

Today's **Animal Health**

\$1.50

september/october 1980



Today's Animal Health

Volume 11/Number 5

September/October 1980

Cover photo by D. M. DIEM

STAFF

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

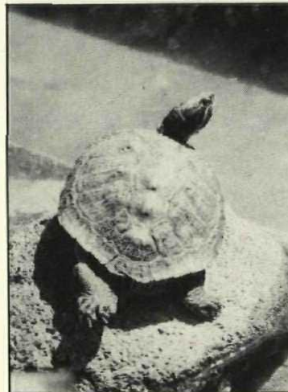
TODAY'S ANIMAL HEALTH is published bi-monthly by the Southern California Veterinary Medical Association for the nonprofit charitable Animal Health Foundation
 8338 Rosemead Boulevard
 Pico Rivera, California 90660
 (213) 257-0724
 Single copies \$1.50. 6 issue subscription, \$6.00. Copyright, 1980, Animal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

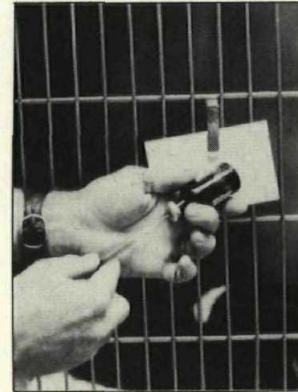
The ANIMAL HEALTH FOUNDATION supports research in animal health and pet population control. The Foundation also provides free veterinary care to pets belonging to elderly persons living entirely on social security benefits and those living on Aid to the Totally Disabled in the Southern California area. 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.



10



12



24

FEATURES

- 6 ANIMAL BEHAVIOR THERAPY - PART I/**
by Dr. Daniel F. Tortora
- 8 SKUNKS MAKE DANGEROUS PETS —**
A CONTINUING SAGA/by D. C. Blenden, D.V.M.
- 10 PARROTS - THE PERRIER OF PETS/**
by Barbara Bretton
- 11 ANIMAL CARE IN THE MIDDLE EAST - EGYPT**
SHOWS THE WAY/by Hadassah Bat Haim
- 12 PET-STORE TURTLE/by** Norma J. Engberg
- 15 A SECRET AGENT - DO ANIMALS HAVE A PLACE**
IN OUR NATIONAL DEFENSE?/by Edith Kermit Roosevelt
- 16 VACCINATE YOUR CAT!/by** Elizabeth Field
- 18 SHADOW, K-9 SOLDIER/by** Patrick J. Leonard
- 24 CANCER VACCINES WORK -**
ANIMALS LEAD THE WAY/by C. P. Ryan, D.V.M.

DEPARTMENTS

- 4 DIALOGUE**
- 20 IN THE NEWS**

dialogue

Having read the article "Euthanasia of Dogs and Cats" in the January/February issue of Today's Animal Health, I decided to send you a copy of an open letter I wrote December 1, 1978.

I was inspired to write this and to send it to as many people as I could who might help stop the passing of bad laws.

You may use this letter any way you choose. It may or may not be suitable for your publication.

As contract veterinarian for the City of Salinas, I am constantly after our city officials to design the animal control regulations in a manner to reward the people who are not contributing to the pet population explosion and to establish fines great enough to convince the careless pet owner it will be expensive to keep an unaltered pet. I have only recently succeeded in getting them to establish a fee schedule of \$1.50 for an altered pet, licensed on time; \$15.00 for an unaltered pet licensed after impoundment. Impoundment fees also reward the owner of the altered pet.

Wishing you success with the magazine, I am,

Sincerely yours,

D. L. Caswell, DVM
(Retired)

TO WHOM IT MAY CONCERN:

"The Fund For Animals, Inc." has succeeded in having the California legislature pass Senate Bill 1481 banning the use of the decompression chamber for euthanasia of surplus pets. They have now announced their intention to further force their opinions and ideas on the public by sponsoring another bill to prohibit the use of carbon monoxide, and restricting all methods of euthanasia to injectable barbiturates.

I'm not too upset because of SB1481. The decompression chamber was noisy, messy, horrible to watch and most likely created some apprehension in the animals prior to loss of consciousness, but it was painless. However, the use of commercial carbon monoxide from a cylinder, gauged with control valves, is free of all these factors, and there is absolutely **no symptom** of suffocation prior to loss of consciousness. These people fail to acknowledge, or mention, apprehension (fear) as an important humane factor relative to euthanasia. The injectable routes can be most cruel in this respect. One animal, in the hands of a qualified veterinarian with an able assistant, and in a small animal hospital well equipped for performing euthanasia is one thing. But picture a busy animal shelter with one or two employees preparing 6, or 12, or 18 adult dogs and cats, already apprehensive from 3 or more days in a strange environment; animals which must go to make room for more. Easily handled small pets are no trouble, but if dealing with an obstreperous dog or cat, it may be necessary to restrict him long enough to inject a tranquilizer in a leg muscle, or worse yet, force an oral dose of barbiturate. If the pet cannot be securely and safely held for injection into the heart, he must be held while the leg is shaved to expose a vein for injection. To be safe the muzzle may have to be tied to protect the men from bites. If a bite occurs, the head will have to be removed and the brain examined for rabies, adding to the expense and time involved. If an injection misses the heart,

4 Today's Animal Health

which can happen even with an expert, there is likely to be pain, and it will be several minutes before loss of consciousness. Not every shelter is going to be able to provide attendants who are deft and capable of assuring a smooth, properly executed injection to each and every one of hundreds or thousands of animals during the course of a year. In no case can one man, which many shelters have to rely on, be expected to safely inject any animal other than very young or newborns. While all the details connected with injectables are occurring, one man with a well-designed CO chamber, using commercial gas from a cylinder, can humanely and economically do this distasteful duty with much less distress to the animals. It can be done with less restriction, less binding, no noise, less handling and in less time. In 20 seconds the animal loses consciousness with no sense of suffocation whatever—only a sense of curiosity and with considerably less apprehension or fear. A slight sound from the vocal chords may occur but is post consciousness, a reflex prior to total expiration. Any law which provides that only an injectable drug may be used for euthanasia is nothing more than a law to promote cruelty and apprehension in thousands of animals.

These people, in attempting to restrict euthanasia to injectables, are acting because of emotions and without using common sense or practical knowledge. One reason I know what I'm talking about is that I began my 45 years experience in the sad duty of having to put animals to sleep in the mink business. I was gassing mink in my garage prior to pelting. I was sure I was not getting enough gas to affect me because I was out and in every few minutes gathering the animals one at a time. I am alive today only because I fell through a door as I lost consciousness so that I landed with my head outside. I felt absolutely **no signs** of impending catastrophe. And neither do the animals, in a CO chamber. In fact, the first symptom of CO inhalation is a sense of euphoria. Even in small amounts, CO will produce euthanasia in a more humane manner than injectables in the hands of changing personnel which occurs in animal shelters, including the SPCA establishments. If CO is painful why do people commit suicide in autos?

Please don't let these people fool you into supporting a law requiring a faulty and complicated method of euthanasia for the thousands of pets which are having to be destroyed, destroyed because of lack of laws relative to pet ownership. The law these people are proposing is likely to be the most difficult to enforce as well as inhumane. We already have laws governing the use of CO gas chambers. It's a shame Funds For Animals, Inc., doesn't direct its energies more towards the source of the surplus animals rather than at the termination, particularly when they are not objective and well informed.

D. L. Caswell, D.V.M.
(Retired - practitioner--Public Health Veterinarian)

If you love your dog you'll care for him with the same understanding you give to your child.

Many people profess love for their pets by superficially caring for them at their convenience, on weekends or when there is nothing better to do. Almost everyone today is aware of a dog's needs, but many are not prepared to accept the obligations.

I have two animals who were victims of apathy and abuse. The three year old Doberman, beaten, maladjusted and not housebroken was characterless. It took six months to housebreak him and a year to lead-train him with the aid of a private trainer. My little four year old

Dachshund had never been beaten, but suffered an emotional disorder characterized by violent trembling. She also had to be housebroken. Highly intelligent and anxious to please, she became trained in just a few weeks.

I have never regretted the time and effort involved in rehabilitating my dogs. They have both rewarded me with love, loyalty and protection.

Confinement, a cold voice and a hand raised only to punish produces a pathetic, visibly unhappy pet; unable to communicate with his owner, and often doomed because of circumstances beyond his control.

If you love your dog, you'll see that he has:

1. A good vet
2. Up to date inoculations
3. Daily heartworm pills (usually necessary in warm climates)
4. Proper diet plus vitamins
5. Regular bathing and grooming
6. Exercise
7. Enough love and patience to see that these basic necessities are carried out.

Nessa Ellis
Sunrise, Florida 33322

Enclosed please find a check in the amount of \$6.00 to cover a 6 issue subscription to your magazine. I obtained a sample copy of it through Publishers Exchange and was impressed with the articles, advertisements, etc. As a subscriber to a number of animal-oriented magazines, I find yours one of the tops.

Linda Shaskin
Englewood, NJ 07631

Enclosed is a check to the Animal Health Foundation for \$25.00 in memory of "Snuffy," a part Siamese, part American short hair. Born Sept 1969. Died May 29, 1980. An adorable and affectionate companion for over 10 years. He will be missed.

L. R. Jackson
Santa Paula, CA 93060

There are increased reports of people eating dogs and cats in our area. I am appalled but don't know what to do. I called the police and they say dogs are personal property and if some one wants to eat their dog or cat there is no law against it. I think there should be a law against eating pets. What can those of us who care do to stop this horrible problem?

Sincerely,

M. Martin
Huntington Beach, CA

We should all contact our legislators and see what they can do to change the law. - ed.

My husband is a shade-tree mechanic and he's always leaving buckets of oil and antifreeze and all kinds of junk around the garage and yard. The article in Today's Animal Health about the dangers of antifreeze to pets has helped me to get him to clean up his act. He loves his hound dogs and I guess it's just dumb luck he hasn't killed them with the stuff he leaves laying around this place. Thanks for helping to educate the ignorant. (Don't use my name or city if you publish this.)

Sincerely,

R.M.

We've been giving our dog worm medicine from the pet store for his "scooting" problem. When we got our last issue of Today's Animal Health and read the article about anal sac problems we were sure enlightened! When we took Scruffy to the doctor and told her we thought he had impacted anal glands, she was sure impressed that we had made such a good diagnosis! The drawings in the article were really good and helped us understand what was going on. Thanks!

Sincerely yours,

Pat and Marty McCall
Los Angeles, CA

Thanks for the wonderful article on how to trim nails. For years I have been paying to have it done. We bought a clipper and tried it ourselves. By following the articles direction it was easy!

Sincerely,

M. Rooney
Houston, TX

A new brochure about canine parvovirus infection, the contagious virus disease that is currently threatening the country's dog population, is available from the American Veterinary Medical Association (AVMA).

Titled **What You Should Know About Canine Parvovirus Infection**, the brochure informs dog owners about clinical signs of this new disease, means of transmission, diagnosis, treatment, prevention, and protection.

Single copies are available by sending a self-addressed stamped business-sized envelope to the AVMA, Box T, 930 North Neacham Road, Schaumburg, Illinois, 60196, and requesting the free brochure about canine parvovirus infection.

Sincerely,

Ruth Damlich
Schaumburg, Ill 60196

In recognition of Responsible Pet Care Week from September 21 to 27, the Gaines Dog Research Center is providing dog lovers an opportunity to increase their knowledge about man's best friend.

The week is sponsored by the Pet Food Institute and has as its theme "A Pet is a Special Friend -Special Friends Need Loving Care."

To complement this theme, Gaines is offering three comprehensive free bibliographies of publications covering dog care, dog training and sporting dogs. Each bibliography contains about 15 listings.

Gaines, which has a long tradition in caring for your dog, also publishes its own booklets and publications as aids for veterinarians, breeders and dog owners. Titles are listed in a publication, "At Your Service."

In order to obtain the bibliographies and/or "At Your Service" write me at: Gaines Booklets, Dept T., P. O. Box 1007, Kankakee, Ill 60901.

Sincerely,

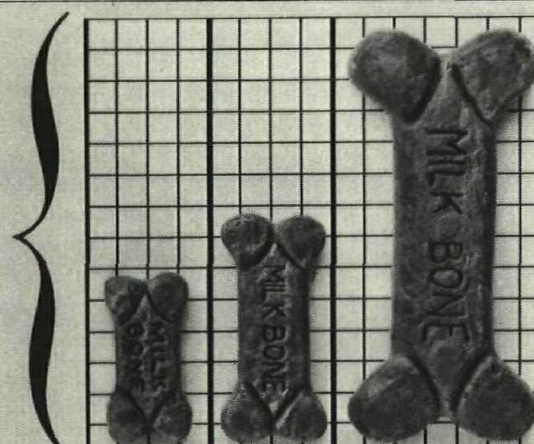
Samie M. Heaney
New York, NY 10106

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 per biscuit (ounces) | .14 | .28 | 1.17 |
| Overall length (inches) | 1.8 | 2.4 | 4.3 |
| Overall width (inches) | .94 | 1.1 | 2.0 |
| Relative breaking force* (pounds) | 77 | 80 | 164 |

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

ANIMAL BEHAVIOR THERAPY

A New Approach to Old Problems

PART I

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 practicing Animal Behavior Therapy for six years. He was the co-founder and co-director of New York's Animal Behavior Therapy clinic, and presently is the founder and president of Consultants in Behavioral Control, Inc., of Spring Valley, New York. 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).

This is the first article in a series of ten. Second article will appear in September/October 1980 issue.

I would like to describe a tragedy that I feel is as serious as the bludgeoning of baby seals for profit, or the needless use of animals for medical research; that is, the wholesale destruction of otherwise healthy dogs and cats, simply because they have a behavior problem.

Do you know that over three hundred dogs per day are killed for behavioral reasons? I do not know how many cats are destroyed, but, knowing cats and cat owners, I would guess it would be a lower but still large figure. If you add to these figures the number of animals that are abandoned on highways and city streets to die of starvation, disease or being hit by a vehicle, and the number of animals that are dumped in the laps of already overburdened animal shelters that have no alternative but to kill the animals that are unadoptable,

the total kill rate must be astronomical. This means that each year, many millions of helpless animals are murdered for curable behavior problems.

I do not, however, believe that this situation is necessarily caused by malevolence of either veterinarians or the people who bring their dogs and cats to them for euthanasia. These pet owners are not evil; they are simply ignorant and that's the good news. Ignorance is a condition curable through education, whereas malevolence, as always, is incurable.

I need your help in educating the public. They need to know that even very serious psychogenic behavior problems can be cured, sometimes in a matter of a few weeks. Mild problems can be cured much faster.

They also need to know that it is not a stigma or a sign of weakness to seek help from an expert. Over the last six years, my colleagues and I have been developing new, and perfecting old, Animal Behavior Therapy techniques. To date, we have worked on over 1500 cases. These have included major problems like savage, and what appeared to be unpredictable, aggression in both dogs and cats, devastating destructiveness in which pets have decimated thousands of dollars worth of their owner's furnishings; severe phobic reactions in which the pet has become uncontrollable or dangerous to himself or others down to minor problems. Some minor problems have included the beginnings of a phobic reaction, mild aggression in puppies taking the form of unconsummated threats, mild and localized difficulties in training, and so on.

I have always believed that obedience training is not only desirable, but necessary; not only for the well-being of the dog and the dog owner, but also for the society at large. If a dog is to live with people in a civilized society,

it must be civilized; that is, responsive to his master's commands. This definition assumes, of course, that his master is civilized, and does not command uncivilized acts. Why, then, do a large proportion of the over 1500 cases I have had to date start with owners saying the following?

"Help! I don't know what to do. I have trained my female shepherd to obey all the standard commands, and still she chews up the furniture when she is left alone. She knows she's done wrong, because she acts guilty when I return home to find the destruction;"

or,

"My 2 year-old male Doberman has won both CDX and UD titles. He is the most obedient and intelligent dog I have ever had, and I have trained many. However, he persists at urine-marking my bedposts when no one is around. I have tried to catch him in the act, but he is too sneaky. He not only knows if I am spying on him, but he seems to know when I am *planning* to spy on him, even before I do it;"

or,

"My Kerry Blue is perfectly trained. Before I sent him to obedience school, he used to bite me when I gave him his first command. Now he sits, lies down, heels, comes when I call, and *then* he bites me;"

or,

"I thought my Bulldog was being disobedient, because he would occasionally snap at visiting strangers, so I sent him to school. Now he just doesn't snap, he attacks visitors and me, for that matter, if I'm not careful;"

or,

"My giant Schnauzer is an obedient, well-behaved dog most of the time. However, there are times when his eyes look funny, sort of a wierd glare, than you gotta watch out. He'll threaten anyone that gives him a command, including me;"

or,

"My two male Boston Terriers, brothers, are very obedient when each is alone with me. But ever since they were two years old, they could not be together for more than a minute without a serious fight breaking out. The only way I can separate them when they lock is to hold their heads under water, until they gasp for air. Then, they won't listen to me for a week;"

or,

"Is there such a thing as an untrainable dog? First, I tried my hand at training our standard Poodle, then I went to obedience class with him, then I had a trainer come to the house, and then I sent him away for three weeks to a school that specializes in problem dogs. Even *they* gave up on him;"

or,

"Last night, at about 3:00 AM, I stepped out of bed and on to the chest of my three year old Dobe. He was sleeping by my bedside as usual. He just jumped up and started growling. When I went to grab his collar, he started biting me, and stopped only when I managed to turn on the light. Then he shook his head, looked surprised, and then sorry. He bit me 13 times in a few seconds, the wounds needed 32 stitches. He has never before been vicious; he has always been, and remains an obedient dog;"

These statements certainly have meaning. Is it possible that an obedient dog can still develop psychogenic behavior problems? Is it possible that obedience training can't solve all, or even many, psychogenic behavior problems? Is it even possible that some obedience problems can't be solved by standard obedience training techniques? In my experience, the answer to these questions is an unequivocal YES!

This does not mean that these, and other, serious psychogenic obedience problems can not be solved. From my experience, I can say that there is no such thing as an incurable behavior problem. As long as the cause, or causes, of the problem can be isolated as psychogenic (i.e., behavioral), and not physiogenic (i.e., medical), then a cure can be developed.

Over the last six years, my colleagues and I have been developing new, and perfecting old, Animal Behavior Therapy techniques. By applying that most recent breakthroughs in the science of behavioral control, our cure rate for many formerly incurable psychogenic behavior problems has jumped to almost 100%. We have found no recitivism or symptom substitution, even after two-year follow-ups. The most sophisticated pet owner or the most highly-skilled dog trainer could not approximate these figures using old-fashioned techniques based on the logic of conventional training. Animal Behavior Therapy techniques are new, complex and powerful.

What this means is that it is now necessary for obedience trainers to identify certain behavioral problems as psychogenic, and discriminate them from what was formerly perceived as obedience problems. If trainers can separate psychogenic behavior problems from obedience problems, they may be able to provide the pet-owning public with a valuable service. At the very least, they will not attempt to solve a psychogenic behavior problem with techniques unrelated to their cause. The first step in this discrimination is to know the difference between psychogenic behavior problems and obedience problems.

Skunks Make Dangerous Pets— A Continuing Saga





The veterinary medical literature has for over a decade contained editorial advice against the veterinarian encouraging or participating in the ownership of skunks as pets by descenting or vaccinating against rabies. We have had some close calls in Missouri on this subject, and considerable expense, time and anxiety have been expended. Fortunately, nothing more was lost.

Recently, the Oklahoma Department of Health Laboratory diagnosed rabies in three separate pet skunks in unrelated situations, two on the same day. The first case was a typical story of a skunk kitten, estimated to be two months old, which was captured in broad daylight. The kitten was taken to a place of business where several employees were placed in contact, and then to a home where several children had contact, one being bitten. The kitten promptly died and was confirmed as having rabies.

The second skunk was captured as a kitten, descented and given a modified live virus vaccine. Two years later the skunk became ill, bit one man and exposed two children to a lesser degree. The skunk was then confirmed to have rabies.

The third skunk was purchased at an open market in Texas, and had been vaccinated and descented. The owner thought the skunk was completely safe. But after coming into the owner's household, that skunk developed rabies.

In the first two incidents, 15 persons received antirabies prophylaxis at an estimated

direct dollar cost of \$7500. The third skunk exposed 27 persons to the disease. The hidden costs of work time lost, travel, etc., made the overall cost larger. The risk of a human rabies infection is real and the anxiety produced is tremendous.

These episodes, again, emphasize the fact that the skunk is a potential source of rabies, regardless of its age and geographic location. The "pet" skunk developing rabies usually exposes many persons because people are generally curious about these unusual pets, even when they get sick. Vaccination of skunks against rabies is a totally untested procedure. We do not know whether any vaccine produces immunity, whether the natural onset and clinical course of rabies may be masked or modified by vaccination, or whether a live virus vaccine can in fact produce typical or atypical rabies in the skunk. The owner is provided with a false sense of security when a veterinarian encourages domestication by providing vaccination, descenting or other pet care. Further, the normal behavior of the wild skunk provides direct clues as to its health in an accidental bite incident. The semi-domesticated skunk does not behave normally and this indication is lost.

The skunk is a wild animal even though he is easy and enjoyable to domesticate. The skunk should be allowed to remain and be enjoyed in the wild. The veterinarian should play no role in encouraging people to have skunks as pets.



PARROTS

THE PERRIER OF PETS

James Caan. Mork, Robin Williams. Queen Mary of England. K.C. of K.C. and the Sunshine Band. TV's Baretta. Alexander the Great. Thor Hyerdahl of the Kon Tiki. Poet May Sarton.

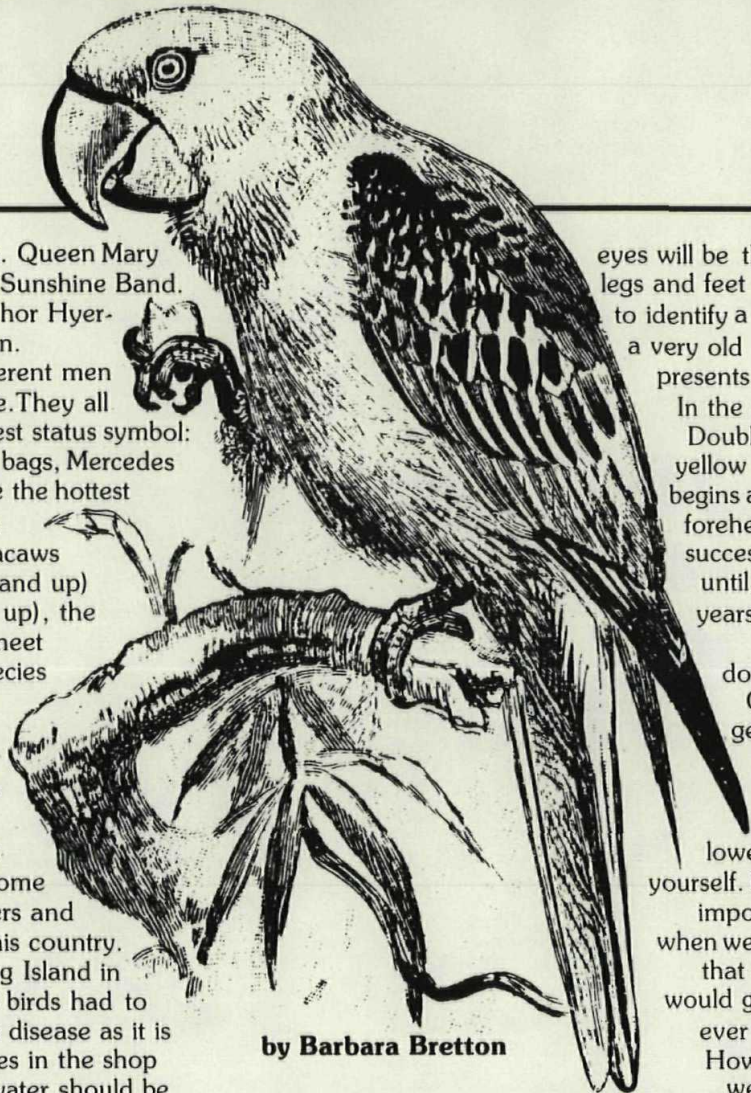
What, you ask, do these vastly different men and women have in common? Simple. They all have been the proud owners of the latest status symbol: parrots. Taking their place with Gucci bags, Mercedes 450 SL's and Perrier, exotic birds are the hottest thing in pets from L.A. to New York.

From the massive and beautiful macaws with their healthy price tags (\$1,000 and up) down to the tiny cockatiels (\$40 and up), the parrot family has a member sure to meet your requirements. The choice of species is up to you, but whether you pick a Mexican Double-Yellow Head, a Moluccan Cockatoo or an African Grey, there are certain things to look for when you buy your pet.

The most important thing is to buy from a reputable owner or pet shop. Some birds have been smuggled across borders and have brought some rare diseases into this country. A case of coccidiosis occurred on Long Island in January 1975 and an entire aviary of birds had to be destroyed in order to eradicate the disease as it is highly contagious to poultry. The cases in the shop should be clean and fresh seed and water should be available for the birds. When you approach a bird you've taken a fancy to, he should be alert and regard you with some interest. His eyes should be bright and free from discharge or growths. His nostrils should be clear and dry.

The parrot's feathers should lie flat and close to his body, almost giving the appearance of being waxed. The vent feathers under his tail should be clean. Soiled feathers indicate diarrhea, a serious problem in a bird, and one that requires immediate medication.

It is not always easy to tell the age of a parrot but there are a few signs that can aid you. Although by the time he leaves the nest a baby's body is nearly as large as an adult's, the baby's is usually much slimmer. The cere (area just above the beak where the nostrils are) and legs of a young bird will be relatively smooth while those of an older one will be heavily wrinkled and slightly scaly-looking. The area around the older bird's



by Barbara Bretton

eyes will be thick and heavy, his legs and feet knobby. It is possible to identify a very young bird and a very old one but middle-age presents a definite problem.

In the case of the Mexican Double-Yellow Head, the yellow portion on his head begins as a tiny patch on his forehead and with each successive molt, broadens until, at about age ten years, his head is a magnificent yellow right down to the shoulders.

Older tame birds are generally more expensive. You can buy a young undomesticated bird at a much lower cost and train him yourself. My parrot was newly imported and totally wild when we bought him, so wild that for the first week he would growl like a lion whenever we neared his cage.

However after just three weeks of kindness and

patience, we were able to let him sit on our arm. Parrots have an innate affinity for man. They desire human contact and during the Second World War, parrots would frequently adopt GI's in camps in New Guinea and the Phillipines.

As all sex organs are internal it is nearly impossible to identify the sex unless the bird has already been known to have laid a nest of eggs.

Once you have selected your bird, you should provide a cage large enough for him to move around in comfortably. You should also supply him with a constant supply of a good seed mix (sunflower, millet, raw peanuts, cracked corn and monkey chow is a fine one) and water. For the first week all his drinking water should be boiled, then allowed to cool before filling his drinking cup. Parrots love fresh fruits and vegetables so feel free to indulge him with well-scrubbed apples, peeled bananas, oranges, green peppers, celery and tomatoes. When you bring him home, the cage should be located

Continued on page 30

ANIMAL CARE IN THE MIDDLE EAST- EGYPT SHOWS THE WAY

by Hadassah Bat Haim

Israel, Journalist & Writer for Jerusalem Post

Sensitive visitors to the Middle East are invariably shocked and saddened by the condition of the animals they see in the streets. Horses, donkeys and mules are overloaded, underfed, with ill-fitting harnesses rubbing on open sores, misery from which only death can release them. Dogs are gaunt and often lame from the impact of accurately aimed stones. Cats, fierce and wild, starving and suspicious, need all their nine lives to survive. These strays are always driven off with sticks and curses because of the hovering possibility of rabies. The desert is never far away.

It is in Egypt that the greatest effort is being made to alter this state of affairs. Aid is available for distressed animals and as this work becomes known, an impression, slight but lasting, is made upon the attitude of the public. There is a properly equipped animal hospital in the suburbs of Cairo, with a fully qualified and dedicated staff in attendance. This facility is the only one of its kind in the area.

The hospital was founded by Mrs. Geoffrey Brooke, an Englishwoman living in Cairo, to rescue, first of all, the horses that had been used in the World War of 1914-18. They had acquitted themselves bravely and loyally on the battlefields and were brought to this haven to save them from the ignominy and suffering they would have had as work-horses, or worse, from the terror of the knackers' yard.

Now, all the martial steeds have died a peaceful and honorable death, but there are still many beasts around whose condition cries out for help. So the hospital continues its work. The main funds come from England, but there are increasingly significant contributions coming in locally. Anglo-Egyptian Motors, for example, takes care of all the hospital's cars and ambulances without charge and keeps them on the road.

Everyday a team from the hospital goes out into the suburbs and markets looking for sick animals. The team explains to the owners that the festering wounds on a mule's back, now covered with flies, can be cured in a few days if he will bring the animal in. Or that a cruelly burdened donkey staggering under an insupportable

weight will function better and last longer if he is correctly - and mercifully - laden. Animals too weak to walk are taken by ambulance. Mares are brought to foal and to rest and feed their babies after birth. Those that cannot be saved, if not in severe pain, are pampered for a few days and humanely shot. Not only is treatment free, but owners are compensated for the absence of their working beasts and helped to buy new ones when the old ones die. Many horses are purchased by the hospital and just put out to grass till the end of their days.

Besides treating the sick the staff at the animal shelter work for the prevention of illness. They have put up drinking troughs all around Cairo. Animals as well as men need a lot of liquid in that climate. They ceaselessly lecture and admonish, around the stalls, in the schools, in public and in private, pointing out that kindness to animals is part of man's praise of God, and that in a practical way, cared-for animals last longer and work better.

Dr. Salah, the veterinary surgeon in charge during my visit, is one of the few Egyptians who has a pet at home. Domestic pets are possible usually only with Western-educated Egyptians, rich enough to afford license fees and the spare food that would otherwise keep a child alive. Occasionally they turn up at the hospital, where they gladly pay a fee to have their animals taken care of. Dr. Salah encourages them and their children to take an interest in the Shelter and to spread the word around. Dr. Salah sets a fine example for them to follow. His love for all animals is evident in his enthusiasm and from the affection in his voice when he talks about - or to - his patients.

A drop of concern in a sea of indifference? A handful of seeds of compassion flung against the wind of callousness? These certainly, but the drop does not sink into oblivion. It eddies and spreads. It is observed and noted and not all the seeds fall onto stony ground. What Egypt does often stimulates imitation among her neighbors. Hopefully, this may be one of the enterprises seen fit to copy.

PET STORE TURTLE

Purchasing a turtle or tortoise from a pet store? You can assume that he is hungry and thirsty, but he is also likely to be parasitized and diseased. Further, the sudden and total disruption of his life in the wild may have broken his spirit or frightened him badly.

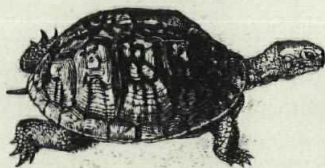
Whether you can correct these problems and make a long-lived, happy pet out of this turtle or tortoise depends on how long he has been this way; whether a vital organ has been affected; how far you are willing to go in time, effort, and money; and finally, whether he will let you help. Of course, you have no way of knowing how long he has been in transit from his native environment to your pet store. You also have no way of knowing if a vital organ, such as the liver or the kidneys, has been affected--not, that is, until the autopsy. Thus, while you worry, you must make the decision as to whether to purchase this animal based on his appearance and his behavior.

Right away you can tell whether what you are looking at is a turtle, a tortoise, or a semi-aquatic, just by examining his feet. A turtle's foot is webbed between the

toes; usually his hind feet are bigger and more heavily webbed than his front feet. This makes him an efficient swimmer. A tortoise's foot resembles that of an elephant; only the toenails protrude beyond the foot. He walks flat on his hind feet but on the toenails of his front feet. A semi-aquatic has distinct toes like the truly aquatic turtle but little or no webbing. Keeping these differences in mind will help you decide whether your prospective pet is behaving normally.

Once at home, you can plan to do something about your chelonian's hunger and thirst. But what if he is seriously *dehydrated*? You can test this in the pet store. A turtle that floats instead of sinking to the bottom when put into water over his head is dehydrated past being helped. A semi-aquatic or tortoise that is too light for his size is also suspicious, but, unless he has been dry too long, it is probably correctable. I once purchased two male Blandings turtles, semi-aquatics that had been shipped dry. The larger, measuring 234 mm, weighed five pounds, while the second, only a little smaller at 217 mm, weighed only three-and-one-half pounds.

1

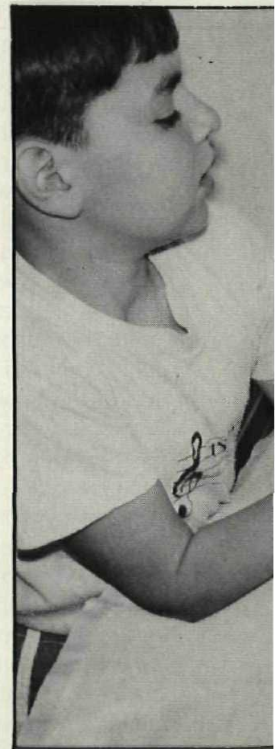


by Norma J. Engberg

After a week of force-feeding, this foot-long desert tortoise (*Gopherus agassizi*) began to eat voluntarily; however, for him to regain his normal weight and strength took many months.



2



While the first was no doubt thirsty, the second was definitely dehydrated. This showed in the turtles' behavior, for during their first week, the second one drank many minutes longer each day than the first one did, thus taking care of the problem.

What if this animal is starved past any willingness to eat? If he is listless and limp, if he lacks a pad of plumpness on the top of his head just above where the spine joins the skull, if his legs show muscle wastage (especially in tortoises), you're looking at a turtle or a tortoise that is near death.

In the wild, many chelonians achieve old age in happy cooperation with their parasites; not so, in captivity. You can have your veterinarian check the animal's first fecals for strongyles and then prescribe the proper dosage of TASK. He can also help you deal with protozoa, or other kinds of microscopic worms. But what if the animal is obviously ill? Bubbly nose, runny eyes (except in *Geochelone carbonaria*, the red-legged tortoise) and excessive mucus around the mouth indicate a respiratory infection. Eyes glued shut or inflamed suggest conjunctivitis. Rotten spots beneath loose epidermal scutes of the shell mean shell rot.

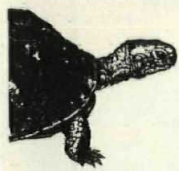
By his behavior, you can tell if a turtle or tortoise's spirit has been broken. Does the turtle—as he scratches and squirms, head pulled in—try to bite your hand? A healthy red-eared, painted, or snake-necked turtle will always try to bite, regardless of how

tame he has become. Does the tortoise pull everything quickly inside, emptying his lungs with a hiss? A tortoise that doesn't has either been someone's pet or given up caring.

You decide whether to purchase him, based on your chances of making the animal well and happy. If the turtle or tortoise won't let you help him, you probably can't save him. I've had leopard tortoises that were still too strong to be pried from their shells for force feeding the day before they died. I've had desert tortoises that I could force feed but whose will-to-die kept them stubbornly refusing to eat later on their own. There have been others, that I have been able to save, but this is, because the individual's personality let him trust me.

If you purchase the animal in question, the first two weeks will be very important.

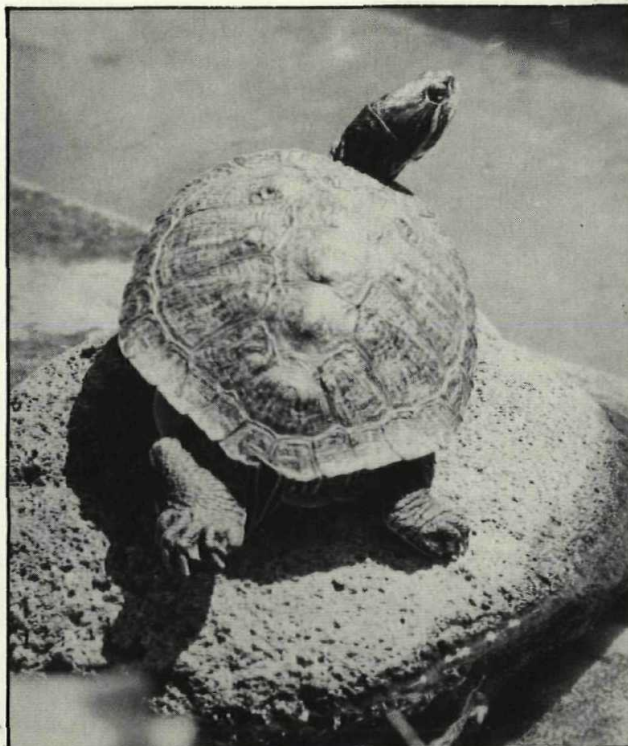
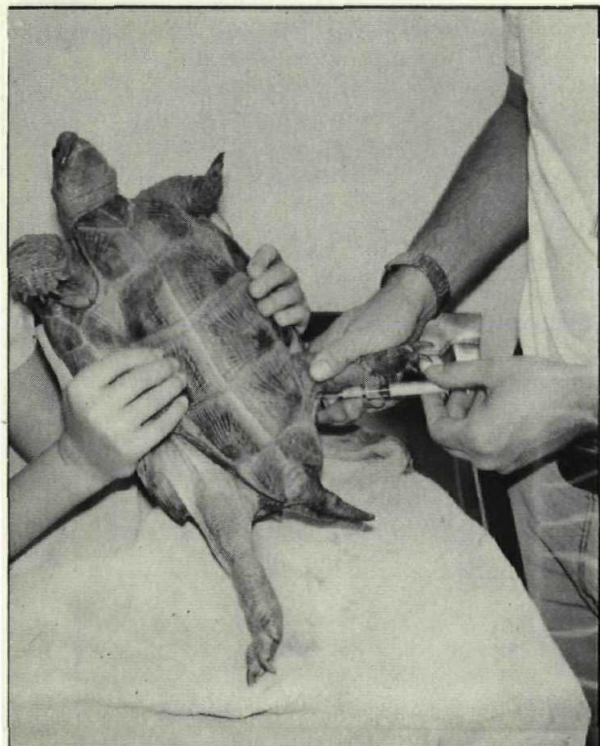
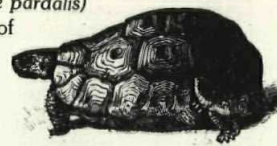
Now that he is yours, you should identify the animal accurately, for pet stores are notorious for purveying wrong information. Peter C. H. Pritchard's *Living Turtles of the World (TFH H922)* will tell you not only the genus and probable species of your pet but where he comes from and what kind of habitat and diet he prefers. If the turtle is from the United States, there are three more books you can consult: Carl H. Ernst & Roger W. Barbour's *Turtles of the United States* (Kentucky), Clifford H. Pope's *Turtles of the United States and Canada* (New York), and Archie Carr's *Handbook of Turtles* (Ithaca). Knowing something about



Turtles such as this Asian semi-aquatic (*Geoemyda grandis*) are given injections subcutaneously, usually in a hind leg.

3

The African leopard tortoise (*Geochelone pardalis*) displays a hearty appetite for all manner of vegetables and fruits. A length of 17" and a weight of 30 pounds is not uncommon for an adult female such as this one.



Photographs by Norma J. Engberg

PET STORE TURTLE

4

Ever watchful, this adult female red-eared slider (*Chrysemys scripta elegans*) suns on a rock by the edge of her pond, gracefully extending one webbed hind foot.



the animal's preferred habitat and diet will help you make him comfortable. This is particularly important with exotic tortoises, for the South American red-legged tortoise (*Geochelone carbonaria*) and the Burmese yellow-headed tortoise (*Geochelone elongata*) need humidity while most of the rest of the world's tortoises such as the African leopard tortoise (*Geochelone pardalis*), Greek tortoise (*Testudo graeca*) or Herman's tortoise (*Testudo hermanni*) must have arid conditions. Failure to observe this distinction can dehydrate an otherwise healthy redleg or give a leopard tortoise a fatal case of pneumonia.

On that first day at home, give the new arrival a soak in tepid water and a nap in a quiet, warm (75-80° F), dark place. This lets your turtle or tortoise relax after the stress of many journeys and much handling. The second day is soon enough to raise the temperature, provide exposure to sunlight, offer food, and begin to cope with medical problems by taking your chelonian to your family veterinarian.

If the animal still has trouble opening his eyes, your veterinarian will prescribe antibiotic ophthalmic ointment or drops. These should be applied to both eyes three or four times a day for five-to-seven days.

If your pet has any respiratory symptoms, your veterinarian will prescribe a series of antibiotics, beginning perhaps with chloromycetin, and changing to gentocin or loridine, if the condition persists. These injections are given every day for seven days or every other day for five days, depending on the antibiotic. It is very important that the animal have ready access to water during the time that antibiotics are being administered.

If your turtle has shell rot, your veterinarian will scrape away the rotten material and recommend that you swab

the exposed areas several times a day with a solution of betadine or DMSO and Griseofulvin. The turtle should be kept dry except for his daily soak. Shell rot is particularly hard on diamondback terrapins (*Malaclemys terrapin*) and Eastern painted turtles (*Chrysemys picta picta*). For these species, it can quickly prove fatal.

Your chelonian may refuse to eat as long as he is being given antibiotics; thus, your veterinarian will want to stimulate his appetite with injectible B-vitamins. Finally, your veterinarian will need a fecal sample to check for parasites. All this necessary medical treatment can increase the cost of your pet by two or three times the purchase price, something to keep in mind from the beginning.

Thus, your pet's daily routine includes a twenty-minute bath, the chance to eat, and a visit to the vet. If he still won't eat after ten days, you will have to try force-feeding. This task requires three people, a flexible plastic tube, a syringe and blenderized vegetables or meat with supplemental vitamins and calcium. One person holds the animal up in the air. Another person holds the animal's head out from his shell, neck straight and mouth open. The third person (the veterinarian) gently threads the plastic tube down the animal's throat to his stomach and squeezes the syringe to release the appropriate amount of foodstuffs. It is usually better to feed a small amount twice a day than a large amount once a day.

The first two weeks are the hardest. After a week or so of force-feeding, your turtle or tortoise should start eating for himself. After completing the regimen of antibiotics, the conjunctivitis or respiratory infection should be cleared up. The shell rot will take a lot longer. You've done what you can to give your pet a good start in his new home.

SECRET AGENT

DO ANIMALS HAVE A PLACE IN OUR NATIONAL DEFENSE?

by Edith Kermit Roosevelt

As we explore the "inner space" of the human mind, there is also a growing awareness of animal potential. Expectedly, those agencies of the American government concerned with national security are becoming more alert to the possibility that in the future the hero of some "Mission Impossible" might well be a dog, a dolphin or a bird.

How could an animal system be used in espionage or counter-intelligence? According to Animal Behavior Enterprises, Inc. of Hot Springs, Arkansas, which is examining such possibilities:

"Animals are ubiquitous and generally not subject to inspection. It doesn't take much imagination to see how an animal, particularly a small bird such as a raven, or a small mammal such as a rat could be used to penetrate even a highly sophisticated security system."

Since 1962 ABE has been involved with government projects which study, train and evaluate animal species. To date, more than 19 species of birds, 8 species of land animals and 9 species of aquatic mammals have been judged to be potentially useful to the U.S. military.

"The military work resulted in the deployment of several potentially useful systems, training programs and the acquisition of considerable useful information, states an ABE paper entitled, "Uses of Animal Sensory Systems and Response Capabilities in Security Systems."

According to the ABE study by Robert E. Bailey and Marian Breland Bailey, methods in the animal training industry have advanced to where it is possible to condition types of animals once considered poor bets for animal training, to mass produce conditioned animal behavior and to condition animals used for entertainment or advertising to perform feats once considered impossible.

One technique used is "imprinting," a process by which a very young animal, during a certain usually very brief period in his life, forms a close and often irreversible attachment. For instance, if a baby duck in the first few hours after it is hatched sees a human instead of its mother, it will become attached to the human. In this way, wild animals can become "mission oriented," responsive to the commands of the humans who manipulate them.

What tasks might an animal "agent" perform? A large bird such as a vulture could be used by a country's intelligence service to carry a package and hover over a station unsuspected for long periods of time. Such a

system could provide valuable surveillance of areas which might be inaccessible to human patrols where deployment of aircraft was undesirable. According to ABE:

"A large bird could hover overhead, trailing an invisible, long, fine wire. A nearby low-powered transmitter could beam a message. A small receiver and tape recorder inside the bird could capture and store the message. A few hours later, in another location, someone could interrogate the system."

Another application of "behavior technology" is the use of the acute sense of smell of dogs or other animals to guard against thefts of nuclear material. It may be possible to tag fissionable or other items considered critical with a specific odor. Dogs could then be used to conduct personnel inspections, either on a spotcheck or continuous basis. A possible fringe benefit of such a system would be the resistance of the dog to bribery, blackmail or extortion.

Similarly, in aquatic surveillance systems, dolphins have been trained for "sentry duty," listening for sounds associated with scuba swimmers or submarines. It is possible, the study goes on to say, to hear what the animal hears by attaching electrodes to his hearing apparatus, turning it into a "living microphone."

Animals could also be used as couriers to transmit secret information to human agents in place in enemy territory. For example, the ABE study says a rat, trained to follow an odor trail, could be used as a live drop. A pouch, placed surgically beneath the animal's skin, could be used to transport messages on microfilm.

Domestic farm animals, operating near a frontier, could be used to smuggle contraband, according to the document. For instance, a cow could carry by surgical implantation of the material more than 30 kg of weapons, ammunition or explosives in her gut.

America's national posture seems to be that little military use will be made of biological systems and so the total level of effort by the government in this type of behavioral work has been quite low. However, the ABE study warns that other countries may not be so complacent. According to these animal behavior specialists:

"Even a small country with limited resources could easily mount an effort with results which could be highly useful to them and detrimental to us."

It is an unfortunate fact that cats are susceptible to more than their share of contagious, fatal diseases. It is also a fact that current vaccines can give cats the important edge they need against many of these diseases. Let's take a look at the various aspects of these vaccines, beginning with the diseases that they cover.

by Elizabeth Field

Animal Health Technician

WHAT'S IN A NAME?

Depending upon the drug company, vaccines can be labelled with many different brand names. For the sake of simplicity, animal hospitals use generalized, abbreviated names of specific vaccines. FDV or PLP are common names for the single distemper vaccines, whether killed or modified live. FDV-RC and FVR-CP are often used to denote the three-way vaccines discussed earlier. Different hospitals may use names other than these, so don't be confused by what seems a jumble of meaningless letters. Know the names of the feline vaccines offered at your hospital and the diseases they cover, so as to be sure your cat is receiving the best protection possible.

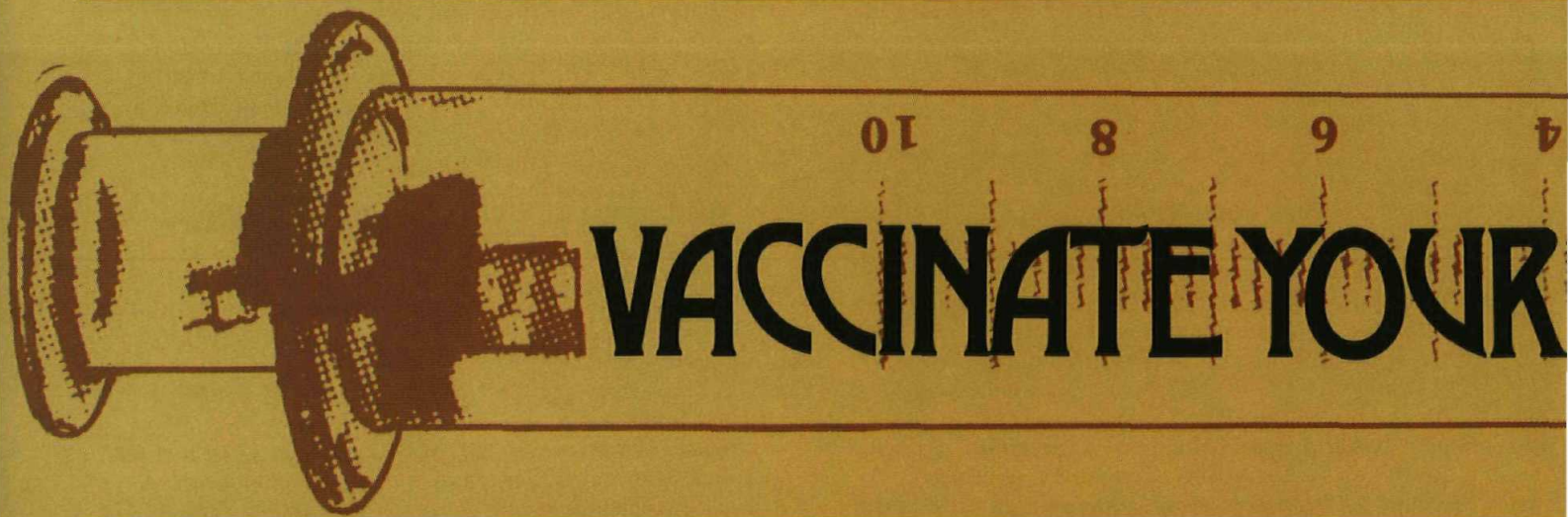
TYPES OF VACCINES

There are different types of vaccines that cat owners should be aware of.

The first group deals with the basic make-up of the vaccines - namely, killed virus or modified live virus. The first type contains a killed form of the viral disease in question.

The latter vaccines contain the live virus of certain diseases. Such viruses have been modified to reduce their ability to produce disease. They induce a stronger, usually longer lasting immunity than the killed type.

The second group deals with the number of diseases within each vaccine — namely, single or combination. In felines, single vaccines generally include only distemper. Combination vaccines are usually two-way against rhinotracheitis and calicivirus, or three-way against distemper, rhinotracheitis and calicivirus. It is the latter, three-way vaccines that afford the best all around protection for cats.



Rhinotracheitis is a long word that basically means inflammation or disease of the nasal passages and trachea. Perhaps the most serious of the upper respiratory infections, it is a viral disease characterized by elevated temperature, thick serous (watery) discharge from the eyes and nose and anorexia. Although adult deaths from rhinotracheitis are usually few, it has a high mortality rate among unprotected kittens (50% - 60%).

RHINOTRACHEITIS

Second only to rhinotracheitis, calicivirus is a common upper respiratory disease mostly characterized by painful ulcers emerging on the tongue of its victim. These ulcers usually are painful enough to keep affected cats from eating. As with rhinotracheitis, most deaths from calicivirus occur among kittens.

CALICIVIRUS

WHEN TO VACCINATE

A cat's vaccination program can begin even before birth. A queen current on her vaccination can pass immunities to her kittens through placental membranes before birth, or through colostrum (first milk) after birth. Such protection is called passive immunity. Depending upon the individual animal, this immunity can either disappear or interfere with vaccines given within the first 12 weeks of age. For these reasons, kittens are generally given a series of two modified live vaccines — the first at 8 weeks, the second at 12 weeks. The latter dose is then boosted in 1 year. Kittens can be vaccinated before 8 weeks of age. Adults and kittens over 12 weeks of age receiving their very first vaccinations require a series of two at 2 to 4 week intervals, with the last dose boosted in 1 year. Healthy kittens may receive certain modified live or killed rabies vaccines at 4 months of age. Only 1 dose is required, with that single vaccine providing protection for 1 year. Female cats should be current on vaccinations before breeding. Any vaccinating done during pregnancy should be done only with killed virus vaccines, as modified live ones potentially could damage the fetuses.

WHO TO VACCINATE

No matter what age or type, all domestic cats should be on a yearly vaccination program. Even strictly indoor felines need vaccinations. Such cats still run the risk of encountering contagious outdoor cats through screens, accidental escapes outside or other cats coming inside. Also, owners can unknowingly handle a contagious cat and carry disease viruses home to their unvaccinated pets. Those cats that spend any time outside all run an even greater daily risk of exposure to feline diseases.

2
CATS!



Feline distemper, or panleukopenia, is a viral killer of young and old cats alike. The disease is manifested by vomiting and anorexia (loss of appetite), all of which is accompanied later by severe diarrhea. Dehydration becomes extreme, and sustaining a cat that has no interest in food or water becomes a problem. Emaciation, along with a marked decrease in the white cell count, further lowers the ability of the cat to fight back. The disease usually runs its course within a week of the first showing of clinical signs. Supported by a devastating mortality rate, (as high as 90%), the prognosis of distemper is always a poor one.

FELINE DISTEMPER

This viral, neurological disease of warm-blooded animals, usually associated with dogs and wildlife, is fast becoming a problem in cats, too. Today, many people are moving into foothill, mountain and desert areas — all places where various wildlife can be encountered. The cat owners who move to these areas also take with them many outdoor, roaming pets that stand a good chance of coming face-to-face with a rabid animal. Yearly rabies boosters for such cats are definitely a good idea.

A WORD ABOUT RABIES

SHADOW, K-9 SOLDIER

by Patrick J. Leonard

Outstanding character is not limited to humans; any lover of animals is fully aware of this fact. Many humans have little or no charisma; but it is a rare animal indeed who does not have a certain unforgettable flair.

This true story is about Shadow, a strongly built black Belgian shepherd lady with personality plus, a heroine who served our country well in Korea and nearly lost her life for doing so, and finally a happy old age which must have been filled with many memories of her exploits as a soldier in Korea and as a guard in the Boston area.

In chronological order, Shadow was born somewhere on the North Shore of Boston. I never could establish just when or where or the names of her first human associates.

As a pup, she was confined to a second floor apartment. Two women, both employed days, shared the quarters with her and during their absence, time must have passed by slowly indeed for the gregarious Shadow.

One fine May morning when the sun was gleaming warmly in the heavens and the scents of spring were enticing, Shadow, at an upstairs window, sadly watched her human companions walk out of the side door and begin to enter their car in the driveway. Shadow could control herself no longer. She forced the window screen open, and without hesitation leaped down to the ground. She fractured her right rear thigh and this led to many weeks at an animal hospital.

She finally healed, although sometimes when very tired she would limp a bit on the injured leg. During her

stay at the veterinarian's, she made friends with everyone she met. A young male attendant became especially attached to her. He told her owners she was too large and energetic for apartment life, and promised them that if they sold her to him she would have a good outdoor life at his rural home.

And so, the second chapter of her life began. By all accounts, she was supremely happy. Her new associate, as a sideline, trained 'guard dogs' for detective agencies, and Shadow witnessed many a potential canine security officer attending his or her classes and proudly graduating. Her associate was the proper type of instructor, gentle and understanding.

Finally, Shadow herself became a star pupil. She mastered all the commands, reacted properly at all times, and developed an aptitude for finding people who were hiding in buildings, wooded sections and other places. It was all a game, a challenge to be enthusiastically accepted and quickly conquered. Her associate had her give exhibitions before various groups, but never considered parting with her although he was offered high prices.

Then the third chapter opened. Her associate was drafted for service in Korea. He volunteered for the K-9 Corp, and so did Shadow. There was some reluctance by the Army to accept her at first as she was not the conventional German Shepherd attack dog type, but her mastery of commands, her skill at flushing out hidden people, the ease with which she passed all tests led to her acceptance.

In Korea, she was sensational. She could always

detect enemy patrols, and if her platoon was in an outpost, no one could approach without Shadow being instantly alerted. After a short time, she 'self trained'. She would not bark or growl which would give the exact location of the outpost to the raiders. She would silently tug at the sleeve of her associate and when his attention was attracted, would simply stare and keep sniffing in the direction of the attackers.

Finally the tour of duty of Shadow's associate ended. A regulation then was that all members of the K-9 Corp were to be destroyed in Korea as it would be impossible to 'retrain' them for regular civilian life. Shadow, as a grim reward for her heroic services, was scheduled for death.

However, her luck held out. Her appearance and docile manners when not under command, the love of her associate, an interview between her associate and some friendly sailors and Shadow was smuggled back to the United States.

Shortly after their arrival in America, Shadow and her associate joined a guard-detective agency of which I was a part owner. The understanding was that Shadow would live and 'work' only with her associate.

We first met one evening in a Boston department store where we held our first review of troops. Our K-9 division consisted of three male German Shepherds, Kim, a pretty little German shepherd who somehow was forever becoming pregnant, and Shadow. She looked so different from the others with her black coat, intelligent brown eyes and willingness to shake hands with one and all. I noticed she had the highest attention span.

Her first assignment was with her associate in this same department store. Each evening after the cleaners had departed and the store was supposed to be empty of all humans, Shadow and her associate would make a "sweep" of the premises to make certain no one was hiding inside with the intention of stealing merchandise. One favorite trick was to hide in the store after closing hours, select some small valuable items such as watches or jewelry, and then when the store opened in the morning to mingle with the customers and walk out. Another dodge was to toss goods out of a third or fourth story window not protected by a burglar alarm to an accomplice in an alley below, then close the window, wait until morning, mix with the customers, and leave.

Shadow proved invaluable, over and over again, flushing would-be thieves out of hiding places. One evening, on her first round, while climbing the stairs to the fourth floor, she suddenly surged forward, her leash slipped from the hand of her associate, and then sounds of a hectic chase could be heard on the dark fourth floor, terminating with a horrible yell of pain and frantic screams for help.

Shadow had trapped a very tall, very thin, very experienced thief who had tried to escape her by climbing up on a heavy storage shelf. He did not quite escape unscathed. When Shadow's associate arrived on the scene and snapped the lights on, he beheld a lanky crook, the seat completely ripped out of his trousers, bleeding profusely from his rear end, perched precariously on the top shelf begging for mercy with Shadow growling menacingly just below him.

Her associate requested Shadow to keep watch; phoned the police.

When the thief was sufficiently recovered to appear in court, he lamely explained to the judge that he was a patron of the store and had dozed off, to be awakened by a huge black dog chasing him. The judge took a closer look at the crook, recognized him as an old customer in his court, and gave him six months to do penance for his sins — and allow his backside to heal.

Some months later, romance led to still another chapter in Shadow's life. Her long time associate, confidant in many a tight spot in Korea, fell in love with a young lady who did not like cats, dogs or husbands who worked evenings as guards. From the start there was trouble, and finally the bride gave the associate an ultimatum: "Choose me or the dog and the job."

He and his wife moved out of state, leaving Shadow with me. She was inconsolable, did not eat, kept pacing around looking and sniffing and crying for her associate, and showed all indications of great grief.

Our home is on a small lake, and at that time I had four dog runs complete with dog houses in the rear yard near the water. I took Shadow home. We walked around the rear of the house. She met some of her old friends in the dog runs, then we went for a swim which she enjoyed in spite of herself, and then to the patio under the sun deck where I dried her off and kept talking to her, trying to explain as well as I could that she would just have to make the best of it and her sorrow would pass. That night we slept on the cellar floor on seat cushions from an outdoor furniture set, and she did join me in a meal, eating reluctantly at first but then really enjoying her food. We then 'found' a good sized bone and when I fell asleep, she was still gnawing at the bone.

During the night, I woke up several times finding her breathing heavily beside me.

Early next morning she woke me up by pawing at me, and when we went outside she headed for the lake and an early morning swim. A hearty breakfast, a reunion with her pals in the runs, and Shadow was finally home for good.

During the rest of her career she had only two other positions. I never assigned her to any location where she had previously worked with her first associate knowing this would bring back memories of him and cause her more anguish.

One job was at a well-known trucking company on Frontage Road in South Boston just off the expressway where the owner, a real gentleman and long time friend, complimented us on Shadow's attention to duty.

We next transferred Shadow to the Boston Garden where for years she was a deterrent, to put it mildly, to would-be gate crashers, especially on rock and roll nights, and again displaying her prowess in finding individuals who secreted themselves inside the building for illicit purposes.

Her favorite performance was of course the circus. In addition to her keen nose, she had remarkable eyesight and no one enjoyed watching the circus animals more than Shadow. The elephants and bears especially interested her.

in the NEWS

CANINE HEARTWORM

There can never be too much emphasis placed on the seriousness of canine heartworm disease, and all dog owners are urged to have their pets checked for this potentially fatal disease.

Caused by a parasite and carried by mosquitoes, canine heartworm disease is present throughout the United States. A dog becomes infected with the heartworm larvae when bitten by a mosquito. The larvae then mature and migrate to and live in the dog's heart and major blood vessels. Symptoms that dog owners should be aware of are frequent coughing, sluggishness, rapid tiring and labored breathing.

The disease is detected through a blood test which must be administered by a veterinarian. It can usually be treated in the early stages. Adult worms are killed using an organic arsenical drug administered through a series of injections. If treatment is neglected and the worms are given enough time to accumulate, they can impair a dog's blood circulation, damage its heart, lungs, liver and kidneys, and result in death.

But heartworm disease **can** be prevented! If the blood test shows a dog to be free of the larvae and adult heartworm, preventive medication prescribed by a veterinarian and administered daily during mosquito season and for two months after the season ends should prevent the disease.

HEALTH OF AQUARIUM FISH DEPENDS ON THE ENVIRONMENT

SCHAUMBURG, ILL. — Glass tanks, dechlorinated water at 75 degrees, placed in a location away from extreme temperatures provide the best environment for fish in home aquariums, reports Dr. Louis Leibovitz of Cornell University in the May 1 issue of the **Journal of the American Veterinary Medical Association (JAVMA)**.

The best tanks are made of glass with a wide surface area at the top.

The wider the top, the greater the rate of exchange of oxygen and gaseous wastes between the air and water, reports Dr. Leibovitz.

To clean tanks, best results can be achieved by using plain water or plain salt water with a 5% commercial chlorine bleach solution as the disinfectant.

"Most public water supplies are tested for toxic substances and have been widely used in aquariums," states the author.

Tap water should be dechlorinated by allowing it to stand in a covered container for several weeks. This "conditioning" also allows time for the removal of sediment and disease-causing agents and wastes.

Most fish are adaptable to slight temperature variations and 75 degrees is good for a community tank with a variety of species. Dr. Leibovitz stresses, however, that abnormal temperature shifts alter a fish's defense mechanisms and favor disease.

Aquariums should be placed in an area that is easily serviced, has adequate electrical outlets, and is away from drafts and extremes of heat and cold. Dr. Leibovitz also recommends fluorescent lights at the top of the aquarium. "Illumination from the sides or bottom of the tank is unnatural and provides an additional stress as well as increasing the temperature of the aquarium," says Dr. Leibovitz.

Gravel and sand in the tank act as biological and physical filters in the operational aquarium.

DOG LOVERS FINANCE NEW DERMATOLOGY RESEARCH LAB

GAINESVILLE, FL — Florida's canine population soon will reap the benefits of the state's only research laboratory for dog skin diseases established at the University of Florida College of Veterinary Medicine.

A \$100,000 gift from dog lovers across the state and nation will support on-going research at the modern facility housed in the east wing of the Veterinary Medical Teaching Hospital.

The laboratory was dedicated last week in memory of Blanche Saunders, a nationally recognized

authority on dog training and obedience who visited the state many times to present instructional lectures and attend dog shows. The names of 24 special donors who contributed money and organized numerous fundraising events over the past 10 years, are listed outside the multi-room laboratory.

At dedication ceremonies for the "Blanche Saunders Dermatology Laboratory" at the Reitz Union on the UF campus, two members of the Jacksonville K-9 Club were recognized for their outstanding fundraising support. Bronze plaques were presented to Blanche Carlquist and Mary Mills who were instrumental in making the vital research facility a reality.

Blanche Saunders, a native of New York, was regarded as the "first lady of obedience" among dog enthusiasts and trainers. She was a well-known lecturer on obedience training and the author of several books on the subject. Since her death in 1964, efforts have been underway by dog lovers, trainers and breeders to preserve her memory through a facility which will contribute to the improvement of the health of dogs, said Mrs. Carlquist.

One of the primary fundraising events responsible for the laboratory is the annual Jacksonville Dog Festival. Proceeds from the dog show have gone into this fund for the past several years.

Many individuals donated funds towards the sizeable contribution as well as state and local dog clubs and associations. Recognized for their support of the dermatology laboratory are members of the Deep South Obedience Association; the K-9 Drill Team, Dog Fanciers Association, and Dog Festival in Jacksonville; the K-9 Obedience Club and First Federal Savings and Loan Association of Orlando; the Dog Training Club of St. Petersburg; the Dog Obedience Clubs of Florida; the Florida Association of Kennel Clubs; the Huntsville, Alabama Obedience Training Club; IPOC of Lakeland; the Philadelphia Dog Training Club, Inc.; and the Poodle Obedience Training Club of N.Y.

"More than 35 percent of all small animal veterinary practice in the state is associated with a skin disease of some type," says Dr. Richard

Halliwell, associate professor in the College of Veterinary Medicine and director of the research facility. He reports that 75 percent of these cases are attributed to discomfort and infections caused by fleas, which thrive in Florida due to the warm climate and moisture. Other common skin problems afflicting dogs include various allergies, fungal infections and molds.

Presently, Dr. Halliwell is investigating ways of preventing skin infections by vaccinating young dogs to sensitize them against fleas. So far, research has indicated that puppies vaccinated with antibodies from dogs that are less allergic to fleas, help bolster immunity to the bites.

Another major research area pertains to pollen allergies. In dogs, according to Halliwell, allergies usually are evident as infections of the skin, rather than by sneezing and other respiratory problems which are the more common reaction in people who suffer from allergies. An alternative to the commonly used skin test has been developed which can determine an allergic response by analyzing a blood sample with a special radioactive measurement. The RAST test (radioallergosorbent) provides quick, comprehensive determination of agents which may be causing an allergic reaction.

"We are pleased to add this new research laboratory which promises to make a tremendous impact on controlling and eliminating these prevalent canine health problems," said Dr. Wyland Cripe, assistant dean at the College of Veterinary Medicine.

Future research will include a study of the effects of thyroid diseases on the skin of dogs as well as in depth studies on the development of a potential vaccine to reduce the health problem of flea bites.

BENZOCAINE ALERT

Pruritic, or dry and itching skin, is one of the most common complaints among canines. Some dogs seem to be forever scratching, causing their owners to be on the search for some new product to ease their animal's distress.

Dr. John W. Harvey, from the College of Veterinary Medicine, University of Florida, reports that due somewhat to the popularity and easy availability of itch-relieving lotions for human use such as Lanacaine, Ameri-

caine and Solarcaine, many dog owners are now applying these products to their animals in an attempt to control canine itching.

Unfortunately all of these preparations contain the chemical Benzocaine, a highly effective topical anesthetic in humans, but a potentially very harmful chemical when applied to certain dogs under certain conditions.

Namely, says Dr. Harvey, when applied to broken, inflamed skin such as one might find on a dog with a bad case of flea allergic dermatitis, for example, the Benzocaine can be absorbed into the bloodstream and there cause a condition known as methemoglobinemia.

Hemoglobin is that component of the blood which transports oxygen from the lungs to the rest of the body; methemoglobin is an altered form of the molecule which can no longer "bind" oxygen. Methemoglobinemia, then, is an anemic condition where the victim suffocates, in a sense, due to the lack of oxygen in the blood.

According to Dr. Harvey, the condition may be more widespread than previously suspected. "Normal blood, when fully oxygenated, is a bright red. Methemoglobin, however, has a dark brown color, and remains so even after exposure to oxygen. Also, a lot of normal blood is dark when it is drawn out of the body, and unless the veterinarian suspects methemoglobinemia in a dog exhibiting signs of stupor and ataxia (loss of motor control), then it might easily be missed."

Dr. Harvey's research is unable to state definitely whether all dogs are susceptible to Benzocaine-induced methemoglobinemia, or whether it is restricted to dogs of certain breeds or with certain metabolic characteristics. He suggests, however, that the wisest and safest course for a dog owner is 1) do not use Benzocaine-containing compounds on dogs, and 2) if a dog is exposed to such compounds and then displays lethargy, stupor, or a general inability to stand or walk, take the animal to your veterinarian and tell him that you have used a Benzocaine-containing product on the dog. Emergency treatment at home consists of trying to wash any remaining lotion off the dog's skin, using luke-warm water and a mild detergent.

Dr. Harvey also states that Today's Animal Health readers could be of significant help to his ongoing research if they would write to him with short case histories of dogs that have suf-

fered a case of Benzocaine-induced methemoglobinemia. The address is: Dr. John W. Harvey, Box J144, College of Veterinary Medicine, University of Florida, Gainesville, FL 32610.

This information provided by **Canine Update**

"GRASS" TOXIC TO DOGS

Veterinarians are a very clever, insightful, dedicated group of people, but they are not mindreaders or magicians. Frequently the clinical signs which they see when a dog is presented to them for treatment can be caused by a number of different factors requiring perhaps significantly different modes of treatment. In cases like this, it is the owner who must supply the missing details concerning the dog's behavior and activities before it became ill, if the veterinarian is to make an accurate diagnosis.

Specifically, says Dr. John C. Godbold of Jackson, Tennessee, diagnosis of cases of acute oral marijuana poisoning in dogs may often be severely impeded because the owner does not want to admit to or confirm the possibility of marijuana in his or friends' homes for fear of legal retribution.

However, continues Dr. Godbold, the very fact that marijuana is experiencing ever greater social acceptance in many areas suggests that it's poisoning in dogs may also be on the upswing. Especially when the plant is incorporated into edibles such as cookies or brownies, the chance of a dog ingesting marijuana increases.

As for legal retribution, Dr. Godbold points to the privacy of the doctor-client relationship and says "There's no reason for the client to suspect that the whole thing won't be treated in confidence. There's also no reason why a client can't inquire on the phone, without identifying himself, whether the veterinarian is willing to treat that type of thing."

Marijuana toxicosis can be serious in dogs, leading to acute vomiting, muscle tremors and hypothermia, among other things, and proper diagnosis and treatment is greatly facilitated by a straightforward and cooperative owner. If you ever know of anyone in such a situation, we urge you to help ease the dog's distress and aid the veterinarian involved by insisting that he be given the full story up front.

This information provided by **Canine Update**
Today's Animal Health 21

in the NEWS

ARKANSAS GRAND JURY INDICTS THREE IN FIRST FEDERAL DOGFIGHTING PROSECUTION

Three people were indicted on May 19 by a federal grand jury in Little Rock, Ark., for taking part in an organized dogfight held December 8, 1979, on a farm near Marked Tree, Arkansas.

The fight was raided by officers of the Arkansas State Police, deputies of the Poinsett County Sheriff, a strike force of the Memphis, Tennessee, police, and investigators of the Humane Society of the U.S., acting in support of the U.S. Department of Agriculture. The Department is responsible for enforcing a 1976 amendment to the Animal Welfare Act that prohibits organized dogfights. Four dogs were seized as evidence during the raid.

Indicted were: Johnny Green, Memphis, Tenn.; Wendell "Butch" House, Houston, Tex., and Donald Walton, Truman, Ark. Warrants were issued for their arrest and they will be arraigned in the U.S. District Court for the Eastern District of Arkansas at Little Rock. They were charged both under the Animal Welfare Act and under a law prohibiting conspiracy to commit a federal offense.

Earlier, Richard Roberson, Port Arthur, Tex., pleaded guilty to a one-count violation of the Act for his part in the fight. A contract seized during the December 8 raid called for a dog owned by Roberson to fight another dog. Roberson was sentenced on April 21 to 60 days in prison and a \$2,250 fine; the prison sentence and \$2,000 of the fine were suspended.

The arrests in Arkansas were the first prosecution under the ban on dog fights, according to Pierre A. Chaloux, deputy administrator of the Agriculture Department's Animal and Plant Health Inspection Service. He said the Department has been working with the Department of Justice to set up methods to investigate and prosecute violations.

The law prohibits organized fights between animals if any of them are moved to or from an event in interstate or foreign commerce. Included in the ban are dogfighting, bear baiting, fights between dogs and raccoons and certain cockfights.

The dogfighting ban provides for

fining up to \$5,000 and imprisonment for up to 1 year, or both. The law also allows authorities to issue search warrants for fighting animals and to confiscate them for their own welfare and as evidence. The prohibition against conspiracy provides for fines up to \$10,000 and imprisonment for 5 years, or both.

BIOLOGIC MANUFACTURER ACCELERATED PRODUCTION OF VACCINE FOR PARVOVIRUS INFECTION IN DOGS

More than 45 million doses of vaccine will be produced in the next 6 months by 12 licensed firms to replenish stocks depleted by vaccinating dogs against parvovirus infection, according to a U.S. Department of Agriculture official.

Parvovirus infection, unknown in dogs before 1978, is a serious intestinal disease of dogs, according to John K. Atwell, acting deputy administrator of USDA's Animal and Plant Health Inspection Service. USDA has licensed two manufacturers of parvovirus vaccine for use in dogs. Supplies of this vaccine have been short because of unanticipated demand.

Veterinarians have compensated for the shortage by using other vaccines, although they are not approved for use in dogs, Atwell said. The products being used are intended to prevent panleukopenia (distemper) in cats and enteritis in mink. These two diseases are caused by a parvovirus and are similar to parvovirus infections in dogs.

The cat vaccines reportedly have given some temporary protection to dogs that receive them. Serious side reactions have been reported, however, where some of the vaccines intended for mink have been used in dogs. The use of these vaccines in dogs has resulted in a shortage for treating cats and mink.

The manufacturers of these vaccines had nearly 7 million doses in their inventories as of August 13. These doses are ready for release now or will be ready as soon as tests are completed. The 45 million doses of new production that have been projected will be in addition to these presently available stocks.

Parvovirus in dogs causes loss of appetite, vomiting, severe diarrhea, dehydration, high temperature and low white blood cell count. Adult dogs can recover with prompt veterinary treatment, but death loss in puppies can be quite high.

Vaccines against this and other animal diseases are produced under license from USDA as provided by the Virus-Serum-Toxin Act of 1913. Testing is required to prove that each production lot is pure, safe, potent and effective if used according to label directions.

BUYING BARGAIN BIRDS IS OFTEN COSTLY

Ms. "R" recently made the buy of a lifetime. At a swap meet-flea market in Spring Valley, she bought two half moon conures and a red-eyed lory for a tiny fraction of the prices quoted at pet shops. Only one problem. All three birds died within a week.

Not much she could do about it either. All she knew about the salesperson was the girl's name, Jean. She had no receipt for the cash purchase.

The dead birds were sent to a poultry disease diagnostic laboratory in San Diego for testing. The laboratory report came back—exotic Newcastle disease, a foreign virus disease of poultry and pet birds.

United States birds do not have this disease. Quarantine programs run by the U.S. Department of Agriculture (USDA) made sure that all legally imported birds are free of the disease before being allowed into the country.

Conclusion, the birds bought at bargain prices were probably smuggled into the country.

Ms. R had no other birds at home, so the disease "stopped" with her three bargains. How different the story could have been if she had had an aviary of healthy birds. They would have become infected with the highly contagious disease.

Or, had she lived in a poultry raising area, those bargain birds could have been the start of another exotic Newcastle disease epidemic, like the one that devastated southern California in the early 1970's. That outbreak

caused the death or destruction of some 12 million birds, mostly laying hens. It cost taxpayers about \$56 million to eradicate the disease.

With nothing more to go on than a hazy description of "Jean," it's doubtful that federal or state veterinarians will be able to find this individual, the source of her birds or any others that she may have sold. Bird lovers can only hope that any other birds she sold died in private homes. Void of other birds, buried in a backyard or sanitary landfill, such birds cease to be a danger.

Exotic Newcastle disease is not usually a human health hazard. It is harmless to consumers of eggs or poultry meat. However, people handling infected birds have developed mild eye infections, which should be treated by a physician.

According to state-federal veterinarians trying to stop outbreak of bird diseases in California, people offered birds at suspiciously low prices can help themselves by avoiding purchasing such birds. Further, they can help stem the flow of smuggled birds by getting as much information as they can about people offering such bird bargains—license plate numbers, descriptions of vehicles, etc.—and contacting the U.S. Customs Service director of investigations in Los Angeles at (213) 688-4692. They can also call USDA's Animal and Plant Health Inspection Service in Sacramento at (916) 484-4891.

Exotic birds make great pets. Healthy exotic birds make even better pets. To really enjoy a pet bird, be sure that you buy a healthy one. It will live a lot longer than Ms. R's bargain.

The corporation's officers are listed as David C. Garrett, Jr., president and chief officer; Hollis L. Harris, senior vice president for passenger service; and James W. Callison, senior vice president and general counsel.

RABIES RISK EQUAL IN DOGS AND CATS

Washington, D.C.—Dogs and Cats should be vaccinated against rabies whenever appropriate public health and regulatory officials determine that vaccination of both species is necessary, according to a resolution adopted today (July 20) by the American Veterinary Medical Association's (AVMA) House of Delegates

2-Way Thing



The Swinging Pet Door That's Safe!

World's best-selling pet door. Four sizes for all dogs and cats. Plus Pet Panel model for sliding doors. At leading pet, home center, hardware and department stores.

Another Great Pet Product from

JOHNSON PET-DOR

P.O. Box 346, Northridge, CA 91328

during the 117th annual meeting in Washington, D.C.

The resolution was introduced by the AVMA Council on Public Health and Regulatory Veterinary Medicine because statistics show that rabies in cats has not declined during the past 25 years, while it is generally acknowledged that rabies in dogs has been reduced due to vaccination programs. Thus today, the risk of dog and cat rabies is nearly equal in many states.

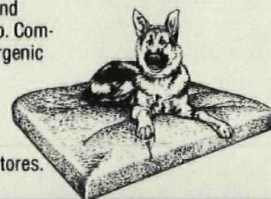
According to the resolution, the Council believes that cat rabies presents a public health problem sufficient to justify annual vaccination in some states. Vaccines for dogs, cats and other domestic species against rabies are available to veterinarians.

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

Gr-r-eat Thing

Veterinarian-Recommended Pet Waterbed!

Share the good life with your pets. Help them avoid arthritis and rheumatism, too. Completely non-allergenic and easily cleaned. 2 sizes, for large and small pets. At leading pet stores.



Another Great Pet Product from

JOHNSON PET-DOR

P.O. Box 346, Northridge, CA 91328

SKUNKS

A prohibition on the sale of pet skunks, raccoons and foxes was urged by the National Association of State Public Health Veterinarians (NASPHV) in a resolution adopted July 22 during the 117th annual meeting of the American Veterinary Medical Association in Washington, D.C.

"Rabies is a natural disease of skunks, raccoons and foxes, and these animals are the principal reservoir for rabies virus in the United States. On numerous occasions skunks, raccoons and foxes kept as pets are found to have developed rabies after biting many members of the owner's family as well as friends and neighbors," stated the resolution.

The NASPHV resolution also calls for immediate action by the U.S. Department of Agriculture, the U.S. Public Health Service, and the U.S. Department of the Interior to prohibit interstate sale, possession, distribution and shipment of these animals to the limit of their legal capabilities.

In addition, the group urges the 50 states to follow suit within the limits of the state and to the extent of their legal authority.

The resolution exempts skunks, raccoons and foxes that are used for bona fide research and exhibition.

The National Association of State Public Health Veterinarians includes officially designated public health veterinarians from more than 35 states. Public Health veterinarians have the primary responsibility of controlling more than 150 diseases that are transmissible from animals to man.

Keep Away Thing



DOR-GARD™

The DOR-GARD pet door burglar alarm. A size for all Johnson Pet-Dors. Protects your home. No installation required.

Available at leading pet supply and home center stores.

another great pet product from

JOHNSON PET-DOR

P.O. Box 346, Northridge, CA • 91328

CANCER VACCINE WORK

Aurora, an Alaskan Malamute, won best of breed in a local dog show while undergoing a new type of treatment for breast and lung cancer at the Rigler Center for Radiological Sciences in Los Angeles. Instead of "two weeks to live" Aurora was able to survive for five years, thanks to an experimental cancer vaccine worked out by Dr. Guy Juillard, a physician, and Dr. Harold Snow, a veterinarian at UCLA. Since the life span of a dog is approximately one year for each seven years of human life, Aurora's remission of five years is roughly equal to thirty-five years of remission for a person. What price do you put on a new lease on life when you arrest the growth of malignant cells? The new immunotherapy approach worked out in animals has been approved for limited clinical use in people and has achieved remission of some human cancers.

One of the most successful cancer vaccines in the world today is the Marek's vaccine. Marek's disease is a highly contagious infection of chickens which results in tumors forming in various parts of the bird's body and can lead to paralysis and death. No known cure for the cancer exists yet it has decreased dramatically since the development of a commercial vaccine seven years ago. Today chicks are vaccinated against Marek's disease as soon as they hatch. The vaccine reduced the incidence of Marek's disease in vaccinated chickens by ninety percent.

SELF DEFENSE THE KEY

The successful cancer treatment is not based on a new wonder drug but rather on a process that has been with us since life began—immunity. Immunity is the strategy of self defense. Scientists are learning new ways to enhance animals' immune systems. Immunity allows the body to destroy the foreign invaders by itself. Animals have lead the way towards understanding the immune system and most of our present day concepts of immunity come from animal studies.

Immunity in its broadest sense is resistance to disease, it's what keeps us well. It is the reason we don't get "kennel cough" from dogs or "cat fever" from cats. It is the reason vaccines work. It defends us from assaults of microbes and protects us from cancer. Immunity has emerged in the past few years as one of the most exciting areas of research and is important to virtually all areas of clinical medicine.

In the eighteenth century observations of people who milked cows was the start of our present understanding of the immune system and how it could be used to prevent disease. During the beginning of the eighteenth century in England smallpox epidemics accounted for one third of all deaths in children. In 1798 Edward Jenner reported that milkmaids exposed to cowpox were immune to smallpox. Cowpox is a virus that affects the skin, particularly the teats and udders of cows. Edward Jenner played a decisive role in popularizing immunization of people against smallpox by inoculating them with the relatively harmless cowpox virus. Last

1

Each patient at the Rigler Center has a vaccine made exclusively from his or her own cancer cells. As scientists gather more data they hope to determine which types of cancer respond best to immunotherapy.

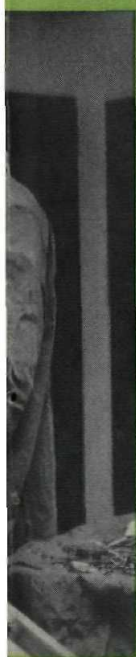


2

Removing tumor from patient at a local veterinary hospital. A portion of the tumor is sent to the pathologist to determine the exact type while the rest is taken the same day to the UCLA Rigler Center where preparation of the vaccine begins immediately.

Animals Lead the Way

by C. P. Ryan, D.V.M.



3 This human lymphocyte magnified 8000 times appears as a blob with antenna-like projections. Programmed killer lymphocytes are circulating inside your pet's body seeking out alien life forms, such as viruses and bacteria, to destroy.

year (1979) smallpox was eliminated from the world as a result of a massive eradication program begun in 1967 by the World Health Organization.

The immune system is exquisitely discriminative and rejects whatever it recognizes as nonself. It can discriminate between normal cells and cancer cells living side by side. Cancer cells have substances called antigens, on their surface that are recognized by the host's immune system as foreign. It is estimated that the human immune system can specifically react with and respond to an estimated 1 million different antigens, from microbes to alien cells.

LYMPHOCYTE DIRECTS THE FIGHT

The principal cell in the body responsible for immunity is the lymphocyte. A drop of your blood or your dog's blood contains over one thousand lymphocytes. The last fifteen years has seen an explosion of knowledge about how the tiny cells work. It was the chicken who ignited lymphocyte immunology. Until recently it was thought that all lymphocytes were about the same since all lymphocytes looked alike under the light microscope. In 1956 Bruce Glick reported in *Poultry Science* that removing the cloacal bursa (a small sac-like outgrowth of the lower bowel in young birds) from young birds resulted in the chickens inability to make antibody. With an inability to produce antibody the chicken, or any animal, is highly susceptible to invasion by microbes which are everywhere. To get some idea of how numerous microbes are in the environment we can look at ourselves. Our underarms contain over 4 million bacteria per square inch. Chickens with defective immune systems die from overwhelming infections at an early age. Studies of the chickens immune system sparked other studies and it became apparent that there are two major types of lymphocytes in the body - B lymphocytes and T lymphocytes. Each lymphocyte has distinctive functions of its own and the two types cooperate as well.

The B lymphocytes are responsible for the production of antibodies used to fight disease. When your dog is vaccinated against canine distemper, the vaccine stimulates your dog's B lymphocytes to produce specific antibodies to protect your dog against exposure to the canine distemper virus in the future. The B lymphocyte system is also known as the humoral system of immunity because the cells and the antibodies (also called immunoglobulins) they produce circulate in the body's fluids, primarily in blood.

The second compartment of the immune system is composed of T lymphocytes. T lymphocytes may act directly themselves and attack and destroy foreign microbes and alien cells. Some types of T lymphocytes are actually referred to as "killer cells" in the technical literature. The T lymphocyte system is also known as cell-mediated immunity.

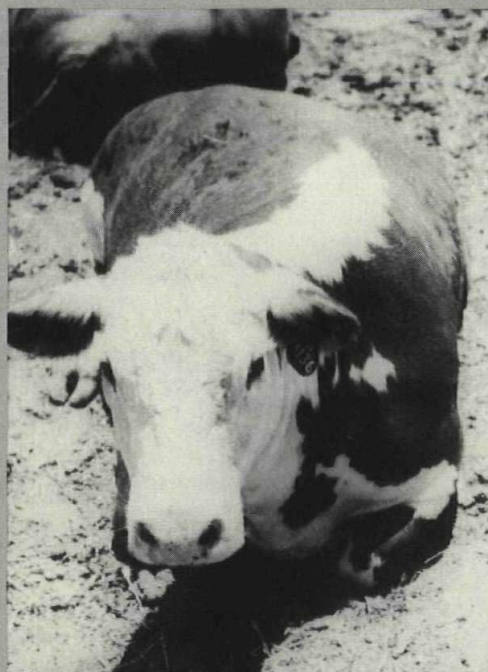
Studies have shown that tumor immunity can be transferred from one animal to another by infusion of

CANCER VACCINE WORK

immunocompetent cells but tumor immunity cannot be transferred by cell free serum. Serum is what is left of the blood after the red blood cells, white blood cells and clotting factors have been removed. Tumors evoke responses from both the B and T lymphocytes but the major impact of the host on a tumor is exerted by the T lymphocyte or cell-mediated reactions. All animals and man contain some lymphocytes that are "natural killers" of tumor cells regardless of prior exposure to tumors. Other lymphocytes in the body can become "killer cells" after they have been exposed to tumor cells. This takes a period of time (days to weeks) for the body to program a clone of killer lymphocytes to seek out and destroy specific tumor cells. In animals there is evidence that the immune defense are not functioning normally in cancer patients.

OUTPATIENT CLINIC AT UCLA

Dr. Juillard and Dr. Snow are using immunotherapy as a major weapon in the fight against cancer at the Rigler Center for Radiological Sciences at UCLA. The Rigler Center formed in 1971 was the first international center for advanced radiological research. Here specialists in the field of radiology and related scientists come together to develop new life-saving techniques expanding the range of diagnosis and treatment of cancer, heart disease, birth defects and kidney disease. One section operates an animal research hospital which also serves as an outpatient clinic for pets with cancer. The animal research hospital is equipped and staffed in a manner affording the animal patient, treatment, monitoring and care comparable to human patient care. The outpatient clinic centers around the treatment of pets with naturally occurring cancer. Early in the course of cancer research at the Rigler Center, it became obvious that dogs with cancer could be treated and studied for the same problems as those inherent in human cancer. Pets have spontaneous cancer (cancer that just happens) as do people. According to Dr. J. Eric Bubbers, a research immunologist at the Rigler Center; "The treatment of spontaneous cancer in domestic animals may result in more realistic, practical information on tumor immunology which can then be transferred to human patients at UCLA. In the past, studies were conducted on laboratory induced or implanted tumors in animals such as rats and mice." Veterinarians, physicians, researchers are involved in a team approach in helping the patient build up his or her own self defense. Work at the Rigler Center has brought remission of cancer in many pets and the knowledge gained has been used to treat human cancer patients. Dr. Harold Snow, a veterinarian, explains: "Whenever we're treating an animal here we are treating it because it has some human significance. Otherwise we're not fulfilling our obligations. We treat dogs who have cancer because they are models for human cancer and other diseases. Everything we do has the possibility of being applied eventually to treating humans."



4 Vaccination comes from the Latin word, vacca, meaning cow. The term originally referred to the injection of cowpox virus to prevent smallpox. The success of the smallpox vaccine led to search for vaccines to prevent other diseases.



5 Dr. Saeichi C. doing studies been sent to urinary infect patient as sh easier.





Dr. Cochran, a physician, and x-ray technician, Susie Snow, are examining a referral patient at the Rigler Center. The patient had been referred to the center by a local veterinarian because of a chronic condition. Dr. Cochran uses the same equipment on this canine as she does on her human patients and finds it makes her work easier.



6

According to this German Shepherd the happiest part of the outpatient referral clinic at UCLA is that you get to go home afterwards.

A new approach used at the Rigler Center involves the removal of accessible tumors which are used to make a tumor vaccine. The vaccine is then given to the cancer patient to enhance his or her resistance to the remaining, inaccessible tumors. Success relies on appropriate stimulation of the patient's immune system to recognize and destroy the tumor cells. In breaking from past tradition where the vaccine was injected directly into lymphatic vessels. The major cell found in lymphatic vessels is the lymphocyte. The lymphatic vessels are so small that a magnifying headset is required to locate the vessels. This method has shown a response ten times greater than earlier techniques which introduced the vaccine directly into the blood. One affect of the vaccine is the development of sensitized "killer" lymphocytes which can have a major impact on the remaining tumor cells in the body by their cell-mediated reactions.

Usually owners bring their pet to the Rigler Center for tests and treatment. This may require several trips as the patients are encouraged to return home between treatments. Research funds cover a large portion of the cost but the animal's owner is also asked to cover some part of the treatment expenses. The therapy is relatively non-invasive, non-traumatic, performed on an outpatient basis and has the potential to eliminate even tumors spread throughout the body. In order to be suitable for immunotherapy, it is necessary that the dog's own tumor be available as a source of vaccine material; tumor excision may be done either by the referring veterinarian or at UCLA. If the tumor is removed by the referring veterinarian, special care is used in removing and transporting the tumor to the Rigler Center. The tumor cells must reach UCLA within 24 hours of removal. The Rigler Center also offers the more conventional cancer treatments such as radiation and chemotherapy.

WHAT'S AHEAD IN THE 80'S

The 1980's will witness refinement of current treatments and the development of new approaches. Leukemia is, by far, the most common form of cancer in cats. It affects cats of all ages and breeds. It is caused by an RNA virus called the feline leukemia virus. The feline leukemia virus just affects cats and is not responsible for cancer in dogs or humans. Extensive studies during the last ten years have shown that feline leukemia is contagious from one cat to another. In addition to causing cancer in cats the virus is also involved with such conditions as nonregenerative anemia and immunosuppression in cats. Last year a \$1 million five-year grant was awarded to the Laboratory of Veterinary Oncology at the Memorial Sloan-Kettering Cancer Center by the National Cancer Institute which is used to fund feline leukemia virus research. The primary goal of the laboratory's research program is the development of an effective, safe, feline leukemia vaccine.

PARROTS -- THE PERRIER OF PETS

Continued from page 10

wherever you spend most of your time. Parrots are highly social, easily domesticated animals (much like dogs and cats, believe it or not) and they thrive on human attention. Although they come from tropical countries they can adapt to the temperatures of a normal home, even during an energy crisis. However, they are **extremely** susceptible to draughts and care should be taken to protect the parrot.

Most cages come equipped with a wooden swing and a wooden dowel perch. It's a good practice to occasionally vary the diameter of the perch. Since birds spend their entire lives on their feet it eases the tension in the muscles by allowing them to assume a different grip. Lightweight plastic and soft rubber toys should not be given to any of the larger parrots for they will destroy them in short order and possibly choke on a small piece.

Parrots are, of course, justly famous for their ability to mimic sounds. If talking is one of the main reasons you're buying a pet bird, you should know which species are the best speakers. Of the smaller birds, cockatiels and conures have clear voices and good talking ability, while African Greys and Mexican Double-Yellow Heads are two of the cleverest of the larger parrots.

A great deal of patience is required to teach a bird to talk. Consistent, clear repetition of simple words or phrases, such as "hello," or "goodnight" several sessions a day is all that's necessary. Some owners say the best times for teaching are the morning (before the cover is removed) and the evening (after the cover is replaced). If time is a problem, pet stores sell bird training records, although making a tape of your own voice is a more satisfactory idea. Your bird is more apt to respond to the sound of his owner's voice and, besides, it's quite an ego boost to hear your voice (complete with inflections) being recreated.

First-time parrot owners are invariably surprised at how friendly their pet birds can be, and how much they crave affection. They love to be handled, to have their heads scratched, to perch on your shoulder and chatter. Unlike the sadly short life spans of dogs and cats, the larger birds have life spans that are comparable to man's. They are easy to care for, don't have to be walked twice a day, and most important, they give back even more love than they receive.

To quote Ronnie DeLuca, the proud owner of a Yellow Nape, "He's the best pet I've ever had!"



The deaf students at the Joffrey Ballet School learn to dance by responding to the vibrations of the music.

President's Committee on Employment of the Handicapped
Washington, D.C. 20210

1981. The International Year of Disabled Persons.

SHADOW, K-9 SOLDIER

Continued from page 19

And then came another new chapter. My son, a former Army officer, who had joined me when he left the Army, and I decided to sell out our guard division. We found a good home for every dog who had worked for us.

We were down to three dogs at the time. One went with a young man studying to be a minister who had been a guard for us for years with the understanding he would not use the dog again as a guard dog. He did not, he is a man of honor. The second went to an old friend who operates an eight hundred acre pig farm. The last time I saw this dog he had gained at least thirty-five pounds in spite of his daily romps around the fenced in 800 acres. The third was Shadow, and she naturally came to live with us.

I had removed the dog runs, put several hundred feet of wire fencing in the rear of our home, and built a well-insulated and dry house for her as she disliked indoor living. Every morning and every evening a fresh bone. Weather permitting, a dip in the lake and as she got older, she paddled placidly along the shoreline. No more straight out rushes towards the middle.

She was truly happy, spent her days napping, burying and unearthing bones, and there were innumerable birds and squirrels to watch closely.

In snowy weather she would gambol about and roll over and over in the snow and spend long hours snoozing in her comfortable home which in winter months was moved into the patio under the sundeck.

At any time of the year, we would notice her patrolling about the inner sides of the fence. It was as if she were reverting to her years of training and still making guard rounds.

As she became older, her hearing began to fail, and one ear, injured in a long ago forgotten battle with Kim, at times swelled and had to be drained and treated by the vet. He said she was an unusually strong, healthy old dog but even he could not correctly establish her age.

Many mornings towards the end when I came down for an early morning swim, Shadow would slumber on without waking up, but when the bone was placed just outside her home, her nostrils would quiver, her aged head would raise, and she would come lumbering out, tail wagging.

One bright sunny summer Sunday morning she did not move as I walked by on the way to the lake. Later she did not react when the bone was placed near her. She did not respond to a friendly pat on her faithful head. Suddenly, I realized Shadow had died peacefully in her sleep.

She had one favorite dozing spot near the gate leading to the pond. There she sleeps now, and many a morning when I go for a swim, I am convinced that Shadow is with me. There is the strangest feeling that she is beside me. Someone as vital, fun-loving, devoted and heroic as that lady who fought for her country and worked all her life, cannot be actually dead. There must be a spark, an intelligence and a true love which nothing can ever entirely eliminate or destroy. The ultimate end cannot just be a hole in the ground.

Shadow — until we meet again!

What's underneath that championship coat?

by Jane and Bob Forsyth

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

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

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

The remedy was simple. The vet



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

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

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

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

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

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

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

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

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

Animal Health Foundation
8338 Rosemead Boulevard
Pico Rivera,
California 90660

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 best-in-shows and 150 group wins.

And he's been getting the nutrition he needs from Kal Kan® ever since he

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.

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