# Today's Health Animal Health november/december 1980



# Animal Health

# Volume 11/Number 6

# November/December 1980



H. Don Mahan\*/Publisher Richard L. Holden\* / Associate Publisher Marge Maiden\*/Marketing Director Richard S. Glassberg\*, D.V.M./Editor Jane Wright\* / Associate Editor Pat Taketa/Art Director Harry Maiden\*/Circulation Manager Syd Nieman\* Associate Circulation Director D. M. Diem\*/Staff Photographer Dyana Paul\*/Youth Editor Millwood Custer\*, D.V.M., Companion Animals Editor Robert J. Schroeder\*, D.V.M./ Ecology and Public Health Editor Oscar W. Schalm\*, D.V.M./ Research Editor Wesley A. Young\*, D.V.M./ Exotic Animals Editor \* Serves with no financial remuneration.

### **ADVERTISING SALES**

Will Decker, Advertising Director 22312 Kirkwood El Toro, CA 92630 (714) 770-8050

TODAY'S ANIMAL HEALTH is published bi-monthly by the Southern California Veterinary Medical Association for the nonprofit charitable Animal Health Foundation 8338 Rosemead Boulevard Pico Rivera, California 90660 (213) 257-0724 Single copies \$1.50. 6 issue subscription, \$6.00. Copyright, 1980, Animal Health Foundation.

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

8 DIABETES/by Gary Ray

- 11 FRENCH QUARTER CARRIAGE TOUR LOSES LICENSE/by Ed Lepoma
- **12** PET DOORS/by Pat Brody
- **14** PARVOVIRUS
- **16** ANIMAL BEHAVIOR THERAPY PART II/ by Dr. Daniel F. Tortora
- **18** NOT THE ANSWER BUT . . . D.V.M.'s form group-owned spay and neuter clinic/by Les Malo, D.V.M.
- 21 DIETARY MANAGEMENT OF DISEASE/ by J. F. Alberson, D.V.M.
- 22 BENEFITS OF PET BIRTH CONTROL/ by Carl Nowicki
- 24 GIFT OF LIFE, BLOOD/by Anita Henness, D.V.M.

# DEPARTMENTS

- **4** DIALOGUE
- 6 ASK DR. SMITHCORS
- **23** WORTH READING
- 26 IN THE NEWS

# dialogue

# A LUCKY DUCK

My family and I had a sad experience and are so pleased and proud of the outcome that we just have to tell someone.

At four weeks of age we discovered my pet Muscovy duck, Mable, swallowing a rope with four inches or more dangling out of it's beak and trying to swallow that too. This was a nylon rope approximately 1/2 inch in diameter and we had no idea how long it was to start with. With no success in getting the rope back up, the vet was called. The vet told us to cut the rope as near to the back of it's throat as possible and let it go down. We were to offer it bread soaked in milk, but never having ate any bread up to this time, it wouldn't touch it. The vet kept stressing that ropes were very serious, but stopped short of telling us it would probably die.

The next day the duck wouldn't eat and would just stand in one place. Then the second day it looked weak and we could tell by it's eyes that she just wasn't going to make it.

Then we came upon the idea of trying to feed it minnows. The flopping motion caught her eye and she ate one. We felt some relief that she finally ate something. She ate three minnows that whole day, and the next day two; then one. She was fading fast.

Since she liked the flopping motion, we decided to try a worm. When that duck saw those wiggling things you could almost see her eyes light up. She ate three the first time and several times a day we'd offer them again. The next day she ate five at a time; then nine. I will say we spent many hours digging worms. What used to be a chore to dig enough worms for fishing, now became a pleasure.

Once that duck was eating nine worms at a feeding we then started to notice a difference in its actions. The eyes and body movements looked more alert and she would nibble at her feed. You could distinctly see the lump in the craw where the rope was, and it stayed there for nearly three weeks. During that time death still lingered over her as there was the possibility that infection would set in around the rope. The vet said however, that infection occurs more easily with the cotton ropes. Mable is now full grown and oh so spoiled because of all the attention she got. I now have her trained to fly onto my out-stretched arm as if she were an eagle. She walks up onto my shoulder and we walk down to the swimming hole together. She has filled my life with laughter and happiness and I pray she'll live forever.

# Georgetta Schroyer Rockwell, N.C. 28138

# VOODOO IN MIAMI?

I would like to see an article on low cost public spay and neuter clinics. We need them desperately in the Miami area. Apartments are rapidly being converted into condominiums that usually do not allow pets and house prices are above many first time buyer's means.

l am a Real Estate sales person and pet owner and believe me, the number of available homes for pets is being drastically reduced.

Also, due to the influx of Cuban and Haitian refugees the practice of Santo Maria and Voodoo sacrifice is out of hand although hushed up because of tourism business needs. Its a sad time for cats and dogs here.

The South Florida Veterinary Association has blocked local low cost spay and neutering. If their business is down its because of the total economic picture. The time is now for mass spay and neutering.

Everyone has a right to a decent living, but its getting so bad I hesitate and get sick seeing the pet owner renter being thrown out. They either abandon or send their pets to Animal Control. Everyone must help stop the blood bath.

# Diana Drake Miami, Florida

We have an article on spay and neuter clinics in this issue. A response to your letter from the S.F.M.A. follows

ed

# S.F.M.A. RESPONDS

Thank you for giving me the opportunity to respond to the letter from Ms. Drake, in which she singled out the South Florida Veterinary Medical Association (SFVMA).

I agree that the conversion of apartments to condominiums has caused several problems. Not only are the costs higher for those forced to make the decision to buy rather than rent, but people who want to rent are forced into a limited market which obviously increases rental fees. However, the problem of apartment conversions has very little relation to the large number of abandoned pets sent to animal control. **Responsible** pet ownership is the key. The responsible owner will not give up a pet for adoption or possible euthanasia. The responsible owner will not abandon their pet nor allow unwanted pregnancies to occur.

The statement concerning the Saint and Voodoo sacrifices is misleading and is not in any way related to spaying and neutering. Since I have no personal knowledge of Saint or Voodoo practices. I asked several Cuban veterinarians. They said they had never heard of dogs and cats being used in the sacrificial rituals. I was unable to verify whether the Haitians use cats and dogs. Apparently the most common animals used are goats and chickens, but I cannot comment on whether there has been attempt to cover up due to tourism. Surely I do not condone the sacrifice of any animal for such purposes.

The SFVMA has not blocked so called "low cost" spay and neuter clinics. In fact, there at least 3 operated presently by Animal Control, the Humane Society of Greater Miami, and Friends of Animals. There is no such thing as a "low cost" spay and neuter operation. Someone has to pay. Money is derived through taxation and/or public donations. The actual cost of each procedure in many cases would be equal to the cost at a private hospital. The big difference is that the owner pays less "out-of-pocket" if subsidized by tax money.

The final point that I want to make is that mass spaying and neutering are not the final answers involved in solving the problem which cannot be adequately discussed within the scope of this letter.

# C. Perry Smith, DVM President, SFVMA

I have a subscription to this great magazine.

The reason I'm writing is that I have moved and I'm afraid that I won't receive my other copies in time.

Enclosed is my old mailing label and my new address.

### Cheryl Miller Apopka, Florida 32703

We hope all subscribers who change a mailing address will follow this excellent example. It is costly to send back issues and we need the money to help our animal friends. THANKS

H.M. Circulation Manager.

As a registered Animal Health Technician for the Pasadena Humane Society I was rather concerned about Dr. Caswell's letter about euthanasia in animal shelters in the September/October issue of your magazine.

There are two technicians at our shelter and one full-time handler. On the average we handle about the number of animals Dr. Caswell mentioned per day. Each animal receives personal attention as well as a meat treat before being injected. Most of the animals respond to us and are not as apprehensive as Dr. Caswell stated. We do have some animals which need to be tranguilized and we try to make this as least traumatic as possible for them. The percentage of dogs and cats which require tranquilizing or muzzling is small, however. Because only our trained staff is allowed in the euthanasia area, rarely is anyone bitten.

All adult dogs and cats are injected into a vein, **never** into the heart for the very reasons Dr. Caswell mentioned. Smaller animals and newborns are injected intraperitoneally. A registered Animal Health Technician has been trained in how to properly administer intravenous injections. Most California animal shelters currently employ registered AHT's for euthanizing which should help minimize improper handling of animals and injections. Several other states also use AHT's or specially trained attendants.

Certainly euthanasia by injection can be improperly and inhumanely done. On the whole, however, proper training and screening of personnel before placing them in the euthanasia program should eliminate many of the problems Dr. Caswell mentioned.

Perhaps the CO chamber could be used humanely, but I feel the farther removed from the act of euthanasia an attendant is the more likely it is that callousness and inhumaneness can result. I might also point out that many people who had actually experienced the high altitude chamber felt it was completely humane and painless too.

Animal Health Technicians are fairly new paraprofessionals which can be of use in many fields including that of animal control. Perhaps by bringing in a paraprofessional many of the problems of the past can be solved.

### Michelle Harvey Pasadena, California

Continued on page 29

# MILK-BONE Dog Biscuits come in different sizes because dogs do.

Dogs come in different sizes. That's why Milk-Bone® Dog Biscuits come in different teeth-cleaning sizes and hardness for small, medium and large dogs. Milk-Bone Dog Biscuits help scrape away stains and tartar to get your dog's teeth cleaner and whiter. They're 100% nutritious, too, in Original flavor or Beef flavor.

How Milk-Bone Brand Dog Biscuits provide the proper chewing exercise for dogs. **Relative size** of biscuits SMALL MEDIUM LARGE Average weight .28 1.17 .14 per biscuit (ounces) Overall length (inches) 2.4 1.8 4.3 Overall width (inches) .94 1.1 2.0 Relative breaking force\* 77 80 164 (pounds) Breaking force is determined by placing biscuits in specially designed fixtures which are then placed in a Dillion tester which applies a measured force.

MILK-BON

Today's Animal Health 5

# ask Dr. Smithcor's J. F. Smithcors, DVM

# Whatever happened to the Pandas we got from the Peoples Republic of China?

Since their arrival they have resided in the Washington, D.C. zoo, where it was hoped they would mate and produce offspring. So far this has not happened, and zoo veterinarians are planning to use artificial insemination as a means of helping matters along.

### Do you have any suggestions on how to find a good animal doctor when you move to a new town and don't know anyone?

One good way is to look for neighbors "walking the

dog" and ask who their veterinarian is; in most cases they will freely tell you their likes and dislikes. Your local Veterinary Medical Association (see telephone Yellow Pages) will be glad to give you the names of those nearby. Give each a call, or stop by to introduce yourself, and ask the cost of a physical examination (and what it includes). This way you can gain an impression of the veterinarian, hospital staff and facilities that will be helpful in deciding before your animal needs urgent attention.

Can eating lizards hurt a

cat? My cat "Mesh" eats a lot of lizards every summer and I have noticed that he gets thin in the summer but fattens up in the winter. Is there any connection?

Many cats are simply more active during warm weather and burn up a lot more energy, which may be the cause with "Mesh" since you did not say he also appears to get sick. The blue-tailed lizard (Southeastern US) has a bright blue tail that contains poison. Cats like to catch them and will eat the tail, which often breaks off if they escape. The cat will show nervous symptoms (agitation, trembling, staggering) and vomit about 2 hours after eating the tail. If improvement does not occur within a few hours the cat is likely to get worse, and you should get help from your veterinarian.

My son collects used bird nests. Are there any dangers in doing this? I hate to have the filthy things in the house but if there is no danger I guess I can live with it. He used to collect caterpillers until he became allergic and broke out from them.

There are lots worse things to collect than bird nests, although they do tend to make a place untidy. You might suggest he find some clear plastic containers for them and spend some time learning about their former inhabitants. There is some risk.

which although slight should be mentioned. Some nests might contain bird lice or mites that can be annoying to persons. Also, dust in the nests could harbor spores of various fungi (transmitted via bird. droppings) that can cause human disease. Fumigating the nest by placing it in a tight container with a tablespoonful of formalin (obtainable at drug stores) in a warm place for a day will remove what little risk there may be. Formalin is safe to use - but make certain you don't get any in your eyes. An alternative might be to gently suggest collecting something else, especially items likely to increase in value such as stamps, baseball

> cards, etc., which are also a lot cleaner.

Is there any place to get a complete list of free literature about dogs and cats?

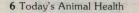
I don't know of any complete listing of such literature. The pet food companies offer booklets on care, feeding, etc. The American Veterinary Medical Association (830 N. Meacham Rd., Schaumburg, Ill 60196) has pamphlets on health care and population control, as do many state veterinary associations. Ask your veterinarian, who also may have information supplied by various sources.

Do male canaries stop singing if they have female canary companionship? I'd like to get my canary a friend but I don't want him to stop singing.

Singing is the means by which male birds mark their territory (obviously limited if they are caged) and attract females. Some males will stop or at least decrease their singing if they are successful in their quest, while others continue the courtship. Feeding song food should help maintain the singing, as will placing the two in separate cages during the day—when the male can sing for your benefit as well as that of the female bird.

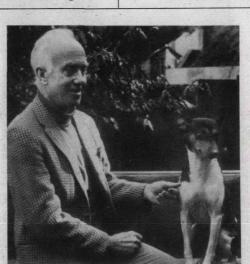
How can one tell if he is dealing with a good pet store that sells healthy dogs? We bought a dog at a pet store that was guaranteed. We had the dog examined and our doctor said the dog had a bad heart. We went to get our money back and found out we'd signed something that said we could only get another dog. Well, they didn't have any other dog we wanted so we waited several weeks until they got another cocker the same color. This one was sick we found out. So far we are out over \$300 and still don't have a healthy dog. Any advice you can give will sure help us the next time around.

It is most unfortunate that some pet shops seem more interested in a fast buck than in creating



A

A



goodwill and even more unfortunate that there isn't any absolute way of avoiding them in the first place. Aside from asking friends about experiences they may have had, one of the better ways might be to ask your veterinarian if he or she can recommend a reliable shop. If enough people in the community have been given a bad time the word will almost certainly get to most of the veterinarians in the area. The Better Business Bureau, if you have one, might help in this regard. As you have sadly discovered, you can't rely on "money-back" guarantees unless it's in writing, and many times an exchange is unsatisfactory because you had your heart set on a particular animal. On a \$300 dog I would want the sale to be contingent upon getting a clean bill of health form a veterinarian (if I weren't one myself) but there may not be many shops that would allow such if it means taking the dog out beforehand. There are some, however, that have their stock inspected, and you could well afford to go to another town if necessary to find one that did. Better luck next time! At least be sure you read the fine print before you put your money down.

We have a German Shepherd and a Beagle. The Shepherd gets the tips of his ear bit up by flies but they never bother the Beagle. How come? Do Beagles taste different to flies or something? How can you prevent this if you live around a lot of horses like we do?

I don't have a good answer, but there may be an analogy with bees and people, some of whom can handle bees and almost never get stung while others aren't so lucky. The same is true with mosquito bites, but the saying "there are no flies on me" probably has a different basis. Insects are highly sensitive to faint odors, which differ from people and dogs, and I would speculate that some individuals are simply more attractive than others. Assuming both dogs are equally exposed to the flies, the Beagle's ears would seem to offer a better target, although it's possible that the Beagle may escape simply by being nearer the ground. You might try a little fly spray on the Shepherd's ears (be sure it's the proper strength). If this should cause the flies to change targets you may also have to spray the Beagle. The best method of course would be to keep the fly population down. This may be difficult, but it can be done - and the horses will benefit too.

My dog has continual problems with bad skin and runny eyes. My veterinarian says he is allergic to flea bites. How could he be allergic to a bite of something? Also I've noticed that when the fleas are kept off him he doesn't have runny eyes. Is there some way the fleas could cause his eyes to weep all the time?

Flea bite allergy is rather common, in people as well as dogs. Most allergies are due to a foreign protein, and in this case it is protein in the flea's saliva that mixes with your dog's tissue fluid and causes a reaction. Some dogs—apparently like yours—are more sensitive to flea bites than others are, and in some cases it is necessary to give a series of injections to desensitize the dog. One of the common signs of allergy—again in people as well as dogs—is runny eyes, regardless of what causes the allergy, and keeping your dog free of fleas is a good way to prevent this problem. It will also keep you and your dog a lot happier. Some dogs can become allergic to only a few flea bites while others can tolerate a large number.

Our dog got hit by a car. She suffered a broken pelvis when it happened. The veterinarian said the best thing to do would be to do surgery and fix the breaks. We told him we couldn't afford that and he said the pelvis would heal if we could keep her confined for a couple of months but that she would have a bad limp even after she healed. We were happy we didn't have to put her to sleep and appreciate that he was honest and told us she could live and be happy without surgery. Our question is do you think she will be in a lot of pain from the limp? If so is there pain medication for dogs like for people? She's walking already and its only been six weeks since the accident.

Back in the "bad old days" about 40 years ago when there were no devices available for immobilizing pelvic fractures in animals - the usual advice was to put the dog or cat in a small cage, or in a smaller cage if it were a compound fracture. Most of these animals did fairly well, but as your veterinarian has suggested, many of them did have a limp afterward. Although there might be some pain after the fracture heals if, for example, a nerve is irritated where it would rub against a rough spot on the pelvic bone, this is unusual and most dogs would be free of pain. She may still limp, however, because the leg may be shortened a little or in the healing process the bones failed to become aligned normally. If your dog should be in pain, she'll let you know by whimpering when she gets up and down. If this should happen, there several kinds of pain medicine she can be given (most of them the same as for people). Asprin is one such drug, but you should ask your veterinarian if there seems to be a need for a pain killer because it would be easy to give a small dog an overdose. Surgery for a broken pelvis is expensive because of its complexity, and it is good that your veterinarian told you of this option. Most dogs can manage nicely with a limp, and some even seem to enjoy the added attention they get.

How long can a dog that is a diabetic live on insulin injections?

A lot depends on you! Which is to say, diabetes is a complicated disease (often with other diseases forming what is called a syndrome) that requires Continued from page 28

Diabetes mellitus is a chronic disorder of carbohydrate (starch) metabolism due to an insufficiency of insulin. Diabetes is seen primarily in dogs and cats, and is rarely diagnosed in other domestic animals. The disease process is classically characterized by a decreased tolerance to carbohydrates and the chronic metabolic distrubances that develop can eventually threaten the life of the animal.

**Cause:** Although the exact cause of diabetes mellitus often cannot be determined, several factors have been found to interfere with the delicate balance between glucose (sugar in the blood) and insulin. These factors include genetic disorders, obesity and a chronically high caloric intake. Also, the destruction of certain cells in the pancreas, either by pancreatitis, trauma or neoplasms (tumors), can cause diabetes. Available information has indicated that this disease is nearly three times as comon in female dogs and cats as in males. Most cases occur in pets over five years of age and is more frequent in obese animals.

**Mechanism:** When there is an absence of insulin in the cells, glucose from the diet cannot be efficiently utilized by muscle and fat tissue, or the liver. Consequently, a high concentration of glucose accumulates in the blood and causes a condition known as hyperglycemia. The inadequate utilization of glucose severely affects the normal calorie requirements. Thus, the body is literally starving in spite of the abundance of sugar in the blood. If not treated, the animal can lapse into a diabetic coma and eventually die.

Diagnosis: The onset of diabetes mellitus is more

serious than it appears. The owner of a diabetic dog or cat may notice a measurable increase in thirst or urination. Another early sign is a tremendous appetite but a sudden loss of weight. Some pets become very weak and lethargic, and in advanced stages an acetone odor may be detected on the breath. The three primary signs which indicate the possibility of diabetes are excessive eating, drinking and/or urination. Through blood tests and a urinalysis, the veterinarian can verify that an animal is a diabetic.

Treatment: When diabetes has been diagnosed in a dog or cat, daily injections of insulin are usually required to control the disease and to help prevent the occurrence of a diabetic coma. An animal with diabetes should be hospitalized until his metabolic condition is stabilized and then a simple treatment schedule can be followed each morning the urine is collected and is tested with a certain type of paper which indicates the amount of sugar in the urine. Next, the corrected dosage of insulin is injected and a small meal is given. Finally, about ten hours later the main meal is given in order to correspond to the period of greatest insulin activity. It is very important to standardize the amount of exercise a diabetic pet receives as well as the time of feeding and the quantity of food he eats. Such regulation is necessary in order to stabilize insulin activity.

If diagnosed soon enough, the success rate for the treatment of diabetes mellitus is high. Through the mutual understanding and cooperation of the animal's owner and the veterinarian, a diabetic pet can live a relatively normal and happy life.

# <section-header><section-header><section-header><text><text><text>



Today's Animal Health 9

# DIABETES













In performing the urinalysis Gary immediately finds a large amount of sugar in the urine - a positive indication of diabetes.

4



Later the same day Gary records results of the blood tests phoned from the laboratory. These tests confirm the diagnosis of diabetes.



After spending a few days in the hospital where the proper dose of insulin was established, Zinty is ready to go home. Under the veterinarian's supervision Eva is learning how to fill the syringe with insulin and administer Zinty's injection. Many people think they could never give an injection but once they learn how, it is easy and it is painless for the dog or cat.

# 8

Gary explains the use of the urine testing paper to Eva. By checking Zinty's urine, Eva will be able to make minor adjustments in Zinty's insulin doseage.

10 Today's Animal Health



HORSE AND MULE-DRAWN carriages are used to take tourists and residents through the historic French Quarter day and night. The overall physical condition and living standards of the animals are under investigation by city officials.

# ARENCH QUARTER CARRIAGE TOUR LOSES LICENSE by Ed Lepona

N ew Orleans, LA—A Municipal Court Judge has ordered the owner of a lucrative French Quarter carriage tour operation to clean city horse stables for the next 34 Saturdays for keeping his horses in their own filth.

And, the city's Utilities Department has revoked Louis Huppenbauer's license to operate. Huppenbauer, owner of Le Petite Tours, also faces six criminal charges of cruelty to animals.

Huppenbauer came before City Judge Eddie L. Sapir for the second time in recent months on July 22. In an earlier hearing, Sapir had fined Huppenbauer \$400 and to serve 10 months probation after the carriage tour operator pleaded guilty to two sanitary violations—running a rat harborage and allowing goats to run at large around his stables.

Sapir's sentence came after testimony by city health sanitarians that manure was not cleaned up at Huppenbauer's uptown stables on a regular basis.

"I am going to sentence you on behalf of the 17 horses that lived in your stables under conditions described here today as dreadful," Sapir said.

"You are to pay a \$300 fine, and you have a choice of spending 60 days in the House of Detention, beginning today, or of reporting on 34 consecutive Saturdays to the Correctional Center at 2800 Gravier. That is two days for each horse.

"From there, you will be taken to the New Orleans Police Department of the City Park stables, where, from 7:30 am to 4 pm, you will clean stalls or otherwise help make living conditions better for the animals," Sapir ordered.

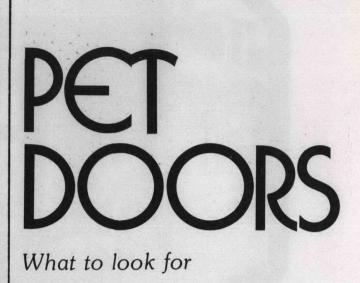
Huppenbauer choose the 34 days of work in the stables, but his attorney told Sapir his client suffered from high blood pressure. "If, at any time, he is unable to complete this sentence because of a medical problem, Mr. Huppenbauer will at once begin his sentence in the House of Detention, with credit for time already served," Sapir said.

The city court judge also fined Huppenbauer an additional \$300, fivemonths suspended term in the House of Detention and five months probation on a separate clogged drain charge.

Huppenbauer has not decided whether he will appeal the city's decision to revoke his license, but Sapir told the defendant he hoped he would not see him in his courtroom again.

Sapir said the only way he could be assured of this was, "if Mr. Huppenbauer is out of the business of dealing with horses and carriges."

"However," Sapir added quickly, "I am not about to suggest this course of action to him."



### by Pat Brody

I n recent years, a new form of pet door has become available to millions of dog and cat owners who either cannot, or will not, use a conventional pet door for wood doors and walls. These new pet doors are insert panels designed to fit into a sliding screen door or sliding glass door opening. Pet door panels do not require any structual modification of your sliding glass door when installed or removed.

A pet door panel can eliminate all or many of the problems pet owners are confronted with when their frustrated dogs or cats are denied access to outside areas. These problems include damaged carpets and drapes, chewed furniture, high heating and air conditioning bills (sliding glass doors left open), annoying insects and constant interruptions during the day and night. Pet door panels for sliding glass doors provide pets with the freedom to come and go as they please (unless you don't want them to), thus eliminating the major cause of their frustration.

Pet door panels are currently available from several manufacturers. When evaluating these different panels, quality and performance are two very important factors to consider. As with all products, these panels will vary in quality of materials and design from manufacturer to manufacturer. Product research has shown that design considerations should include pet safety, security, durability, appearance and good weather seal. Generally, architectural harmony becomes your more apparent as the panel's component parts begin to resemble those of your sliding glass door. The three basic parts of a pet door panel are the frame, the weather pane and the pet door flap.

12 Today's Animal Health

Manufacturer -	Frame	Weather Pane	Flap	Security Cover	Locking Mechanism	Weatherstripping
Johnson Pet-Dor P.O. Box 643 Northridge, Ca 91324	Medium gauge anodized aluminum	Clear Plastic	Self-sealing two piece vinyl	Masonite	Separate step-on lock sliding door	None
Patio Pacific, Inc. 24433 Hawthorne Torrance, Ca 90505	Lightweight anodized aluminum channel	Translucent fiberglass panels	Translucent plastic	None	Separate step-on lock for sliding door	None
PET-EZE Co. 13736 Saticoy St. Van Nuys, Ca 91402	Heavy gauge anodized aluminum	Clear tempered safety glass	Self-sealing one piece synthetic rubber	Heavy gauge anodized alumin- um with locking pin	Built-in reversible lock	Weather seal adaptor & wiper blade weatherstrip for air gap be- tween sliding door and window
Z Industries P.O. Box 4458 Glendale, Ca 91202	Medium gauge anodized aluminum	Translucent tempered safety glass	Self-sealing two piece rubber	Masonite	Separate pin for sliding door	Vinyl bumper strips along sides of panel

### THE PANEL FRAME

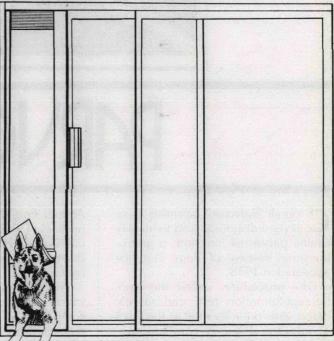
Aluminum is the most popular material used in the construction of pet door panel frames and will vary in appearance and strength. For example, an aluminum frame equivalent to that of your sliding glass door is not likely to bend and is more secure than a frame comparable to your sliding screen door. A simple method for testing frame strength is to place a panel in front of you, gripping the top firmly, and then applying pressure to the center of the panel. The more the panel bends, the weaker the panel.

# THE WEATHER PANE

The most common materials used for weather panes are plastic tempered safety glass. A panel that uses a weather pane made of tempered safety glass offers more durability, security, effective weather protection and is scratch resistant. In addition, clear tempered safety glass offers the added benefit of matching your sliding glass door.

# THE PET DOOR FLAP

Metal, stiff plastic, vinyl and rubber are the most commonly used materials in flap designs. A single synthetic rubber flap with proper weather sealing design eliminates possible pet entanglement, constant flap noise and eventual buckling associated with double flaps. Because of its soft and pliable qualities, synthetic rubber provides a safer flap action during pet use and resists stiffness in cooler weather, while still maintaining its tough durable qualities. the accompanying chart provides a comparative analysis of the pet door panels available and their features. Companies are listed alphabetically. Pet door panels for sliding glass doors are fast becoming the most popular type of pet entry. They provide a convenient location for your pet to enter and exit, without any structural changes to your sliding glass door or frame. Pet door panels can make life a lot easier for both you and your pet.



Artists rendering of how a pet door panel fits into a sliding glass door opening.



Leland E. Carmichael, D.V.M., Ph.D. (right), and Jean Joubert ) left) work in a Cornell laboratory to find a vaccine against canine par voviral infection. an extremely contagious gastrointestinal disease. Under funding by The Seeing Eve Inc., through Morris Animal Foundation, Dr Carmichael and others have discovered the disease requires rapidly dividing cells in order to multiply, which often causes heart disease in puppies and the death of entire litters. Progress on an effective vaccine is being made by the investigators.

# PARNONIRUS

C ornell University scientists have devised diagnostic tests to identify canine parvovrial infection, a gastrointestinal disease of dogs that first appeared in 1978.

One procedure, called the stool hemagglutination test, can rapidly detect virus particles shed in the feces of infected dogs. A corollary procedure, the hemagglutination—inhibition test, detects serum antibodies in vaccinated dogs or in dogs that have been exposed to the disease and recovered from it.

Roy Pollock, D.V.M., reported the Cornell findings at the June annual meeting of Morris Animal Foundation. The study is funded by The Seeing Eye Inc., and administered through Morris Animal Foundation. Leland E. Carmichael, D.V.M., Ph.D., director of the Cornell Research Laboratory for Diseases of Dogs, is the principal investigator.

The Morris Animal Foundation, which sponsors studies into diseases of companion animals, this year received requests for  $2^{1/2}$  million dollars from veterinary schools for grants, but was only able to budget \$200,000 because of shortage of funds.

Canine parvovirus causes an extremely contagious disease that can spread rapidly wherever dogs are concentrated. Symptoms include depression, fever, loss of appetite, vomiting and diarrhea, which may be bloody. The infection may affect the heart in 4-12-week-old puppies, resulting in sudden death.

Because many other pathogens can cause gastrointestinal problems, Dr. Pollock said, it was important to find a way to quickly distinguish parvoviral infection from other diseases.

To do this, the scientists used the knowledge that parvoviruses cause red blood cells to clump together. This clumping, hemagglutination, can be observed when pig red blood cells are added to diluted samples of infected feces. To demonstrate that the clumping is indeed caused by the parvovirus, antiserum to be the virus is added to the samples. If parvovirus is present, the antiserum will neutralize it and prevent hemagglutination. To learn whether a dog has been exposed to the disease in the past and has built up immunity to it, the diagnostic test is reversed. Known parvovirus is mixed with samples of the dog's blood serum, and if the dog has antibodies to the virus, hemagglutination—inhibition test that the Cornell scientists were able to demonstrate that canine parvovirus is really a new pathogen.

"There's no question about it," Dr. Pollock said. "We went back into the freezer and pulled out just short of 1,000 sera that we'd saved from 1970 to the present and check them all for antibody against canine parvovirus; there was not a single sample that showed evidence of infection prior to June of 1978."

"Since that time, the disease has become very widespread and is now quite common. In a random sample of 1,000 sera, roughly 20 percent were positive, indicating the dogs had recovered from the infection."

The Cornell investigators were able to isolate and characterize canine parvovirus and reproduce the disease in the fall of 1978. They learned that canine parvovirus requires rapidly dividing cells in order to multiply.

This explains why it attacks the intestinal lining, which has a cell turnover time of only three or four days, and the bone marrow, where blood cells are continually produced. It also explains the most tragic manifestation of the infection, heart disease in pup-



Roy V.H. Pollock, D.V.M., of Cornell University, hopes to save puppies like the ones he's holding from canine parvoviral infection, a gastrointestinal disease that first appeared in 1978. The Seeing Eye Inc., is funding Dr. Pollock and others, through the Morris Animal Foundation, to search for a vaccine against parvovirus, which can cause heart disease in puppies and wipe out entire litters.

PPOTECT YOUR PET THIS CHRISTMAS, URGES BIDE-A-WEE HOME ASSOCIATION. Christmas trees and 'decorations are

a potential danger to your dog or cat. Swallowed pieces of tinsel and ribbon or poisonous Christmas greens, cut paws from broken ornaments, result in a trip to the veterinarian. A knocked-over tree and chewed frayed cord can be a fire hazard. Be careful.

Bide-A-wee, a non-profit animal welfare organization, has locations in New York.

Bide-A-wee photo by Susan Brooks

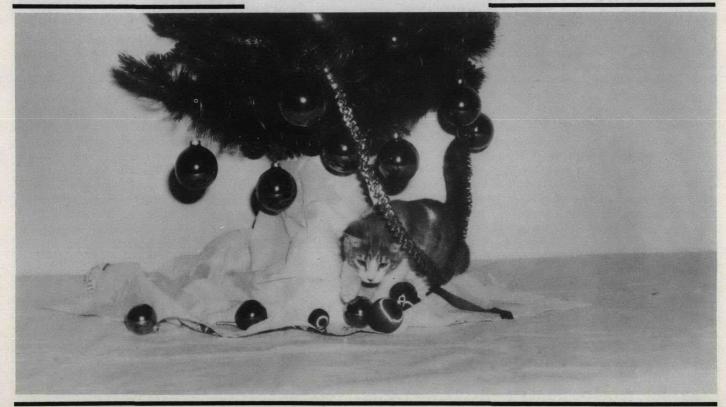
pies, since the heart is growing rapidly in these young dogs.

"Entire litters would be affected and would die very rapidly," Dr. Pollock said. "Often the owners would simply find the pups dead. Within a half-hour of seeing the litter apparently normal and nursing, they'd come back to discover one or more of the pups had died."

Dr. Carmichael's team is now working on a new vaccine to prevent the disease. Because canine parvovirus is closely related to feline panleukopenia virus, there was hope that the panleukopenia vaccines already available would afford protection against the canine pathogen (similar to the use of cowpox vaccine in humans to protect against smallpox).

The scientists found, however, that although two inoculations with killed panleukopenia vaccines protected dogs for a few weeks, many dogs were no longer immune two months after vaccination. Two immunizations with live panleukopenia did provide adequate immunity in most dogs for a year, but 10-20 percent still were left unprotected.

"None of the commercially available vaccines is ideal," Dr. Pollock said, "but they do provide some protection and they are all that is currently available. Our efforts now are focused on developing an attenuated canine parvovirus vaccine that will combine the essential properties of safety, efficacy and duration.



# ANIMAL BEHAVIOR THERAPY PART II

# PSYCHOGENESIS AND OBEDIENCE PROBLEMS

### by Dr. Daniel F. Tortora

\*\*Editor's Note: Dr. Tortora has a Ph.D. in experimental psychology, specializing in animal learning and motivation, and has been a practicing Animal Behavior Therapist for six years. He was co-founder and co-director of New York's The Animal Behavior Therapy Clinic, and presently is founder and president of Consultants in Behavioral Control, Inc., of Spring Valley, N.Y. Dr. Tortora has authored over 40 scientific papers on behavioral control in animals, including dogs and cats. In addition, he has written many magazine articles and three popular books: Help! This Animal is Driving Me Crazy, (Playboy, 1977; Wideview, 1978); The Right Dog For You, (Simon & Schuster, 1980) and Just Rewards, The Chronicle of An Animal Psychologist, (in preparation).

I n a limited sense, most obedience problems are psychogenic in nature. Obedience, for a dog, means that he quickly responds to a verbal or non-verbal command, by performing the commanded action. You say "sit," and he sits. You say "down," and the dog lies down.

Obedience problems occur when the dog does not perform the required reaction. There are a number of reasons why this may happen. The first is that the dog doesn't "know" what to do; in other words, he hasn't been trained sufficiently or properly. This is where obedience training is relevant. The cause of the problem is lack of good training, and the solution is providing good training, a one-to-one relationship between cause and effect.

However, a dog may not respond obediently for a variety of other psychological reasons. This is when an obedience problem may become a psychogenic problem. Then, other techniques, in addition to obedience training, may have to be used to completely eliminate the obedience problem. Figure 1 provides a schematic breakdown of the psychogenic causes of obedience and behavior problems, as well as the type of techniques useful in curing the problems.

For example, due to harsh training, a dog may have a conditional emotional reaction, such as fear, to a command. The dog's fear may interfere with, or block, the performance of the obedience skill, or the dog may perform the obedience skill submissively; tail tucked, ears back, and looking quite afraid. If the fear is minor, then non-punitive positively reinforcing and playful obedience training may overcome it. If the fear is major, then special counter-conditioning techniques, like systematic desensitization or flooding, may have to be used. My first book, **Help, This Animal is Driving Me Crazy**, will describe these techniques further.

Or, a dog may know what to do, but may not be motivated to perform, or may be motivated **not** to perform. In the former case, dogs have been described by pet owners as "lazy;" in the latter case, they are **16** Today's Animal Health characterized by their owners as "defiant." In these cases, no amount of training will improve the dog's performance. The dog's motivation must be modified. **Motivational Modification** techniques have been extensively studied by experimental psychologists for the last 70 years. Suffice it to say that most motivations can be modified. However, to be successful, you have to identify a problem as motivational in nature, and then specify which motivation the dog is currently under, and what direction and type of motivational modification will produce the most desirable results.

Or, a dog may not be obedient, due to problematic genetic or developmental programs. Examples of the former are irritable snapping in some miniature Poodles and other toy breeds, and "defiant" behavior in some of the more dominant breeds. An example of the latter is the kennel-dog syndrome, most often seen in sporting dogs like pointers that are kept isolated in kennels from early puppyhood. I have described these breed-specific problems in my second book, **The Right Dog For You**.

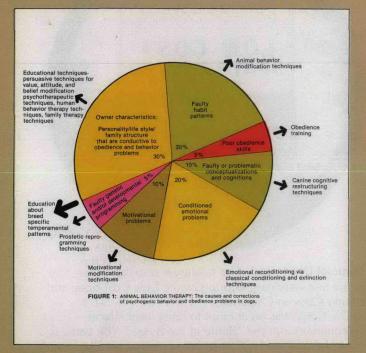
Again, these problems can be modified by conditioning techniques. I call the process *Prostetic Reprogramming*, as the conditioning procedure does not remove the genetic programming but, like a prosthesis, allows the animal to function in spite of the problematic program.

Or, a dog may be disobedient due to owner characteristics. Their personalities, life styles, or family conditions may not be conducive to obedience. An example might be the owner's characteristics may not match the temperament of the breed of dog they have chosen. To provent this mismatch, my book, **The Right Dog For You**, provides tests that can help a would-be pet owner select a breed that will suit his personality, family and life style. However, after an incorrect choice has been made, and the pet owners have become attached to a specimen of the wrong breed, the only solutions are prostetic reprogramming and behavior modification for the owners, so a match can be created.

Or, a dog may not be obedient due to faulty habit patterns. This means that the dog could show a *Behavioral Excess*; that is, too little behavior, or *Inappropriate Stimulus Control*; that is, the right behavior at the wrong place or time, or bizarre or unusual *Behavior Rituals*. These problems could interfere with obedience training, and sometimes can make it appear that the dog is impossible to train. In these cases, special behavior modification techniques may have to be applied before, and during, obedience training. I have outlined some of these techniques throughout my book, **Help! This Animal is Driving Me Crazy**.

Finally, a dog may disobey due to faulty cognitions or "concepts." Yes, a dog can and does form concepts, and in the same way humans do. The difference is that canine concepts may be a bit more primitive, and are tied to the animal's species and breed-typical behavior patterns. This difference is quite important. Attributing human concepts to our canine comrades is a logical flaw called "anthropomorphism." To understand properly a canine concept, we must "caninopomorphize" their behavior; that is, perceive and interpret a dog's behavior using what is known about canine ethology, and temperamental differences between the various breeds of dogs. This can be accomplished by studying the works of Michael Fox, Scott and Fuller, and my own books, **Help!...**, and **The Right Dog For You**.

The formation of animal concepts has been demonstrated repeatedly by experimental psychologists. Most notably, Dr. R. Harlow demonstrated a phenomenon called "Learning Set," or "learning to learn." In his experiments, monkeys, after being given hundreds of shell game-type problems in which they had to choose the cup under which a peanut was hidden, would learn to choose the correct cup in one or two trials. Initially, these monkeys would take 20 to 30 trials to learn consistently to choose the correct cup. Thus, they had learned to learn. After hundreds of different



problems, if they got the peanut on the first trial, they would stay with the same cup on subsequent trials. If they missed the peanut on the first trial, they would switch to the other cup. The animal concept here could be described as "win-stay, lose-shift."

Faulty cognitions and concepts can impede obedience training by being incompatible with the training. In my experience, difficult-to-train dogs may have "learned not to learn." These concepts can be overcome by techniques I have called Canine Cognitive Restructuring. To perform cognitive restructuring, the faulty canine concept must be accurately identified, a new more appropriate concept must be specified, and then the animal's experiences must be manipulated to cancel the faulty concept and create a new one. Cognitive restructuring must be applied before obedience training. If it is not applied in advance, standard obedience training may simply provide the animal with more practice in how not to learn. Thus, the more training, the worse the performance and the harder it will be to restructure the concept.

### BEHAVIOR PROBLEMS AND PSYCHOGENESIS

Up to now, I have been describing how obedience problems can be psychogenic. Behavior problems can also be psychogenic in similar ways. Behavior problems differ from obedience problems, since they do **not** involve problems with the animal's performance when commanded.

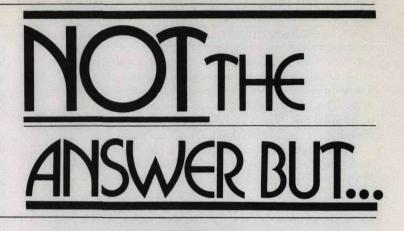
Most psychogenic behavior problems are unrelated, or only indirectly related, to obedience. Anorexic animals that is, those who refuse to eat, self-abusive animals; that is, those that chew on themselves, fear-biting animals, dominance biting animals, animals suffering from the separation syndrome; that is, destructiveness, howling, and incontinence when left alone, are not being disobedient, since their behavior problem has nothing to do with responding to commands. They are suffering from a psychogenic behavior problem, and obedience training is not likely to cure these problems. Animal Behavior Therapy techniques that directly modify the problem behavior must be employed.

The type of behavior therapy technique employed should be directly related to the cause of the animal behavior problem. A fear-biting animal may have to be Emotionally Reconditioned, using classical conditioning and extinction procedures to counter-condition the fear A dominant dog that threatens its owners may have to be Motivationally Modified, by a variation of submissiveness training. In addition, his owners may have to be Behaviorally Modified, by giving them assertiveness training. A defiant bulldog may have to be Prostetically Reprogrammed by a procedure called "compliance training." A submissive or timid animal may also have to be Motivationally Modified by a canine versin of assertiveness training. A dog that is destructive because of a persistent escape concept that amounts to the cognition "If I try hard and long enough, I can dig or chew through anything," may have to be Cognitively Restructured, by a procedure called "escape-proofing." This procedure is, basically, teaching the dog the opposite cognition; that is, I cannot escape from wherever I am put," and so on. The point is that there should be a one-to-one match between the cause of the behavior problem and its solution.

This is not to say that obedience training may not help some of these animals, since they may also be disobedient. However, offering obedience training as a cure for psychogenic behavior problems is a sham. It is a fraud that is all too frequently perpetrated on the uninitiated pet owner, who is unfortunate enough to have a pet with a behavior problem, and is unsophisticatd enough to believe that his problem stems from disobedience. When appropriate, pet owners should be informed that their pet may be suffering from a psychogenic behavior problem, and referred to an Animal Behavior Therapist.

In this way, the therapist can perform a behavioral diagnosis, determine the cause or causes of the problem, and administer the appropriate behavior therapy technique either before, or while, the dog is obedience trained. Thus, the Animmal Behavior Therapist and the Obedience Trainer become coworkers, jointly contributing to the cure, and providing a truly valuable service to the pet owning public.

\*Copyright © Dr. Daniel F. Tortora, 1980



# DVM's form group-owned spay and neuter clinic

by Les Malo, D.V.M.

range County, California, is best known as the

home of Disneyland. The County is also the home of the first veterinary Group-Owned Low Cost Spay and Neuter Clinic in California.

ORANGE COUNTY

GR

1051

The Clinic was an attempt to bring local ethical veterinarians into the "Battle of the Bulge." This battle is not to be confused with the always present conflict between that second helping and one's girth, but rather, the pet overpopulation problem.

Forty-three Orange County veterinarians knew full well that the spaying (Ovariohysterectomy) of female dogs and cats and the neutering (Castration) of male canines and felines could not appreciably affect the growth of Southern California's pet population. Statistics indicate that if every veterinarian in California did nothing but surgical sterilization of dogs and cats eight hours a day, seven days a week, the population of pets within the State would continue to rise. Armed with this knowledge, these practitioners realized that the true answer to this overpopulation problem in the long run rests not with the local veterinarian, but with continual, ongoing veterinary research aimed at developing some form of easily administered inexpensive chemical birth control. Southern California's veterinarians, in a move designed to support this real best hope for pet population control, created a foundation called THE ANIMAL BIRTH

CONTROL RESEARCH FOUNDATION to fund reproductive research.

At the same time, these same practitioners realized that there were still other conditions within their community that had to be addressed, if any hope of controlling our pet explosion was to be successful. One of these conditions was a lack of public education and the other was the creation of a low cost spay and neuter clinic. The public had to be told what they could do to avoid the birth of unwanted puppies and kittens—the average citizen had to know that one's pets sould not be allowed to run free and breed at will. This and other information was brought to the County's citizens via pamphlets, talk shows and the donation of an audio-visual education system to the loal animal shelter.

The Low Cost Spay and Neuter Clinic which is unique within California, and we believe, even within the nation, in that it is owned not by just one or two veterinarians, but by almost all of the veterinarians within the geographic area served by the facility.

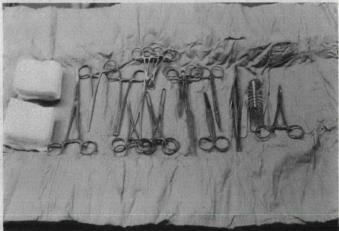
Veterinary medicine in Orange County is practiced with the highest standards of the profession and these veterinarians, whose regular full service hospitals were located in Orange County, were unhappy with the quality of the work being produced by local spay and neuter clinics. These practitioners believed that a "low cost" surgery still had to be a high quality piece of surgery or it would reflect unfavorably not only on the clinic performing the operation but upon the veterinary medical profession as a whole.

This group-owned spay and neuter clinic known as the "Orange County Animal Birth Control Clinic" has now been in operation for several years. It supplies low cost, high quality, ovariohysterectomy and castration surgeries to the public.

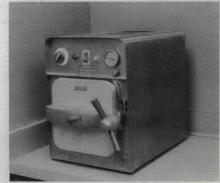
The Clinic is able to provide these services at a lower cost than the veterinarians can provide in their own hospitals for several reasons. First, the Clinic is a unipurpose clinic. That is, it provides one type of surgery and one type only, therefore eliminating the cost of other equipment that must be on hand in a full service hospital. Secondly, the veterinarians and their staff can set up one routine and stick to it, thereby eliminating wasted time and movements, thus maximizing their efficiency and allowing more surgical procedures to be performed within a given time period. An additional reason that allows low cost surgery is that the surgeon is just that - a surgeon he does not talk to clients, does not spend time answering questions and dispelling anxiety. He lets lay people do these things that again means more time to perform operations per each working day, thus a decreased cost that can be passed on to the pet owner.

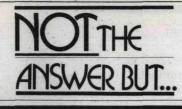
The local veterinarians in Orange County have risen to the occasion. They have tried to stop the not so blessed events by providing their community with low cost, high quality surgical sterilization. These same devoted practitioners have, however, realized that the true answer lies in research and public education, not in surgery—and to that end, they encourage all pet owners to support veterinary medical research by donations to and raising money for the Animal Health Foundation or any other legitimate organization with the same objectives.

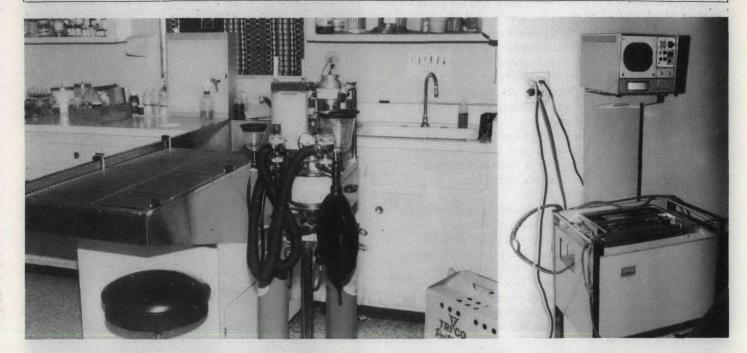


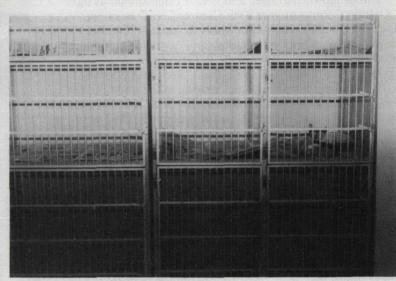














# DIETARY MANAGEMENT OF DISEASE

# What's Behind the Idea of Dietary Management

by J.F. Alberson, D.V.M. of Hill's Pet Products, Inc.

Today's veterinarian frequently prescribes specially formulated diets for the treatment of disorders of the heart, pancreas, intestine, liver, kidney, bladder or even for obesity and old age. Why are such diets helpful?

T o understand why a specially prescribed diet can be helpful to the dog or cat with certain health conditions, it is necessary to take a look at what we call "normal" food.

Modern commercial pet foods available in grocery stores appear under perhaps 1,000 different labels. They are designed to provide acceptable levels of nourishment to the large majority of cats and dogs.

You are probably aware of three basic forms of food dry, soft-moist and canned; in addition there are the socalled all-meat gourmet-type products. But most of these foods are very similar in their nutritional makeup. And most have as a goal the feeding of the average adult dog or cat economically.

We might well question whether the same food which nourishes a three-pound male Chihuahua will be satisfactory for a female Irish Wolfhound with seven puppies. Or whether this same food is the correct choice for an aged and lethargic Dachshund confined to an apartment on the twenty-fifth floor.

Nutritional needs vary from breed to breed and from one individual to the next. The way producers of supermarket pet foods allow for these differences is by overcompensating. Almost universally, excesses of specific nutrients are going to be fed to individual animals.

Take protein, for example. The average canned "balanced ration" dog food provides the normal adult dog ten times as much protein as he needs to maintain good health. Soft-moist burger type foods provide seven and one-half times as much and dry foods six and one-half times as much.

Frequently this means the dog takes in excess calories, which, of course, can lead to obesity. If the dog is healthy, the excess does no other harm. And the dog's system is such that excesses are swiftly eliminated with no apparent damage done. So when we examine the formulas of the veterinaryprescribed foods, we find that what they have in common is that one or more nutrients are restricted or eliminated because the patient can no longer tolerate them in the amounts a normal animal can.

For this reason, in the diet which deals with kidney disfunction, the amount of protein is restricted and the quality of protein is upgraded. The diet which is designed to correct obesity is limited in calorie value because it is restricted in fats and digestible carbohydrates.

Sometimes, in addition to restricting one nutrient, it is necessary to supply an inceased amount of another nutrient; hence, these formulas are arrived at only by thorough research and careful biological testing.

Do these foods "cure" the dog or cat?

By and large, when an organ is damaged, the condition is irreversible. Neither drugs nor surgical intervention can correct the deficit. Neither can the food eliminate the ailment, but it can make the symptoms disappear or lessen.

This is one of the main reasons that prescription foods should be ordered by a veterinarian and administered under his continuing supervision.

These special diets can be compared to the sugar-free diet used by diabetics. Reducing or eliminating sugar helps eliminate such life-threatening dangers as insulin shock and coma, but it does not alter the fact that the person is diabetic, and it does not eliminate his need for medical supervision.

So the veterinarian will continue to watch the organ or system which caused the problem in the first place. A good example is obesity, truly a potential killer. Cutting down available calories will correct the dog's obesity; however the dog's **tendency** to obesity must be watched throughout his lifetime.

But for the cat or dog who is a family friend, these special diets can spell the difference between debilitating sickness and effective good health. The difference in cost and convenience is so small that the average family is glad to provide their pet with the food's very obvious benefits.

# BENEFITS OF BIRTH CONTROL



Kay Bradley, a Certified Animal Technician, holds an inflamed uterus in her right hand (left in the photo) and compares it with a "normal" uterus.

The photo was taken by Dr. Michael J. Eberhardt D.V.M.

A nimal birth control can provide many benefits. Altering the family dog or cat makes sense in this overcrowded world, and can actually reduce medical problems and expenses, according to authorities at the Wisconsin Veterinary Medical Association.

An ovariohysterectomy (spay) of a female cat or dog is a surgical procedure which removes the ovaries and uterus. This helps to reduce or eliminate the following potential health problems:

**Pyometra.** This is one of the most common and serious female pet health problems, which can be avoided by an ovariohysterectomy (spaying).

The normal, nonpregnant uterus has two long horns, about the size of earthworms, and a short body. An infected uterus (pyometra) can become ten times bigger with accumulated fluids or pus, and the horns then resemble a large knockwurst.

A pet with an infected uterus is very sick. She stops eating and starts drinking water. She's always thirsty. Sometimes she vomits. When she is not vomiting, she is usually lying in a heap in the corner. In later stages the infected fluids begin to drain. Only prompt veterinary treatment can save a pet at this stage.

The risk of tumors in the ovaries, uterus and breast glands is reduced.

It is estimated that about one out of every five unspayed females will develop these types of tumors. Breast tumors are the most common and are usually malignant. They seem to occur most often in females over six years of age.

These tumors often start as pea-size lumps, well hidden in the breast tissue. The owner is often unaware that the tumors are there. With each heat cycle the tumors enlarge. When the tumor is finally discovered, it may have reached the dangerous size and begun to spread to the nearest lymph node and on toward other vital organs such as the lungs. Once the tumor has spread it is too late to spay. Statistics also indicate that one out of five female dogs will develop tumors of her reproductive organs. **Pseudocyesis** or false pregnancy which can occur about 60 days after heat and mimics pregnancy with an enlarged abdomen and developed breast glands. Dogs who have false pregnancies frequently show a greater tendency toward breast tumors and pyometra.

Problems associated with hormonal imbalance usually due to a greater than normal secretion of estrogen (or female hormones) leading to hair loss and skin changes is reduced.

Although an ovariohysterectomy is major surgery, there is no need to fear it. This is a common surgical procedure routinely performed by veterinarians. Both ovaries and the uterus are removed and so is the animal's sexual interests.

Altering male animals by removing the testicles reduces at least three common health problems and several undesirable behavior problems:

Over 10 percent of mature male dogs will develop tumors of the reproductive tract.

About 60 percent of male dogs over six years of age develop prostatic problems. Since the prostate gland sits around the neck of the urinary bladder where the urethra begins, dogs with prostatits (an infection of the prostate) often drip bloody fluid.

**Cryptorchid** pets (when testicles fail to decend) have a greater than average chance for developing testicular tumors.

Dog roaming is significantly reduced and aggression is often reduced. In male cats, roaming is reduced and spraying is often eliminated.

When picking the actual age to alter your pet, you have several choices. It is generally recommended that females have an ovariohysterectomy at about six months of age. They can have an ovariohysterectomy later, but the benefits tend to be reduced.

Males can be altered at any age; although it is usually best to wait until they are about nine months old, according to the Association.

# worth reading

**TuTu** By: Alix Weill Escondido, CA: Omni Publishers 1979: \$3.95

T he author was the owner of a Ballet Academy in New York and this short little love story is her account of her experiences with her Budgie, TuTu. She taught him to talk - he acquired a "vocabulary" of 105 words. It is an emotional little paean and the author verges on mysticism toward the end, but as she honestly says in her introduction, it you don't love pets, don't read. Fun reading for the sentimental bird lover.

# Lifeboats to Ararat

By: Sheldon Campbell New York: McGraw-Hill Book Co. 1980: \$4.95

S heldon Campbell is a trustee of the famed San Diego Zoo. His book title is his statement of what he believes the role of zoos is - the preservation of wild life by providing a serene natural habitat for animals to breed in captivity. His book is delightful. It starts with a breathless adventure, trying to save and capture the rare Blue Bear in Alaska. When the excitement is over, the reader is sorry and wants more -and there is more. This is the inside story of what goes on in one of the greatest zoos in the world - Lazarus Lemur who was brought back from the dead - the elaborate surgeries sometimes necessary-the work of keepers, curators, veterinarians. Packed with information and insight, it is well worth reading.

### An Owl Came To Stay By: Claire Rome New York: Crown Publishers 1980: \$6.95

A real charmer. The author, Claire Rome, is an artist and has illustrated her book with lovely sketches, plus some excellent photographs. This is the story of six years in the author's life when she, through no plan, established a sort of foster home for or-

phaned owls. She had taken some stuffed birds that she had been sketching back to a friend in London and he presented her with a baby owl. The baby had been found by some boys who were playing in a nearby park. She was told it was impossible to raise him and then turn him back to the wild. She not only succeeded with this young owl but with others and in so doing learned about the nature of owls far more completely than any scientific treatise can teach. She established a rapport with owls that is extraordinary - another example of what we can experience with animals if we manifest sympathy and patience.

# 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

T his 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

T his 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 Gainsville, Florida: Triad Scientific Publishers

1979: \$3.95

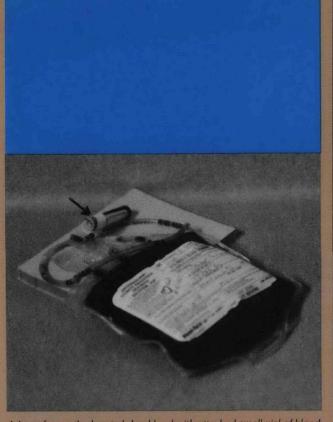
A real hilarious picture trip through a dog wash, complete with captions. Marvelous gift for your friend who is owned by a dog.

# What Kind of Dog Is That?

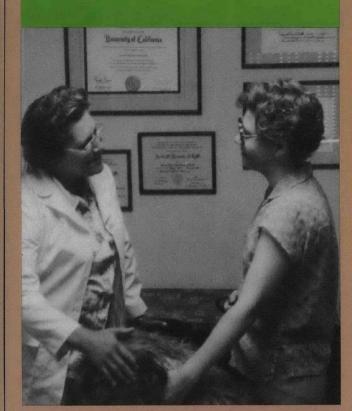
By: Nina Leen New York: W.W. Norton & Co. 1979: \$9.95, cloth; \$4.95, paper

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 bag of recently donated dog blood with attached small vial of blood for use in cross-matching to the recipient's blood. This bag will be kept refrigerated until it is needed for or a period of not more than 4 weeks. The plasma will then be salvaged, if the blood is not used, and saved frozen for 6 months.



The technician is discussing the procedure of donation with this dog's owner.



The greatest of all "miracle" medicines cannot be manufactured or synthesized. Nor can it be harvested or mined. It has to come from animals.

# What is it? BLOOD!

A single donation can help meet the needs of an animal injured by an automobile, sick with anemia or facing major surgery. If one of your pets has received blood, you are already aware of the need to have this lifegiving fluid available. If your pets have never required blood, they might someday.

Did you know that less than 5% of the United States human population that could actually does donate for all the blood needs for humans? Who are these people that donate? They're people like you or me, if we give willingly once every 8 or more weeks. They're people that care about lives.

The situation isn't much different with animals, except there are far too few donors, and blood just isn't always there when it's really needed. What happens then? Well, if they're lucky, some animals that needed but couldn't be given blood will survive, often after prolonged hospitalization or nursing care. Others, not so lucky, will die.

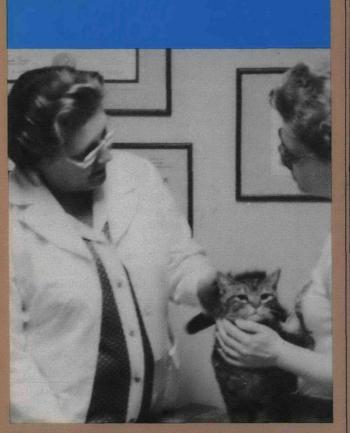
Some pet owners don't offer their dogs or cats as blood donors because they fear it will upset or harm the animal. I'd like to tell you what it **really** means to be a blood donor and try to relieve some of the concerns and fears you, as pet owners may have. Donating blood is a procedure which causes about the same degree and length of discomfort as the injections many of us or our pets have received in our lifetimes. In one respect it **hurts less** — nothing is injected which might sting or ache, as with vaccines, antibiotics, etc. Animals who are donating must be held gently and quietly by a nurse during the procedure. This does not hurt, but occasionally a pet will object to the restraint. For this reason a mild tranquilizer is sometimes administered beforehand.

A complete medical history is taken on every donor before any tests can be taken. Dogs and cats must be in good general health, 2 years of age or more and weigh 50 lbs. or more for dogs, 8 lbs. or more for cats. Certain previous or present medical conditions (such as heart disease, blood diseases, etc.) automatically disqualify a prospective donor. Check with your regular veterinarian if you're unsure.

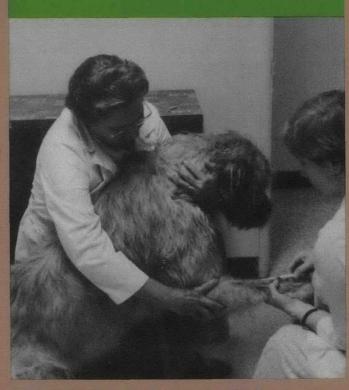
No prospective donor is allowed to give any blood without first an examination and a general check of the blood to determine its quality and freedom from disease. In dogs and cats this means a wait of at least 1 week after tests are taken before they can be accepted as a donor for their own benefit and for the benefit of any pet that might receive their blood.

At time of actual donation the volume of blood taken is carefully calculated according to the weight of the donor.

24 Today's Animal Health



The technician is discussing the procedure of donation with this cat's owner.



Blood tests being drawn after the examination of this dog - prospective donor. This procedure takes only a few seconds. The dog will be eligible to donate (if all test results are satisfactory) in approximately one week.

The greatest of all "miracle" medicines cannot be manufactured or synthesized. Nor can it be harvested or mined. It has to come from animals. What is it? Blood! by Anita Henness, D.V.M.

New blood is being constantly manufactured by the donor's body, and the volume is automatically replaced within a few hours. We assist dogs and cats with this replacement by giving sterile salt solution immediately after the donation.

The actual procedure of donation takes less than 20-30 minutes. The entire visit takes about an hour. It is preferable to bring in the donor pet in the morning and take him home later in the day.

Discuss with your veterinarian the possibility of your pet donating blood. Then call to schedule an appointment for initial examination and tests. If you are interested in participating in a Blood Donor Program in your area, call your local or state veterinary association.

Did you know. . .?

- The primary function of blood in the body is to carry oxygen and nutrients to all the body's cells?
- The four principal parts of blood are red cells, white cells, platelets, and plasma?
- The main function of red cells is to carry oxygen?
- The main function of white cells is to fight infection?
- The main function of platelets is to control bleeding?
- An animal who donates blood can donate again after 8 weeks (both dog and cat)?
- An animal who donates blood builds a blood-credit toward his/her own future blood requirements as well as helps an animal in need now?

Blood tests being drawn after the examination of this cat – prospective donor. This procedure takes only a few seconds. The cat will be eligible to donate (again, if all test results are satisfactory) in approximately one week.



- An animal needing blood may be transfused **only** with blood from the same species of animal?
- When an animal donates blood the fluid loss is replaced immediately after the donation with sterile salt solution?

**Southern California Readers** interested in participating in a **Blood Bank Program** for pets can call 714-638-7262 for more information.

# in the NEWS

Veterinarians Encouraged to Increase Client Awareness of Toxocara Infection

W ASHINGTON, D.C. -- Veterinarians are urged to educate pet owners and the public about the public health threat of toxocara infection, according to a resolution approved today (July 20) by the American Veterinary Medical Association's (AVMA) House of Delegates during the 117th annual meeting in Washington, D.C.

Toxocariasis is a roundworm infection of dogs, which, if transmitted to people, may cause visceral or ocular larva migrans, infections that develop from an immature (larval) stage of the parasite's development.

After a year of study, the AVMA Council on Public Health and Regulatory Veterinary Medicine concluded that toxocaral infection in human beings has a higher prevalence than previously recognized and such infection may result in serious disease.

According to the resolution, there is a high incidence of infection in restrained and free-roaming dogs. Safe and effective treatments exist for the destruction of the adult toxocara parasite. Treatment and prevention of reinfection should be particular directed at young puppies and nursing bitches, dogs that have higher rates of incidence.

Stringent sanitary measures to include the proper disposal of canine fecal waste also enhance an overall program to mnimize canine-to-canine and canine-to-human transmission.

Representatives from 66 state and allied veterinary medical associations make up the AVMA House of delegates, governing body of the 31,773-member national professional association.

COLLEGE STATION -- An experimental bone implant that may one day improve the comfort and quality of artificial limbs has been developed by Texas A&M University researchers.

Dr. Alan Allert, one of the project's co-investigators, said the threaded prototype, about the size of a fountain pen, has been encouraging in preliminary tests with animals at Texas A&M's College of Veterinary Medicine.

26 Today's Animal Health

Practical application of the procedure is still years away, he cautioned.

Allert and Dr. Jon Hunter, both veterinary physiologists, said the implant is made of titanium and coated with pure carbon to decrease rejection by surrounding tissues.

The point of an improved device, said Allert, is to shift weight stress back to the bone from tissues that were not meant to undergo such hardship and often develop pressure sores as a result.

The problem is developing something that will attach to the bone and remain secure for long periods, they explained.

Artificial hip joints, for example, have only an expected lifetime of five to 10 years because they often are cemented into place. Another surgical procedure is required each time the implant begins to work loose in a few years.

The studies at Texas A&M are funded by a National Institute for Handicapped Research Grant through Baylor College of Medicine and the Texas Institute of Rehabilitation and Research in Houston, said the scientists.

Allert said a critical part of the research to perfect experimental implant is knowing just the right amount of pressure a healing bone needs.

Very little has been written about this aspect in scientific or medical journals, he said, but it is believed that either too little or too much pressure deprives key areas of calcium and may cause improper healing or serious reinjury.

After the problem of secure adhesion to the bone is resolved, Allert explained, the next obstacle facing Texas A&M researchers will be designing a device with an attachment passing through the skin - probably threaded -to allow an artificial limb to be screwed directly onto the implant, putting stress on the bone instead of the muscle tissue.

# SMUGGLED PARROTS SOLD AT AUCTION

T he day was sunny and bright. The auctioneer's call for bids rang out. A crowd of some 150 people in South Texas watched attentively. And when it was over, 46 birds had been converted from illegal aliens to legitimate U.S. citizens.

The group of smuggled Amazon parrots has been seized earlier this year by the U.S. Customs Service. The Mission, Texas auction happened in mid-April, but will be repeated.

Under new U.S. Department of Agriculture import rules, these birds can now be sold to private citizens following a 45-day quarantine to make sure they are free of exotic Newcastle disease—a foreign virus that affects poultry and other birds.

"Before this new quarantine and sale procedure was put in effect earlier this year, all birds seized from smugglers had to be either returned to their country of origin or destroyed," said P.A. Chaloux, deputy administrator for veterinary services in USDA's Animal and Plant Health Inspection service. "In most instances, this meant the birds were destroyed."

The new rules also apply to birds that are abandoned by travelers. Before the new quarantine, they faced the same fate as smuggled birds. Now, these birds, too, can be placed in quarantine for 45 days, tested twice to be sure they are free of exotic Newcastle and other diseases and then auctioned off by officials of the U.S. Customs Service.

Proceeds from the sale are used to pay the costs of caring for the birds while they are held in quarantine by APHIS. Any excess money goes to the Customs Service.

Smuggled birds which are on the threatened or endangered species list—maintained by the Department of Interior—also can be auctioned off, but only to zoos or other such institutions.

Top price at the auction, which attracted bidders from as far away as California, was \$350 for a yellowheaded Amazon parrot. A spectacled Amazon established the low for any lot in the sale when it sold at \$160. All told, the 46 birds—which included 23 yellow-headed Amazons, 6 yellowcheeked Amazons, 1 green-cheeked Amazon, 15 lilac-crowned Amazons and 1 spectacled Amazon—sold for \$8,960, an average of \$195 per bird.

Buyers included both individuals who were interested in a pet and representatives of pet stores and bird wholesalers wanting to add to their stocks. The rule of the day was "cash on the barrel head" and money was collected and the name of the buyer recorded after each sale.

Agriculture officials are involved in the bird business because of the threat of exotic Newcastle disease to both U.S. poultry and pet bird industries.

"Of all the foreign animal diseases that threaten this nation's food supply, exotic Newcastle is among the most serious," Chaloux said. "If it became established in broiler and layer flocks in this country, it could wreak havoc with poultry and egg prices."

"The last major outbreak of exotic Newcastle in the United States began in 1971 in California's poultry-rich San Bernardino Valley," Chaloux said. "During the nearly three years we fought the disease, 12 million birds—mostly laying hens—died or had to be destroyed."

That eradication effort cost taxpayers \$56 million, Chaloux said. "But the disease would have cost nearly a quarter of a billion dollars a year on a continuing basis if it had not been wiped out."

Except for Canadian birds, Chaloux said, a 30-day quarantine is required for all pet birds and poultry imported into the United States, whether they are commercial shipments of exotic birds through privately owned, APHIS-approved quarantine stations, personally owned pet birds through special APHIS facilities or poultry or pet bird shipments through APHIS animal import centers in Miami, Florida, Honolulu, Hawaii, or Newburgh, New York.

"The quarantine period is 45 days for smuggled or abandoned birds because we are not sure of their origin and they have no health papers," Chaloux said.



Pet birds from Canada are not quarantined because Canada's animal disease control and eradication programs and import rules are similar to those of the United States. While some birds die rapidly from exotic Newcastle, other types of birds—particularly some parrots—can have the disease and not show any symptoms, Chaloux said. "We had one parrot that shed the virus on an intermittent basis for over 400 days," he said.

"The most healthy looking and robust birds can be dangerous carriers," Caloux said. "That's why we're concerned that pet birds—whether they're smuggled or brought in legitimately—go through a quarantine to make sure they don't have the disease."



transporting dogs in substandard ship-

ping containers. Delta also was charg-

ed with shipping a dog from

Washington, D.C., to Birmingham,

Ala., while it was in obvious physical

distress. That animal died in transit

area veterinarian-in-charge in

Georgia, Delta waived an oral hearing

and settled the charges without admit-

According to N.E. Schulz, APHIS

from heat prostration.



sizes, for large

and small pets.

At leading pet stores

Another Great Pet Product from JOHNSON IPE'I'-DOR P.O. Box 346, Northridge, CA 91328

ting or denying guilt. Schulz said the settlement was reached when Delta agreed to pay the fine imposed by a federal administration law judge who reviewed the case. Delta also agreed to make a concerted effort to educate its employees about federal standards on animal transportation and to comply fully with the regulations in future handling of live animal shipments.

Under the Animal Welfare Act, all commercial carriers are required to meet federal standards for care and comfort of animals they accept for shipment. These standards require adequate cages, which are properly labeled and well ventilated, and a sufficient supply of food and water.



# ask Dr. Smithcor's continued from page 7

conscientious attention to diet and exercise in addition to scrupulous care in monitoring the effectiveness of insulin injections. If this is done, and various potential complications watched for and attended to promptly if they appear, many dogs can live to a ripe old age. Unfortunately, too many owners (being only human) become discouraged or careless in keeping a close eye on their pets, and some simply aren't temperamentally suited to be nurses. Some dogs or some forms of diabetes may become refractory to insulin, however, and in such cases the prospects may be rather dim. If a female is not spaved, the disease often becomes more severe while she is in heat, and in such cases it would be worthwile to discuss with your veterinarian the feasibility of having her spaved during a quiet period. The real secret to a long life for a diabetic dog is not really a secret at all. It consists of having a veterinarian who can diagnose the disease early and who can inspire you with the confidence needed to manage it carefully.

Our dog eats his own stool. It is really disgusting. What causes this? Is it just a filthy habit? How can we break him of it? We put hot pepper on his droppings and he still ate them! There's an old saying, "One person's meat is another's poison," and in regard to your dog's eating his own stool it is obvious that it bothers him less than it does you; in fact, he wouldn't do it if he didn't like it. The underlying reason, however, may be a bit obscure, as are many things related to unusual behavior. Puppies may adopt this habit out of boredom, especially if they are confined and left alone much of the time, and one may pick up the vice from another when two or more are left to their own devices. It may be possible to break the habit by pouring kerosene (or fuel oil, charcoal lighter fluid, etc.) on the stool and allowing the dog to sniff (but not eat) it. Some veterinarians have advised sprinkling the stool with meat tenderizer (Adolph's), which changes the flavor in such a way that the dog no longer relishes the tidbit.

It is also possible that this is not a vice but a sign of disease. In this regard, one factor might be intestinal parasitism, and if you haven't done so you should have your dog checked for worms. If the stool is greasy or has fat particles in it, a form of pancreatic disease is likely, and by all means you should have your dog examined by a veterinarian, who can prescribe certain dietary additives which will control but not cure the problem. Supplemental vitamin B complex apparently has been beneficial in some cases. If a pup has just begun this practice it sometimes can be thwarted by cleaning up after it—but getting there first might be a problem!

# Why Brush Your Dog's Teeth? For the Same Reason You Brush Your Own!

Does your dentist recommend chewing bones or hard biscuits for cleaner, whiter teeth? NO! he recommends brushing. The same problems call for the same solutions.

Beef flavored Doggy Dent/DVM is pleasant tasting, contains no detergents, and it is completely digestible.

Regular brushing with DVM will leave your dog's mouth clean, his breath fresh, and will go a long way toward preventing oral problems.

# **DEEPEN ENTERPRISES, INC.**

For the name of the DVM distributor nearest you, write or phone Dr. Ursula Dietrich, Pres., Deepen Enterprises, Inc. 111 Saint Matthews Ave., San Mateo, CA 94401 **PHONE: 415 - 342-2976** 

PAG

Available from your veteranian, and/or local pet shops.

# dialogue Continued from page 5

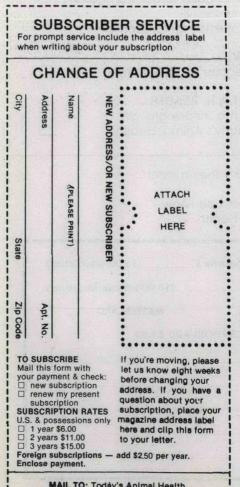
I am an AHT who has been enjoying your magazine for the past two years. The articles you present are great to use in the hospital as client education materials.

I have especially enjoyed your recent covers featuring the French posters. I was wondering if perhaps these posters were available to the public and if you have an address I might write to for a catalog.

Patricia McIntosh/Tustin, California Reproductions of these posters are sold in some book stores. — Editor

I enjoy Today's Animal Health very much but wish you had some articles on fish. I have a fish pond with beautiful Koi. Could you tell me where I can get information about keeping fish in a pond? Jim Goss / Atlanta, Georgia

There is a very good magazine published by the Associated Koi Clubs of America. It is called Koi, U.S.A. The yearly subscription rate is \$8.00. The address is Koi, U.S.A. P.O. Box 1, Midway City, CA 92655



	8	33	8											co								06	60		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

MAN		al size	- min
le.		x 111/2"	
H1 CAT	CONSIGNATION OF THE OWNER OWNER OWNER OF THE OWNER		
#1 CAT		#2 BIRDS	\$14.00 apph
Signed and r		in Sepia Tone 26.00	\$14.00 each
QUANTITY	SERIAL #	PRICE	TOTAL
		Postag	e and handling \$2.50
ame		State	
			nclosed
Mail to: C	El Toro, CA 9263 ALLOW 3 WEEK	S FOR DELIVERY	EVER
Mail to: ( E F PUBLIS	El Toro, CA 926 ALLOW 3 WEEK E BEST HED OL	BOOKS CATS -THE WASHINGTO	ON HUMANE SOCIETY
E THE HOME PET fill a void that prese	El Toro, CA 9263 ALLOW 3 WEEK EBEST EBEST EHED OL VET GUIDES are a ently exists in pet card	BOOKS DECATS -THE WASHINGTO must for every pet o e literature"	ON HUMANE SOCIETY wner and will sufficientl —THE ASPC/
Mail to: C E Mail to: C E Mail to: C E Mail to: C E Mail to: C E E Mail to: C E E Mail to: C E E E E E E E E E E E E E E E E E E E	El Toro, CA 9263 ALLOW 3 WEEK EBEST HED O VET GUIDES are a ently exists in pet carro VET GUIDES are pages. With an ex cess to the most simple concise help you act quick "These two new	S FOR DELIVERY BOOKS CATS THE WASHINGTO MUST for every pet o literature'' fully illustrated guid book has more that modern first aid prod instructions and si bly, calmly and correct books can very we	An HUMANE SOCIETY wher and will sufficiently —THE ASPC/ des to all common pe n 200 large 8-1/2'' x 11' gives you immediate ac cedures. The large type tep-by-step illustrations thy.
Mail to: C B Mail to: C B Mail to: C B M B M M M M M M M M M M M M M M M M	El Toro, CA 926 ALLOW 3 WEEK EBEST E	BOOKS can very wence between life a	And the second state of th
Mail to: C E Mail to: C Mail to: C Ma	El Toro, CA 9263 ALLOW 3 WEEK EBEST HEDOO VET GUIDES are a ently exists in pet card VET GUIDES are pages. With an ex cess to the most simple concise help you act quick "These two new mean the differe death for an injury VET GUIDES also ormation on every as dog. Selecting, breed ection of the most por	S FOR DELIVERY BOOKS -THE WASHINGTO must for every pet o e literature'' fully illustrated guid th book has more that asy-to-use index that i modern first aid prod instructions and s idy, calmly and correct books can very w ence between life a ed dog or cat'' -THE ASPe contain comprehensis spect of living with a ding, grooming, feedin pular breeds and mu ES CAN SAVE YOUI	An HUMANE SOCIETY wher and will sufficientl —THE ASPC/ des to all common pe n 200 large 8-1/2'' x 11' gives you immediate ac cedures. The large type tep-by-step illustrations ty. 
Mail to: C B Mail to: C B Mail to: C B Mail to: C B M B B B B B B B B B B B B B B B B B	El Toro, CA 926 ALLOW 3 WEEK EBEST HED O VET GUIDES are a ently exists in pet card VET GUIDES are cess to the most simple concise help you act quick "These two new mean the differe death for an injury VET GUIDES also ormation on every as dog. Selecting, breed ection of the most po OME PET VET GUID copies of THE HOME // ET GUIDE for DOGS ents add 5% sales tax.	S FOR DELIVERY BOOKS CALLERY IN THE WASHINGTO THE WASHINGTO THE WASHINGTO THE WASHINGTO THING TO EVERY PET OF THE ASHINGTO	Ars and/or copies of \$1.00 postage & handling
Mail to: C	El Toro, CA 926 ALLOW 3 WEEK EBEST HED O VET GUIDES are a ently exists in pet card ver GUIDES are cess to the most simple concise help you act quick "These two new mean the differe death for an injury VET GUIDES also ormation on every as dog. Selecting, bread ection of the most por OME PET VET GUID copies of THE HOME copies of THE HOME copies of THE HOME copies of THE HOME copies of THE HOME	S FOR DELIVERY  BOOKS CATS  THE WASHINGTO  must for every pet o literature''  fully illustrated guid thook has more that asy-to-use index that of modern first aid proce instructions and si day, calmly and correct books can very w ence between life a led dog or cat'' —THE ASPe  contain comprehensis spect of living with a ding, grooming, feedin pular breeds and mu  ES CAN SAVE YOUI  FPET VET GUIDE for C/ , each at \$7.95 plus s	And the second state of th
Mail to: C	El Toro, CA 926. ALLOW 3 WEEK EBEST HED O VET GUIDES are a ently exists in pet carre ver gencies. Eac pages. With an eac cess to the most simple concise help you act quick "These two new mean the differe death for an injury VET GUIDES also ormation on every as dog. Selecting, breef ection of the most po OME PET VET GUID copies of THE HOME VET GUIDE for DOGS ents add 5% sales tax.	S FOR DELIVERY  BOOKS CATS  THE WASHINGTO  must for every pet o eliterature''  fully illustrated guid th book has more than asy-to-use index that i modern first aid prod instructions and s idy, calmly and correct books can very w ence between life a ed dog or cat''HE ASP  contain comprehensis spect of living with a ding, grooming, feedin pular breeds and mu  ES CAN SAVE YOUI  PET VET GUIDE for C/ , each at \$7.95 plus 1 VISA Inte	Ars and/or copies of \$1.00 postage & handling and/or copies of \$1.00 postage & handling arbank #
Mail to: C	El Toro, CA 926. ALLOW 3 WEEK EBEST HED O VET GUIDES are a ently exists in pet carre ver gencies. Eac pages. With an eac cess to the most simple concise help you act quick "These two new mean the differe death for an injury VET GUIDES also ormation on every as dog. Selecting, breef ection of the most po OME PET VET GUID copies of THE HOME VET GUIDE for DOGS ents add 5% sales tax.	S FOR DELIVERY  BOOKS CATS  The WASHINGTO  must for every pet o eliterature''  fully illustrated guid the book has more that asy-to-use index that if modern first aid prod instructions and s' idy, calmly and correct books can very w ence between life a ed dog or cat''	And the second state of th

MADCIA'S LIMITED EDITION

Advertisement

# What's underneath that championship coat?

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 prizewinning 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

by Jane and Bob Forsyth

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 highprotein 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 superrich 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<sup>®</sup> Beef Chunks Dinner. It contains meat byproducts 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 meatbased 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.

Our best-in-show to you and your best friend.

# Good breeding and Kal Kan feeding. It shows.



Ch. Jo-Ni's Red Baron of Crofton.

Baron is one of the winningest terriers in U.S. dog show history.

With his triumph at Westminster's 100th event, his total rose to 76 bestin-shows and 150 group wins.

And he's been getting the nutrition he needs from Kal Kan<sup>®</sup> ever since he © 1976, Kal Kan Foods, Inc. was just a promising Lakeland pup.

All 13 Kal Kan varieties are packed with plenty of rich meat, along with all the vitamins and minerals a dog needs to reach its potential.

Make the most of your champion's good breeding with Kal Kan dog food.

VON-PROFIT ORG. U. S. POSTAGE PAID SANTA ANA, CA PERMIT NO. 687