

# Today's **Animal Health**

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# Today's Animal Health

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TODAY'S ANIMAL HEALTH is published to inform animal owners about responsible animal ownership and animal health. There are subscribers in all 50 of the United States and in 17 foreign countries. The magazine is used as a tool for client education by veterinarians and for educational purposes in classrooms and school libraries.

The ANIMAL HEALTH FOUNDATION supports research in animal health and pet population control. The Foundation also provides free veterinary care to pets belonging to elderly persons living entirely on social security benefits and those living on Aid to the Totally Disabled in the Southern California area. This program is made possible through the cooperation of local veterinarians. These activities are supported by donations from the public and can be maintained only through your continued financial support. Your contributions to the Foundation are tax deductible.

## FEATURES

- 5** DIETARY MANAGEMENT OF DISEASE, PART II/  
by J. F. Alberson, D.V.M.  
*Chronic Heart Disease in the Dog*
- 6** WOLF FOR NATIONAL MAMMAL/by Odean Cusack  
*A Campaign Whose Time Has Come*
- 8** TOXOPLASMOSIS AND HEALTH/  
by David Post, D.V.M.
- 10** UNWANTED PESTS  
*Keeping Out Agricultural Contraband*
- 12** TAKE GOOD CARE OF HERMAN/  
by Linda Oggenfuss
- 14** SOLAR HOUSE FOR DOGS
- 15** PET HEALTH INSURANCE/by Don Hook
- 16** CANINE BILL OF RIGHTS/by Karen B. Hayes
- 17** WINTER ADVICE/  
by Susan Brooks and Cynthia Burns
- 18** "PARROT FEVER"; PROTECTION  
FROM PSITTACOSIS/by Randall G. Melinger
- 20** URINARY STONES
- 21** CANINE BIRTH CONTROL RESEARCH
- 24** SHOW BIRD'S HEALTH DEPENDENT  
ON WEIGHT/by Milton S. Snitzer

## DEPARTMENTS

- 4** DIALOGUE
- 20** WORTH READING
- 13** FOR YOUNG PEOPLE
- 22** IN THE NEWS



# dialogue

This summer, during a visit to northern California, our small pet dog was killed while being boarded in a kennel in the Vallejo area. While nothing can bring back our beloved pet, we hope that sharing our experience may prevent a similar tragedy from befalling animal lovers among your readers.

The kennel we selected was a large and apparently well managed operation specializing in the training of field dogs. Our dog was killed, within hours after we left her, by two pit bulls also being boarded there who inexplicably got in her cage. Following this occurrence the two killer dogs were returned to their owners and are apparently still living in Napa. The right of the dogs' owner to maintain such dangerous animals, in this case in a residential area, is protected under existing law. The kennel owner is responsible only for the market value of an animal being boarded. He is licensed only for sanitation, not for the safety or security of his operation and is apparently not required to carry liability insurance.

We have since learned that pit bulls are a dangerous and powerful breed, historically bred and trained for fighting. Their instinct to kill other dogs is very strong. They should therefore not be housed with normal domestic dogs, even large ones. These dogs are becoming increasingly popular in California. They are being bred and trained for dog fighting, a very ugly and illegal business. The *Lou Grant* and *60 Minutes* television shows both had recent episodes on this subject. This is yet one more menace developing within our society.

We urge readers not to leave a pet at a kennel that accepts pit bulls as boarders. In animal shelters they are isolated from the other dogs under extra security. Owners of small pets should, whenever possible, select kennels that accept only small animals. Inspect the place carefully. If larger animals are present, secure cages complete with roofs are a must.

We are still haunted by the memory of the mangled body of our good-natured and lively little pet who so loved to travel with us, and who died in such a strange and unexpected manner. May 4 Today's Animal Health

our sad experience serve as a warning to pet owners. If killer dogs are present, a kennel, or your own neighborhood, may be a dangerous place.

**Sophie Williams  
Edwin Williams  
Covina, CA**

Dear Sirs,

Yours is truly a remarkable animal magazine, and we treasure each issue for the value of the articles has enriched us to be even better pet owners. Thank you.

**Mrs. Mary Kennedy  
Hawthorne, CA**

I have enjoyed your journal and have used it in the waiting room for my clients both here and in Sydney, Australia.

**R.M. Kibble, B.V.Sc., M.A.C.V.Sc.,  
H.D.A  
Kowloon, Hong Kong**

I would like to take this opportunity to thank you for your excellent publication. I look forward to renewing it for many years to come.

**Susan Gablehouse  
Costa Mesa, CA**

The Humane Society of the United States has taken a stand against the importation of exotic pets, and with good reason. I am disappointed that, as a pet magazine concerned with animal welfare, you did not choose to present ALL of the facts.

**Lynn More-Killich**

*We too are opposed to the importation of exotic pets — many birds are now bred in captivity.*

ed.

A concise guide on the correct steps in choosing a cat or dog has been published by the Pet Food Institute and is available free of charge.

Recognizing that choosing the right pet for your family is the key to an enjoy-

able association, the pamphlet gives elements to keep in mind when selecting a pet such as budget, time, home and family, and discusses the characteristics of different breeds of dogs and cats.

In addition, details on how to keep your pet healthy are included.

For a free copy, send a self addressed stamped number ten envelope to me, c/o Pet Food Institute, 1101 Connecticut Avenue, N.W., Suite 700, Washington, D.C. 20036

**Bob Wilbur  
Washington, D.C.**

I would like to tell you how much I enjoy your articles in *Today's Animal Health*. When your publication comes to Prion, we read it from cover to cover and the employees have been after me to write you and see if you would be interested in my story.

About five years ago I was working at the Humane Society in San Mateo and a Dalmatian came in that had been hit by a car. She had a broken femur bone. To make a long story short, after one month of the dog being in recovery, and no one had even come to look for her, her time was about to run out. Because of her outstanding temperament and attitude I wasn't going to let her be put to sleep. So I, along with my family took her after surgery was done on her leg. Six months later with the pin still in her leg (with little calcification) the pin started to rotate and had to be removed. She could not use or even walk on the leg for months.

She is now 6 years old and has her A.K.C. Utility Degree obedience title and is 8th Dalmatian in the United States for 1979.

I could go much more into detail if you would be interested. I think it shows people that dogs from Humane Societies have great ability if only given 1/2 a chance.

**Mrs. Linda Fish  
Prion Animal Institute  
San Carlos, CA**

Continued on page 28



# DIETARY MANAGEMENT OF DISEASE CHRONIC HEART DISEASE IN THE DOG

by J.F. Alberson, D.V.M.

Chronic heart disease, Stage III, presents a classic example involving the limitation of a specific substance found in regular food which the animal cannot tolerate because of a certain affliction. This is a situation where most conventional pet foods contain more salt (sodium chloride) than the animal can handle.

The fact is that a healthy dog needs very little salt to keep him in good health. What's available in conventional supermarket pet foods is much beyond his real needs. So even the healthy dog is receiving "excess" salt.

However, the healthy dog can dispose of excess salt through normal elimination, so the excess presents no problem. In congestive heart failure, as a result of chronic heart disease, the animal not only retains the sodium, he retains the water accompanying it, by the process which follows.

To understand what happens, first visualize the circulatory system, consisting of the heart plus all the veins, arteries and capillaries. It has a limited volumetric capacity. It's like a bucket—it can only hold so much.

If the dog's body has to hold *extra* fluid, where can it go? It goes into the space between the cells and the tissue which supports them. Excess fluid will be found in the abdominal cavity, around the intestines and even in the lungs. The animal's legs and feet swell and the abdomen becomes distended. In addition, the dog will have difficulty breathing properly and will cough frequently.

Veterinarians refer to this as a "compromised system" as opposed to a failed organ.

The problem originates with the heart—because it is not functioning as well as it should, a series of other events takes place.

There is a group of monitoring cells in the kidney, which registers the amount of blood received there. When it gets insufficient blood, it produces a hormone in excess. This hormone stimulates part of a gland under the brain to produce another hormone. Hormone number two signals another part of the kidney to *reabsorb* sodium and water, instead of eliminating it.

This hormonal response is what creates the back-up of sodium and water in the animal's system, a condition often referred to as edema.

What can the veterinarian do about this? Several things involving both management and drugs. And—very important—he can remove excess sodium from the diet. If sodium is not present in the first place, then the animal cannot retain it to his detriment.

In practice, the veterinarian will ease the strain on the dog's heart by restricting his activity, perhaps by rest in a cage.

He is also likely to use a drug (one of the digitalis alkaloids) to increase the heart's output of blood. Since these drugs have some undesirable and potentially dangerous side effects, it's critical for the dog's owner to follow the advice of the veterinarian absolutely accurately.

The veterinarian may also stimulate the dog's urine flow with a drug called a diuretic. This will help remove the excesses of sodium and water the patient is retaining. Again, care and supervision are essential, because a diuretic has the capacity to remove other essential minerals in addition to the sodium.

The attending veterinarian may prescribe still another drug—this one helps the animal cough up fluid deposited in the lungs.

And, of course, he will provide the animal with a greatly restricted intake of sodium in its diet. In this manner, he will reduce the possibility of sodium retention.

As you might expect from your knowledge of heart conditions, most dogs who develop State III congestive heart failure are well past middle age—eight years old or more. At this time in the dog's life, there are other dietary concerns. Chronic kidney disease is common, so a good diet for this age group will be balanced to help stave off its appearance. Digestion is also generally less efficient than in younger animals. For this reason, the food should be readily digestible. These factors, plus a general focus on avoiding stress on the diseased heart, are all considered in creating the heart disease formula.

If your veterinarian tells you your dog has heart disease, don't despair. Chances are excellent that he has many years to live. Your role is critical—to be the active partner with your veterinarian in easing symptoms and prolonging the life of your beloved companion.



# WOLF FOR NATIONAL MAMMAL-A CAMPAIGN WHOSE TIME HAS COME

by Odean Cusack



**T**he howl of a wolf invokes images of the panoramic wilderness, vast lands largely untouched by man, abundant with caribou, moose and a dazzling array of flora and fauna. Sadly, today, that howl is seldom heard outside of a few northern regions of the U.S., the variation of life itself is dwindling (150 species of birds and mammals have become extinct in the U.S. alone since 1960), and more and more of the earth has been despoiled by excessive development with its inevitable companion, pollution. Predictions abound that man's penchant for rampant consumption has placed his own survival, as species, in jeopardy. In an effort to counteract this continuing trend toward expropriation, Mrs. Mary Trindal, of Alexandria, Va., originated the campaign, Wolf for National Mammal, in which the wolf would symbolize the whole of the wild environment.

In her 20 years as a volunteer rehabilitating orphaned

*Once believed to be a "hound of hell," the wolf was exterminated from over 99% of his natural range in the U.S. Ecologists now know that wolves are a vital and irreplaceable link in the wild environment, functioning to maintain the health of the prey herds by culling weak and unfit animals from them. The wolf pack is an extended family group with members forming deep and enduring bonds between each other and cooperating to raise the young and provide for the group. Tornado, pictured above, is a captive-raised wolf born at the Philadelphia Zoo. He is currently the alpha male at Wolf Park, a behavioral study center for wolves in Battle Ground, Ind.*

and injured wildlife, Mrs. Lindel gained a deep love and respect for nature. She chose the wolf as the symbol of her campaign to preserve the wilderness, not only because of his highly developed social behavior and his vital ecological role as a predator, but because his near extinction poses a test of man's wisdom. "The wolf has been driven out of the lower 48 states and is being driven out of Alaska," she says. "The day will come when his



howl will no longer be heard. We need the wolf as a reminder of what we wish to preserve in the future and to guard against the terrible wastefulness of the past."

In her effort to elevate the wolf to companion status with the bald eagle, Mrs. Trindal is seeking one million signatures to present to Congress. Particularly impressive, in her present signature count of 150,000, are the number of young people, through schools, 4-H clubs, and conservation groups, that have expressed support for her campaign. "This is a particularly fine project for youth groups. The future of the wolf and his lands are dependent not only on the efforts we make today, but the attitudes we inspire in our children. It will, after all, ultimately be their decision."

An important by-product of this campaign is the education that occurs in the process. With every petition sent is information elucidating the vital role that the wolf plays in the ecosphere he inhabits. The wolf is nature's finest conservationist; by culling the diseased and sick animals from the prey herds that sustain him, he maintains the health and vitality of these species which, in turn, assures they do not become overabundant for the vegetation they require. Additionally, many other species, such as foxes, raptors, etc. partake of wolf caches. A viable wolf population insures a healthy habitat. The national park of Isle Royale in Michigan is a living testimonial to the necessity of preserving both predator and prey.

Yet, predators have historically been viewed with disdain, and although the modern science of ethology stresses the interrelationships of all life, a recent Yale University study has revealed that as a group, predators are still less favored than other animals. "If the American people can care about the survival of the wolf, an 'unloved,' traditionally maligned animal, then there is certainly hope for all our wildlife," says Mrs. Trindal.

The campaign will also help preserve the wolf in his last wild strongholds. The future of any species is dependent upon the support and concern of an enlightened public. There is little point to discuss reintroduction efforts for the wolf until the general public is ready to accept him without fear or malice. To this end, the status afforded the wolf as national mammal will do much to enhance his improving public image and make him a "socially acceptable" animal. An overwhelming majority (87%) of the public favors protection for the bald eagle, a fact at least partially attributable to his status symbol and the ensuing efforts on his behalf.

For centuries, the wolf has maintained a symbiotic relationship with his environment. If man, as a species, is to survive, he must learn to do this as well. Wolf for National Mammal is a pledge to preserve the land and the life upon it from excessive consumption and needless development. Only when we have learned to live within our renewable resources and ceased exploitation can we begin to reverse the destructive processes we have set in motion. With the symbol of the wolf in the halls of Congress as a reminder to our lawmakers that the American people recognize the need for their wild environment, we will be one step closer to realizing these goals. And we will have one permanently elected lobbyist to insure that these wishes are upheld.

For more information about Wolf for National Mammal and how you can help preserve the wolf in the wild contact: Mrs. Mary Trindal 8526 Old Mount Vernon Road Alexandria, VA 22309.

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# TOXOPLASMOSIS AND HEALTH



## What is Toxoplasmosis?

Toxoplasmosis is a disease in humans, caused by a protozoan (very small intestinal parasite), *Toxoplasma gondii*. This disease is occurring worldwide and it is estimated that 40% to 50% of all Americans have been infected with the parasite at one time or another. About 1 out of every 3,000 pregnancies is believed to be complicated by Toxoplasmosis.

Cats are the only animals which carry the adult parasite. They, in turn, emit the eggs or oocysts which can cause infection in other animals and man. Therefore, man and animals contain early forms of the parasites which remain in the body: muscle, brain, etc. If an animal becomes infected, symptoms of the disease may appear or the infection may go unnoticed. The parasite remains in the system causing immunity against recurrence. Therefore, the cycle continues when an infected animal is slaughtered and eaten by others.

8 Today's Animal Health

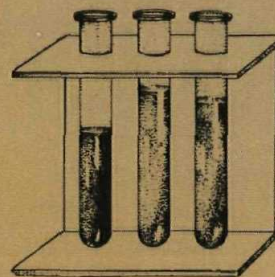
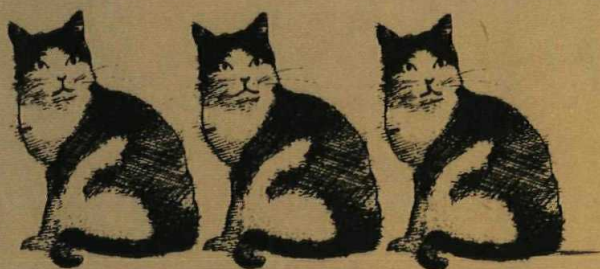
## How Does One Get Toxoplasmosis?

The two major sources of Toxoplasmosis are either undercooked or raw meat, and cat feces. People handling meat or meat by-products, (sausage, hamburgers, etc.) or eating raw or undercooked meat are at risk to ingest some of the parasites and develop the disease. Another source of infection is cat feces. Infected cats however pass eggs (oocysts) in their stools for only 2 or 3 weeks. After that, they are immune and rarely shed oocysts again.

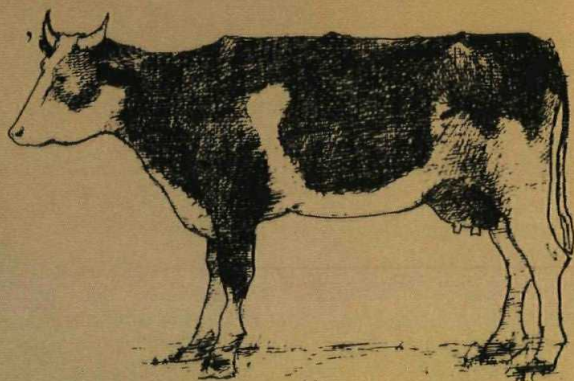
The eggs passed in the feces of the cat can produce infection in other animals or man after 24 hours and remain infective in cat stool or in the soil for up to 18 months.

When oocysts (eggs) are swallowed by other animals, they hatch and multiply within the muscle tissue where they remain, in many cases, for the life of the then immune animal.





Therefore, uncooked meat from sheep, cows, pigs, or goats provides a constant potential source of the disease to humans.



### What Are the Symptoms?

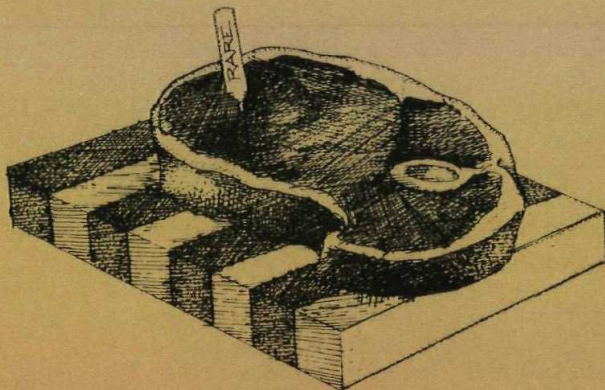
If humans consume only a few oocysts (eggs), no sickness may be apparent. The person may then become immune to Toxoplasmosis.

When a person ingests a large quantity of oocysts (eggs) or infected meat that person may become ill. The signs may vary from those of a mild cold to more severe symptoms such as painful lymph nodes, fever, eye infection or general illness.

If a pregnant mother becomes infected with Toxoplasma during pregnancy (not before!) the unborn baby may develop birth defects such as blindness and brain damage. Therefore, pregnant women should be aware of the risk of Toxoplasmosis and should be careful about eating raw meat, gardening and handling cats and cat litter.

### People and Their Cat

People should not be afraid to have a cat. Available data indicates that ownership of pet cats does not increase the risk of infection with Toxoplasma. Cats only pass the eggs for 2 to 3 weeks and then usually never pass them again. All cats owned by families with women of child-bearing age can be tested by a veterinarian for Toxoplasma antibodies. If a woman is planning to become pregnant or is pregnant, she can be tested by her physician. By checking both the woman and cat, recommendations can be made.

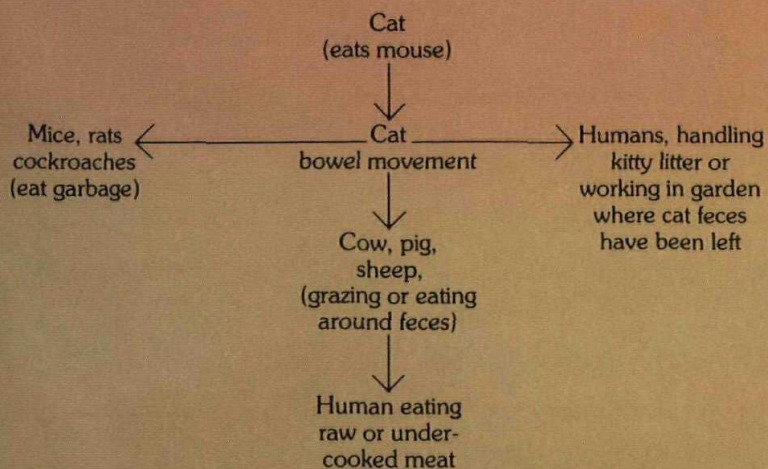


### Toxoplasmosis and Pregnancy

Since the unborn baby or young child is so easily hurt by this disease, extra caution is needed for the pregnant mother. The following recommendations should be considered.

1. To prevent infection of cats:
  - A. Ideally, confine cats to the house in order to prevent infection through eating mice.
  - B. Feed cats only dry or canned food or well-cooked meat, never raw meat or left-overs.
2. To prevent infection in humans:
  - A. Cook meat throughout to 150 F to destroy any parasites that might be in the meat.
  - B. Wash hands thoroughly after handling meat.
  - C. Change litter boxes daily before any eggs have had time to become infective eggs; dispose of cat feces as above and sterilize litter boxes by soaking with boiling water.
  - D. Wear gloves while gardening, especially in areas used by cats for a toilet.
  - E. Cover children's sandboxes when not in use so that cats cannot soil them.
  - F. Wash hands thoroughly before eating; this is particularly important for children.

If you would like additional copies of the brochure these facts were duplicated from send 25¢ per copy to: Community Hospital Association 183 West Street, Battle Creek, MI 49016. Attention Sue Jenkins.





# UNWANTED PESTS?

KEEPING OUT AGRICULTURAL CONTRABAND

**S**an Francisco—"Do you have any meat, fruit, vegetables, plants or other agricultural products?"

Millions of travelers have been asked that question by inspectors at U.S. ports of entry. And many a traveler, waiting in line, may have wondered just how long this has been going on. And why.

Why worry about "meat, fruit, vegetables, plants or other agricultural products?" What difference would it make if inspectors stopped asking the question and stopped inspecting luggage?

It could make all the difference in the world. Agricultural inspectors are our first line of defense against a host of foreign insects, pests, parasites and plant or animal diseases that are not present in this country. Without this protection, those pests and diseases could drastically affect the cost and kinds of food we eat. Our international trade in agricultural products would be sharply curtailed, and farmers would have to change the way they produce and sell crops and livestock.

"What we do at our ports today is very much the result of what we did not do in earlier times, when we had no restrictions on the movement of animals or animal and plant products," says Harry C. Mussman, Administrator of the Animal and Plant Health Inspection Service, U.S. Department of Agriculture.

Just 100 years ago on August 30 1880, Congress took one of the first steps to overcome the problems that threatened to overwhelm American agriculture because of the lack of protection. An Act was passed authorizing the Department of Agriculture to investigate bovine pleuropneumonia, a contagious cattle disease introduced from Europe 40 years earlier.

Mussman, whose agency administers agricultural quarantine and inspection regulations at some 85 U.S. ports of entry, points out that it took America a long time to realize the damage that resulted from unrestricted entry of animals and agricultural products.

"Before that date in 1880, we had taken very little action to combat pests or diseases, but by then the situation had grown so bad that Great Britain refused to accept American livestock shipments. British officials ordered American cattle slaughtered on the docks," Mussman says.

The \$15,000 appropriated in that minor piece of

legislation permitted USDA to hire a few of the then smaller number of veterinarians in the United States. That small beginning led to the establishment in 1884 of animal quarantine stations to keep infected cattle from entering the United States. It also resulted in establishment of the Bureau of Animal Industry, one of the ancestors of APHIS, the agency that today asks about "meat, fruit, vegetables, plants or other agricultural products."

"If cattle infected with bovine pleuropneumonia could block U.S. exports back in 1880, when transportation was slow and international commerce was more limited, what would be the affect if we permitted free movement for infected animals and infested products in today's swift, complex and massive international agricultural market?"

"Even with all of our controls at ports of entry, we still are confronted with new pests that slip in undetected," says Mussman.

"We currently are fighting outbreaks of the Mediterranean fruit fly in Los Angeles and San Jose, Calif. We have had to overcome, at considerable public expense, infestations of extremely destructive giant African snails in Miami, Fla. and citrus black flies in both Miami and Brownsville, Tex. We have had a number of outbreaks of exotic Newcastle disease that could have devastated the U.S. poultry industry if they had gone unchecked. and we are putting considerable effort into eradicating the tropical bont tick and the cattle fever tick, which were introduced in Puerto Rico a few years ago."

Mussman notes that a number of pests are still with us generations after they were introduced from abroad.

The codling moth is one of the worst pests of fruit orchards and accounts for a major part of the pesticides used in the United States today. It came over in the 19th century with some early shipments of nursery stock.

The Hessian fly came to America in the straw bedding carried on 18th century ships. Today it remains a major pest of grains.

A naturalist in New England was trying to develop an improved silk worm in the 1870's. He imported gypsy moths from Europe; they escaped and today we continue spending millions of dollars to fight this insect, whose caterpillars can defoliate an entire forest in a matter of weeks.



American livestock producers might like to improve sheep and goat production with an eye to the export market, but some American flocks are infected with a hard-to-diagnose disease known as scrapie. Over a period of months or even years, it destroys the nervous system of infected animals, and only too late do owners realize how far it has spread. This disease came into the United States with imported sheep and goats, and now prevents us from making exports to many other parts of the world.

A similar problem occurs with bluetongue of cattle, a disease that also was introduced into the United States from abroad. The existence of bluetongue in the United States is causing severe restrictions to be put on our cattle exports Europe. Many U.S. cattlemen are surprised at these restrictions because in cattle, bluetongue is a major disease, although it causes heavier losses in sheep and goats.

There are just a few examples of what unrestricted movement of animals, plants and their products cost the United States. Fortunately, the protection we have now established has permitted USDA officials to attack many problems and in some cases eradicate significant pests or diseases.

Animal health officials have eradicated 12 major livestock diseases since controls were placed on the entry of animals. The first was bovine pleuropneumonia which was eradicated in 1882, and the most recent was hog cholera, eradicated in 1976 after an intensive cooperative State-Federal campaign of 14 years. Now, APHIS veterinarians are working to eliminate other animal diseases, such as brucellosis and scrapie.

At the same time, APHIS entomologists and other plant scientists have eradicated eight insects and plant diseases from the U.S. One of these, the notorious khapra beetle, was eradicated from the entire North American continent. Mediterranean fruit flies have been eradicated six times since 1929. Campaigns are underway against the recent outbreaks of the Mediterranean fruit flies in California, and on Long Island against a foreign potato pest, the golden nematode.

All of this would be futile without the protection provided by USDA inspectors and their colleagues in the U.S. Customs Service, the Immigration and Naturalization Service, and other agencies that make inspections at ports of entry. Foreign pests and diseases enjoy a distinct advantage once they reach their host plants or animals in this country, for they have usually left behind the natural enemies that kept them in check. So it's essential to keep them out before they get the chance to go "hog wild" in America's highly susceptible crops and livestock.

What worries officials like Dr. Mussman is the relative ease with which some potentially disastrous pests or diseases can slip into the country. He cites a few very real examples that not only can, but probably will happen in the future.

\* \* Grapefruit or oranges from a passenger's baggage are thrown out because the fruit turns out to be "wormy." Those worms happen to be the larvae of the Mediterranean fruit fly or the Oriental fruit fly, which mature very soon into adults and set out to find the nearest susceptible fruit tree. Not until APHIS traps or a grower's report reveals the infestation, will we be able to move against the insect.

\* \* Sausage from the old country is brought back

(smuggled) by a family that has visited relatives in Europe. Some of it winds up in garbage fed to hogs; in a short time APHIS veterinarians find themselves fighting a raging outbreak of foot-and-mouth disease—an 'old country virus!

\* \* A potted plant is slipped by the inspectors at the airport and a bit of greenery is added to an American home. Sooner or later the plant is repotted and the soil is thrown out. In that soil lurk eggs of snails, nematodes (microscopic worms) or fungi that can create a host of problems for crop production in the United States.

\* \* A pet bird is brought in, concealed in a passenger's coat pocket. That bird is infected with exotic Newcastle disease, which is deadly to poultry. The virus spreads to poultry and an epidemic results in American farm flocks.

Dr. Mussman's apprehension is not ill founded. Just 2 years ago, one of the deadliest swine diseases in the world, African swine fever, suddenly appeared in Brazil. It then spread to the Dominican Republic, where the only permanent solution was destruction of all native swine. They are being replaced, after cleaning and disinfection of affected premises, by healthy swine from other countries.

African swine fever moved on to Haiti, which shares the same island with the Dominican Republic. A permanent, swine-free barrier will have to be maintained along the border between the two nations until an effective eradication campaign can be undertaken in Haiti.

Next, African swine fever spread to Cuba, almost on our doorstep. The disease, possibly brought in by Haitian refugees, was quickly eliminated by prompt quarantine and eradication procedures.

Mussman can point to many other potential disasters waiting to happen. America is only a matter of hours from any other part of the world. We are intimately bound up in travel and commerce with most other nations. The concern of APHIS officials is to facilitate the movement of people and safe, healthy products without endangering the outstanding agricultural industry we have developed since controls were first placed on animals and agricultural products.

Lest international travelers feel put upon, they should know that inspections made of cargoes, ship's stores, aircraft interiors and ship's holds are far more intensive than inspections made of private travelers. Even the garbage from ships and planes is subject to quarantine rules and must be disposed of in ways that protect America from foreign pests and diseases.

So, when the inspector at the airport asks, "Do you have any meat, fruit, vegetable, plants or other agricultural products?" Please remember: He is not really asking for your meat, fruit, vegetables, et cetera. He is asking you for any fruit flies, viruses, beetles, nematodes, snails, ticks or aphids. Please don't bring them back with you. And if you do, please turn them over to the inspector.

For safe souvenirs when you travel abroad get a concise USDA publication, "Travelers Tips," which tells you which "meats, fruits, vegetables, plants and other agricultural products" are permitted, which require special permits, and which are prohibited. Also discussed are items such as dogs, pet birds, hunting trophies, sand, straw products and many others that travelers bring into the country. Write to TRAVELERS TIPS, U.S. Department of Agriculture, Washington, D.C. 20250.



# TAKE GOOD CARE OF HERMAN

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by Linda Oggenfuss

**H**erman is a pet that is inexpensive, clean, odorless and fun to watch. He lives in a terrarium with his two friends Peek and Boo. The three of them are land hermit crabs. They are luckier than most pet crabs. Their owner knows how to take good care of them. Some owners don't.

Hermit crabs have been known to live as long as 15 years in captivity. Unfortunately, some pet crabs don't live more than 2 or 3 months because their owners haven't learned how to feed, house or handle them.

These hermit crabs are not born in captivity. All of the crabs seen in pet stores were once free and wild. They lived on or near beaches in warm areas like the Florida coast. There were rocks and trees to climb on. The crabs crawled about, especially at night, in search of food and new shells to wear. They lived and traveled in colonies that numbered anywhere from 12 to 1,000 crabs.

The home that you set up for your crabs should match the environment that they were taken from as closely as possible. A bird cage can be used to house them, but a large glass aquarium is best. Spread a thick 1" to 2" layer of sand, gravel, potting soil or peat moss on the bottom of the tank. Set some rocks and driftwood branches in it for the crabs to crawl on. Cover the tank.

A screen or glass tank cover with a built-in light is best for the crabs. The light will help keep the air in the tank at the warm 70 to 85 degrees F that the crabs were used to on the beach. Sprinkle the floor of the tank with water a few times a week. The sand should be moist but not wet. The same sand can be left in the tank for months without having to be changed.

Every 1 to 6 months your crabs will molt. This means that they are growing too big for their hard skin or exoskeleton, and must shed it like a snake does. They

will dig into the sand and hide while their new exoskeleton hardens. Do not disturb them. When they come out of hiding, they will be a little bigger than they were before.

Sometimes they have grown too big for the old shell that they wore. Every 12 to 18 months, they must find a new shell. They will try on several shells before they find one that is comfortable. Put plenty of empty shells into their terrarium so that they have lots to choose from.

Keep a dish of commercial crab food in their tank at all times. It will give the crabs complete balanced nutrition. They will also enjoy getting treats like: bread, crackers, lettuce, oatmeal, dry dog food, cookies, sandwich meat, apple and shredded coconut. Be sure to remove these foods from the crabs' dish before they spoil.

Keep water available in a heavy shallow dish. Crabs are used to drinking pure rain water in the wild. To purify tap water for them, first boil it then let it cool. This will remove the chlorine.

Hermit crabs respond to gentleness. They are shy and will usually play dead if they get frightened. Never shout near the crabs. Speak softly to them. When you first get your crabs, pick them up by holding their shell behind the opening. Handle them often. Soon your crabs will become friendly and will climb about on your hand. Don't drop them. If they feel themselves sliding or are about to fall, they will hold on tight to your finger with their large claws. Sometimes they get so frightened that they won't let go. Holding them under lukewarm running water will convince them to release you.

Herman, Peek and Boo will give their owners years of enjoyment. All they have to do is give them food, water and a good home to live in. Any animal deserves good care and lots of love. . . even if it is a crab.



# THERE'S SOMETHING FISHY GOING ON!

By Patricia M. Pontow

**G**oldfish are funny and interesting! I would like to tell you of my experiences with them.

A short while ago, my cat began licking his lips while watching the fish bowl. Kitty was planning his attack! So, I moved my four fish out of their bowl and put them into a ten-gallon, covered fish tank.

I gave my fish names to match their colors. Goldie is bright orange-gold. He is the only male fish in the group.

Beauty is a beauty, indeed. She shows every color of the rainbow.

Sunshine's rays of gold and white would brighten up a cloudy day.

Blackie is as black as a witch's hat. She is very playful, too.

It was in China that goldfish first became known. The Chinese, during the rule of the emperors in the Sung Dynasty, were the first to catch goldfish and put them into bowls. This happened two-thousand years ago and it was the very first time goldfish became pets.

The Japanese were next to become interested. They cross-bred goldfish and created different kinds and colors. Some goldfish are round in shape, others are long.

The Bubble-eye type of goldfish has eyes that pop out on the sides.

The Celestial is another kind of goldfish with pop-out eyes. But the eyes of this fish remain crossed for almost one year. In the one-year period, the cross-eyed Celestial fish cannot see anything that happens below the mouth. Finally, at the end of the one-year period, the eyes start to turn upward.

The Bubble-eye and Celestial are only two of the many kinds of goldfish available. There are well over one hundred kinds to choose from.

Feeding time for my fish means fun time too! After the tank cover is removed, the fish swim to the top of the water. Their mouths are wide open. Normally, goldfish will wait until the food has sunk to the bottom of the tank before eating it. This is known as bottom-feeding. But mine must have hearty appetites! They start nibbling at the top first, then work their way to the bottom.

As soon as the food hits the water, playtime begins. Goldie and Sunshine chase each other around the tank. They sometimes fight over a single piece of food. Beauty stays clear of the

more active fish. She often hides behind a rock.

Blackie is the playful nipper. She will nip another fish's fins or tail without warning. At first, I was afraid that I had Jaws Jr. in my tank. But, although Blackie nips a lot, she does not seem to harm the other fish. At the end of feeding time, Beauty peeks out from behind her rock. If all seems quiet, she swims out. I know who the coward is!

I feed my fish two small meals a day. I try not to overfeed. Overfeeding is a major cause of death in goldfish. They are not smart enough to stop eating when they are full!

Goldfish can be fun for the whole family. They need only a small amount of daily care. You can find many books about the proper care of goldfish at pet shops, libraries or department stores.

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# SOLAR HOUSE FOR DOGS



Mark Greenwood and his Irish Setter, Kelly, are shown here with the solar dog house, which utilizes a passive system for heating and cooling. Greenwood believes his design represents the state-of-the-art in canine shelter.

**T**he country's concern with its hard-pressed energy supply has taken a new turn with the design and marketing of plans for building a solar house for dogs.

A Scarsdale, New York industrial designer, Mark Greenwood, is believed to be the country's first marketer of plans to build a dog house utilizing a passive solar system for heating and cooling.

Greenwood believes his design represents the state-of-the-art in canine shelter.

"The solar dog house provides a safe and comfortable environment for the dog year-round. Inexpensive and easy to build, it has another benefit, as an educational tool for youngsters. In addition to understanding an increasingly necessary source for energy, the sun, youngsters can also learn simple building techniques," Greenwood said.

The unique design features a south-facing wall of plexiglass, a brick floor and insulated walls and ceiling.

14 Today's Animal Health

The combination of these features allows the sun's energy to enter the dog house and be absorbed in the flooring for later release as temperatures fall.

During the summer, when the sun is higher in the sky, an overhanging roof prevents rays from heating the interior, thus helping the brick floor retain its coolness. The hinged roof can also be raised to allow proper ventilation.

The passive solar techniques employed have been used for more than 50 years in housing for humans, but Greenwood's design is believed to be the first for dogs.

The materials recommended for the house are readily available at retail lumber yards. The plans, which sell for \$4.95, contain detailed instructions, plus a simple explanation of how solar energy works.

Greenwood conceived the idea of a solar house for dogs while designing an energy self-sufficient manufactured home for his master's thesis in industrial design from the Pratt Institute in Brooklyn, New York.



# PET HEALTH INSURANCE

by Don Hook, Mason McDuffie Co.

The scene is a veterinary hospital, where the owner of a dog has presented her animal for treatment of a serious injury, following an encounter with an automobile. After examining the animal the veterinarian quotes a fee for treatment and hospitalization." The charges will be approximately \$300.00, Mrs. Smith." Smiling, Mrs. Smith replies; "No problem. I'll use my Green Shield card."

Yes, there really are pet health plans currently available in the United States. We don't know of a plan called "Green Shield", but there are a number of different types plans being offered to the public today.

In this article we will attempt to provide some historical background, tell about the pet health concept and discuss two or three plan types.

We don't know of the exact date, nor even the exact location, where the first pet health plan emerged. We believe the idea first emerged in England, sometime prior to WW II. There are now a number of active plans in England, New Zealand and Australia. It is suspected the concept of pet health coverage has been accepted readily in the United Kingdom because socialized medicine and heavy unionization are major factors in everyday life in the United Kingdom.

While there are no totally accurate statistics, it is believed approximately 57% of households in the United States have either a dog or a cat, or both. This would indicate perhaps as many as 49 million dogs and cats, as pets, in America. Pets are an integral part of the family circle and when they require preventive or other medical care, the animals will receive such care.

Health insurance is readily available and most American families have some form of health coverage for themselves.

It logically follows that pet owners, when faced with the possibility of medical bills for their pets, which in some cases may be costly, would turn to some form of insurance or pre-paid program to share in the financial burden.

Generally, there are three (3) types of plans offered; 1. A health insurance policy for pets, providing for reimbursement of covered medical expenses; 2. a pre-paid medical service plan, whereby the owner will pay a set fee to a specific veterinarian, in exchange for which he will provide certain services to his pet; 3. a pre-paid plan in which a number of veterinary hospitals, not necessarily owned by the same veterinarian, will agree to provide certain services, after the owner makes payment of a specific predetermined fee to an administrator.

The first type of contract is very much like a health insurance contract for humans. These policies are broken down into specific sections; The name and address of the pet owner, the species of animal to be covered, it's sex and age, what illnesses and accidents are to be covered, the dollar amounts to be paid, including the annual maximum, those conditions to be excluded and the premium for the policy.

Usually there will be some type of per incident or per year deductible, although some contracts have no deductible. Often the policy will pay a percentage of the total cost of covered expenses, such as 80%. This is called co-insurance, meaning the pet owner is going to pay part of the charges.

As a condition to obtaining the policy the owner must verify the animal is in good health, this is usually done by having the veterinarian complete a simple form confirming the animal has no obvious physical problems. The good health condition will be a part of all three types of contracts. Claim payments made under the insurance type contract maybe paid directly to the owner or the serving veterinarian with approval of the owner.

In the second plan mentioned a single veterinary hospital or same ownership veterinary group, will offer to treat a certain animal as often as it requires medical attention for a set annual fee. The fee is paid directly to the veterinary facility in exchange for which the veterinarian agrees to render all professional care for the animal, subject to some possible excluded conditions. Sometimes, there may be a small office call charge at each visit.

The third plan is very much like the second one except a number of veterinary hospitals in a geographic area join together to offer services to pet owners. When the owner enrolls he or she picks a veterinarian from the list of facilities and when service is rendered the billing goes to a central payment office and the covered charges are reimbursed or paid in accordance with the written contract. If the owner wishes to change veterinarians, within the participating group, the change can be made.

Regardless of the plan type or the method of payment, there are certain common demoninators. All will have certain conditions which would not be covered or for which payment would be limited. Spay and neutering, skin conditions, congenital defects (such as hip dysplasia), ear trimming, tail-docking and dewclaws, teeth cleaning, conditions relating to ticks and fleas will also be excluded.

These exclusions or limitations are there to encourage the pet owner to take care of the animal and to have the animal vaccinated, spayed or neutered, and to keep it clean and free from external parasites. The accidental injury or the serious illness is to be covered under these plans. The cost of the coverage can be kept reasonable by covering those things which can be an unexpected financial burden on the owner.

The future of pet health plans appears to be bright. The American public is conditioned to major-medical and dental plans, eye care, pre-paid legal services, auto mechanical warranties, home repair service plans, etc. We can expect a number of plans being marketed during the next few years. With support from the public and the veterinary profession, the concept should take hold and flourish.



# CANINE BILL OF RIGHTS

by Karen B. Hayes

1

## The Right To Be Wanted

Owning a dog is a long-term commitment and one that should be carefully considered. Most likely you will own the dog for 10 to 15 years and should therefore have a dog which you have carefully chosen for personality, breed and sex. A dog's devotion to his master is legend, but the master should be devoted to his dog.

2

## The Right To Good Health

Once you have decided you want to own a dog, you must prepare for his proper care. When you have decided on a puppy, agree to buy him only if you are given time to have him examined by your own veterinarian. If the puppy is not healthy, return him and pick another puppy. It is detrimental to the relationship to start with an unhealthy puppy. If you do not have a veterinarian, ask friends for names of their veterinarians. Then visit the doctor and see how you feel about him or her on a personal basis. Once you get your pup, take him directly to the veterinarian you have chosen. The puppy will need to have preventive vaccinations right away and will probably need to be wormed. A general physical exam should be performed at this time. From then on, *your veterinarian's office staff should keep you informed* as to when the puppy should be re-immunized. You need to find out what to do if you have an emergency after office hours. Is there an emergency number? Is there another veterinarian to cover for your doctor when he is unable to answer emergencies? These are important questions because dogs, not unlike children, always seem to become ill or have accidents outside of normal office hours. It is also helpful to have a book that discusses dog health problems. It will help you decide if you have a real emergency or if you can afford to wait until office hours.

3

## The Right To Privacy

While it is true that a dog is a very social animal, he also needs some privacy. When he is tired or not feeling well, he needs a bed where he can go and not be disturbed. Everyone in the family should respect this private place. Often when the dog gets into trouble he will want to be alone and undisturbed so he can sulk for a proper length of time.

4

## The Right To Good Schooling

Every dog should go to school! An ill-mannered dog that will not obey is certainly not a joy to own. If you take an un-disciplined dog anywhere, it is an ordeal to be suffered through both by yourself and anyone else that is present. On the other hand, a dog that has been taught obedience is usually welcomed by most everyone. If you want to go for a walk to exercise the dog, it can be a very pleasant experience if the dog will walk by your side in the heel position. If you turn the dog loose to explore and he starts to go too far away, a simple "come" will bring him running back to you. If you want to take the dog to the store but can't take him inside, you can give him a "down" "stay," command and not worry about him wandering off into traffic. While obedience training can be a sport in itself, its main purpose is very practical. Obedience training, to be truly effective, does take a lot of time and practice but it is a time you and your dog will enjoy together.

5

## The Right To Have A Safe, Secure Home

Every dog that is allowed outdoors should have a kennel run. It should be a large pen where the dog can be left and you will know he is securely penned. A run of 4' x 12' is adequate for most any dog, even a large one. It should be made of good quality wire and should have either a concrete floor or wire, covered with sand or gravel. This assures that the dog will not dig his way out. It should also be covered with either a roof or wire. It is amazing how high a dog can climb or jump when he has decided he wants to escape. The dog should have a doghouse for shelter and fresh water at all times. The wastes should be cleaned daily. This is not a place to leave the dog all of the time, but merely a safe place, outside, that you can leave the dog when you do not want to be concerned about where he is or what he is doing. Please make sure your dog has learned not to bark or howl when left in his pen.

6

## The Right To Be Returned If He Is Lost

Occasionally, even with the best precautions, a dog will wander and not be able to find his way home. Often



purebred dogs are stolen for resale. There are two things you can do to raise the probability of having your dog returned. First, have a good name tag, engraved with your name and address, on his collar at all times. If you have recently moved, get a new one immediately. The next thing, is to have the dog tattooed by your veterinarian. The dog's AKC registration number is the most practical identification to use. While it may still be difficult to track you down if the dog is lost, a tattoo will usually guarantee the dog will not be stolen or resold.

## 7

### The Right To Be Neutered

Any dog that is a pet, should be neutered. There are so many uncared for and unwanted puppies now, that we don't need anymore. Both male and female make much nicer pets if they are neutered. It also saves you the headache of having a female in heat. If you have a male that hasn't been neutered, he will be inclined to wander.

## 8

### The Right To Proper Accomodations If You Must Leave The Dog

If you must leave your dog behind when you go on a trip, you owe it to him to find a good boarding kennel. Often people board their dog at their veterinarian's, but I feel I would rather not have my dog around others who may be ill. A good boarding kennel will, above all, be clean and not foul smelling. The dogs should have sufficient room to run and should have a warm, dry and clean bed area. Usually boarding kennels will keep most popular brands of dog food on hand, so your dog will not be expected to change his diet. If you use some unusual or expensive brand, perhaps you can work out an arrangement for a smaller fee if you supply the food. Watch how the attendents handle the dogs. They should like dogs and be comfortable around them.

## 9

### The Right To A Long Life

As your dog gets older, you may have to make special accomodations for him. He will slow down physically and probably gain weight. Special attention should be paid to his diet. More frequent trips to the veterinarian may be necessary. His dental health should be watched carefully. If his teeth become bad, he will have trouble eating. Older dogs often get arthritis and may need medication.

#### The Right To Die When It Is Time

When your pet is in obvious pain or has an incurable disease that cannot be checked, then you should consider euthanasia. There is a time when the consideration must be given the dog, not the owner. It is not fair to have your faithful friend suffer. I have always felt it was rather cruel to take a dog to the veterinarian's office for this procedure, since usually dogs are frightened of the office. Possibly your veterinarian will agree to come to your home to give the injection. If this is not possible, see if you can get a heavy dose of tranquilizers to give the dog at home and then, when he is very calm, take him to the office.

# WINTER ADVICE

by Susan Brooks & Cynthia Burns

The trees are getting bare, days are shorter, and winter's chill is already upon us. Bide-A-Wee Home Association suggests taking steps now to make sure your pets won't suffer from ice, snow and freezing temperatures.

Bide-A-Wee does not condone pet dogs living outdoors fulltime in cold climates, but recognizing the fact that some dogs are kept outside we urge the owners to provide weatherproof, waterproof, draftproof, comfortable quarters. The doghouse or kennel should be no more than twelve inches longer and three inches higher than the dog, since the animal won't be able to produce enough body heat to warm a house that's too large. The floor should be raised a few inches off the ground and covered with a suitable bedding. Cedar shavings—which are very good since they control parasites as well as help the animal retain its skin oils—or clean, dry shredded newspaper act as good insulators and actually offer more warmth than an old rug or towel (poor choices as they will hold moisture and then freeze as the temperature drops).

Indoor dogs shed their undercoats and should never stay outside for very long. Very short-haired or small dogs may need a sweater or jacket for protection against low temperatures.

Rock salt or other chemicals are commonly used to melt ice on sidewalks and streets. As they defrost the chemicals can cause irritation and burning of the pads of dogs' and cats' paws. Use a damp towel to wipe off your pet's feet and undercarriage immediately after each walk. Don't let your dog or cat lick his paws before they've been cleaned—the chemicals may burn and irritate his tongue and could cause serious problems if ingested.

Cats should always be kept indoors—they live safer, longer and healthier lives that way. But for those unfortunate or stray cats who are left outside, remember that the warm engine block in your car is a great enticement so before you start the engine on cold mornings, smack the hood to scare away any feline occupants.

Dry skin can be caused by decreased humidity during cold weather. A home humidifier can help your pet breathe easier, reduce static electricity and help prevent dry skin. Adding some cooking oil, butter or fat to your pet's diet once a week can also help with dry skin (the amount will depend on the animal's weight—ask your veterinarian). As usual, be sure to comb and brush your pet regularly.

Don't forget the strays as the temperature drops. They need your care and concern more now than at any other time, since food supplies dwindle or freeze in winter months. You can save a life by feeding a stray or taking him into your home. If you can't keep him, check your newspapers and local humane society for lost pet notices, put up signs in the neighborhood, or run a "found" ad in a community newspaper. If you can't find his owner and can't keep him, use every resource available to find him a home. If all else fails, bring him to an animal shelter rather than put him back in the street.



# "PARROT FEVER;" PROTECTION FROM PSITTACOSIS

by Randall G. Melinger



Most bird owners are aware of Newcastle's disease, a highly publicized and untreatable disease which can devastate the bird industry.

However, most bird owners, including many breeders, are not as familiar with psittacosis, or Parrot Fever, which can be far more dangerous since the infection can be transmitted from birds to humans.

Early in the 20th Century, 300-400 people died from psittacosis yearly in the United States. Many of these human cases occurred in poultry processing plants and the danger of fatalities subsided with the advent of effective antibiotics.

Nonetheless, psittacosis in human beings can still be very serious and, if untreated, it can develop into pneumonia and cause long-term damage to the lungs, heart, kidney and liver.

With the recent profit in the pet bird industry due to the rise in popularity of exotic birds, the incidences of psittacosis cases have increased dramatically. Therefore, pet bird owners should take several precautions concerning this infection.

Because of the relatively recent nature of this problem, there are misconceptions concerning the disease which lead to its spread. In dealing with psittacosis, the following facts must be always considered:

1. Psittacosis is treatable.
2. Birds do *not* have an immunity to the disease even after treatment.
3. Your veterinarian can initiate a laboratory test to detect the disease.
4. Nearly all birds are susceptible to psittacosis (in non-

psittacine birds the disease is called ornithosis).

5. The infection is transmitted by waste material and fecal dust and is very contagious.

Because psittacosis is treatable in both human beings and birds, one should not be afraid to own pet birds. If detected, instructions from your veterinarian and local health officials are available to eliminate psittacosis from any exposed bird.

The disease occurs in three stages: latent, semi-active and active. In the latent stage, the bird shows no signs of illness whatsoever. However, it can still infect human beings and other birds.

In the semi-active stage, brought about by a stronger exposure or a mild stress situation, the bird shows a loss of appetite, mild diarrhea and some feather loss.

In the active stage, severe symptoms of a typically-sick bird will arise, including loss of appetite, diarrhea, feather loss, quivering, lesions, discharge from the eyes and mouth and sudden death.

If a bird survives psittacosis without treatment, it becomes a carrier. Therefore, any new addition to a bird collection or aviary should be tested by your veterinarian.

If a case is confirmed by health official, all exposed birds must be treated. The treatment involves a medicated seed fed to small birds and a medicated mash fed to large birds.

Opposed to popular beliefs, psittacosis cannot be eliminated with chlorotetracycline in the water. With the exception of injections of antibiotics for the first few days, the medicated feed method is currently the only effective means of combatting the infection.

In addition to treatment, proper housing is vital even if



the bird has not been exposed. Frequent disinfecting and removal of waste material are important.

In the event a bird is a carrier of psittacosis in the latent or passive stage, the owner should avoid stress situations in the bird's environment. In other words, extreme temperatures or long periods of confinement such as travel should be kept at a minimum.

If stressed, the bird's defenses are reduced and the infection becomes active. In this case, the bird should be taken to a veterinarian as soon as possible.

Treatment for sick or exposed birds should be followed from instructions from the veterinarian or health officials. Exact procedures are necessary for effective treatment.

When purchasing a bird, it is recommended to request the dates and type of treatment for psittacosis given to the bird. Small birds require thirty days of treatment while larger birds need forty-five consecutive days of the mash and chlorotetracycline.

If the information cannot be satisfactorily provided and other birds will be exposed to the new bird, it is recommended to isolate and treat the bird or to have it tested by your veterinarian.

This precaution is especially necessary when purchasing a bird from a private party or at a bird meet. Private breeders often have aviaries without complete roofing. Since many wild birds, including pigeons and doves, are latent carriers, they can expose entire aviaries with their droppings.

Therefore, all breeders should cover the aviaries and flights completely to prevent outside waste material from infecting the collection.

Even when purchasing from a source obtaining their birds from a quarantine station for imported birds, testing and isolation may still be necessary for larger birds, such as macaws and parrots. For some reason, federal laws require the medicated treatment for only thirty days while forty-five days of the mash is the effective minimum.

Other measures a bird owner can take revolve around the prevention of exposure to other birds for your pet bird(s). It is common practice for some enthusiasts to take their pets to other homes and pet shops. This should not be allowed by the cautious bird owner.

Keeping your bird outside without protection from wild birds is an ill-advised practice for the reasons cited above. If you must allow your bird fresh air, keep it in an enclosure with a completely covered top and keep the enclosure very clean and void of waste material.

Psittacosis should also be suspected by bird owners who become ill with flu-like symptoms. If normal efforts do not abate the heavy "cold" in someone exposed to a pet bird, a physician should be contacted with the possible exposure to psittacosis mentioned.

County health officials can usually provide free or low-cost laboratory tests for psittacosis in human beings. Such precautions should be especially taken in the event of exposures for young children and elderly people, in whom the disease is more serious.

While psittacosis is a hazard of owning or breeding birds, the careful owner can prevent any danger to the health of people and birds through these preventative measures and proper care.

Dept. of Public Health, State of California: "Outline of Treatment to Eliminate Latent Psittacosis Infection from Psittacine Birds". Dr. William H. Dieterich, D.V.M. "Chlamydiosis (Psittacosis-Ornithosis) in Southern California", 1977.

## Being a deaf dancer is really something.

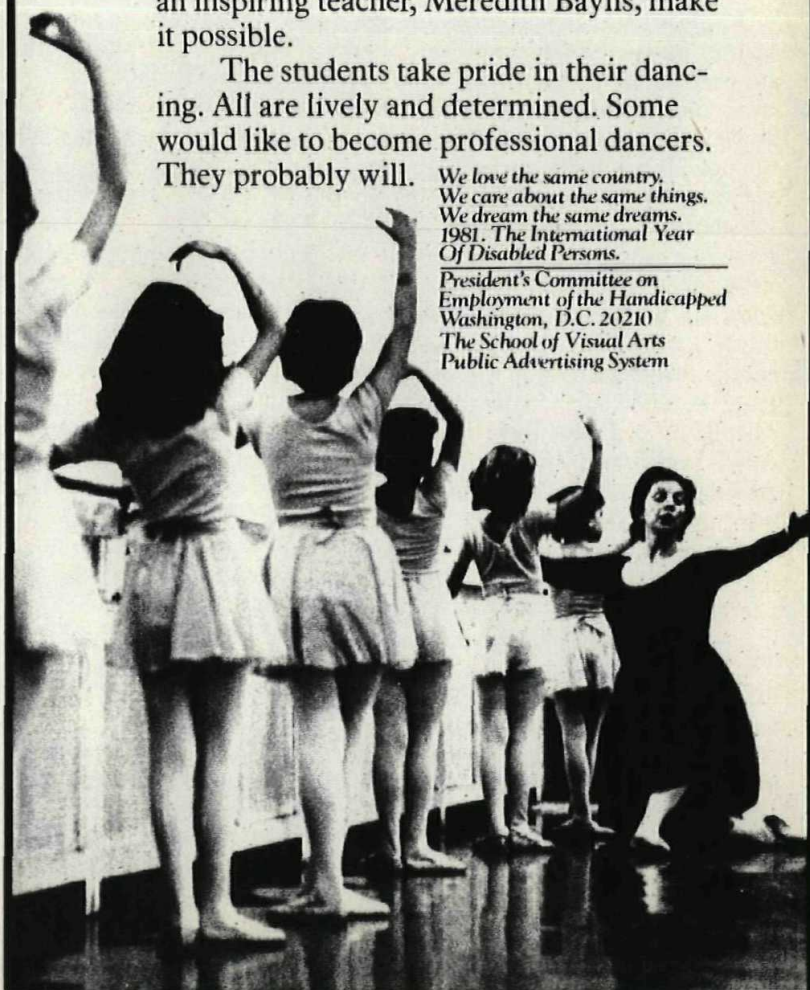


It looks like any other dance class. The dancers watch their movements in the mirror, giggle, make mistakes, master a position. Yet, Nancy Hlibok and the other students in this class at the Joffrey Ballet School are deaf. Physical response to the vibrations of the music, sign language and an inspiring teacher, Meredith Baylis, make it possible.

The students take pride in their dancing. All are lively and determined. Some would like to become professional dancers. They probably will.

*We love the same country.  
We care about the same things.  
We dream the same dreams.  
1981. The International Year  
Of Disabled Persons.*

*President's Committee on  
Employment of the Handicapped  
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## URINARY STONES

Veterinary scientists at the University of Minnesota have reported findings that may open the door to a non-surgical treatment of one form of urinary stones in dogs.

Carl A. Osborne, D.V.M., Ph.D., and Donald R. Krawiec, D.V.M., M.S., have discovered that a drug called AHA (acetohydroxamic acid) can dissolve and sometimes prevent the further growth of calculi composed of ammonium magnesium phosphate struvite. They also found that the drug may help control the bacteria that cause that type of stone.

Struvite crystals, scientists believe, are the painful end-product of a sequence of events that begins with infection of the bladder by *Staphylococcus aureus* bacteria. The bacteria produce the enzyme urease, which breaks down urea and causes the normally acidic urine to become alkaline. Under alkaline conditions, calcium phosphate and ammonium magnesium phosphate are able to precipitate and, presumably, coalesce into stones.

"In the past, the only known effective therapeutic regimen for the treatment of struvite calculi in dogs, human beings and other species has been surgical removal of uroliths, followed by eradication of concomitant bacterial infection," Dr. Osborne says. "Unfortunately, these methods do not prevent recurrence. . ."

Laboratory studies have shown that AHA can inhibit the effect of urease on urea, but Dr. Osborne and Dr. Krawiec, working under a grant from Morris Animal Foundation, were the first to demonstrate that the drug may have the same effect in the dog. Of five calculi-affected dogs they treated with AHA, two had been completely cleared of the stones and the bacterial infection within six weeks after the beginning of therapy. In the other three dogs, the growth of the stones had been halted.

Dr. Osborne and Dr. Krawiec stress that their findings are preliminary, and that further work will be needed before any definite conclusions can be drawn. They plan follow-up studies on the five treated dogs to determine the long-term effectiveness of AHA in treating struvite stones.

But, says Dr. Osborne, "The results of this investigation have great potential significance for improvement of the control and therapy of (struvite) urolithiasis in all species."

## worth reading

### Abnormalities of Companion Animals, Analysis of Heritability

By: C.W. Foley, J.F. Lasley

G.D. Osweiler

Ames, Iowa: The Iowa State University Press

1979: \$11.95

An invaluable book for breeders and veterinarians—or just pet owners who have animals they wish to breed. Dogs, cats and horses are treated in separate chapters and in each case defects with a probable genetic base or a possible genetic base are analyzed. The introduction familiarizes the reader with the fundamental principles of genetics. Very clearly written without a superabundance of verbiage, the general reader as well as the student will profit from reading this.

We have received two excellent books on preparing for careers in working with animals.

### Careers: Working With Animals

By: Guy R. Hodge

Washington, D.C.: The Humane Society of the United States

1980: \$6.95

This is a very complete and excellent analysis of the field. Some of the chapter headings will give you a clue to the contents: The Job Market, Historical Profile of Animal Welfare and Conservation Movements, Self-Assessment, Animal Career Profiles, Education etc., The Job Search. In addition to this there are eight appendices with a wealth of information.

### Career Guide to the Animal Health Field

By: M. Leigh Simmons, D.V.M.

Media, Pa.: Harwal Publishing Co.

1980: Paperback

This excellent and practical paperback covers the field of Veterinary Doctor most thoroughly. It has three short chapters on Animal Technologists and Animal Technicians. It tells you what the field is all about, how to prepare for it and lists the admission policies of universities and schools with veterinary courses. Good practical short guide.

Two small picture books for gift-giving to dog lovers:

### Dog Wash

By: Lenore Freeman and Jean Stahmer

Gainesville, Florida: Triad Scientific Publishers

1979: \$3.95

Hilarious picture trip through a dog wash, complete with captions. Marvelous gift for your friend who is owned by a dog.

### What Kind of Dog Is That?

By: Nina Leen

New York: W.W. Norton & Co.

1979: \$9.95, cloth; \$4.95, paper

Wonderful photographs of some very lovable and handsome mongrels. The author has on each page opposite the primary photo, analyzed the possible breed heredity. A great book for browsing. Try a mongrel owner with this one.

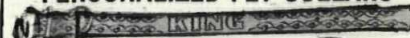
### A Dog of Your Own

By: Joan Palmer

Salamander Books Ltd.

This book is much more than a guide to dogs. It is a beautiful and practical manual of no-nonsense advice that will become an essential aid to new and existing dog owners alike. The chapter on the Greyhound is of particular interest as for once this breed is shown as being a wonderful loyal pet and the racing/showing aspects are not spot-lighted! A welcome & happy change. I recommend all who love dogs to buy or at least ask their library to order this book!

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# CANINE BIRTH CONTROL RESEARCH

The day may be coming when birth control for dogs is as easy as giving an injection.

University of Hawaii scientists, funded by Morris Animal Foundation, are working toward a vaccine to prevent conception in the bitch, which would have the added benefits of being reversible and generally free of side effects.

Cherrie Ann Mahi-Brown, M.Sci., who is conducting the investigation under the direction of Ryuzo Yanagimachi, D.Sci., reported recent progress at the Foundation's 1980 annual meeting in Englewood, Colorado.

The Morris Animal Foundation, which sponsors studies into diseases of companion animals, this year received requests for 2½ million dollars from veterinary schools for grants, but was only able to budget \$250,000 because of shortage of funds.

The procedure under study involves immunizing the bitch against the zona pellucida, one of the coatings on the canine egg. Unfortunately, attempts to immunize mammals directly against their own egg zonae have yielded, at best, "inconsistent results," the investigators said in their grant proposal.

"However," they said, "animals have been induced to produce antibodies that react with their own zonae when they have been immunized with zonae of certain other species. Those antibodies have several cases produced infertility."

"Through laboratory tests, the Hawaii investigators learned that zonae from the pig are good candidates to produce this cross-reaction in the dog. Pig zonae would have the advantage of being readily obtainable from ovaries discarded by slaughterhouses.

In the lab studies, pig zonae were injected into rabbits, which produced antiserum against the foreign matter. The rabbit antiserum was then collected and added to a medium—developed in an earlier phase of the Hawaii project—in which canine eggs and sperm were kept visible. With a microscope, the scientists were able to see that the antibodies against the pig zonae also reacted with the canine eggs, preventing fertilization by sperm.

These findings opened up two approaches to the control of fertility in the bitch—active immunization and passive immunization, both of which the Hawaii scientists are now examining.

Active immunization would mean injecting the bitch directly with pig (or other animal) zonae. Mrs. Brown recently has done this, and will determine whether the dog indeed produces antibodies to the foreign zonae, and, if so, whether these antibodies attack her own zonae and render her infertile for at least one cycle.

Passive immunization would involve collecting the antiserum produced in the rabbit against zonae, and



*Cherrie Ann Mahi-Brown, M.Sci., works at the University of Hawaii on a reversible birth control method for bitches without side effects. Under sponsorship by Morris Animal Foundation, Brown is investigating the possibility of immunizing dogs against fertility, and reported progress at a recent annual meeting of the Foundation.*

injecting this antiserum into the dog. The scientists are testing rabbit antiserum against pig and cow zonae for its ability to produce passive immunity in the dog.

"Since it is relatively easy to obtain ovaries from slaughtered animals such as pigs and cows and rather large numbers of eggs can be obtained, especially from the pig, anti-bovine or -porcine sera are relatively easy to prepare," the scientists reported. "We should like to determine whether fertilization of canine eggs is inhibited by antisera produced against bovine and porcine zonae, as well as against even more readily available zonae from the eggs of laboratory animals (rats, mice and hamsters)."

Should one or both of these approaches to canine birth control prove feasible, dog owners would have another option to surgical spaying that would be humane, convenient and inexpensive, and quite possibly reversible—a decided advantage in work or show dogs destined eventually for breeding.

"The advantage of this system is that you don't have to give it every day," Mrs. Brown said at the Morris Animal Foundation meeting. "It theoretically should have no side effects, except for a possible allergic reaction, which you could get with any vaccine."

"It has the tremendous advantage of not having any effect on any other part of the reproductive system. If you want to abolish heat, that's not an advantage, but disadvantage. But if you're interested in the reduction of side effects, and specificity," she said, "it does offer one more weapon in our arsenal."



# in the NEWS

## PETS SHIPPED BY AIR GET IMPROVED CARE

Fido and Tabby Travel More Comfortably

If Fido or Tabby needs to travel from California to New York, they are provided more comfort than in the past.

Until recently, many dogs were shipped inside a homemade crate and carried in a poorly ventilated cargo hold—without human care during the trip.

Traveling pets were not only uncomfortable in past years, they also got sick or even died, said Pierre A. Chaloux, deputy administrator of the Animal and Plant Health Inspection Service of the U.S. Department of Agriculture.

"Pets shipped by air depend on human attention," he said. "They are confined and can't possibly look out for themselves.

"The Animal Welfare Act requires this human attention and in many ways the law has worked," Chaloux said. His agency is charged with enforcing the act, amended in 1976 to include rules on animal transportation.

"Since 1976, homemade crates have almost disappeared from the scene," Chaloux said. "Commercial shippers and airlines that sell or lease crates buy them from industrial manufacturers. These manufacturers stay in close touch with the USDA and have been meeting or exceeding our requirements for strength, safety, ventilation and design for safe handling.

"Airline cargo handlers are instructed to give animals better care," he said. "Occasions where caged animals were left out in the hot sun, cold weather or stuffy warehouse are rarer."

"We prosecuted one airline for negligence toward animal cargo. The carrier agreed in a settlement to be more diligent in instructing cargo handlers," he said.

"Inspectors have seen improvements in the condition of puppies and kittens shipped to pet stores," Chaloux said. "They are not shipped too young anymore, and they have fewer disease and parasite problems."

The 1976 legislation requires puppies and kittens being shipped to be at least eight weeks old. They must have a veterinarian's certificate stating they are healthy. The animals must be in a suitable crate with directions for feeding, and care enroute, Chaloux said.

The crate must be marked "live animals" and an arrow must show which side is to be kept up. The shipper can reserve space with the carrier in advance and may not drop off animals more than six hours before their scheduled departure.

"Airlines must refuse any shipment that does not meet these requirements," Chaloux said. "Also, they must check on the well being of animals and must provide appropriate facilities for holding them before, between and after flights. And they must see that the animals are not stranded after arrival, which used to happen with unclaimed animals shipped COD. Now COD shipments are not permitted unless the shipper guarantees to pay for transporting and caring for unclaimed animals."

Companies that pick, up lodge or deliver animals during their travel are responsible for their care and humane treatment. Like the airlines, the delivery services must be registered with the USDA.

"Of course, the 1976, legislation didn't solve all problems with animal shipments," Chaloux said. "Carriers constantly have to face the fact that live cargo doesn't lend itself easily to standardized handling. Some airlines avoid the problem by saying they won't handle animals as cargo and there's no rule that requires airlines to take cargo they don't want.

"Another problem for animals shipped by air is that cargo holds in airplanes often don't have adequate ventilation heating or cooling for animals," he said. "Airlines have helped by modifying the cargo hold of some planes and banning or restricting animal shipments on others.

"In general, however, animals fare better than they used to when they travel by air," Chaloux said. "Last year, our inspectors conducted nearly 15,000 inspections at airports to check if regulations were being followed. They found few violations that couldn't be corrected promptly."

## VETERINARY RESEARCH ADVANCES HUMAN WELFARE

The discovery by a veterinary scientist that insects could transmit disease was instrumental in making possible the Panama Canal.

This is a little-known example of the role veterinarians have played in the advancement of human health and welfare, according to J.F. Smithcors, Editor, American Veterinary Publications, in an address to the American Veterinary Historical Society at the 116th annual meeting of the American Veterinary Medical Association.

In 1893, the USDA veterinarian Fred L. Kilborne discovered that cattle ticks transmitted the infective agent of Texas fever (bovine piroplasmosis). This work led to proof by medical scientists that other insects transmitted such diseases as yellow fever, the ravages of which had thwarted the French in their efforts to dig a canal across the mosquito-ridden Isthmus of Panama. Kilborne and the veterinary profession have not received credit for this epochal discovery, hailed as one of the most important advances in medicine of all time, because medical historians have attributed it to the physician-scientist Theobald Smith, who himself disclaimed the honor not due him.

From ancient times much of the real knowledge related to human healing has been based on animal studies, but failure of medical historians to recognize the value of work by veterinary scientists has made medical research less fruitful than it might have been. As a means of correcting this deficiency, Smithcors urged that historians give more attention to the interrelationships of veterinary and human medicine, and to presentation of such topics in both the professional and popular media.

Work of this nature already underway through the Veterinary Heritage program at Washington State University was described by John F. Guido, Head of Special Collections at the WSU Library, which boasts of an outstanding collection of veterinary works dating from the 16th century. "We intend to keep the Veterinary Collection as free from dust as possible," Guido said, "by making it attractive to all who choose to plumb its riches. In short, we expect this collection to be used."

In addition to the history collection, the WSU Veterinary Heritage program includes a working museum and an oral history project designed to "capture organize, preserve and make available for use the heritage which is the veterinary profession's." An



immediate project is a graduate and undergraduate student prize essay competition, and an extensive exhibit of rare books and veterinary artifacts was presented at the Seattle meeting.

In speaking on nonacademic influences on veterinary education, Everett B. Miller, Associate Editor, *American Journal of Veterinary Research*, said that nothing approaching a unified educational concept existed until about 1900. At this time there were only 5 state-supported veterinary schools, the 5th being at Washington State University (1899). Beginning in 1852 in Philadelphia, 24 private schools had been established as business ventures by 1900, but 14 of these had already ceased operation, primarily because they were no longer profitable.

The quality of education improved as various states began to require examination for veterinary licensure, and the USDA Bureau of Animal Industry adopted educational requirements for employment. With the institution of more rigorous requirements for admission and graduation, especially since World War II, the quality of veterinary education has equalled that of human medicine.

## HUMANS CATCH BRUCELLOSIS

**H**ow often does a veterinarian locate a human disease condition?

"It does happen, though," according to Jon O. Hanson, a veterinarian with the U.S. Department of Agriculture.

"A cattle rancher was told by his doctor that he had influenza," Hanson said. "However, after the rancher's veterinarian found brucellosis in two calves, the veterinarian became suspicious of the rancher's illness. It turned out the rancher had brucellosis."

Hanson, a veterinarian with USDA's Animal and Plant Health Inspection Service, traced the disease back to the herd and owner. "The rancher was ill for six months before we made the proper diagnosis," Hanson said.

Hanson said in humans brucellosis often tends to be often overlooked, especially in areas where there isn't much cattle brucellosis. "Veterinarians who encounter cattle owners with recurring health problems as well as a herd producing weak calves or frequent abortions should immediately

suspect brucellosis," said Paul Becton, director of the national brucellosis eradication program for APHIS. "Even though brucellosis is considered primarily an animal disease, it continues to present a human hazard."

At the present time, there is no human vaccine against brucellosis—called undulant fever in humans—although high doses of antibiotics can control the disease. Even though relapses of human brucellosis are common, prompt diagnosis and treatment can shorten the course of the disease and prevent complications.

"Since brucellosis is acquired through direct contact with infected animals or by consuming unpasteurized dairy products, eradicating the disease in animals will eliminate the human health risk," Becton said.

"Human brucellosis can be diagnosed by a blood test given at most hospitals, clinics and county or state public health laboratories," he said.

According to the Public Health Service's Center for Disease Control, in 1978 nearly half the reported cases of brucellosis involved meat processors, veterinarians, livestock owners and others who are in direct contact with cattle or swine. Even though brucellosis is considered an occupational disease, an additional 9 percent of the cases reported resulted from eating unpasteurized or foreign dairy products.

"Natural food advocates who favor using raw milk should drink only pasteurized milk or milk from a herd certified to be free of brucellosis," Becton said. "Milk and other dairy products sold commercially in this country are safe but this may not be true in some foreign countries."

The early 1970's saw the number of human cases double, he said, from 175 in 1973 to 354 in 1975. "This increase was directly related to a rise in cattle cases," said Becton. "It has since reversed."

Since the symptoms of human brucellosis—fatigue, fever, chills, weight loss and body aches—are very similar to those of other common human infections, the disease is often overlooked or misdiagnosed. Chronic forms may cause more adverse effects such as emotional disturbances, arthritis and attacks of the central and optic nervous systems.

According to Becton, large eco-

nomic losses for cattle producers as well as the probability of contracting brucellosis can be reduced by:

- wearing protective gloves when assisting in calving and scrubbing well afterwards;
- avoid touching your eyes, nose and mouth after touching newborn calves or raw milk until you wash your hands;
- burning or burying aborted fetuses contaminated placental tissue;
- disinfecting all contaminated areas such as calving pens, or areas where an abortion occurred;
- having all cattle suspected of brucellosis tested as well as testing any additions to a herd.

"Fortunately, brucellosis is preventable," Becton said. "Its incidence in man has dropped dramatically as we contain and eliminate animal infection. But as long as some livestock continue to harbor infection, human cases will continue to occur." Continued on page 26

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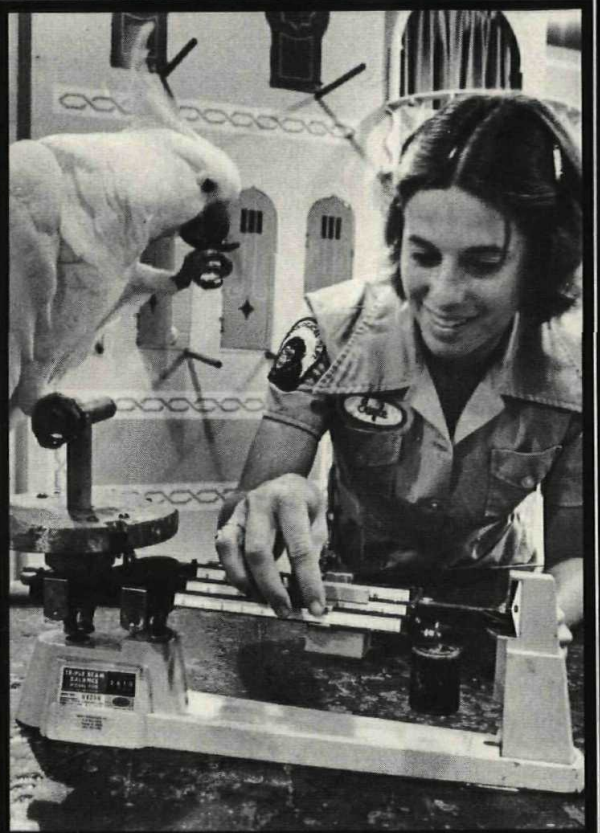
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# SHOW BIRD'S HEALTH



# DEPENDENT ON WEIGHT



The well-trained show birds that perform programs of tricks for audiences at Tampa's Busch Gardens are members of an avian aristocracy. As their training considerably increases the value of these birds, both in dollars and in training time, all possible precautions are taken to assure their good health.

Fundamental to their health regimen is maintaining each bird's healthy weight. Every day, each show bird is weighed on an Ohaus gram balance. The amount of food he will get that day to maintain his "performing trim" is also weighed out daily on an Ohaus balance. Should the bird's daily weight fluctuate, that is an alarm signal for the trainers to check the bird's health.

The bird show program at Busch Gardens is one of its oldest attractions. It was started in 1959. The program now uses about 100 well-trained birds, mostly macaws and cockatoos, because smaller birds are harder for show audiences to see. In their performances, the birds do a variety of stunts including riding bicycles and scooters, standing on their heads, roller skating and the like.

When a bird has performed its "speciality" successfully, it is immediately rewarded with one-fourth of a peanut. This on-stage feeding is a significant portion of every show bird's diet, because in peak season the birds are performing about eight daily shows. Its peanut intake is tabulated and the bird receives the balances of its feed allotment when it is put away for the day.

### **2,000 Rare Birds In Free-Flight Aviary**

In addition to the show birds, Busch Gardens has about 2,000 other valuable birds. A great variety of birds are represented here, with the value of many running to thousands of dollars.

An Ohaus scale is used in the care and feeding of these birds as well. If any aviary bird appears sick, it is caught and brought to the animal hospital for care. It is weighed when it is brought in, on another Ohaus scale, and weighed each day after that to be sure that it is not losing weight. Its daily food is measured with the scales just like the show birds'.

Knowing the precise weight of a bird is essential when they are given medication. Dosage quantity is directly proportionate to body weight. Proper dosage for a small bird would be inadequate for a large one and vice versa.

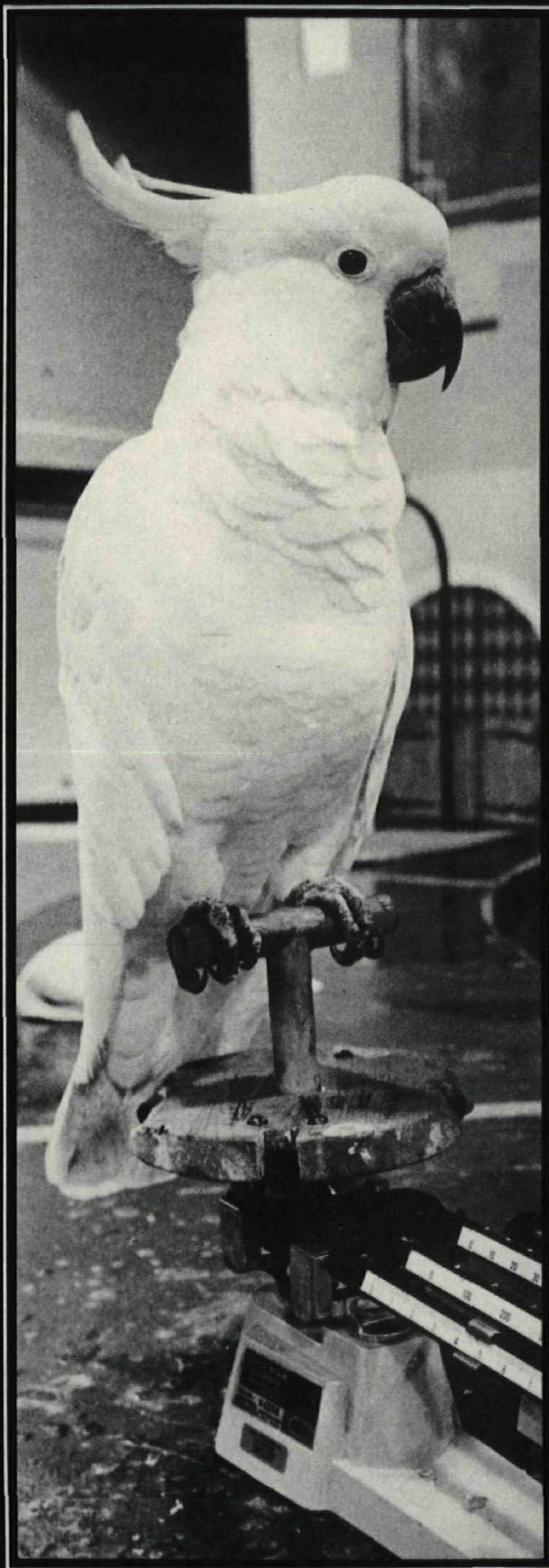
### **Specialized Constraints Used In Weighing Birds**

In weighing the show birds in the Bird Maintenance Area, advantage is taken of their docility in weighing them on an Ohaus "Triple Beam" balance. Each of these balances is equipped with a cylindrical container containing a T-bar perch and a removable lid. The bird stands on the perch inside the cylinder and the lid keeps it from flying away during weighing.

Aviary birds are not docile enough for this procedure, so when they are weighed in the hospital they are weighed in a cloth sack.

In all, Busch Gardens bird keepers use three of the Ohaus pan balances; two are in the Bird Maintenance Area and the third is in the hospital.

All three are used for weighing small birds. Larger birds are weighed on different scales.





**I**thaca, NY—The Cornell Feline Research Laboratory at the New York State College of Veterinary Medicine at Cornell University has been named as beneficiary of the estate of a retired New York State teacher and cat fancier. The laboratory will receive almost \$100,000 as a result of the gift.

Mrs. Sarah H. Swits of Ballston Spa, NY, who passed away in October 1979, named the College as sole distributee of her estate. Her will states that the proceeds are to be used for the purpose of supporting care, treatment and research on cats. Mrs. Swits directed that the gift, to be administered by the feline research laboratory, should benefit all types of treatment and research on cats conducted by the laboratory and at the Small Animal Clinic within the college.

Mrs. Swits had been a life-long cat fancier. Her last cat, "Puddy", was a Maine Coon that died in 1975, succumbing to cancer. "All my life I have loved and been completely dedicated to cats," wrote Mrs. Swits in a letter to Dr. Frederic Scott, director of the laboratory. "I hope that what I am able to contribute will give (cats) a happier, healthier and more pleasant life. If only one is helped, I'll be content," she wrote.

The Cornell Feline Research Laboratory was established by the Cornell University Board of Trustees in February 1974 with the threefold aim of promoting and conducting research on diseases of the domestic cat in order to prevent or cure these diseases; to provide continuing education on feline diseases to veterinary practitioners and cat owners; and to aid practitioners when new or unknown diseases occur.

The formation of the laboratory coincided with the opening of the new, modern Veterinary Research Tower, where the feline research laboratory has headquarters on the sixth floor. The distinguished faculty members and researchers of the laboratory occupy numerous other offices spread throughout the research tower and the other buildings comprising the college's main campus.

Overall, more than ten thousand cats were examined and treated at the veterinary college last year. Researchers at Cornell have participated in many ongoing efforts reflecting a wide range of research interests. The

staff of the feline research laboratory has conducted extensive research into the cause, treatment and prevention of a number of feline diseases including feline infectious peritonitis urolithiasis, respiratory diseases, leukemia, panleukopenia, nutritional diseases, reproductive disorders and a variety of other problems afflicting cats. Considerable progress has been made in developing serums and vaccines that are effective in preventing or treating feline sarcomas and leukemias. Data from these investigations have encouraged the establishment of practical preventive procedures. These studies not only are valuable in terms of feline health and the health of other domestic animals, but may also have profound implications in the search for preventive measures and treatments of certain kinds of cancer in humans.

The feline research laboratory encourages the establishment of communication links directly with the cat owning public. The laboratory provides information to veterinary practitioners and cat owners through newsletters, bulletins, workshops, conferences and personal consultation. Interested persons may write the director of the Cornell Feline Research Laboratory at the New York State College of Veterinary Medicine, Cornell University, Ithaca, NY 14853.

## GOOD NEWS FOR ANIMALS

**R**esults from a Texas A & M University cancer study of several pesticides and other chemicals support the idea that cell cultures in petri dishes can be as effective in identifying carcinogens as lab animals.

Microbiologist Dr. John Quarles said the advantages of such an approach are speed (results in 10-21 days compared to months or years for animal tests) and the sparing of countless test animals.

Quarles explained that of 13,000 cell cultures in a control group not exposed to suspected cancer-causing chemicals, not a single culture showed cell transformation regarded as a bellwether of cancerous activity.

But of over 37,000 cultures exposed variously to more than a dozen chemicals, all showed some transformation even at low levels. The results may have more significance than medical researchers had previously thought.

Findings from the 37,000 cultures also correlated well with results garnered from test animals exposed to the chemically treated cell cultures, noted Quarles. The study was carried out in cooperation with the Oak Ridge National Laboratory for the National Cancer Institute.

"Although the correlation was not 100 percent because this method is still experimental," he remarked, "the results showed that growth in agar (a medium for cell cultures) can be a useful aid in screening for transformation to cancer-causing activity."

Quarles also said that in such cell culture techniques, scientists shouldn't discount low rates of cell transformation as insignificant.

"In this study, two known carcinogens yielded rates of less than 1 percent," he explained.

Of three nitrous pesticides tested—nitrosocarbaryl, nitrosomethomyl and nitrosolandrin—all three were found to cause cell transformation that leads to cancer, but only one of the "parent" chemicals (those without nitroso compounds) indicated some transforming activity on its own. That was landrin, said Quarles.

Quarles expressed hopes that the more exacting and more controlled cell culture method might even help improve on current cancer testing techniques.

A blue ribbon White House committee on environmental quality reported last week that more than 100,000 Americans die each year from on-the-job exposure to chemicals and that prolonged exposure contributes heavily to the nation's cancer rate, sometimes as much as 38 percent.

**C**OLLEGE STATION—Scientists here say they have recorded the first fatality among sheep from the powerful poison of the three-striped blister beetle, which has led to agonizing death for hundreds of horses in America.

Dr. Allen Ray, toxicologist with the Texas Veterinary Medical Diagnostic Laboratory, said the first documented case of sheep poisoning from the substance known as cantharidin came as researchers tested a promising new method of diagnosis that could prevent the deaths of animals.



Cantharidin is a violent irritant similar to what is popularly called "Spanish fly."

Ray said horses and the single sheep examined were all poisoned by eating alfalfa hay contaminated with the remains of blister beetles that became trapped during bailing.

The research team's recent discovery could mean a potential problem for sheep producers who fed their flocks alfalfa hay tainted by blister beetles, which use cantharidin as a defense mechanism.

Cantharidin is so powerful that just five ounces (145 grams) of dried beetles in a five-pound flake of hay could kill 24 horses weighing 900 pounds each, estimated Dr. William Sippel, executive director emeritus of the TVMDL, part of the Texas A & M University System.

Ray said the problem flares up in concert with large insect populations. The threat is widespread because the three-striped blister beetle is found in many parts of the Southwest, lower Midwest and Southeastern United States.

Death, he explained, is usually very painful and can occur less than 24 hours after symptoms of colic and frequent urination first appear.

By using the new diagnostic methods to rapidly identify cantharidin as the cause of death, it is possible that common factors such as access to a contaminated load of hay can be determined, producers alerted and loss of some animals prevented, said Ray.

Diagnosis involves a sophisticated procedure called high performance liquid chromatography which uses special techniques to isolate and identify specific chemical compounds.

In examining stomach contents and urine samples from 14 horses and the sheep, TVMDL toxicologists were able to detect the presence of cantharidin in every case of blister beetle poisoning.

"To the best of our knowledge, this is the first report of cantharidin toxicosis in ruminants," the team reported recently in the American Journal of Veterinary Research.

"Regardless of some limitations, the study indicates the procedure is suitable to identify cantharidin toxicosis in animals," the scientists concluded.

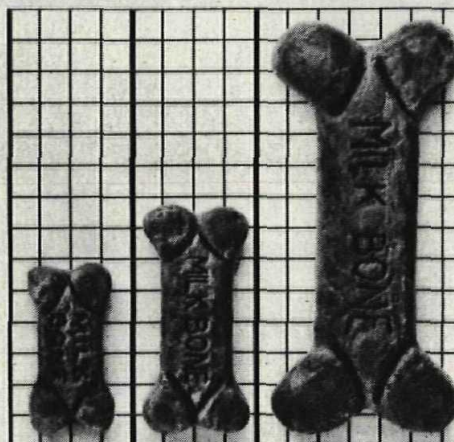
Working with Ray on testing of the method were head TVMDL toxicologist Dr. John Reagor, technical assistant J. Monty Hurst, Texas A & M graduate student Lynn Post and Dr. William Edwards of the Oklahoma Animal Disease Diagnostic Laboratory.

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\* Breaking force is determined by placing biscuits in specially designed fixtures which are then placed in a Dillion tester which applies a measured force.



We would like to subscribe to your lovely & educational magazine again. Thank you for publishing such an informative magazine, our general public needs more information in regard to caring for their pets.

How about an article on the importance of early immunizations for DHLPP, Distemper, etc.? There's a definite need from the many sick ones we see here at Goodyear Animal Clinic. Just a suggestion.

**Receptionist Donna**  
**Goodyear Animal Clinic.**  
**Goodyear, AZ**

*Thanks for your letter. We especially appreciate your suggestion for articles of interest.*

*ed.*

I received a sample of your magazine today from Publishers Exchange. After reading it from cover to cover I would like to add my name to your list of subscribers. Thank you so much for making my day a little better.

**Robin Miller**  
**Westville, NJ**

I thoroughly enjoyed the article in your September/October issue about "Shadow, K-9 Soldier." It is a touching account of an animal who was both a devoted pet and a highly skilled guard dog.

But please tell the author, Mr. Leonard, that the dog he loved and prized so much was a Belgian Sheepdog. There is no such breed as a Belgian Shepherd.

For the benefit of any of your readers who are not familiar with the Belgian Sheepdogs, they are elegant dogs with a thick, shiny and black coat (a cousin to the German Shepherd Dog). Intelligent and easy to train, this breed is distinguished by his lively intelligence, his courage, his friendliness toward children and his remarkable aptitude as a watchdog.

**H.T. Buschman**  
**Mountain Lakes, NJ**

The letter that appeared in the September-October 1980 edition of Today's Animal Health entitled "To Whom it May Concern by D.L. Caswell, D.V.M., that is.

I think it is only fair that the people reading this magazine be fully informed on all the facts.

Dr. Caswell stated in his letter "They (meaning the Fund for Animals) have now announced their intention to further force their opinions and ideas on the public by sponsoring another bill" (emphasis mine)—relating to euthanasia. By the writing of his article he (Caswell) is forcing his opinions and ideas on the public as well.

One of the opinions voiced in the letter was that "The decompression chamber is painless." (Emphasis mine). However, he forgot to mention many veterinarians do not agree. There is much controversy over whether the decompression chamber was painless or not. That is why in 1979 California outlawed the use of the decompression chamber, and why in eleven (11) or so other states it was outlawed also.

If there is any question as to the humaneness of a method of euthanasia (meaning mercy killing) we should always use the method known best as not being painful, fearful or cruel.

The article went on to why "These people (meaning the Fund for Animals) fail to acknowledge, apprehension (fear)" in relation to euthanasia. This is not true. I am personally familiar with the publications of the Fund for Animals. They always mention fear in relation to euthanasia as just one of the most important considerations. Read any Animal Talk Newsletter available at most humane societies and pet stores. They also devote half a page to listing low cost spay and neuter clinics.

Standard procedure used in euthanizing animals by overdose of barbiturates is injected into the vein. Only on very small puppies or kittens are injections administered interperitoneally (in the belly). This as I have seen does not cause pain or fear. Never are heart or cavity shots used on fully conscious animals. Heart shots cause pain. This is

a well known fact among people familiar with this type of euthanasia. The only time I have seen heart shots used were on unconscious animals. Example: If an animal is given an I.V. overdose of barbiturates, but the dose was only successful in causing the animal to become unconscious and not completely expired, then a heart or cavity shot might be used. However, it is just as fast and easy to go back into the vein and inject another dose of barbiturate. Animals euthanized by barbiturate are usually unconscious by the time half of the injection has been administered.

A skilled person can restrain a dog or cat with a *minimum* of force. In most cases, as I know from experience, if you are gentle and kind the animal does not fear, and does not fight. Many times dogs have wagged their tails and tried to lick my face as I held and comforted them on into a permanent sleep.

I have assisted in the euthanasia of hundreds of humane society animals over the five year period that I have been in animal care and control. I have had those animals that did need to be tranquilized, though. But never have heard of trying to force a tranquilizer pill down an animal's throat who was trying to bite you. I most certainly never would consider it. That is a good way to lose your hand.

Common sense is very important when dealing with *any kind* of euthanasia. Dogs that need to be tranquilized are restrained by either holding them, holding and muzzling, or holding them on a come-along for a matter of less than a minute or so. This could be done in the kennel run. This would prevent the dog from being dragged from his cage at the end of a come-along, inducing fear and aggressiveness. If a smaller dog is involved he would then be carried to the euthanasia room. If a very large dog were involved the process of euthanasia could then be completed right in the kennel run if need be. Cats are either held by hand or held in their cages or on the table in a net only long enough to inject the tranquilizer. They can then be released until they are under the full influence of the tranquilizer.

Animals being put into a chamber, no matter what kind do fear, and I have



seen this reaction many times. The question as to the degree of actual suffering from carbon monoxide gas is one question that can not be completely answered.

But about fear. The fear an animal feels when shoved into a cold chamber, one that smells of death, that smells of fear. . . This is truly cause for apprehension. Apprehension that can be avoided with a little common sense and caring.

When dealing with euthanasia, no matter what the method, it requires a certain amount of training. And you either get good at doing it, or you don't do it at all.

Being familiar with both chamber methods and barbiturate injection, my observation is that the animals suffer much less distress and cruel handling when being held and comforted for the overdose injection. I feel it is our obligation to be as kind as possible.

After all the only crime committed was by us—and until we get serious about animal birth control the price will continue to be the end of life for our innocent animals. So let us not make the debt any more painful. The least we can do is insure that death comes without pain or fear.

**K. Smyth  
Duarte, CA**

*Thank you for taking the time to write—we know Dr. Caswell's letter would be controversial and we appreciate your reasoned response.*  
ed.

To Whom It May Concern:  
D.L. Caswell, D.V.M. stated (Vol. 11, No. 5) The Fund for Animals plans legislation to ban the carbon monoxide chamber and mandate injections for all euthanasia at animal shelters.

As California Coordinator and a registered lobbyist, I have never taken such a position and have no plans to do so.

No form of euthanasia is ideal for all cases. I personally believe that injections are undoubtedly the best for animals who can be handled easily.

(The AVMA shares this view.) For those that can't be handled easily, tranquilizers should be given first.

I would not ban carbon monoxide, not because I think it is ideal as Dr. Caswell does, (I've heard vocalizations prior to unconsciousness) but because it is an alternative for those places where it is the lesser of evils. Too many animal shelters have personnel who don't care and who won't take the time to tranquilize or sooth. Personnel that don't care are hired by animal control directors who don't care. I would like to see personnel boards that include animal welfare advocates to interview applicants. (I recently served on such a board hiring zoo-keepers.)

Those that do care must be supported by their directors by not subjecting them to the sad task of euthanasia day after day after day. Several should be trained how to do it, taking turns when needed for mental and physical relief.

I strongly disagree with Dr. Caswell's opinion that the decompression chamber is painless. I believe injections at their worst, are no worse than the decompression chamber at it's best. Dr. Caswell, like most veterinarians, follows simplistic view of the AVMA and the American Humane Assn., who think if Air Force pilots experience euphoria slowly rising at 1000 feet per minute; animals will die happily at 60,000 feet in 60 seconds. There is no comparison. There is no slow acclimation to higher altitudes; least of all is there euphoria. Trapped air painfully expands inside the body.

For many years I was very suspicious of the fact, AVMA supported the decompression chamber while AHA opposed low cost spay clinics. (I have attended countless hearings on those two subjects.)

I appreciate the opportunity to respond to Dr. Caswell's letter and relieve his fears. No legislation from the Fund for Animals is planned to ban carbon monoxide.

**Virginia Handley  
California Coordinator  
THE FUND FOR ANIMALS**

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# What's underneath that championship coat?

by Jane and Bob Forsyth

We had just arrived in Greenville, N.C., after a long drive from Chicago. We'd been on the circuit for a few weeks and a show was scheduled for the next day, so the dogs needed exercise and grooming. We took them, a few at a time, for a romp in a nearby field. The dogs were in good spirits and they enjoyed the exercise. Everything seemed fine.

It wasn't until closer surveillance that we noticed something was wrong with Brandy, a prize-winning boxer—and by no means an average animal. His coat was beginning to deteriorate. It lacked its former deep red color and was becoming sparse. We were especially puzzled because there were no other symptoms of illness. Brandy was cheerful and friendly as usual, still eating well and maintaining proper weight. His eyes were clear, his nose, cool and healthy. Brandy responded well to the exercise without tiring.

But experience had taught us that it's best to be alert to problems before they become real trouble. Not wanting to take any chances, we decided to take Brandy to a veterinarian. The vet smiled and told us that Brandy was in pretty good shape, but was apparently having some trouble assimilating the benefits from fats. (We were relieved, but began to realize that his on-the-road dry diet wasn't helping matters.)

The remedy was simple. The vet



Professional dog handlers Jane and Bob Forsyth, known throughout the United States, share the most important secret of good grooming with you.

suggested adding two tablespoons of corn oil to his food for the immediate problem and increasing the meat in Brandy's diet to keep his coat healthy in the future. The prescription worked. We're happy to report that, after our champion began getting his fair share of fat from a meat diet, we had no recurring problems with his coat...and he enjoyed many more years of ribbon winning. In fact, even today, he's more handsome than ever.

Of course, Brandy had an unusual medical problem. But we learned something that day that has helped us throughout our dog handling career—that one of the best preventive measures against the rigors of the show circuit is a fortified high-protein meat diet that really gives a dog what he needs.

As you may know, your dog's coat is all protein. And meat is a super-rich source of protein and also contains needed fats: both essential for a good diet and a really healthy coat. But simply adding meat alone to

your dog's diet may not meet his other needs. Your dog also needs the right proportion of vitamins and minerals. That's why, when we say "fortified," we don't mean table scraps or raw meat, but a high quality canned dog food that is fortified with a proper balance of vitamins and minerals.

One that we recommend is ALPO® Beef Chunks Dinner. It contains meat by-products and beef,

fortified with soy and lots of vitamins and minerals for balanced nutrition. If you've been keeping your dog on an on-the-road dry diet, here's the way—according to many experts—to switch your dog to a balanced meat diet. Start mixing with a high-quality canned dog food like ALPO Beef Chunks Dinner. Give your dog time to adjust to his new diet by gradually mixing one part canned to three parts dry the first week. Then begin to increase the meat portion until your dog is getting all the meat and fat he needs.

Remember, the inside secret of a championship coat is good nutrition. Feeding your dog a fortified meat-based diet like ALPO Beef Chunks Dinner, even when you're on the road with him, is the simplest way of giving him the fat and high-quality protein he'll need to help keep his coat in top condition and maintain your dog as a top contender.

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