

Statement of Hannis L. Stoddard III, DVM
President
Avid Identification Systems, Inc.
Before the Department of Agriculture
Animal and Plant Health Inspection Service
Docket No. APHIS-2006-0012
March 2006

I, Hannis L. Stoddard III, DVM, respectfully submit this statement to the Department of Agriculture, Animal and Plant Health Inspection Service ("APHIS"). I am a practicing veterinarian, President of Avid Identification Systems, Inc., and an avid animal lover. I founded Avid in 1985 in order to improve the probability of reuniting lost pets with their families. For 21 years, reuniting lost pets with their families utilizing a 125 kHz microchip-based identification and recovery system, has been Avid's exclusive business.

Late last year, the Senate specifically rejected and removed any reference to ISO 134.2 kHz microchips in the conferees' report that formed the basis of this inquiry. Additionally, the report specifically instructed APHIS to take into consideration the effect of any regulation on the current practice of microchipping pets in this country, and specifically instructed APHIS to best serve the interest of American pet owners. Notwithstanding the above, some people have tried to push APHIS towards adopting a policy of requiring use of ISO 134.2 kHz microchips. As demonstrated below, and recognized by the Senate, that would be a mistake with devastating consequences. Therefore, I am compelled to come to you to plead for the best interest of the millions of American pet owners whose pet's lives will be put in jeopardy if Animal Care adopts any policy that mandates the use of ISO microchips.

Each year in the United States, more than 10 million pets are lost or stolen. Many of these pets would not be reunited with their families but for a small microchip ("chip" or "tag") about the size of a grain of rice, which is injected under the skin of a pet. Each chip is encoded with an identification number that allows lost pets to be traced to their families. These chips are proven safe and effective for animals, and are invaluable if animals are separated from their families. More than 99% of the chips implanted in American pets operate at a frequency of 125 kHz.

Recently, foreign manufacturers have started marketing incompatible foreign microchips in the United States that cannot be read by the scanners that the vast majority of American animal care providers use to read pet microchips. Irrationally, instead of selling under the existing current U.S. system, these foreign companies are attempting to topple the U.S. system by selling chips operating at a different frequency of 134.2 kHz, also known as the ISO chip. Incredibly, and despite the fact that 98% of the largest U.S. shelters that scan for chips *only* scan for the U.S. 125 kHz chips, these foreign manufacturers have sold ISO chips without warning American pet owners that these chips cannot be read by the vast majority of scanners in use in the U.S. Without any documented benefits, and at a severe risk to American pets, these manufactures have been able to deceive some organizations into supporting their greedy desires to destroy the current system, clearly putting their profits over the welfare of American pets. I beg you – no I implore you – to not be so fooled. The current system in this country works

extremely well, and any manufacturer wishing to sell in this country can work within the U.S. system and should be required to do so.

To best serve the interest of American pet owners, Animal Care should trust the American system – not thrust it into anarchy, forcing the approximately 100,000 existing scanners in use in this country to be replaced, severely jeopardizing the lives of animals, solely to offer a chip that is 10 years old, technologically inferior to existing chips, and not capable of being used in the existing infrastructure.

As demonstrated below, the dangers that will befall American pets if ISO chips are required, are tremendous. Even a selective program that requires only research facilities, dealers, and exhibitors to use ISO chips will have devastating effects. In fact, as long as any pet is using an ISO chip in this country, or any other chip that is incapable of working within the current American system, the owner of that pet will be laboring under a false sense of security; a sense that the chip in their pet will work to return the pet if it is lost when in fact it likely will not.

Finally, as noted, the conferees' report, which formed the basis of this inquiry, does not advocate use of ISO chips. Rather, read as a whole the conferees' report supports adopting requirements that any new chip introduced into the U.S. must be capable of being read by the existing infrastructure of U.S. readers.

I. History of Microchips in this Country.

To understand the current situation, I think it is helpful to start with a brief history of pet microchipping in this country.

The use of Radio Frequency Identification ("RFID") technology to identify animals was invented in the U.S. in the early 1980s. RFID technology involves the transmission of an identification number between an electronic chip and a reading device (known as a "scanner" or "reader"). Today, even though various RFID technologies exist, such as 125 kHz, 128 kHz, 134.2 kHz, 400 kHz, 13.56 MHz, and 2.54 GHz, American animal care providers almost universally use 125 kHz. A reader or scanner from one technology generally cannot read a chip using another technology. If it can, it does so less effectively and less reliably.

When chips were first introduced, some chips could not be read by another manufacturer's reader. Because incompatible microchips were on the market, in 1992, the American National Standards Institute ("ANSI") through AIM USA formed the Small Animal RFID Task Force to develop an industry standard for companion animal microchips in the United States. Animal advocacy groups, including the Society of Animal Welfare Administrators ("SAWA"), the National Animal Control Association ("NACA"), the Cat Fanciers Association, the American Veterinary Medical Association ("AVMA") Council on Veterinary Service, the AVMA Committee on Veterinary Medical Informatics, the AVMA Executive Board, the AVMA Council on Veterinary Medicine, the American Animal Hospital Association ("AAHA"), the AIM USA, the American Kennel Club ("AKC"), the American Humane Association ("AHA"), and the AHA Animal Protection Division all participated in this process. This collaborative effort resulted in the development in 1996 of a reader that

could read and display the identification numbers of all of the different microchips used at that time to identify companion animals in the United States. The above stakeholders, not Avid, dubbed this reader a “universal reader.” *Accordingly, in 1996 the standard for pet microchips in the U.S. had been set – at 125 kHz.*

Today, about 12 million pets are identified with this system. Avid, Schering-Plough, Destron, Digital Angel, Taymar, IDI, Biomark, Biomedics, Webster, Butler, Columbus Serum, VPI, PSI, and even more distributors have placed into service approximately 100,000 of these universal readers in the United States, at the estimated cost of over \$20 million.

The current system, which took over 15 years to build and an extensive collaborative effort, works. Veterinarians, animal shelters, Class A breeders, Class B breeders, Class C exhibitors, research facilities and animal control agencies are equipped with scanners that can read the information encoded on the 125 kHz tags manufactured by different companies, allowing the safe, efficient, and cost effective return of lost pets. In fact, states like Illinois, Pennsylvania, Louisiana and Hawaii have adopted legislation or regulations *requiring* use of 125 kHz chips.

In Europe, companion animal microchip identification started with a variety of incompatible technologies. In 1991, the International Standards Organization (“ISO”)¹ began the development of RFID guidelines for farm animals and agricultural machinery. In 1993, the Federation of European Companion Animal Veterinary Associations (“FECAVA”) adopted a 125 kHz standard for RFID of companion animals, conforming to the technology in common use in the U.S. In 1995, however, ISO unexpectedly expanded the scope of its RFID guidelines to include all animals, not just agricultural animals. In 1996, ISO published a 134.2 kHz standard for all animals, including pets.

II. Because of the Harms Caused by Use of ISO Chips in this Country, Banfield was Enjoined from Selling and Marketing These Chips.

In early 2004, Medical Management International, Inc., d/b/a Banfield, the Pet Hospital (“Banfield”) began implanting incompatible 134.2 kHz ISO chips into pets in the U.S. The roughly 100,000 readers in service in the U.S. can read 125 kHz tags, but cannot read ISO 134.2 kHz tags. Conversely, only about 2,000 ISO scanners have been distributed, with most of those scanners being unused. Thus, at best, only a handful of the scanners in the U.S. can read ISO chips.

The problems with selling ISO chips in this country are well-documented. According to a NACA² membership survey published in February 2004:

¹ ISO is a European association that produces non-binding technical guidelines for a wide range of products. The analogous U.S. organization is ANSI. ISO and ANSI often have different technical standards for the same products.

² NACA is the National Animal Control Association, which improves and promotes professionalism and publicizes animal control, while promoting justice and equity in the enforcement of animal control laws.

- 99.0% of respondents that implant chips use 125 kHz microchips;
- 98.0% of respondent large shelters (which handle most lost animals) scan for 125 kHz microchips;
- 85.6% of respondents scan for microchips;
- 98.3% of respondents that scan use 125 kHz scanners; and
- 61.4% of respondents that scan would *not* use more than one type of scanner (which converting to an ISO system would require).

(A copy of this survey is attached as Exhibit C, along with a report from Professor Brian Till, PhD., Associate Professor and Chair of Marketing, St. Louis University, St. Louis, Missouri, regarding this survey).

When animal care providers learned that Banfield was implanting the ISO chips in the U.S., they notified Banfield of the risks and consequences inherent in its practices. For example, the San Diego County Veterinary Medical Association (“SDCVMA”), County of San Diego Department of Animal Services, El Cajon Animal Control, Chula Vista Animal Care Facility, Rancho Coastal Humane Society, Escondido Humane Society, and the North County Humane Society criticized Banfield for “implant[ing] 134khz frequency identification chips in pets in the community without first assuring an infrastructure [was] in place that can identify them.” (A copy of this letter is attached as Exhibit D). Similarly, the Humane Society of the United States (“HSUS”) requested that Banfield cease selling chips without providing “end-users such as many of the nation’s shelters, humane societies and veterinary hospitals with compatible scanners needed to detect the chips.” (A copy of the HSUS’ press release is attached as Exhibit E).

As a result of sales of the ISO chip in this country, and the fact that unsuspecting consumers were deceived into thinking that the chips in their pets could be read by scanners in this country, pets died. More will surely follow as sellers of the ISO chip allow pet owners to whom they sell the ISO chip to continue laboring under a false sense of security. ***Thus, a court in San Diego enjoined Banfield from marketing or selling the ISO chip until Banfield could demonstrate that the “vast majority of scanners in U.S. shelters and other animal control facilities” could read ISO chips.*** Moreover, Banfield was forced to inform every one of its customers to whom it sold an ISO chip, and all the vets to whom it directed advertising about ISO chips, of the serious limitations of ISO chips, and the potential danger that could befall pet owners because of this chip. A copy of this injunction is attached at Exhibit B.

In addition, ISO scanners and microchips have been alleged to infringe U.S. patents, and two manufacturers (one in Switzerland and one in the Netherlands) are currently defendants in a lawsuit in Texas. If the patent holder, Avid, succeeds in this lawsuit, which it expects to do, then any user of these ISO scanners or microchips, including breeders, research facilities, and exhibitors, ***would also be infringing these very patents.***

Today, the likelihood of a pet implanted with an ISO chip being identified is remote at best. Luckily, only about 35,000 ISO chips for pets have been sold. Based in large part on the injunction in place against Banfield, under the current system, that number is not likely to rise.

III. Animal Care's Questions.

Animal Care has posed a number of questions for the upcoming informational meetings. I attempt to address these questions below:

A. What Are The Advantages And Disadvantages To Using An ISO Standard Microchip For Pet Identification?

Attached to this statement as Exhibit A is a chart and a summary outlining the advantages and disadvantages to mandating ISO chips. In addition, some of the points raised in that attachment are addressed further, below.

1. Disadvantages.

a. Use of ISO Chips Requires Replacing the Entire Microchip Infrastructure.

The approximately 100,000 scanners in use today cannot read ISO chips. Accordingly, to suddenly require use of ISO chips, all of these scanners will have to be replaced -- at an estimated cost to financially strapped shelters of over \$25 million. If the costs of recalling existing scanners and educating shelter personnel on the differences are added in, that cost jumps to about \$50 million. Of course, this begs the question, who will ultimately bear the burden of paying for that \$50 million? Animal Care? Consumers?

To draw an analogy, U.S. homes use 110 Volt AC outlets. It would be absurd, costly and wasteful for a governmental agency to suddenly require that all toasters in the U.S. use a 220 Volt plug, as it would require the rewiring of every home in America. It is equally absurd, costly and wasteful for foreign microchip companies to ask the United States Government to do this very same thing with pet microchips. The difference is a consumer with a non-compatible appliance can return it, but pet owners will not know their pet is implanted with an incompatible chip, until it is too late.

b. The Current System Works.

Every week, about 8,000 pets (over 400,000 pets a year) are rescued in America under the current 125 kHz system. Avid alone receives over 60,000 calls a month. For comparison sake, *in total* about 50 pets in the U.S. have been rescued using ISO chips. The existing American system works and works well. In fact, during Hurricane Katrina, 364 horses became displaced. Because of the 125 kHz system already in place in this country, as of today, 363 of those horses have been reunited with their families. Further, during disasters like Hurricanes Katrina, Andrew, and Rita, and wildfires, floods, and tornadoes, Avid gave out over 100,000 free 125 kHz microchips.

In fact, questions regarding the microchip system in the U.S. were only raised *when ISO chips began to be sold in this country and the U.S. media widely covered the story of a pet with an ISO chip that needlessly died*. There is a reason why. Prior to the introduction of the ISO

chip in this country, there was no question about the efficacy of our system. The current system works. Animal Care should not reward the companies that created the issue. As outlined below, the solution is for companies that wish to sell chips in this country sell chips that can be read by the existing infrastructure; not for the existing system to be dangerously overhauled. Foreign car makers modify vehicles for left-side drivers seats. Foreign electronics makers use 110 Volt plugs. Foreign chip makers should be required to ensure their chips work within the American pet scanning infrastructure.

The Petitioners would have Animal Care believe that the current system failed in New Orleans after Hurricane Katrina. That is untruthful. After Hurricane Katrina, 125 kHz chips resulted in the return of numerous pets, while ISO chips accounted for *no* returned pets. Moreover, caregivers who found lost pets provided basic needs to those pets and implanted them with 125 kHz chips. While it is true many pets found after Katrina had no microchip, that is not something ISO will magically rectify. Changing the frequency of the chip will not suddenly result in increased use of microchips. However, what *is* true, is that pets who did have microchips, because of the U.S. system already in place, were easily identified.

c. Use of ISO Chips Requires Multiple Scanners.

Proponents of ISO chips recognize that converting to the ISO system will require the “the animal welfare community [to] be forced to utilize two scanners,” because the ISO scanner cannot read the identification number on the about 9 million Avid chips already implanted in animals, which comprises about 75% of all chips. (*See* Petition, Oct. 10, 2005.) Thus, under a system of converting to ISO chips, over 75% of existing pets would suddenly have a chip whose identification number could not be read by the ISO scanner.

Notwithstanding that over 99% of scanners now in use *can* read 125 kHz chips, proponents of ISO advocate using two scanners. However, it has been found that 61.4% of shelter operators will not use two scanners, because of the lack of staffing or funding required to double scan animals. (*See* Exhibit C). Even if the ISO scanner displays that an Avid chip is detected (which would then require a second scanner to actually read the chip), shelter personnel would still have to carry around two scanners wherever they scan. And if shelter personnel have two scanners, the chances that a shelter worker or volunteer uses the current scanner first (thus not being able to detect an ISO chip) is very real. In such a situation, the pet with the ISO chip would likely be needlessly euthanized. One must ask given all the problems with use of ISO chips in this country, how can any legitimate pet lover support ISO chips.

As there are millions of American pets with Avid chips, and thus double scanning is unavoidable, *it is not feasible to simply “switch” to an ISO system.*

d. Use of ISO Chips Will Cause the Death of Pets.

Currently, at best, about 2% of scanners are capable of reading ISO chips (it is stated as “at best” because the 2% figure assumes all ISO scanners ever distributed are actually used; in reality only a fraction of the 2% are in use). That is why the court in San Diego enjoined the largest distributor of ISO chips, Banfield, from marketing or selling ISO chips until the “vast majority” of shelters used scanners that can read ISO chips. (*See Exhibit B*). Suddenly requiring use of ISO chips, when so few scanners can read these chips ***will result in the needless death of pets***. For example, Hadden, the dog of Ms. Lisa Massey had an ISO chip, but because of the lack of an ISO infrastructure, the chip was not detected and Hayden was needlessly euthanized minutes before Ms. Massey called the shelter looking for him. Because the creation of a reliable ISO scanner infrastructure is incredibly unlikely (as demonstrated above because of, for example the problems inherent in double scanning), it is unlikely this risk will subside.

As noted above, by requiring shelters to use two scanners, it is likely the wrong scanners will be used and chips will be missed. Accordingly, by having any group of pets (for example dogs and cats identified by research facilities, dealers and exhibitors under AWA) implanted with ISO chips, the chances such a pet will be missed by a scanner are unacceptable.

Moreover, even though Crystal Import Corporation very recently announced it was planning on dumping a number of ISO scanners onto the market, that still will not prevent the needless death of pets. Because 75% of the chips on the market today are unable to have their identification number read by these ISO scanners, most pets will have to be double scanned. Invariably, operators will fail to use the scanners in the correct order, fail to use both scanners, or be unable to double scan (as 61.4% of shelters have already said). (*See Exhibit C*). Confusion and havoc will ensue. Thus, even if Crystal Import provides a number of ISO scanners to the market, the above harms, including the needless deaths of pets, are likely to occur.

e. ISO Chips are Subject to Viruses, Duplication and Cloning.

As proponents of the ISO 11784 and 11785 standards admit, these standards do not prevent the duplication or cloning of microchip identification numbers. To prevent duplication or cloning, like all sensitive data in this country, the microchip should be encrypted. Recognizing the need to protect this data, Avid has encrypted its chips since the early 1990s.

Amazingly, proponents of ISO argue that encryption is somehow undesirable. However, the new ISO standard for pets, 14223, which will supersede and include 11784/5, specifically recognizes the need for encryption to guarantee the uniqueness of the identification number in pet microchips. Yet, the authors of the Petition complain about encryption ***when the very standard they champion, ISO, has already determined that encryption is needed***. In fact, the January 2001 ISO Bulletin specifically states that with regard to the new ISO standard for pet microchips, 14223, “[a]ttention will also be given to ***protect transponders against fraudulent copying by means of encryption techniques*** and the application of secret keys.” *ISO Bulletin*, January 2001, at 18 (emphasis added) (A copy of this document is attached as Exhibit F, with the relevant section emphasized).

Furthermore, the New York Times reported on March 15, 2006, that it is now possible to insert a virus into an RFID microchip. Markoff, John, "Study Says Chips in ID Tags are Vulnerable to Viruses," The New York Times, March 15, 2006 (A copy of this article is attached as Exhibit G). The article concludes by specifically noting that "*a virus could be inserted into RFID tags used to identify pets.*" *Id.* (emphasis added). Encryption can protect a chip from such a virus attack. Again, knowing these tremendous harms exist from use of ISO chips, which are not secure, it is all the more important that chips be encrypted to help protect them from malicious viruses.

f. The Existing Chips are Technologically Superior to the 10-Year Old ISO Chips.

Persuasive test data, which I am happy to provide if requested, demonstrates that ISO scanners read chips slower and at a worse read distance than 125 kHz being read under the current American infrastructure. It makes sense that ISO scanners read 125 kHz chips less reliably than scanners used in the current system, and here's why. In order to read both the 134.2 kHz ISO chips and the 125 kHz chips used in 99% of pets across the country, ISO scanners scan at about 128 kHz. By being in the middle of the two frequencies, the ISO scanner can softly read both chips, but neither one as good as a dedicated single-frequency 125 kHz or 134.2 kHz scanner.

Conversely, the existing American infrastructure, built on 125 kHz chips, uses scanners at 125 kHz. Thus, the current scanners are designed to read the existing 125 kHz chips quickly and at a long distance.

The problem with taking a long time to read chips is that shelter personnel are overworked and busy. They are accustomed to scanning a dog in a few seconds. If suddenly, via use of ISO chips, it takes longer to read the chip, chips will be missed, and pets will be compromised. The same applies to read distance. If the scanner has to now be closer to the animal, the chances of a chip being missed are high. Moreover, the longer and closer shelter personnel have to be to an animal in order to scan it, the more likely the shelter personnel could be bitten.

The Petitioners argue that current chip manufacturers make scanners that read both ISO and 125 kHz chips, but intentionally refuse to sell such scanners in America. As noted, such a scanner has compromised performance and will read 125 kHz chips less effectively than scanners designed to read only at 125 kHz. Responsible manufacturers are concerned about pets and therefore sell the best scanner for reading the 12 million pets with 125 kHz chips in the U.S. -- a dedicated, accurate, 125 kHz scanner. If proponents of ISO were equally concerned about pets, one would assume they would support a requirement that new chips work within the existing system, as opposed to advocating incompatible foreign ISO chips.

Supporters of ISO chips also argue that adopting ISO chips will decrease costs to consumers. This too is inaccurate. The bulk of the cost of implanting a chip is the veterinarian fee. In fact, when Banfield was selling ISO chips (before being enjoined), it was doing so at a price of at least \$30, which is roughly the same cost to consumers for an Avid chip. If anything,

because the significant cost to rebuild the U.S. infrastructure will undoubtedly be passed on to consumers, converting to an ISO system will increase the costs to pet owners, not decrease them.

g. Worldwide, 125 kHz Chips are Used.

125 kHz chips are used in almost every country of the world. Proponents of ISO would have Animal Care believe that only the U.S. uses 125 kHz chips. This is absolutely false. For example, Avid sells **125** kHz chips to many ISO countries.³

Further, ISO chip proponents argue that ISO chips must be used just in case a pet travels to a foreign country that uses ISO. However, pets have been traveling to foreign countries under the American system for years, and there have not been problems. Pets that frequently travel get two chips implanted, an ISO chip and a 125 kHz chip. These same pets would need both chips even if ISO chips were used in the U.S., because many countries only scan for 125 kHz. Thus, the argument that ISO should be mandated in the U.S. because pets travel abroad is false for two reasons. First; a relatively small number of U.S. pets actually travel to foreign countries that only use ISO. Second, because these pets may travel to the many foreign countries that only scan for 125 kHz, they will still need a 125 kHz chip even if ISO is mandated in the U.S.

h. ISO Chips Have Been Around for 10-Years, and Americans Have Rejected Them for the Past Decade.

ISO 11784 and 11785 were published in 1996 -- ten years ago. ISO chips have been around equally as long. Yet, in America, only about 0.1% of the chips in use are ISO chips. The American public and shelter communities have spoken over the last ten-years, and that voice has resoundingly **rejected** ISO chips. There is no reason to now wreck havoc on the American system to adopt a ten year old technology that has failed in the U.S. market and fabricate a market for foreign goods by edict. Animal Care should not be used as a legislative pawn to mandate what the American free market has soundly rejected.

i. Converting to ISO Chips Will Not Increase Use.

Proponents of ISO have falsely claimed that converting to ISO chips will magically result in an increase in the number of pets that are chipped. The lone support for this fallacy is the misleading argument that in the UK, 47% of lost dogs are returned. This argument is wrong.

First, in the UK, only 20% of animals are returned because of microchips -- the other 27% of dogs are returned via other means (such as identification by a collar ID tag).

Second, and more critical, the UK effectively mandates the use of chips. The reason more pets are chipped in the UK is because of the laws regarding their use. Of course, if use of chips were required by law in the U.S., the number of pets with microchips would increase and

³ The fact that a nation is a member of ISO -- which sets standards on a variety of consumer products -- does not imply that the member nation endorses or utilizes the ISO standard for pet microchips.

thus the number of pets returned because of microchips would increase. The fact that ISO is used in the UK *has nothing to do with the number of pets that are chipped there*. It is simply illogical to think that changing the frequency of the chip will cause more consumers to purchase chips.

j. Further Disadvantages.

In addition to the disadvantages described above, Exhibit A lists even more reasons not to convert to an ISO system.

2. Advantages.

Proponents of ISO *cannot* document any worthwhile advantages to using the ISO chip. Instead, such proponents use a series of undocumented, *false* claims to fallaciously persuade people to support use of ISO chips (such that converting to ISO will increase the number of chipped pets). The fact that there are no real, legitimate benefits to overhauling the U.S. system to accommodate ISO chips is telling.

B. Should Animal Care Mandate the ISO standard when Microchips are Used to Identify Animals Under the Animal Welfare Act?

As shown above, any system where ISO chips are required for even a single pet, including pets under the Animal Welfare Act, will incur great hardships to those pets, their owners and those that implant the chip. There is simply no reason to mandate use of the ISO standard in the U.S. for any pets. In addition to all the reasons above, the following five reasons further demonstrate that ISO should not be mandated where microchips are used to identify animals under the Animal Welfare Act.

First, since July 2000, the Animal Care Resource Guide has included Policy 13, which describes microchip usage under the Animal Welfare Act. Policy 13 allows licensees to choose a microchip that they want to use. Given that choice, to use any microchip, most if not all licensees have used 125 kHz chips -- not ISO chips. Why impose a chip on licensees that they have for years soundly rejected?

Second, licensees have voiced significant opposition to being required to use ISO chips. Licensees recognize that pets will be put in peril by a system in which they are required to use ISO chips. The fact that those who would be directly affected by any such regulation have resoundingly stated that they oppose a requirement to use ISO chips should weigh heavily against mandating the ISO standard under the Animal Welfare Act. Licensees have noted that the 125 kHz chip system that has been in use for over 10 years is working and it will only cause great confusion if APHIS develops regulations requiring a different system.

Third, the veterinarian insurance group, the AVMA PLIT, has warned that those who implant an ISO chip into a pet, where the chip is not detected because of a lack of infrastructure and the pet is euthanized, could face serious liability. (A copy of a letter from the AVMA PLIT

regarding this issue is attached as Exhibit H). Thus, vets, breeders, or others who use ISO chips without a proper infrastructure in place, put themselves in jeopardy.

Fourth, as noted, it is likely use of ISO chips will infringe Avid's patents -- which may subject manufacturers and users of the microchip to liability.

Finally, it will cost about \$50 million to convert to an ISO system. Compounded with the fact that there is no legitimate, documented advantage to using ISO chips, but there are real, significant downsides to such action, Animal Care would come under incredible public scrutiny for any regulation that required any pets to be implanted with ISO chips.

C. How Can Microchip Databases be Linked for Ready Access by Emergency Personnel, Animal Control Officers, or Other Authorities?

It is unclear why this topic is an issue, because currently, existing databases are linked. If a call is made to one database, and it is determined that the pet's identification number is that of another database, the caller is quickly routed to the correct database. Moreover, Avid's database is available to pet owners 24 hours, 7 days a week, 365 days a year. We take pet recovery very seriously, and therefore, help any caller, regardless of the database in which his or her pet's information happens to be stored.

D. What is the Most Effective Way to Harmonize Multiple Microchip Technologies?

When the pet microchip community was faced with this same problem in 1996, they came up with a solution -- use 125 kHz chips. Accordingly, the current American system *already harmonizes multiple microchip technologies*. The answer is not to uproot and destroy the system. The answer is to require chip manufacturers to use chips that work within the existing infrastructure.

The decision to require 125 kHz chips was designed to prevent the very situation raised by proponents of ISO. Without some restriction that limits chips to those that work within the existing infrastructure, any Johnny-come-lately who wants to manufacture chips can simply create a microchip at a new frequency and force the upheaval of the system yet again (to accommodate this new microchip). The problem will never end. And this is exactly what proponents of ISO have done.

Animal Care, however, can solve the problem right now, by requiring either of the following:

Proposal 1:

(a) Any new microchip being introduced into the U.S. must be capable of being read by the existing infrastructure of U.S. readers (defining "read" to mean to be read as efficiently as current microchips are read); and

(b) Any new scanner being introduced into the U.S. must be capable of reading the existing infrastructure of U.S. microchips (defining “read” to mean to be read as efficiently as existing microchips are read by existing scanners).

Proposal 2:

Alternatively, Animal Care could simply require those it regulates to use 125 kHz chips.

Either of the above proposals allow for new chip/scanner technologies to be introduced, but does not require the system to be toppled every time that happens. By adopting either proposal above, Animal Care could end any problem caused by multiple microchips, right now.

As noted, the very problems caused by having multiple chips drove states like Illinois, Pennsylvania, Louisiana and Hawaii to adopt legislation or regulations requiring use of 125 kHz chips. Adoption of a regulation requiring use of ISO chips, would force those under the regulation to either violate the regulation or the law of these states.

IV. Conferees’ Report.

On November 10, 2005, the report of the conferees was signed by the President. That report stated:

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.

What is important to note is that the above report *does not* mention anything regarding ISO. In fact, the House version recommended including language regarding ISO, but because a Senate colloquy identified the problems with that language, the final report *deleted mention of ISO*.

Instead, the report notes the importance of “universal reading ability” and an open system “in which all scanners can read all chips.” Absent the handful of technologically inferior ISO chips, America already has a system that provides for universal reading harmony and an open

system in which all scanners can read all chips.⁴ Moreover, the above language directs APHIS to develop regulations that “best serve the interests of pet owners” and “to take into consideration the effect such regulation may have on the current practice of microchipping pets in this country.” Requiring use of chips that work within the existing U.S. system meets all of the requirements stated in the report.

Conversely, for the reasons stated herein, use of ISO chips would not “best serve the interests of pet owners” and take into consideration the effect “on the current practice of microchipping pets in this country.” Furthermore, Senators Harkin and Kohl, along with Chairman Bennett, all advocated for not including any language regarding microchips in this particular appropriations bill and therefore the Senate version was silent on the issue. If the conferees wanted APHIS to consider use of ISO chips, the report could have stated as much. The fact that ISO was dropped from the report is telling.

The best way to follow the directive of the conferees’ report, which stresses the importance of protecting existing pet owners and the current practice of microchipping pets in this country, is to mandate that any new microchip manufacturer to provide chips that work within the existing U.S. infrastructure.

V. Conclusion.

After an exhaustive, collaborative effort in 1996, the United States, for almost a decade, has been operating under a universal system where scanners read all chips. However, the recent introduction of the ISO chip in the U.S., along with propaganda to convert the U.S. to an ISO system, has put America’s current system, and the pets that use it, in jeopardy. But the solution is simple -- require microchip manufacturers to work within the existing U.S. system to keep it universal. The solution is *not* to cause upheaval by replacing the approximately 100,000 scanners in use in the U.S., put pets at risk, cost millions of dollars, force shelters to double scan, all just to accommodate an inferior chip that America has rejected for the last ten years.

Therefore, I ask you to support the American system, by protecting the millions of pets with 125 kHz chips, and by rejecting the adoption of any requirement to use ISO chips in pets. On behalf of the almost 9 million pets with Avid chips, I thank you for your time and consideration.

⁴ Undoubtedly, supporters of ISO chips will argue that the language “a system of open microchip technology in which all scanners can read all chips” means non-encrypted chips. Such an interpretation is incorrect. First, this language merely means a universal system, where all scanners can read all chips, which is the situation in American today (absent ISO chips). Second, the new ISO standard for pets, 14223, supports encryption. Therefore, reading such language as meaning non-encryption would prevent use of chips that would comply with the new ISO standard. Finally, because about 75% of the pets in this Country currently have encrypted chips, interpreting this language to mean unencrypted chips is at odds with the language of the report directing APHIS “to take into consideration the effect such regulation may have on the current practice of microchipping pets in this country.”

Exhibit A

I. ISO and Avid at a Glance

	<u>Avid</u>	<u>ISO</u>
Frequency	125 kHz	134.2 kHz
Unique Number	Yes	NO
ID Numbers Resist Duplication	Yes	NO
Prevent Infection with a Virus	Yes	NO
Encryption	Yes	NO
Can be Read by Installed Readers	Yes	NO
Long Read Distance	Yes	NO
Fast Read Speed	Yes	NO
Code Structure	AVID*123*456*789	985024487893712
Operator Transcription Errors	Low	High
Operator Errors Reading Number	Low	High
Code Display	Avid*123*456*789	123456789101112
Reader Infrastructure	~100,000 in U.S. ~50,000 Avid ~50,000 HA	~1500 in U.S.
Implant Sites	Dorsal midline between scaps	Behind left ear
Performance	Proven	No criteria
Can be Read by ISO Readers	NO	Yes
Required by some States	Yes	NO
Increase Liability because of use	NO	Yes
Chips sold in U.S.	~12,000,000 + ~9,000,000 Avid ~3,000,000 HA	~35,000

II. Advantages and Disadvantages to using ISO for Pet Identification

A. Understanding ISO

- International Standards Organization (ISO) is a European based association publishing guidelines for a wide range of products.
- ISO standards have no legal status and are 100% voluntary.
- ISO has no authority to regulate, legislate or enforce the implementation of its standards.
- ISO is not a governmental organization.
- Users may elect to adopt ISO guidelines, or not, without any legal repercussions. In fact, many ISO member countries often do not follow ISO's recommendations.
- The ISO standards that apply to pet microchips are 11784 and 11785, and are based on 134.2 kHz. The new ISO standard for pets is 14223, which will supersede and include 11784/5. Notably, 14223 recognizes the need for encryption to guarantee the uniqueness of the id number in pet microchips.
- There are 99 countries that are voting members of ISO. Avid sells 125 kHz microchips to over 60 nations, the majority of which are ISO members.
- Being a member country of ISO does not necessarily mean that a country has adopted or otherwise endorsed the 134.2 kHz ISO as the pet microchip standard. Countries can selectively chose which ISO standards they wish to implement and those they wish to reject. For example, the metric system is an ISO standard but not used in the U.S.

B. Unique Number

- ISO 11784 allows either the use of a country code or a manufacturer code.
- For example, if Manufacturer A's code is 392, the first chip they make likely will be 3920000000000001. However, Manufacturer B can, and likely will, make a tag for country code 392 -- of which the first chip also would be 3920000000000001. Accordingly, it is easy for multiple chips to have the same identification number.
- ISO does not guarantee or regulate the uniqueness of identification numbers.
- It is not ISO's responsibility to provide unique id numbers. In fact, ISO states, "It is a national responsibility to ensure that each transponder carries a unique number and that every country should maintain a central database in which all codes issued by the national agency and where all the animal information is maintained".
- The U.S. as well as many other countries does not have an agency that administers a "central database".

C. Viruses

- As reported by the New York Times, RFID chips are now susceptible to viruses. Thus, any chip that is not encrypted, such as the ISO chip, may be compromised by such an attack. (See Exhibit G).

D. Duplication of ID Numbers

- Any ISO microchip number can be easily and quickly cloned providing end users with multiple microchips with the same number.
- Avid's encryption makes cloning an implanted Avid chip highly improbable.
- To positively identify an owner, it is essential to positively identify the animal. Consider the consequences if: (i) animal control has impounded a dog after mauling a child; (ii) the vicious dog is microchipped, which officers use to identify the owner; and (iii) the owner, knowing the legal ramifications of claiming ownership of this dog, disavows owning the vicious dog and shows up in court with "his dog" (having a cloned chip) and can prove it because "his dog" has the same chip number as the impounded animal.

E. Encryption

- The purpose of encryption is to provide a specific level of confidence or reliability for some information-based transaction.
- When used in implanted microchips, encryption deters an adverse person from creating the duplicate of any particular chip. Attempts to create look-alikes for encrypted chips by knowing numbers entered in registries or insurance schedules, for example, are frustrated because merely knowing the desired number is not sufficient to duplicate the chip.
- Additionally, encryption prevents the arbitrary creation of any unauthorized chips, because the encryption algorithm adds a layer of mathematical complexity which must be validated. Failure to successfully meet these extended tests will allow the manufacturer to instantly know whether or not the chip is acceptable to be placed into the market.. This final confirmation provided by encryption creates confidence in the system.

F. Code Structure, Human Transcription and Reading Errors

- ISO requires a 15-character number such as 123456789101112. This lends itself to possible human error, when reading the number, transcribing the number and communicating the number in an effort to reunite a lost pet with its family.
- Avid uses a punctuated number format such as AVID*123*245*789, which is user friendly and identifies the manufacturer. The ISO code is longer than a phone number – without punctuation it is very confusing.

F. Code Display

- ISO does not define the way an identification number must be displayed on the readers. For example, an ISO tag number, which is 123456789101112, could be, and has been, displayed one way on a first ISO reader and another way on a second ISO reader, for example in a hexadecimal format (which 123456789101112 would read as 07048860F3A38). This is ISO compliant and in fact acceptable under ISO, but would be ineffective to reunite a lost pet.
- With Avid, if the chip number is AVID*123*456*789 then that is the way it will be displayed on the reader's LCD.

G. Databases

- The Federation of Companion Animal Veterinary Associations (FECAVA) reports 21 recognized ISO databases in Europe. There is an estimated 30 additional databases that are not recognized. Not knowing which database to call could complicate the recovery process.

H. Installed Reader Base in the United States

- The readers (approximately 100,000 -- of which Avid has placed about 50,000) in predominant use at shelters, veterinary facilities and other animal care providers in the U.S. do not read ISO microchips.
- The current infrastructure has cost the U.S. microchip industry and users over \$20,000,000.
- The placement of some ISO scanners in a handful of cities will not assure detection of an ISO chipped animal even in those cities. Pets often are found many miles from home. Moreover, the U.S. post office reports that 17% of the population moves every year, with the average move being over 1,000 miles away. Thus, those pets that moved out of such cities would be vulnerable.

I. Implant Sites

- The standard European injection site for ISO microchips is behind the left ear.
- This site is not routinely scanned at U.S. facilities due to operator danger.
- The U.S. injection site is the dorsal midline between the shoulders (which is not routinely scanned at European facilities).
- Even in a perfect world where all technologies past, present and future were compatible, U.S. pets going to Europe and European pets coming to the U.S. could still risk being classified as “not identified” because of the different implant sites.

J. Performance

- There are no performance criteria for ISO compliant products. “There is a range of transponder size, type and intended use. Within each type, there will also be variations in terms of performance ... such as read speed and read distance.”
- Read speed is faster for an Avid chip compared to an ISO microchip.
- Read distance is better for an Avid chip compared to an ISO microchip.

K. ISO Readers are Not Compatible

- ISO readers do not read and display Avid microchip identification numbers.
- All current vendors of the incompatible ISO chip could provide a chip compatible with the current U.S. infrastructure (e.g., a 125 kHz chip), but choose not to do so.

L. Laws Requiring Microchips

- Illinois State Public Act 93-0548 requires all microchips to have an operating frequency of 125 kHz.
- Pennsylvania requires a 125 kHz system.
- Hawaii requires a 125 kHz microchip to avoid quarantine.
- Louisiana requires 125 kHz microchips for its EIA control.
- Requiring use of an ISO microchip in any of these jurisdictions would force users to decide which regulation to comply with, and which to violate.

M. Risk of Liability

- With ISO, shelters would be forced to double scan and buy additional equipment, but budgets do not allow many shelters to do that.
- To double scan an impounded pet increases operator risk.
- If an animal care provider implants a microchip without an adequate infrastructure of readers in place that can read that chip, and the owner is not informed, the animal care provider could be deemed negligent. (*See Exhibit H*).

Attachment B

SUPERIOR COURT OF CALIFORNIA

County of San Diego

DATE: NOVEMBER 2, 2004 DEPT. 60

REPORTER A: NOT REPORTED

CSR#

PRESENT HON. WILLIAM C. PATE

F I L E D

Clerk of the Superior Court

JUDGE

NOV - 2 2004

CLERK: CRYSTAL LUNT

BAILIFF:

REPORTER'S ADDRESS: P.O. BOX 120128

By: C. LUNT, Deputy

SAN DIEGO, CA 92112-4104

GIC830293 ROBERT F. STONEBREAKER, DVM, an individual and
AVID IDENTIFICATION SYSTEMS, INC., a California
corporation, et al.,

Plaintiffs

vs.

MEDICAL MANAGEMENT INTERNATIONAL, INC.,
dba BANFIELD THE PET HOSPITAL, a Delaware corporation,
Defendants

EX-PARTE MINUTE ORDER, NOTICE OF RULING ON PLAINTIFFS' MOTION FOR PRELIMINARY INJUNCTION

The Plaintiffs' Motion for Preliminary Injunction came on regularly for hearing on October 7, 2004 at 10: 30 a.m. in Department 60. The Court heard argument by counsel and took the matter under submission.

The Court's ruling is as follows:

Plaintiffs' motion for a preliminary injunction is hereby GRANTED in part.

Preliminarily, the Court notes that it did not rely upon any of the evidence submitted by Plaintiffs via reply.

Plaintiff has met its burden to show all elements necessary to support issuance of a preliminary injunction in this case as follows: (1) there is a reasonable probability of success on the merits; (2) there is a risk of great or irreparable harm; (3) legal remedies are inadequate; and (4) the balancing of the equities weighs in favor of granting the preliminary injunction.

Plaintiffs have shown the probability of success on the merits as people are "likely to be deceived." Plaintiffs have also shown the risk of great, irreparable harm for which legal remedies are inadequate, specifically the increased potential for pets to be euthanized while their owners believe them to be safe. The balancing of the equities favors granting of a preliminary injunction enjoining Defendant from further promoting and/or selling its RecoveryChip.

Defendant claims that it has temporarily suspended shipments of its RecoveryChip products, has notified all Banfield hospitals to suspend sales, and "has no plans to resume chipping." [Defendant's Memorandum of Points and Authorities, 1:15.] However, "[t]he mere fact that a defendant refrains from unlawful conduct during the pendency of a lawsuit does not necessarily preclude the trial court from issuing injunctive relief." [*Aguilar v. Avis* (1999) 21 Cal.4th 121,133.] Furthermore, the Court must exercise its discretion "in favor of the party most likely to be injured. If denial of an injunction would result in great harm to the plaintiffs, and the defendants would suffer little harm if it were

granted, then it is an abuse of discretion to fail to grant the preliminary injunction.” [*Robbins v. Superior Court* (County of Sacramento) (1985) 38 Cal.3d 199,205.] As there is no evidence before the Court that Defendants would be injured by the issuance of the requested preliminary injunction enjoining future sales and promotion of the RecoveryChip, the equities favor the grant of a preliminary injunction.

Defendant is hereby enjoined from resuming the sale and promotion of the RecoveryChip, or other 134.2 kHz electronic identification tags absent accurately disclosing, in writing, that such tags cannot be read by the vast majority of scanners in U.S. shelters and other animal control facilities. If Defendant decides to resume its sale and promotion activities relative to the identification tags, its written promotional materials and advertisements shall be presented to the Court for its review to ensure compliance with this order at least fifteen (15) days prior to their distribution. Although Defendant is not enjoined from promotional activities concerning truly universal scanners, if any such promotional materials refer to Defendant’s RecoveryChip, or other 134.2 kHz tags manufactured and/or sold by Defendant, the promotional materials shall be presented to the Court for its review as stated.

“It is well established the judiciary possesses broad discretion in deciding the type of equitable relief to fit a case’s particular circumstances. [*Ojavan Investors, Inc. v. California Coastal Commission* (1997) 54 Cal.App.4th 373, 394.] Although mandatory preliminary injunctions are “not readily granted” [*Bennett v. Lew* (1984) 151 Cal.App.3d 1177, 1186], Plaintiff has presented evidence of the increased safety risks facing pets implanted with the RecoveryChip, such as was unfortunately experienced by Lisa Massey’s pet, if their owners are not on notice of the realistic effectiveness of Defendant’s lost pet recovery system. The circumstances are “extraordinary” and the potential for serious, irreparable harm warrants the issuance of a mandatory preliminary injunction to inform potentially affected pet owners. [*Id.*] However, the Court finds that Plaintiff’s proposed order is not sufficiently narrow to merely serve to maintain the status quo pending the outcome of this litigation.

The Court hereby orders Defendant to notify all purchasers of its RecoveryChip, or any other 134.2 kHz electronic identification tags it has sold as well as all veterinarians to whom it has recommended these products, in a written correspondence to be approved by the Court, that only certain, specifically listed, shelters equipped with the ISO scanners that can read Defendant’s 134.2 kHz chips, and the fact that the listed shelters are equipped with the ISO scanner does not guarantee that the shelters will actually use those scanners on lost pets and that the majority of shelters presently use a scanner that will not detect or read Defendant’s implanted chip. Defendant is hereby ordered to submit its proposed correspondence to the Court and serve opposing party with a copy on or before November 8, 2004. Plaintiff is to provide any written objection thereto, not to exceed two pages, on or before November 10, 2004.

In lieu of an undertaking, Plaintiffs may execute a bond with corporate surety, or with two or more personal sureties [CCP, §§995.210(b), 995.310] in the amount of \$5,000.00 within 30 days.

It is so ordered.

WILLIAM C. PATE

November 2, 2004

WILLIAM C. PATE,
Judge of the Superior Court

Attachment C

NACA NEWS



A Publication of the National Animal
Serving Governments and Nonprofits

Vol. 27, No. 1
January/February 2004

Interesting Investigations



ACO David Younie, Maricopa County Animal Care and Control. Photo submitted by Martha Bern.

Maddie's Fund
Page 5

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Going Batty in Chicago
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Compensation for Pet Loss
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Turning Off the Spigot
Page 38

Microchip Technology Today

The 125kHz Microchip Technology is the Standard In Use Today by Animal Control in the United States

By Lorraine Monte, President, National Animal Control Association.

Back in March of this year it was brought to my attention that there was a new microchip being introduced into this country. This I thought was exciting news for the animal control industry. After speaking with several people from both leading microchip companies in the US, I came to realize that there was a slight problem with this new chip. It could only be read by its own scanner and not by the thousands of scanners all ready in place in shelters and animal hospitals throughout the country.

For any microchip system to work properly it is necessary to have in place and available an effective scanner that is capable of reading reliably any microchip that has been injected into an animal. The ISO microchip being promoted now works on a different radio frequency (134.2kHz) which cannot be read by the tens of thousands of 125 kHz scanners used by animal care professionals in the U.S. (see my article "What is the 'ISO' Microchip?" May-June '03 issue of the *NACA News*).

Microchip identification, also known as Radio Frequency Identification (RFID), transmits an identification number between a microchip that has been injected in an animal and a reading device (scanner or reader). Once an animal's number is known, pertinent information can be accessed through a database to reunite lost pets with their families.

In addition to other responsibilities, Animal Control Professionals are tasked with saving animals' lives by returning lost pets to their families. A responsibly implemented Microchip Identification Program facilitates this task as evidenced by the hundreds of recoveries that occur every day because of the chip.

In a recent letter from the AVMA's Professional Liability Insurance Trust, they provided the following opinion:

"When an owner asks you to implant a microchip into an animal, he or she has an expectation the animal will be identifiable if it escapes, is lost or stolen. If the majority of scanners cannot read the 134.2 kHz frequency microchip, there is potential for allegations of malpractice, fraud or intentional infliction of emotional distress."

"A veterinarian could be found negligent if they implanted a microchip when there was no existing network capable of detecting the microchip and/or their client was not informed that there was no infrastructure of scanners in place to detect the 134.2 kHz (ISO) microchip. This would be a difficult situation to defend."

The greatest number of users of the microchip systems within the companion animal field is the animal care and control professionals. We as individuals in this field should be able to have the expectation that when we properly scan a chipped animal, the microchip will be read and the animal so identified.

As part of NACA's ongoing commitment to provide training, resources and advisories to all members, we thought it was important to quantify the compatibility between the types of microchips and readers in common use in the United States. A survey was mailed to NACA members in October 2003. The results were tabulated by Brian Till, Ph.D., Associate Professor and Chair of Marketing, St. Louis University, St. Louis, Missouri.

The NACA Membership is to be commended on a very good response rate surpassing the national average.

Results of the NACA survey show 14.4% of NACA members in the United States responded.

85.6% of respondents do scan for microchips.

98.3% of respondents that scan use Avid and/or HomeAgain 125kHz scanners.

82.3% of respondents that scan use only one brand of scanner.

61.4% of respondents that scan would not use more than one type of scanner.

37.7% of respondents microchip, typically all adoptables.

99.0% of respondents that chip use Avid and/or HomeAgain 125kHz microchips.

Results show that the current standard of care for Animal Control Professionals is:

1. To scan animals for microchips utilizing readers that are capable of reading the 125 kHz technology microchips (Avid and HomeAgain).

2. To use the 125kHz technology microchips (Avid and HomeAgain) if and when your facility microchips.

The manufacturers of the two microchips in predominant use in the U.S. (Avid

and HomeAgain) have stated that their 125 kHz readers in use in the U.S. cannot read the ISO microchip.

Important Points of Note

1. Ensure the microchips you use are compatible with the 125kHz readers in predominant use in the U.S.

2. Ensure the scanners you use are compatible with the 125kHz microchips in predominant use in the U.S.

3. Before any other technology is used, the installed readers must be taken out of the field and replaced with readers capable of reading Avid 125kHz microchips, HomeAgain 125kHz microchips and any other technology microchips being introduced.

4. Test your reader daily to assure it will effectively detect and display the identification number of microchips in common use in the U.S. (125kHz). Keep a test chip near your reader for this daily test. If you feel that the reader is not working as it should, contact the company for repair or replacement. The tens of thousands of U.S. readers that have been placed in shelters around the country are effective when handled properly and will detect a microchip immediately. The U.S. companies provide training and support for their equipment. Contact them if you have any questions.

5. Establish a policy to ensure that every animal, including horses, dogs, cats, birds, reptiles and any other animal, is immediately scanned for a microchip upon handling or initial entry into shelter. This action should be noted on the animal's record with date & initials or name of person that performed the scanning. The scanning should be repeated and properly documented prior to euthanasia or adoption of the animal.

6. If a microchip is found in an animal, every effort should be made to locate the person or alternate contact to whom the microchip is registered. The Registry of the microchip manufacturer should be contacted for owner information.

NACA Supervisor Course

If you are interested in learning how to become a better supervisor, please contact us with your ideas on what topics will best serve you. NACA is YOUR organization; we want to hear what YOU need. E-mail us at: nacanewseditor@aol.com

NACA Scanner & Microchip Usage Survey Overview

Surveys were mailed to 3,565 animal control facilities, with 515 unduplicated valid responses for a response rate of 14.4%. This response rate is very good compared to national averages in the 5-10% range.

The detailed results are attached. As a way of overview, several key points fall out:

1. The vast majority of respondents (85%) do scan for microchips, and typically they use just one brand of scanner.
2. The most widely-used brand of scanner is Avid, with Home Again a distant second. Avid and Home Again combined reflect virtually the entire range of scanner brands used.
3. Most facilities report that they would not use more than one scanner.
4. Most facilities (62%) do not microchip. For those that do microchip, the vast majority use only one brand--with Avid, again, the preferred brand and Home Again a more distant second.
5. For facilities that microchip, most (62%) microchip all adoptables; for 21%, microchip is optional to patron.
6. When most facilities find a microchip, they typically (65%) call just one database. Avid is the common database called, though Home Again and Chip Producer are also used with some frequency.
7. Scanning and microchip usage tends to be greater among larger facilities.

Data Summary:

Question 1: "Do you scan animals for microchips?" (n = 515)

85.6% (± 3.0) of respondents do scan
14.4% (± 3.0) of respondents do not scan

The vast majority (86%) of respondents use a scanner.

Question 2: "Which brand(s) of scanner(s) do you use?" (n = 441)

Scanner Brand Usage:

82.1% (± 3.6) use only one brand
13.4% (± 3.2) use two brands
1.1% (± 1.0) use three or more brands
3.4% (± 1.7) did not answer

Most of the people surveyed (82.3%) use only one brand of scanner.

	<u>1-Brand</u>	<u>All Usage</u>
Avid:	62.1% (± 4.9)	65.3% (± 4.4)
Home Again:	29.3% (± 4.7)	37.4% (± 4.5)
Destron-Fearing:	5.0% (± 2.2)	5.0% (± 2.0)
Schering-Plough:	1.9% (± 1.4)	2.0% (± 1.3)
Trovan:	0.6% (± 0.8)	1.1% (± 1.0)
Other:	1.1% (± 1.1)	1.8% (± 1.3)

This reads: of those who use only one brand scanner, 62.1% use Avid. 65.3% of facilities use Avid as at least one of the scanners.

Avid and Home Again are the most frequently used brands, both sole and total usage. Avid is by far the most dominant brand, being used approximately twice as frequently as Home Again.

Question 3: "Would you scan each animal with more than one scanner?" (n= 515)

61.4% (± 4.2) would not use more than one scanner
36.7% (± 4.2) would use more than one scanner
1.9% did not answer

Around three-fifths of the respondents (61.4%) would not use more than one scanner.

Question 4: "If Yes, with how many scanners?" (n = 189)

- 48.2% (± 7.1) would use 2
- 14.3% (± 5.0) did not answer
- 11.6% (± 4.6) would use as many as necessary
- 6.9% (± 3.6) would use 3
- 5.8% (± 3.3) would use as many as available
- 2.7% (± 2.3) would use 1
- 3.2% (± 2.5) used another answer (4, 3 to 4, prefer not to, same brand, if time)

Most of the respondents would use at least two scanners (72.5%).

Question 5: "Do you microchip?" (n = 515)

- 61.9% (± 4.2) of respondents do not microchip
- 37.7% (± 4.3) of respondents do microchip
- 0.4% did not respond

Three-fifths of the respondents (61.9%) do not microchip.

Question 6: "If Yes, which brand(s) of microchips do you use?" (n = 194)

Microchip Brand Usage:

- 93.8% (± 3.4) use only one brand
- 4.6% (± 3.0) use two brands
- 0.0% use three or more brands
- 1.6% did not answer

Nearly all of the respondents (93.8%) use only one microchip brand.

	<u>1-Brand</u>	<u>Total Usage</u>
Avid:	66.5% (± 6.9)	67.0% (± 6.6)
Home Again:	30.8% (± 6.7)	33.0% (± 6.6)
Schering-Plough:	1.7% (± 1.9)	1.6% (± 1.7)
Other:	1.1% (± 1.4)	1.0% (± 1.4)

This reads: of those who use only one brand of microchip, 66.5% use Avid. 67.0% of facilities use Avid as at least one of the microchip brands.

Avid and Home Again are the most frequently used brands, both sole and total usage. Avid is the market leader with over twice the level of usage of Home Again.

Question 7: "If Yes, do you chip all adoptables or is it optional to the patron?"

All adoptables: 62.8% (± 6.8)
Optional to patron: 21.3% (± 5.8)
Both: 7.7% (± 3.8)
Did not answer: 8.2%

Respondents typically chip all adoptables (63.0%)

Question 8: "Which database do you call when a microchip is found?" (n = 441)

65.1% (± 4.4) use only one database
21.6% (± 3.8) use two databases
1.1% (± 1.0) use three or more databases
12.2% did not answer

Respondents usually use only one database (65.1%).

	<u>1-Brand Database</u>	<u>Total Usage</u>
Avid:	43.7% (± 5.7)	50.6% (± 4.7)
Home Again:	22.4% (± 4.8)	35.2% (± 4.5)
Chip Producer	16.0% (± 4.2)	10.4% (± 2.9)
AKC Comp. Recovery	7.7% (± 3.1)	6.1% (± 2.2)
Other	6.6% (± 2.9)	6.8% (± 2.4)
Local Database	2.2% (± 1.7)	1.8% (± 1.3)
Outside Animal Organization	1.4% (± 1.4)	0.9% (± 0.9)

This reads: of those who call one database, 43.7% call Avid. 50.6% of facilities call Avid as at least one of their databases.

A variety of database options are used with Avid and Home Again being the top two resources.

Question 9: "Number of animals handled annually?" (n = 515)

Large (greater than 5,000 animals) = 25.1%
Medium (between 1,000 and 4,999 animals) = 31.7%
Small (less than 1,000 animals) = 35.0%
Unanswered = 8.2%

A wide number of animals were handled annually by the respondents with a little over a third of them being small facilities (35.0%), a little under a third of them being medium sized facilities (31.7%) and a fourth being large facilities (25.1%).

Scanner use by facility size (n = 515):

	<u>Small</u>	<u>Medium</u>	<u>Large</u>
% scan	76.7% (± 6.2)	93.3% (± 3.9)	98.4% (± 2.1)
% do not scan	23.3% (± 6.2)	6.7% (± 3.9)	1.6% (± 2.1)

For the entire sample, 85.6% of respondents used a scanner. Small facilities had a below average scanner usage level (76.7%) while both medium (93.3%) and large (98.4%) facilities used scanners at above average rates. Overall, the larger facility, the greater the chance that it will use a scanner.

Microchip use by facility size (n = 515):

	<u>Small</u>	<u>Medium</u>	<u>Large</u>
% microchip	17.3% (± 5.5)	40.5% (± 7.5)	68.0% (± 8.1)
% do not microchip	82.7% (± 5.5)	59.5% (± 7.5)	32.0% (± 8.1)

For the entire sample, only 37.7% of respondents used a microchip. Small facilities had an even smaller percentage usage of microchips (only 17.3% used them). Medium facilities had a slightly above average usage rate (40.5%), but are not very far removed from the average. Only large facilities had an above average percentage of microchip usage (68.0%). Overall, the larger the facility, the greater chance that it will use a scanner.

Note: all ± confidence intervals are at the 95% level and are interpreted as follows:

Question 1: "Do you scan animals for microchips?" (n = 515)

85.6% (± 3.0) of respondents do scan
14.4% (± 3.0) of respondents do not scan

There is a 95% chance that in the full population of animal control facilities that the true % of facilities that scan is between 82.6% and 88.6%.

Exhibit D



San Diego County Veterinary Medical Association

4620 Alvarado Canyon Road Suite 15, San Diego CA 92120
619.640.9583 • Fax: 619.640.9588 • sdcvma@aol.com



Date: April 26, 2004

To: Scott Campbell, DVM, Banfield the Pet Hospital

From: Deborah Harvazinski, DVM, President, San Diego County Veterinary Medical Association
Mark Goldstein, DVM, President, San Diego Humane Society and SPCA
Dawn Danielson, RVT, Director (Acting), County of San Diego Department of Animal Services
Kathy Cleveland, Manager, El Cajon Animal Control
Dorothy York, DVM, MPVM, DACVPM, Manager, Chula Vista Animal Care Facility
Jim Silvera, President, Rancho Coastal Humane Society
Phil Morgan, President, Escondido Humane Society
Stacy Herro, Director, North County Humane Society

We are in receipt of your March 23, 2004 letter that provides your "thinking and position" in response to our community microchip concerns.

It is not in our posture to address which company or provider has the superior technology or product, or to debate the unregulated cost of services or their standards.

As you have asserted, a new wave of technology in microchips, support services and providers may be on a future horizon, however, we are more concerned with the here and now.

Our concerns are:

1. You have apparently already implanted 134khz frequency identification chips in pets in the community without first assuring an infrastructure in place that can identify them. As of today, if one of those pets became lost, it would not be identified by any local shelter and returned to its owner via its microchip. Another person could adopt such a pet within 5 days of shelter entry, or worse, the pet could be euthanized. It would be tragic if owners of these pets were led to believe that they had any substantial chance of recovering their lost pets most anywhere in the U.S.

2. To the best of our knowledge, no shelter in this community has a scanner that can read the currently unique 134khz frequency microchip that you are using, along with the hundreds of thousands of 125khz frequency chips commonly in use in our community (and most U.S. communities).

3. Banfield, the Pet Hospital (Banfield) has provided the County of San Diego Department of Animal Services with six scanners; however, they are not able to read or detect the chips of their own current provider, AVID. The San Diego Humane Society and SPCA also have five provided scanners that cannot read or detect the AVID chip.

4. Banfield has offered to provide microchips to at least two of our local shelters at a 50% discount and has apparently suggested that those adopted and chip implanted pets would be referred to, or somehow directed to a Banfield location by the shelter for client information/registration. The American Animal Hospital Association's position is that the recovery database "...is integral to a microchip system's integrity". "Database registration and support should be intimately linked to each microchip sold." "Registration information updating and access should be easily and readily available." "Microchip identification should have a central registry."

You referenced the AVID® and Home Again® providers. It has been estimated that approximately 100,000 scanners at a cost of \$20 million have been provided or purchased by facilities throughout the U.S. This is how the current infrastructure for pet recovery was established here over the past decade.

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The County of San Diego Department of Animal Services for example, with three shelter locations has and needs 60 scanners to continue to support their excellent level of service. All animals, except native wildlife, (approximately 30,500 last fiscal year) are scanned on entry or in the field and again prior to adoption or euthanasia. To expect an agency to "double scan" every incoming animal could equate to a significant addition of staff hours and labor. { i.e. 50,000 second scans @ one minute each =833 extra staff labor hours} The introduction of another player using yet another technology could then require the use of a third scanner, and so on. A universal, backward/forward reading scanner that reads or detects all technologies is needed in place prior to introducing new technology.

That infrastructure in this community has allowed animals to be returned to their owners without ever having to enter into the shelter system, which is of obvious benefit. All animals are scanned and most are microchipped prior to adoption at most of our 17 public and private shelter locations. Microchip implantation, scanning for identification and return to the pet owner has become the standard in our community because of a working system in place. To provide a few scanners to two shelters is not a satisfactory resolution to our community-wide concerns.

Although 134khz frequency (ISO suggested) microchips are marketed en masse in Europe and other countries, the 125khz frequency chip is still the vastly preferred and in place standard by use in the U.S. Furthermore, we understand that some jurisdictions, such as Hawaii, Illinois and Pennsylvania, prefer or require 125khz frequency chips.

The American Animal Hospital Association also recommends that "...a universal reader should be implemented prior to the actual introduction of ISO standard microchips". We hope that you will consider conforming to the ability of pet identification and recovery in place in most communities until such time that the community has the ability to accommodate the introduction of your chosen pet microchip product.

We stand firm in our concern that significant potential liability exists for the veterinarian who implants an identification chip in a pet where it is known that the shelter community may not be able to read or detect it. Consequently, we ask that you reconsider your position and refrain from implanting these chips until the local sheltering and veterinary community has the ability to efficiently and cost effectively scan for these new chips. We believe that is in the best interest of the pet-owning public in San Diego County.

/pw

Exhibit E

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Pet Owners Warned to Check With Local Shelters Before Buying Pet ID Microchips

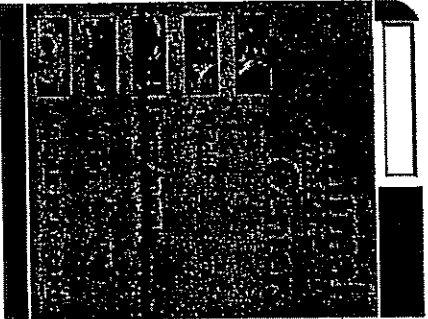
March 25, 2004

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WASHINGTON—The HSUS and animal care and control organizations today cautioned pet owners that the nation's animal shelters may not have scanning devices that can detect the presence of certain pet identification microchips currently on the market. The incompatibility between scanners and microchips mean some micro-chipped animals entering shelters may not be properly identified.

"All pets should have some form of identification on them. Ideally, they should wear a collar and ID tag with current information that helps to easily facilitate the lost dog or cat being quickly reunited with his family," said Martha Armstrong, HSUS senior vice president for companion animals and equine protection. "Collars and ID tags can become lost where microchips offer a permanent and additional means of identification. But we are concerned that pet owners could have a false sense of security."

The warning comes as another company has entered the microchip market and is selling micro-chips in approximately 440 veterinary clinics housed in one of the nation's largest pet product retailers. Yet the company has not provided the end-users such as many of the nation's shelters, humane societies and veterinary hospitals with compatible scanners needed to detect the chips. As a result, the animal protection groups recommend that pet owners thinking about getting their pets micro-chipped contact both the chip manufacturer and their local shelter to make certain that compatible scanners are present in their community.



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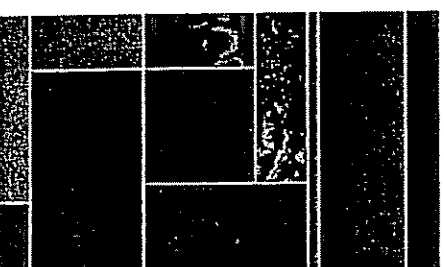


Related Information



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- ❖ Pets
- ❖ Animal Shelters
- ❖ How to Find Your Local Animal Shelter



In a letter to microchip manufacturers, the groups applauded the technology as a valuable tool to increase the probability that lost pets will be reunited with their owners, but appealed to them to develop a truly universal scanner capable of detecting all microchips regardless of brand. In the letter, The HSUS offered to convene a summit of these manufacturers at HSUS offices to resolve the incompatibility issue nationally for the benefit of the animals.

"It is just common sense that all animal shelters be provided with the sufficient number of scanners needed to read the chips being implanted in pets," said Armstrong. "Local shelter personnel are already hard-pressed to meet the demands of animal care and control in their communities."

"Shelters should not have to expend additional resources to scan animals multiple times with multiple scanners just so the manufacturers can differentiate their products in the marketplace," said Bob Rohde, president of the Dumb Friends League based in Denver.

The Humane Society of the United States is the nation's largest animal protection organization with more than eight million members and constituents. The HSUS is a mainstream voice for animals, with active programs in companion animals and equine protection, wildlife and habitat protection, animals in research and farm animals and sustainable agriculture. The HSUS protects all animals through legislation, litigation, investigation, education, advocacy and fieldwork. The non-profit organization, which is celebrating its 50th anniversary in 2004, is based in Washington, DC and has 10 regional offices across the country. On the web at www.hsus.org.

Contact Information

Belinda Mager (301) 258-3071

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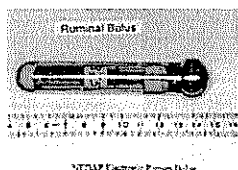
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Exhibit F

A RFID standard for all animals

Starting with the identification of agricultural animals, during the development of the standards, the scope has been broadened to all animal applications, including companion animals (pets), zoo animals, laboratory animals, endangered species, etc. Because the acceptance of a standard is expected to be effective for the expansion of the respective markets, an increasing number of manufacturers submitted ISO compatible transponders to ICAR, the International Committee for Animal Recording, cooperating with ISO. After a basic ISO 11784/11785 conformance test, ICAR has assigned manufacturers' codes to these producers. Later, ICAR also started with the development of conformance as well as performance tests for ISO transponders and their readers. These tests will become available in the near future. In the meantime, ICAR has already registered 16 manufacturers of ISO compatible transponders.

The ICAR manufacturer code is only allowed to be used in the type of transponder that has been approved by ICAR, replacing the original 10-bit ISO country code by the issued manufacturers' code. This means that the manufacturer will take over responsibility for the worldwide uniqueness of the issued "life number".



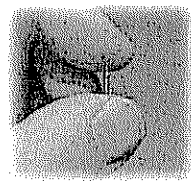
New technical developments

In special applications, it may be convenient or even necessary to be able to store additional information in the transponder. This can be information about medical treatments, date of birth, etc. For this purpose, transponders with read/write capabilities can be combined with memory that is fixed (ROM), memory which can be written once (WORM), and memory that can freely be programmed by the user (RAM).

For measuring physiological parameters of animals, it would be desirable to integrate sensors into an implantable transponder to monitor parameters such as temperature, heart rate and activity level. Several manufacturers already offer transponders with a built-in temperature sensor,

which makes it possible to measure the body temperature during interrogation of the transponder. This requires transponders with a more complex structure.

New Work Item: Advanced Transponders



In order also to standardize these advanced transponders, ISO/TC 23/SC19 adopted a New Work Item, *Animal Identification and Monitoring*, for this purpose. WG 3 is now preparing a proposal for these advanced devices. One of the preconditions is that the extended code-structure as well as the communications technology must be fully compatible with the existing standards ISO 11784 and ISO 11785. Attention will also be given to protect transponders against fraudulent copying by means of encryption techniques and the application of secret keys. At the meeting of ISO/TC 23/SC 19 in March 2000, a proposal for the standardization of the physical communication, the "air interface", has been accepted as ISO/DIS 14223, Part 1. Parts 2 and 3 dealing with the code/command structure and a number of applications, respectively, are under development.

European Union: IDEA project

Large-scale and effective use of RFID not only requires the existence of International Standards but also appropriate national/international legislation. Very important for Europe is the attitude of the European Union. On this level there is also a strong need to improve the identification and administrative protocol in order to realize the health monitoring of animals, to combat fraudulent applications for livestock subsidies, to bring more effective tracking of the movement and trade between Community States and to combat disease. A good identification and registration system would be very helpful for this purpose.

The EU has planned to evaluate before 2001 the use of electronic identification, in order to define a harmonized community-wide identification and registration system and to decide on introducing an electronic identification device based on the progress

made in this field by the ISO. This resulted in the organization of a large-scale experiment for the identification of about 10 00000 animals within the EU. This *IDEA-project* (IDEA stands for Identification Electronique des Animaux) started in 1998 and is to be evaluated in 2001. Special attention will be given to feasibility under field conditions.

The objectives of the proposed IDEA study will be to examine the usefulness of electronic identification systems for combating fraud and for automatically identifying and registering animals in the EU. To this end, different types of electronic identification devices such as injectable transponders, boluses with a transponder and electronic ear tags will be compared in cattle. The recovery of these devices in the slaughterhouses will be studied and the structure for a database and the organization for identification and registration will be evaluated.

The recovery of the transponders in slaughterhouses needs extra attention. Boluses, remaining in the stomach, seem to be a good alternative to injected transponders. In the initial experiments the losses were low and the boluses were simple to recover in the slaughterhouse. These devices will not enter the food chain. Though electronic ear tags are probably more susceptible to fraud, experience with these devices in the Netherlands has shown that using them in combination with a good database makes fraud very difficult. These visible electronic ear tags can be used for farm management as well as for national and international identification and registration.

By the end of 2001, the IDEA project will yield information about the usefulness of the various electronic devices to combat fraudulent applications for subsidies and to identify and administer livestock throughout the course of their lives with precision. The experiment will reveal which technique is preferable for fitting the devices and recovering them in the slaughterhouse and which structure is most appropriate for doing so. □

Exhibit G

March 15, 2006

Study Says Chips in ID Tags Are Vulnerable to Viruses

By JOHN MARKOFF

A group of European computer researchers have demonstrated that it is possible to insert a software virus into radio frequency identification tags, part of a microchip-based tracking technology in growing use in commercial and security applications.

In a paper to be presented today at an academic computing conference in Pisa, Italy, the researchers plan to demonstrate how it is possible to infect a tiny portion of memory in the chip, which can hold as little as 128 characters of information.

Until now, most computer security experts have discounted the possibility of using such tags, known as RFID chips, to spread a computer virus because of the tiny amount of memory on the chips.

The tracking systems are intended to improve the accuracy and lower the cost of tracking goods in supply chains, warehouses and stores. Radio tags store far more data about a product than bar codes and can be read more quickly. They have even been injected into pets and livestock for identification.

The chips have already prompted debate over privacy and surveillance, given their tracking ability. Now the researchers have added a series of worrisome prospects, including the ability of terrorists and smugglers to evade airport luggage scanning systems that will use RFID tags in the future.

In the researchers' paper, "Is Your Cat Infected With a Computer Virus?," the group, affiliated with the computer science department at Vrije Universiteit in Amsterdam, also describes how the vulnerability could be used to undermine a variety of tracking systems.

The researchers said they realized that there are risks associated with publishing security vulnerabilities in computerized systems. To head off some of the possible attacks they described, they have also published a set of steps to help protect RFID chips from such attacks.

The group, led by Andrew S. Tanenbaum, an American computer scientist, will make the presentation at the annual Pervasive Computing and Communications Conference sponsored by the Institute of

Electrical and Electronic Engineers.

The researchers asserted that the RFID demonstration had not used the commercial software that collects and organizes information from RFID readers. Rather, it used software that they designed to replicate those systems.

"We have not found specific flaws" in the commercial RFID software, Mr. Tanenbaum said, but "experience shows that software written by large companies has errors in it."

The researchers have posted their paper and related materials on security issues related to RFID systems at www.rfidvirus.org.

The researchers acknowledged that inside information would be required in many cases to plant a hostile program. But they asserted that the commercial software developed for RFID applications had the same potential vulnerabilities that have been exploited by viruses and other malicious software, or malware, in the rest of the computer industry.

One such standard industry problem is a software coding error referred to as a buffer overflow. Such errors occur when programmers set aside memory to receive data temporarily, but fail to require a check on the size of the value that is moved to the allocated space. A larger-than-expected value can cause the program to break and trick the computer operating system into executing a malicious program. "You should check all of your input all of the time, but experience shows this isn't the case," Mr. Tanenbaum said.

Independent computer security specialists also said RFID systems were potential problem areas.

"It shouldn't surprise you that a system that is designed to be manufactured as cheaply as possible is designed with no security constraints whatsoever," said Peter Neumann, a computer scientist at SRI International, a research firm in Menlo Park, Calif.

Mr. Neumann is the co-author of an article to be published in the May issue of the Communications of the Association for Computing Machinery on the risks of RFID systems. He said existing RFID systems were a computer security disaster waiting to happen.

He cited inadequate identification for users, the potential for counterfeiting or disabling tags, and the problem of weak encryption in a passport-tracking system being developed in the United States. But he said he had not previously considered the possibility of viruses and other malicious software programs.

An industry executive acknowledged that the companies that make computerized tracking systems faced potential security problems.

"We are very actively looking at the different way the technology is used," said the executive, Daniel P.

Mullen, president of the Association for Automatic Identification and Mobility, an industry trade group. "It's an ongoing dialogue about protecting information on the tag and in the database."

The association has a working group of experts assessing both security and privacy challenges, he said.

There are many types of RFID tag, and some of the sophisticated versions include security features like encryption of the identifying number carried by the chip.

But the Dutch research group warned that in a variety of situations it is possible for attackers to alter the information in an RFID tag to subvert its purpose.

"RFID malware is a Pandora's box that has been gathering dust in the corners of our 'smart' warehouses and homes," they write in their paper.

In one example they offered, a virus from an infected tag on luggage passing through an airport could be picked up when it is scanned by the luggage-handling control systems and then spread to tags attached to other pieces of luggage.

Such an attack, they suggest, might spread luggage contamination to other airports. It might also be used by a smuggler to cause a piece of luggage to avoid security systems.

They also described situations of counterfeit RFID tags possibly being used to subvert pricing and other aspects of commercial sales systems, or a virus could be inserted into RFID tags used to identify pets.

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Exhibit H

AVMA



PLIT

July 9, 2003

Hannis Stoddard, III, DVM
Animal & Bird Hospital
3195 Hamner Avenue
Norco, CA 92860

RE: Letter dated June 26, 2003

Dear Dr. Stoddard,

Thank you for your recent inquiry regarding the use of ISO microchips and their relation to veterinary negligence.

The professional liability policy sponsored by the AVMA PLIT and underwritten by Centennial Insurance Company responds to allegations of professional negligence arising out of a veterinary incident. A veterinary incident is defined as "any malpractice, negligent act or omission, in the furnishing of professional veterinary services". To determine if a negligent act has occurred there must be a deviation in the accepted standard of care. In this case, if a court of law determined that the standard of care stipulates using a 125kHz frequency microchip because the scanners are readily available and in wide-spread use, opting not to use that frequency microchip could be considered a deviation from the standard of care.

There are many procedures that are performed in the veterinary profession that may not be considered "traditional" but are considered the practice of veterinary medicine. In those cases it is critical that animal owners are informed of the benefits and risks of the procedure and are allowed to make an informed decision on whether to proceed. Many claims arise due to poor communication between the veterinarian and the animal owner. When expectations aren't met, there is a greater potential for malpractice allegations. When an owner asks you to implant a microchip into an animal, he or she has an expectation the animal will be identifiable if it escapes, is lost or stolen. If the majority of scanners cannot read the 134.2 kHz frequency microchip, then there is a potential for allegations of malpractice, fraud or intentional infliction of emotional distress. Fraud, because it is intentional in nature, is specifically excluded under our professional liability policy, as is any intentionally negligent act.

A veterinarian could be found negligent if they implanted a microchip when there was no existing network capable of detecting the microchip and/or their client was not

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informed there was no infrastructure of scanners in place to detect the 134.2 kHz microchip. It would be a difficult situation to defend.

We would also recommend discussing your concerns with an attorney who would be more qualified to comment on what constitutes negligence in a court of law. The information provided is strictly an opinion and does not reflect the position of the AVMA PLIT nor is it meant to establish protocol or procedure.

Please let me know if we can be of further assistance.

Sincerely,


Kasey Schaffer, AIA
Client Services Manager
Sr. Vice President

cc: Richard Shirbourn, DVM
Wayne Rehn, DVM
Janice Mogan, DVM
Mike Ahlert