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Animal Crackers

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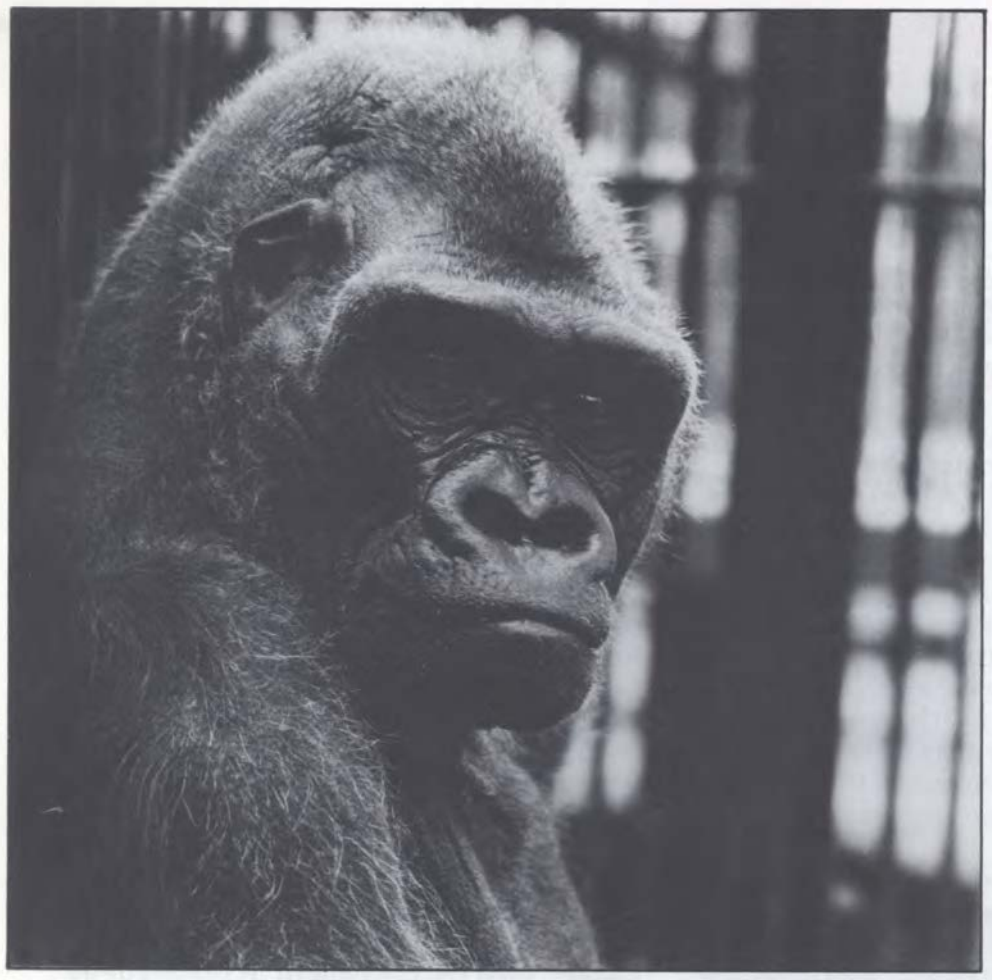
Massa – The Big Boss



Massa is a lowland gorilla who has been living at the Philadelphia Zoo for forty-six years; he celebrated his fifthieth birthday in January. Of the 219 or so gorillas in captivity, Massa holds the world's longevity record for his species. And although there is often speculation on whether animals in captivity enjoy the best of possible worlds, in Massa's case, captivity is, indeed, the secret to his long life.

Since Massa's arrival to the Philadelphia Zoo in 1935, he's lived a calm and happy existence. Massa's earlier life, however, was not as uneventful. When Massa was about one month old, his mother was foraging a West African jungle for fruits and berries with a band of gorillas, with her son upon her back. The gorillas liked to visit the *shambas* (a Swahili word for a plantation), because the jungle gardens grew such sweet and luscious fruits. Suddenly, angry natives appeared and, before the gorillas could escape, attacked and killed them, sparing only Massa.

The natives took Massa to their village where they fed and cared for him, with the idea that he'd do very well in either their cooking pot, or as a trade item for an animal dealer. Fortunately, a trader visited the village before Massa fell victim to the former plight. A short time after, Massa was the object of another transaction and became the property of a trader in a large, West African, seaport village. It was from there that a Captain Phillips purchased Massa for his Brooklyn, NY friend, Mrs. Gertrude Lintz.

During the voyage to the United States, Massa contacted pneumonia and lasped into unconsciousness. During the five or so days after his arrival, Mrs. Lintz—a devoted animal lover who specialized in rearing baby exotic animals and especially primates—nursed Massa as one would a child, until the crisis passed. It was Mrs. Lintz who named Massa, which is Pidgin English for "Master" or "Big Boss."

Mrs. Lintz taught Massa to do many people tasks—how to put on clothes and how to wash a floor, for example. One morning, while Massa was busy scrubbing the kitchen floor, Mrs. Lintz, who had tiptoed in to observe, slipped on the wet floor and inadvertently kicked the bucket causing a wave of soapy water to drench Massa. Frightened, Massa attacked Mrs. Lintz. Luckily, a young woman friend was in the next room and saved Mrs. Lintz from further harm by grabbing a heavy skillet and crashing it down on Massa's head. It required seventy stitches to close Mrs. Lintz's wounds.

The spell between mistress and pet was broken. Clearly, Massa realized that he could defy her orders no matter how sternly she commanded obedience. Reluctantly, Mrs. Lintz decided to sell Massa, then believed to be female, to the Philadelphia Zoo, who had been looking for a mate for Bamboo, another lowland gorilla.

In August 1935, zoo officals announced that Massa was discovered to be male and that the "Zoo's Gorilla Wedding Is Off..." Despite the gender confusion, Massa and Bamboo were allowed to be together as companions. The relationship was not amicable and, after five days of fisticuffs, they were permanently separated.

Since that time, Massa has lived in seemingly splendid solitude, enjoying the attention and gifts of his keepers and visitors.

Animal

Fleas are a year-round problem which seems to get worse in warm weather. They are easy to detect—black specks in the hair-coat, noticed during grooming are usually flea droppings. A simple test is to moisten a few of the particles on a piece of white paper. A red stain indicates blood eliminated by the fleas. Scratching may lead to "hot spots," which are secondary bacterial infections. Some dogs are so allergic to flea saliva that they require special treatment to desensitize them. Dips and powders usually will eliminate the adult fleas present.

Flea control requires a knowledge of the life cycle of the parasite. The flea visits the dog only to feed, then it drops off and lays eggs. Any place where the flea-ridden dog sleeps will have eggs which will hatch in a week or two. If the rug is vacuumed, the eggs will be in the vacuum bag and infect your closet. If you go on vacation and close your house for a few weeks, the eggs will hatch and an army of hungry fleas will be waiting to attack your dog and any other warm-blooded creatures which enter. None of the insecticides destroy the eggs, however, foggers are now on the market which can kill adults and larvae in rugs, drapes, cracks, upholstered furniture, etc. Pets will attract most of the fleas in a home and it may be necessary to fumigate the house to keep the situation under control, in addition to regularly treating the animals.

If animals are outdoors, there is no way to fumigate the environment. There are organophosphate insecticides, given by mouth, which are said to be 99% effective in flea control. Many shampoos have ingredients which help control fleas, ticks, and lice. Flea collars are also often effective, as well as dips and powders.

Flea control requires constant vigilance. There is no easy "one-shot" way to do it.

Parvovirus Disease continues to be a primary concern of many dog owners. Unfortunately, because it is something new and of great reader interest, every publication has had articles, many of which contain misinformation. It has been called a "killer disease"

Birth Announcement

As this is being written it is safe to speculate that thousands of calves are being born around the world. However, it is a fact that none of these or any previous births were quite like the appearance of "Virgil," a handsome Holstein calf born on Tuesday, June 9, 1981, at New Bolton Center. Virgil, you see, is the worlds first "test tube calf."

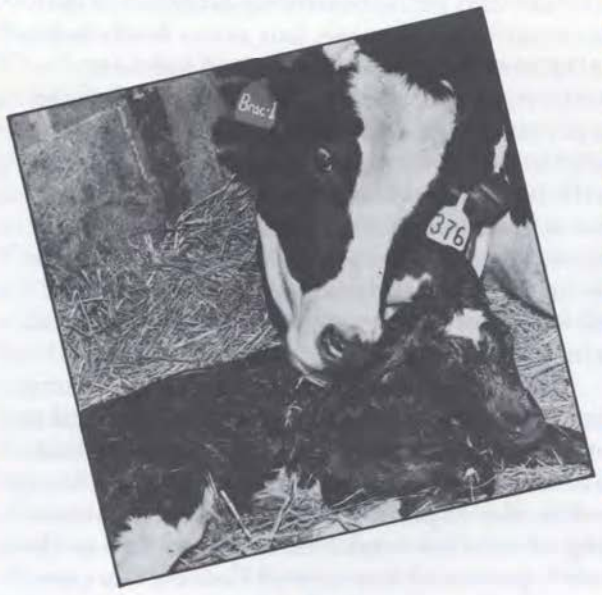
Virgil had his beginning back on September 3, 1980 when specially treated bull semen was used for the *in vitro* insemination of an egg obtained from a donor cow. This sounds rather elementary but actually a number of years of dedicated work had already taken place in order for this laboratory event to occur. For example, in 1968 Dr. Benjamin J. Brackett, who heads the research team responsible for this work, was able to fertilize rabbit eggs in the laboratory and in 1980 showed that the same could be done with bovine ova. In the case of Virgil, it was observed that the egg exhibited evidence of fertilization twenty-four hours after it had been exposed to sperm, and was in the two-cell stage in forty-one hours. After forty-seven hours, the ova had reached the four-cell stage and at that time it was placed in the oviduct (fallopian tube) of the recipient cow. A normal pregnancy followed.

The birth of Virgil represents a major step forward from the commonly used embryo transfer technique. During the last decade thousands of cattle resulted from embryo transfer procedures in which genetically valuable embryos were harvested from donor cows five to twelve days after fertilization, and placed directly in less valuable donor cows who nurture the valuable offspring. Now a major technological barrier has been overcome to enable bovine fertilization to take place when eggs and sperm cells are brought together under exacting incubation conditions that duplicate the normal site of fertilization in the female tract.

While the birth of Virgil clearly demonstrates that normal development can take place after *in vitro* fertilization in the cow, the significance of the research goes further. The work, for example, provides a useful model for more study on animal and human infertility. It opens the way for new technology in animal breeding and in improving the efficiency of food animal production.

Scientific details of the work are scheduled for presentation at the fourteenth annual meeting of the Society for the Study of Reproduction in Corvalis, Oregon, on August 13, 1981.

Dr. Brackett has been working in this field since 1962. The research team headed by him at New Bolton Center included Daniel Bousquet, D.V.M., Ph.D., Canadian Research Fellow; Melinda L. Boice, M.S., Junior Research Fellow; William J. Donawick, D.V.M., Professor of Surgery; James F. Evans, V.M.D., Instructor; and Michael A. Dressel, M.S., Junior Research Specialist.



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although less than 5% of adult dogs affected died.

There is no doubt that this disease causes the loss of many puppies, from the gastrointestinal form in the first two months and the less common heart involvement in older puppies. Continuing research is adding to our knowledge of the disease but there is still much to be learned.

Newer Parvovirus vaccines are available in combination with Distemper, Hepatitis, and other diseases and are being used for the protection of puppies and for "booster" doses for adult dogs. An effective immunization program is the only way to control parvoviral infection. Inactivated and modified live virus vaccines are available. It is necessary to give at least two doses of the killed vaccine several weeks apart to provide protection. A single dose of the modified live product will give protection to 75% of the vaccinates in five days and to 90% of the vaccinates, if a second dose is given in two to three weeks. At this time, it appears that there is no vaccine that is 100% effective. Although the duration of immunity is not definitely understood, "booster" doses every six months are recommended, particularly for show dogs.

Parvovirus infection can be determined by a serological test or by microscopic examination of the intestine post-mortem. The blood test will indicate the antibodies present. If a bitch is blood-tested at the time she is bred, it is possible tp predict how long antibodies in the milk will interfere with successful vaccination of the puppies. Usually puppies are susceptible by eight to twelve weeks of age, but vaccine failures may occur if maternal antibodies are present at this age. It seems that even with the most carefully worked-out immunization program, there will be a period when puppies are susceptible. This emphasizes the importance of keeping puppies isolated from infected dogs which might be shedding the virus.

Parvovirus is a resistant virus. It can live in the environment indefinitely, but can be destroyed by a solution of Clorox (1:10). It is spread by fecal material, so watch your footwear...

We don't have all the answers. Check the source of any rumors or scare stories and be sure the information you have is up-to-date.

Hypercalcemia is now being more often recognized as a result of the widespread use of automated biochemical analyzers and routine determination of serum calcium is included in routine "Chem-Screens."

Writing in the *Journal of the American Veterinary Medical Association*, Frederick H. Drazner, DVM states that an excess of calcium in the blood may cause disturbances of gastrointestinal, neuromuscular, cardiovascular, and renal function.

Diseases which may be associated with hypercalcemia are parathyroidism, hypervitaminosis D, and conditions which result in destruction of bone.

Oversupplementation with Vitamin D, usually in large dogs, can be harmful. The ingestion of jasmine can produce similar results. This is an interesting report because very little information is available on the interpretation of high-calcium values. Normal ranges have been established but, in the absence of clinical signs, a higher value may be of little significance. Results of blood tests must be carefully interpreted. Too much Vitamin D can cause bone problems and lameness—a high serum calcium could be a warning. Get expert advice before using it.

The Aging Phenomenon. At the Annual Meeting of the American Animal Hospital Association, Jacob E. Mosier, DVM, MS, spoke on Canine Geriatrics. His comments included the causes and effects of aging. Under-exercising and overfeeding were given as factors contributing to shortening of life.

Dr. Mosier states that the average life span is somewhat dependent on body size. Small dogs generally live longer than large breeds, with the average ranging from twelve to fourteen years. The maximum is about twenty-seven years, although relatively few dogs reach the age of twenty.

As the dog ages, the hair becomes gray and the skin wrinkled. The incidence of dental disease increases with age. Failing eyesight and reduced hearing ability are common in the old dog.

Veterinarians can provide health care that will minimize problems and maintain health and activity at an acceptable level. The success of such a program depends on the owner's ability to accept and adjust to the additional care needed as the dog grows older.

Send your pet care questions to Josephine Duebler, Animal Crackers, U of P School of Veterinary Medicine, 3800 Spruce St., Phila., PA 19104.