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Animal Crackers

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Heartworms

Heartworm infection occurs in the dog throughout the United States and parts of Canada, particularly in warm, mosquito-infested areas. Infective heartworm larvae develop in mosquitoes and are deposited in the skin of the dog following the bite of an infected mosquito. After several months of development, immature worms enter the bloodstream. Adult worms, which may reach a length of five to twelve inches, are found in the heart and lungs. Infected dogs may tire easily, have a chronic cough and lose weight. Diagnosis is made by detecting the microscopic larvae (microfilariae) in the circulating blood and by blood tests to detect antibodies or worm protein.

There is a nonpathogenic nematode, *Dipetalonema reconditum*, which also produces circulating microfilariae. These must be differentiated from the microfilariae of the heartworm, *Dirofilaria immitis*. Microfilariae are not always found in the blood of heartworm-infected dogs—there are seasonal and diurnal variations—so a negative test should be repeated if heartworm disease is suspected. Most dogs with heavy heartworm infections have changes in the heart and lungs which may be detected radiographically.

Dogs infected with heartworm may be treated with drugs to destroy the adult worms. Infections may be prevented by daily treatment with a drug that prevents larvae introduced by the mosquito from developing into adult worms. Diethylcarbamazine (DEC) is available in several forms: tablets, liquids and powders. Treatment should be started at the beginning of the mosquito season and continue for several weeks after. In warmer climates, it should be given year round. The drug must be given daily as it has no residual activity. A drug under study by the FDA, *Ivermectin*, appears to be effective as a prophylactic agent when given at monthly intervals. However, there have been severe reac-

tions to this drug in some breeds, including death. It cannot be recommended without this warning. At the present time, it is not approved for use in dogs but is FDA-approved for horses.

It is important that preventive treatment with DEC should not be given to dogs which have circulating microfilariae as this may produce severe anaphylactic (i.e., allergic) shock. Have a blood sample checked before beginning treatment, even if the dog was on DEC the previous year.

Your Cat's Teeth

The cat has 30 permanent teeth and 26 deciduous ("baby") teeth. Because the jaw bones of the cat are rather short, the number of premolars and molars is reduced when compared with the dog. (The dog has a total of 42 permanent teeth). The cat has six incisors (front) teeth in the upper and lower jaw, used for biting and gnawing; four large canine teeth ("fangs") for seizing and tearing food; six premolars in the upper jaw and two in the lower and two molars in the upper and lower jaws. The molars are used for shearing soft tissue and bones.

The deciduous teeth erupt at about three weeks of age and are replaced by the permanent teeth at about six months of age.

Tooth care should begin at an early age. Chewing on hard toys helps keep the deciduous teeth clean. The cat's teeth should be checked at about six months. If a baby tooth does not fall out, your veterinarian can pull the tooth to allow permanent teeth to grow in normally.

When a cat is fed only soft foods, it will not chew enough to clean its teeth. Feeding dry food most of the time will help prevent gum disease. Periodontal disease is a major cause of bad breath and loss of teeth in cats. If there is a



yellow build-up, this is an indication that dental cleaning is necessary. This is best done under general anesthesia and in some animals it should be repeated yearly.

When the teeth have been cleaned (calculus and plaque removed), your veterinarian may recommend "brushing" the teeth once or twice a week—ideally daily! Wrap a finger with a soft washcloth and brush from gum line to tip of tooth. If you do this gently and follow the procedure with praise and a treat, the cat will become accustomed to oral care. Do not use human toothpaste. Start with plain water or water with a bit of salt added. Your veterinarian may recommend using a medicated brushing solution if gum disease is present.

Don't let gum disease get out of control. Check your cat's mouth frequently. If the gums are ignored, bacterial infection may set in, the gums swell and bleed; the breath becomes almost unbearable, the teeth loosen, and eating and self-grooming become painful. This can be avoided by keeping the mouth clean. Gum disease in cats can cause severe problems, more so than in dogs. Two major sources of the pain associated with gum disease are "neck lesions" (erosion of part of the tooth at the gum line, which exposes sensitive dentin) and spreading soft-tissue ulcers that can cause pain when the mouth is opened.

Cost is always a factor when considering professional treatment. If the teeth are kept clean by brushing and the cat has something hard to chew, periodontal disease may be avoided.

Because some cats refuse to eat or drink due to severe gum disease, and because severe gum disease is much more difficult to treat in cats than in dogs, gum disease in cats is the subject of a current research project at VHUP. Headed by Dr. Colin E. Harvey, Professor of Surgery, the project includes progressive clinical and radiological examinations, detailed bacteriological and virological examinations (performed at the University of Pennsylvania Dental School

Field Trialing— An Overseers Hobby

Current Gordon setter field trial rankings include three dogs owned by Mrs. Gwynne G. McDevitt, a member of the School's Board of Overseers. "I participate in six to eight field trials each season," said Mrs. McDevitt. "Events are held March to May and September to December. A bit of traveling is involved as the trials are held in many different states."

Mrs. McDevitt's young dog, Smokerise Shadowfax, ranks first in the Open Puppy and the Open Derby standings. Recently he received the National 1984-85 Field Awards (American Field and AKC) from the National Gordon Setter Club Association, Inc., a member of the American Field Trial Clubs of America, Inc. Shadow was handled to four points toward his



Smokerise Shadowfax in the field

Field Champion title by Mrs. McDevitt. "I have high hopes for this dog, and I think he will be able to attain the title," she said.

It is not easy to make up a Field Champion.

In 1984 the AKC awarded 688 F.Ch. titles (Amateur and Open), and there were 114,204 starters (dogs entered) for the year. For comparison, that year 15,553 conformation titles were awarded, with 1,133,084 dogs competing at all-breed and specialty shows.

It takes much time and patience before a dog is ready for the field. "I train with Thomas Getler of New Egypt, NJ," she said. "It is better to work with a professional when beginning to train a dog as one can sometimes teach it incorrectly. Then considerable time has to be spent to undo the mistakes."

Field trials usually are two- and three-day affairs. Dogs are entered in different stakes, as the classes are called, depending on their age and ability. At field trials Gordon setters, a pointing breed, must exhibit a desire to hunt, be bold and independent, yet obey every signal

and the University of Liverpool in England, respectively) and treatment.

This project is supported by grants from the Winn Foundation for Cat Research, IBM Corporation, H. Schein, Inc., and a private donor. Appointments for examination of cats with oral or dental disease at VHUP may be made by calling 215-898-4680.

Miscellaneous Class

At AKC shows, there are eight breeds which may be shown in the Miscellaneous Class. These breeds are represented by an active parent club maintaining a breed registry, with serious and expanding breeding activity over a wide geographic area. Breeds in the Miscellaneous Class are not eligible for championship points. They must have an ILP (Indefinite Listing Privilege) number issued by AKC.

When the AKC's Board of Directors is satisfied that the breed is continuing a healthy, dynamic growth, it may be admitted to the Stud Book and be able to compete in regular classes at dog shows. At the present time, there are 129 breeds eligible to compete for championship points.



The Chinese Crested, a hairless breed tracing back to at least the 16th Century, is the latest breed made eligible to compete in the Miscellaneous Class at dog shows, obedience trials, and tracking events. This breed is characterized by a hairless body with a crest of hair on top of the head and a plumed tail. Some Chinese Cresteds have a fluffy haircoat and are known as "Powderpuffs." Both hairless and powderpuff varieties may appear in the same litter.

The seven other breeds presently eligible to compete in the Miscellaneous Class are: Australian Kelpies, Border Collies, Cavalier King Charles Spaniels, Finnish Spitz, Miniature Bull Terriers, Spinoni Italiani and the Greater Swiss Mountain Dog.

given by the handler. Dogs must move well in the field and exhibit intelligence and ability to find game. The judges score all these qualities and the winner of the stakes receives points, based on the number of dogs competing. At Amateur trials points are also given to second and third placers, based on the number of dogs competing in the stake. A dog cannot earn more than four points toward the title in the Puppy or Derby stakes, which are easier than the Open stakes. The remaining six points must be earned in Open stakes and of those three must be in one major stake at a trial. This is similar to the "major" requirement for the conformation title.

Mrs. McDevitt has another dog in the puppy rankings. Tomar's Guinness Dart is sixth in the national standings. Double Dee Heatherfield Dash, a homebred, ranks sixth in the national Amateur Gundog standings.

V.M.D. or D.V.M.?

There are 27 Colleges of Veterinary Medicine in the United States accredited by the American Veterinary Medical Association. Wisconsin will graduate its first class in 1987. The University of Pennsylvania grants a V.M.D. (Veterinariae Medicinae Doctoris) degree, probably because of the close association of the Veterinary and Medical Departments. Graduates of all the other Schools receive the D.V.M. degree.

University of Pennsylvania graduates can be recognized by their degree. The V.M.D. has been awarded to 4,064 graduates, beginning with the first class in 1887. The requirements for V.M.D. and D.V.M. are essentially the same.

It might be pointed out that if "Dr." is used before a name, the academic degrees are not included after the surname. To be grammatically correct, the name should be John Doe, V.M.D. or Dr. John Doe, never Dr. John Doe, V.M.D.



The American Kennel Club, 1884-1984

This important book for all those interested in dog shows is edited by Charles A. T. O'Neill and the Staff of the American Kennel Club. (\$17.95, Howell Book House, 230 Park Ave., New York, NY 10069).

The American Kennel Club was founded on September 17, 1884, when 12 dedicated sportsmen met in Philadelphia, Pennsylvania. All were delegates of clubs which had been holding dog shows or field trials. The new "Club of Clubs" would undertake to consider "all dog matters concerning bench shows and field trials." In 1887, AKC took over the *The American Kennel Stud Book*—with number one being the English Setter, Adonis, whelped in 1875. The first issue of the *American Kennel Gazette* appeared in January 1889.

Championship requirements at early shows were three first place wins in the Open Class. In 1900, the point schedule was based on the total number of dogs at the show—1 point at all-breed shows under 250 dogs up to 5 points at all-breed shows with 1,000 dogs or over. Later, requirements were based on competition within the breeds. Unfortunately, the book gives little information about championships recorded and the requirements.

Gwynne McDevitt has had Gordon setters since the early seventies. "My first dog was Ch. Tomarcyn Yair Linn of Gowdie," she said. "He is the foundation sire for my kennel. But I don't breed much, perhaps a litter every two or three years."

Foundation Grant

The Robert J. Kleberg, Jr. and Helen C. Kleberg Foundation of San Antonio, TX, has contributed \$300,000 toward the construction of the Robert J. Kleberg, Jr. Animal Genetics Laboratory.

The new facility, to be located in the Old Quadrangle will expand the space of the Laboratory of Reproductive Physiology. The additional space is needed to enable Dr. Ralph L. Brinster, Richard King Mellon Professor of

From 1878 to 1884, 1,416 dogs were registered: in 1894, 3,667; in 1924, 49,579; in 1954, 346,525; and in 1970, 1,056,225. Litter registrations began in 1932 with 29,200, increasing to 422,098 in 1984.

In 1884, there were 11 All-Breed Shows and no Specialty Shows. In 1984, there were 989 All-Breed Shows, 1,414 Independent Specialty Shows, 1,478 Obedience Trials, 191 Tracking Tests and 1,141 Field Trials.

The first dog in each breed entered in the AKC Stud Book is listed, along with the date. There were a few names changed. The American Staffordshire Terrier was registered as Staffordshire Terrier until 1972, the Borzoi was Wolfhound (Russian) until 1936, the Brittany was Spaniel (Brittany) until 1982, the Japanese Chin was Japanese Spaniel until 1977, the Lhasa Apso was Lhasa Terrier until 1944 and in 1908 only, the West Highland White Terrier was registered as Roseneath Terrier. The first Eskimo was registered in 1888 but after 1959 was no longer eligible for registration. The Mexican Hairless, first registered in 1887, could not be registered after 1959.

Although many facts and valuable data, particularly statistical material, have been included, it seems incomplete in many areas. Perhaps a second edition will be a deeper treatment of the history of AKC.



The Dog's Sense of Smell

The dog has a phenomenal sense of smell, and may be trained to assist man in many ways.

Their work in detecting narcotics is well-known. They can be trained to detect gas leaks and explosives. Less well-known is their ability to detect cows in estrus. A cow may show no signs of estrus, and the period during which she should be bred is very short (usually less than twenty-four hours). Dogs may prove to be useful in the dairy and beef industry.

There have been reports recently about dogs trained to sniff out termites. It is said that their acute sense of smell and hearing alerts the dogs to where the termites are.

All of this special work requires training for dog and handler.

Anosmia is loss of the sense of smell. This can occur after some diseases, including Canine Distemper. Techniques are being developed to measure olfactory activity. Possibly this might be useful in grading hunting dogs.

She is able to combine field trialing with her love for riding. "I take my Tennessee Walker along to the trials to handle my dogs, scout, and to ride with the gallery as we follow the action. It is fun."

Reproductive Physiology, and his associates to explore fully the potential of their gene transfer work. Through the development and use of the technique for gene transfer in animals, Dr. Brinster and his associates have contributed enormously to the understanding of gene regulation, growth control, development and tumorigenesis.

The Robert J. Kleberg, Jr. Animal Genetics Laboratory will enable the School to retain its pre-eminent position in transgenic research.