal Hospital Association, and the American Society for the Prevention of Cruelty to Animals encourage the U.S. animal microchip industry to adopt the ISO standard. Buy such efforts have met with little success. American microchip companies have vigorously defended their technology patents from marketing so-called universal scanners able to read both the 125kHz and 134.2 kHz microchips.

Dr. Rosemary LoGuidice, director of the AVMA Membership and Field Services Division noted that, The AVMA and the Coalition for reuniting Pets and Families, of which the AVMA is a member, believe strongly that all scanners must be able to read the data contained in all chips.

Currently, there is an increase in the distribution of ISO chips through Bayer Animal Health, the Banfield corporation, humane groups, and private practitioners. Several companies are distributing universal scanners. As the distribution of universal scanners increases, it is expected that more practitioners will switch to ISO chips. The Colorado VMA and the animal rescue groups in Denver have recently endorsed ISO technology.

Major concerns are 1) The speed with which a universal scanner can read and identify a microchip, and 2) the standardization and linkage of microchip databases. Animal rescue groups complain of the slowness of universal scanners; there is currently little linkage between the various microchip databases, and 3) the failure of many owners to enter and maintain their data in the appropriate database.

Submitted by Dr. Larry Dee, Past-President WSAVA

*Microchip Status in the United States 2006*  
*United States Microchip Report- 2006*
Microchip Status in the United States 2005

At the American Veterinary Medical Association (AVMA) House of Delegates meeting, held as part of the AVMA conference in Minneapolis, Minnesota from July 16-20, 2005, the Florida Veterinary Medical Association (FVMA) presented a motion calling for the AVMA to take an active role in defining, recommending, endorsing, and implementing, a national microchip standard (for companion animals, birds, and equids) in the United States that would be based on open technology microchipping systems. The FVMA motion, endorsed and supported by a number of other state VMAs, cited on-going problems with product incompatibility and the inability of microchip manufacturers themselves to resolve this on their own as reasons for this initiative. Citing successful transition period programs for the implementation of ISO-standard microchip technology in Canada and Europe based on non-encrypted 125 kHz microchip technology, and the fact that the AVMA already has a position statement in favor of the ISO standards as, Dr. Larry Dee (FVMA delegate to the House and WSAVA President) gave an impassioned plea for action that saw the motion receive AVMA House of Delegate support. The outcome was a charge to the AVMA Council on Veterinary Services (CoVS) to provide recommendations to the AVMA Executive Board on how to implement the adopted motion, culminating in a reaffirmation of the AVMA’s support for microchip technology based on the ISO standards as one of 4 key elements cited as recommended requirements to achieve an effective system of electronic identification in animals. The other three components were:

- A true universal or global scanner/reader network capable of identifying all microchips implanted in animals in the USA and an appropriate time for implementation (suggested as 2 years)
- Minimum standards for supporting databases including 24/7 accessibility and registration included in the cost of the microchip
- Creating end-user awareness regarding the implication of these changes, how the end user can ensure that they are prepared for their implementation, and appropriate, species-specific sites of microchip implantation

Other US-based associations that have position statements supporting the adoption and implementation of the ISO-standard microchip technology include the American Animal Hospital Association (AAHA; access position statement), which has published numerous
articles in its TRENDs Magazine on this subject, and the American Society for the Prevention of Cruelty to Animals (ASPCA).

The AVMA's deliberations mirrors a June 2005 report issued by the US Government House Appropriations Committee that included a provision requiring all companion animals to have 134.2 kHz microchips, an International Standards Organization (ISO) frequency chip. The committee then "directed the Animal and Plant Health Inspection Service (APHIS) to develop the appropriate regulations to implement the universal 134.2 kHz ISO system and report to Congress within 90 days of the date of enactment of this Act." The US government has also adopted an animal identification scheme for agricultural animals that is based on the ISO standards. While the Agriculture Appropriations bill was signed into law by President George Bush at the beginning of November, its wording had been modified during passage through both the Senate and Congress, deleting references to the ISO standards and instead calling for the adoption and implementation of open-standard microchip technology for pets within the USA and universal scanners that would be able read all chips available. The specific wording of the bill was:
The conferees support the microchipping of pets for identification under a system of open microchip technology in which all scanners can read all chips. The conferees direct APHIS to develop the appropriate regulations that allow for universal reading ability and best serve the interests of pet owners. The conferees also direct APHIS to take into consideration the effect such regulation may have on the current practice of microchipping pets in this country, and to report to the Committees on Appropriations within 90 days of the date of enactment of this Act on progress toward that end.

APHIS (Animal and Plant Health Inspection Service) was given 90 days to present Congress with an implementation proposal. Intense lobbying by historical providers of microchips that employ non-ISO 125 kHz technology within the USA was considered the reason for the revised and final version (despite the fact that these same manufacturers/distributors supply ISO-standard technology in markets outside of the USA). The APHIS implementation plan is anticipated for comment by March, 2006.

Litigation
USA - Microchip Manufacturer Files Federal Antitrust Lawsuit Against Avid Identification Systems and Digital Angel
The microchip wars continue in the USA with new legal undertakings. US District Court Judge L. Scott Googler, ruled that Crystal Import Corporation (US distributor for microchip manufacturer Datamars SA) has sufficient grounds for its claims of antitrust violations against AVID and Digital Angel to proceed. The lawsuit alleges that AVID and Digital Angel have, through the use of their proprietary technology in the USA, attempted to monopolize the US marketplace and impede the adoption of an open and universal system of microchip technology, including universal scanners.
The lawsuit charges that Avid has used encryption technology and conspired with Digital Angel to keep 134.2 kHz microchip technology - which is used through most of the rest of the world and endorsed by the Internal Standards Organization - out of the United
States to the detriment of pets and pet owners. The lawsuit alleges scanners used by animal shelters and veterinarians cannot read the encrypted 125 kHz Avid microchips unless supplied with encryption algorithm (a mathematical code) from Avid. The lawsuit states that Avid has provided the code to Digital Angel, but has refused to provide it to Crystal Tag and other companies that sell ISO-compliant chips.

There is no technological necessity, cost benefit, manufacturing advantage or public benefit from Avid’s use of this encryption technology. Avid’s encryption of its chips is intended solely to exclude competitors and prospective competitors, the lawsuit states.

- Avid’s statements to the industry, the marketplace and the press that the ISO-compliant 134.2 kHz microchips are unsafe or hazardous for pets are untrue, misleading and confusing to customers. Indeed, both Avid and Digital Angel sell and market ISO-compliant chips and readers in Canada and throughout Europe according to the filing.
- Avid has willfully and wrongfully maintained its monopoly power through anti-competitive and exclusionary behavior, according to the lawsuit. Avid has intentionally encrypted its chips for the sole purpose of preserving and increasing its monopoly power, creating impenetrable barriers to entry by other competitors in the relevant market and to otherwise protect and preserve its monopoly power.

In a related story, an out-of-court settlement was reached in one of the many ongoing litigation cases between the various microchip technology distributors/manufacturers in the US. As reported in the July 23, 2005 New York Times, AVID USA (a manufacturer and distributors of microchip technology in the USA that is principally based on proprietary encrypted 125 kHz technology) and Banfield (a veterinary hospital chain with over 450 veterinary hospitals that recently began distributing open ISO standard microchip technology in the USA) agreed to jointly fund an independent study of available microchip technology, to include a review of truly universal readers, at an estimated cost of between $20,000 – 50,000 with an intended 90 day completion date. Both AVID and Banfield have sent letters to the Coalition for Reuniting Pets With Their Families (a US-based user group comprised of national veterinary medical and shelter/humane associations) requesting their involvement in overseeing the project.

For more information on the status of microchipping in the USA, visit:

information on the Coalition for Reuniting Families and Pets by the Society of Animal Welfare Administrators and the American Veterinary Medical Association (AVMA)

The American Veterinary Medical Association (AVMA) policy on electronic ID and a recently compiled background article and FAQs on microchip technology