Leech and Hicks. Inc. Leech and Hicks were quick to tell me that they could not insure me either. In fact, their carriers would not insure anvone who sold anything from their home. They were kind enough to take the time to let me know that most insurance companies will not insure in-home businesses.

Call a Lawver

I now found myself in a very difficult situation. Under the advice of Dr. Brian Spear, DVM, I contacted a lawyer in California that he knew. He told me that insurance companies can create policies as they choose. He mentioned that he was insured with Cal Farm, and that this company did not object to aviculturists. He suggested that I try to find out if there was something similar in Virginia.

Success With the Farm Bureau

My next step was to call Dr. Ken Warthen, DVM. I figured if anyone would know, it would be Ken. Ken recommended that I get in touch with the Farm Bureau of Virginia. The Farm Bureau offers its members many services including insurance. I am pleased to say that I now have a homeowners policy with the Farm Bureau. They also are attempting to find a carrier that will provide me with business liability insurance and even coverage for my birds in case of theft or fire. I am not sure that I will ever need tires for a tractor, but the Farm Bureau does offer its members many other benefits and there are Farm Bureaus in most states.

Digressions

Now, I will digress a little. State Farm would have continued my homeowners policy if I had business liability insurance. Yet, they would not extend business liability insurance to me even though I have been breeding birds in my home for 13 years without incident. Neither would any of the other companies I called. I was never given any explanation.

On December 19, 1997, I spoke to the State Farm agent again. I requested a letter stating exactly what liabilities they thought my birds created. Jim Goff said that he would contact the company and have them send me a letter

immediately. He told me that he found a letter from the former agent, Tom Glidwell, dated 1995, that mentioned my birds. He brought this letter to State Farm's attention. Yet, it had no effect on their decision. At that time I told him that Tom Glidwell knew about my birds since 1988, or earlier, when I inquired about getting theft and fire insurance to cover my birds. Jim Goff did not have a record of that conversation.

Mr. Goff brought up one more disturbing fact. He told me that all State Farm agents will be required to do home inspections of all their policy holders in the next three to five years. If anyone is found breeding any animals without business liability insurance, their homeowners policy will be discontinued.

When I received the letter I requested, it did not have the information that I asked for. The letter dated December 29, 1997 was written by State Farm Fire Underwriter, Jeanine Lewis. In the letter, Ms. Lewis states, "Our Homeowners Policy is not designed to extend coverage to most commercial exposures. Only small, incidental, low-exposure businesses are considered under Homeowners Policies. Breeders of any type are considered ineligible under our guidelines." I must note at this time that I taught dance in my home for many years and was covered under my homeowners policy. Recently, I spoke to a friend who teaches piano. She tells me that insurance was a hot topic at a recent piano teachers convention she attended. Apparently they are have similar problems.

If you are a breeder or have any type of business in your home, you should have business liability insurance. If anyone comes to your home for business purposes and slips on the steps, your homeowner policy may not cover the damages.

Kashmir Csaky has specialized in breeding Scarlet and Hyacinth Macaws for 15 years. Her articles have appeared in The Pet Bird Report, and Psittascene and Pet Information Pages among others. She serves on the board of directors of International Aviculturists Society and maintains a website devoted to Macaws at:

> http://members.aol.com/ macawmama/index.btm

A New Cage and Aviary Disinfectant

by Ross Bishop, Santa Fe, NM

irdkeepers are caught in a dilemma — if they disinfect aviaries and cages, they put their birds at risk from chemical poisoning. If they do not thoroughly disinfect aviaries and cages, their birds are at increased risk for disease. This is a serious problem.

Avian veterinarians tell us that at least 75% of all bird deaths are premature and unnecessary. Seventy-five percent is a huge number. In light of soaring bird costs, growing CITES restrictions, and pressure from animal rights groups that want to eliminate aviculture, any unnecessary bird loss is tragic. Diet is a part of the problem, but the biggest single contributor to poor bird health is improper cleaning and insufficient disinfection.

The best solution to the problem of disinfection up until the present time has been to haul birds out of their enclosures, scrub the habitat clean, and then blast the enclosure with one of a number of problematic (and often expensive) chemicals. It is then necessary to wash everything down and hope that there is no dangerous contamination lingering from either the pathogens or the disinfectant. The problem is that disinfectants are toxic. That is why they work. The good disinfectants are not safe to use around

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birds — period.

Bleach, for example, is cheap and a good disinfectant, but it gives off chlorine and chloroform gases that may possibly compromise or destroy a bird's sensitive respiratory system, especially after repeated exposures. Bleach is also extremely corrosive to metal cages. Vanodine is appropriate for occasional use, but it is not terribly effective, and avian vets caution that exposure over time can be toxifying. The jury is still out on Nolvasan, but the manufacturer insists that it should not be used around animals. Also, it is expensive to use. Every other disinfectant available to us has been shown to be either outright toxic or carcinogenic. These are good disinfectants, but you should not use them around birds. Disinfectants that do not threaten the health of birds are not likely do much against dangerous pathogens either: thus the dilemma.

Commercial poultry operations have struggled with this problem for years and now are turning to a new answer. The new approach involves the use of a chemical called stabilized chlorine dioxide. Chlorine dioxide is a truly remarkable substance. It is one of the fastest acting broad spectrum disinfectants proven to destroy many bacteria and viruses that are difficult to kill with other products. Yet it is safe to use around sensitive creatures. It is extremely powerful, killing bacteria, viruses, and fungi, and yet it creates no harmful odors. In fact, it is an excellent deodorizer.

In the industrial world, companies that for years have been forced to use bleach or other dangerous chemicals are turning to chlorine dioxide as an extremely effective and safe alternative. ClO2 is widely used in Europe in water purification systems because it

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does not have the carcinogenic properties of chlorine, which is so frequently used in the U.S. in water treatment programs and in public swimming pools. Because of this, water treatment systems in America are increasingly switching to ClO2 as a better and safer alternative.

Although chlorine dioxide has chlorine in its name, its chemistry is radically different from that of chlorine itself. Technically speaking, both chlorine and chlorine dioxide are oxidizing agents, but because of their fundamentally different chemistries, they react in distinct ways with organic compounds and, as a result, generate very different by-products. Without going into a technical explanation, chlorine tends to react with organic matter by attacking cell walls and creating by products, some of which are toxic and carcinogenic. Chlorine dioxide does not affect cell walls, making it safe to use around living things. Chlorine dioxide disassembles the ring bonds of organic compounds, rendering them harmless. It is this difference that explains the superior performance of chlorine dioxide.

Traditionally, in poultry processing plants, chlorine bleach has been used to control infectious agents. Recently chlorine dioxide, which produces fewer chemical byproducts, was approved by the FDA as an alternative disinfectant. When compared to chlorine and tri-sodium phosphate, chlorine dioxide consistently provided superior control over *E. coli* and coliforms, *Campylobacter jejuni*, and





Salmonella typhimurium. In the March 3, 1995 issue of the Federal Register, the Food and Drug Administration announced that it was amending the food additive regulations to provide for the safe use of chlorine dioxide to control the microbial population in poultry processing water.

In research conducted by the Psittacine Disease Research Group at the University of Georgia (sponsored by the International Avian Research Foundation), chlorine dioxide was shown to be the disinfectant of choice in eradicating avian polyomavirus, over the seven leading disinfectants available to aviculturists. Avian polyomavirus is a good benchmark pathogen to indicate chlorine dioxide's general effectiveness. Results of the study were published in the Journal of the Association of Avian Veterinarians (1993).

At this time, the only source of stabilized chlorine dioxide of which I am aware is the Oxyfresh Products. Oxyfresh has used chlorine dioxide to create "Oxygene" which is a stabilized form of the chemical. Oxyfresh originally produced products for dentists, so the effectiveness and safety of their product line has been well researched.

Dent-A-Gene, Oxyfresh's most powerful disinfectant, is an EPA registered antimicrobial. (MSDA and Testing Summary is available from the company.)

The antimicrobial efficacy of chlorine dioxide against bacteria, fungi, viruses, and protozoa has repeatedly been demonstrated and documented. This disinfectant kills polyoma virus in one minute contact time at a 200 parts per million dilution. It is very safe, has an extremely low toxicity, and is not harsh to use.

The Oxyfresh usage procedure is simple. The aviary or cage must be scrubbed (no disinfectant works well in the presence of organic matter or detergent). Then a prepared solution is either sprayed, mopped or wiped on and left. That's it! It is not necessary to move birds out, nor to take fancy preventative measures; there is no metal corrosion nor toxic residues. It is becoming the disinfectant of choice amongst many aviculturists.

Oxyfresh also makes a Cleansing Gele' that is a cleaner containing chlorine dioxide. It is the easiest cleaner I have ever worked with. Simply spray it on, wait five minutes, and wipe or rinse it off. The Gele' was also found to be effective as a disinfectant (five minute contact time) by The University of Georgia's College of Veterinary Medicine. I do not have much experience with large parrots, but I keep grass parakeets and their droppings harden like cement. The Gele' softens the "cement" like nothing else that I have used.

When I first heard about the Cleansing Gele', someone told me, "Use it instead of soap in the shower. You'll never go back." I said to myself, "Oh, sure!" Out of curiosity, I tried it in the shower. They were right, I'll never go back to soap.

I spray all visible surfaces in my cages and aviaries a couple of times a week with the Gele', wait five minutes, and sponge it off. It takes very little time and my aviaries and cages are much cleaner than before. There is no "bird odor" because excrement does not accumulate and chlorine dioxide is a very effective natural deodorizer. I do a more serious weekly disinfection with Dent-A-Gene. Both products come in a concentrated form, and their cost is quite reasonable.

Along with its disinfecting properties, chlorine dioxide also is a natural antiinflammatory, making it very useful for wound treatment. Veterinarians are using a chlorine dioxide gel mixed with aloe vera to treat incisions and wounds. It is also very useful as a spray for feather pickers. Stabilized chlorine dioxide mouth rinse is good to use on neonate mouths after handfeeding to prevent leftover food from incubating gram negative bacteria and *Candida*. It also is excellent for sterilizing feeding utensils between feedings.

One popular avian "expert" recommends feeding birds bleach to disinfect their digestive tracts if they are having problems. This is unwise advice as bleach is a powerful carcinogen. It also irritates sensitive mouth and esophogeal tissue. You can achieve the same effect by diluting chlorine dioxide (Oxyfresh mouth rinse — unflavored), two drops per ounce of water. You will help your birds without putting them at risk of poisoning.