PBGV-COMPREHENSIVE BREED HEALTH SURVEY (updated 3/2009)

INTRODUCTION / BACKGROUND

A convenience survey of PBGV owners was conducted through the internet. A total of 486 dogs and 449 owners were represented in responses to the survey.

Only 134 of 449 owners (30%) were members of a breed organization. A majority of the owners (65%) had owned PBGVs for 1 to 10 years. Primary interests in owning PBGVs were as a pet and for show (92% and 21% respectively). One owner responding to the survey indicated "performance entertainer" as a reason for ownership and "watchdog" and "therapy" were also mentioned once. Forty-four (44) of the breeders indicated frequency of breeding and 80% indicated that they bred their dogs either occasionally or once. Eight bred their dogs 2 to 4 times and only 1 bred the dog more than 4 times. Responses to the question about contact with puppy buyers were interesting. There were 141 responses to the question indicating that a large number of owners who sell puppies do not consider themselves "breeders". Fifty-nine (42%) indicated that they always maintained contact and 32 (22%) indicated that they never or rarely maintained contact with buyers.

Table 1. Years of ownership for 449 PBGVs

| Years of ownership | Number | Percent |
|--------------------|--------|---------|
| Less than 1 | 72 | 16 |
| 1 to 5 | 176 | 39 |
| 6 to 10 | 115 | 26 |
| 11 to 20 | 77 | 17 |
| Greater than 20 | 9 | 2 |
| Total | 449 | 100 |

Table 2. Number of PBGVs owned

| Number owned | Number | Percent |
|-----------------|--------|---------|
| 1 to 5 | 419 | 93 |
| 6 to 10 | 23 | 5 |
| 11 to 20 | 4 | 1 |
| Greater than 20 | 3 | 1 |
| Total | 449 | 100 |

Table 3 Primary interests in breed for 449 dogs reported in the survey.

| Interest | Number | Percent |
|------------|--------|---------|
| Pet | 413 | 92 |
| Show | 111 | 25 |
| Agility | 62 | 14 |
| Breeder | 67 | 15 |
| Assistance | 51 | 11 |
| Obedience | 57 | 13 |
| Field | 47 | 10 |
| Tracking | 34 | 8 |
| Rescue | 14 | 3 |

Two hundred twenty (220, 45%) of the dogs were female and 266 (55%) were male. Most (454; 93%) of the dogs reported in the survey were AKC registered. Seventy-seven percent (77%;373) of the dogs represented in the survey were born in the United States Other birth countries represented in the survey were the Great Britain, Wales, Holland, Scotland, France, Finland, Denmark, Canada and Australia. Three hundred seventy-eight (378) of the dogs lived in the United States. One hundred twelve (23%) of the dogs in the survey are in the DNA Bank at the University of Missouri.

An average height of 14 inches (minimum 10; maximum 30) was reported for 314 adults at least 2 years of age. Three hundred five (305) adults at least 2 years of age were reported to weigh an average of 32 lbs (minimum 14; maximum 63).

Owners of 452 (93%) of the dogs either obtained the dog from a breeder or bred dogs themselves. Fifty eight percent (58%) of the respondents to the survey maintained contact with the breeder. Interestingly 14 (3%) of the dogs reported in the survey were obtained from shelters. Most of the dogs (373; 77%) represented in the survey were obtained before they were 6 months of age.

Table 4. General health of 485 dogs reported in the survey.

| Health | Number | Percent |
|-----------|--------|---------|
| Excellent | 357 | 74 |
| Good | 69 | 14 |
| Fair | 36 | 7 |
| Poor | 23 | 5 |
| Total | 485 | 100 |

Table 5. Age at which general health began to decline

| Age of health decline | Number | Percent |
|-----------------------|--------|---------|
| 0-6 months | 6 | 8 |
| 6-12 months | 6 | 4 |
| 1-4 years | 16 | 20 |
| 4-7 years | 21 | 26 |
| Over 7 years | 30 | 38 |
| Total | 79 | 100 |

PARASITE CONTROL

Use of flea prevention was reported in 295 (61%) of the dogs. Only 8 reactions were reported to flea prevention products and these were: sluggishness, hair loss, and seizure. Flea treatment was reported on 31 (6%) of the dogs and no reactions to flea treatment were reported. Use of products for tick prevention was reported in 193 (40%) dogs and 5 reactions (sluggishness and burning or discomfort) were reported. Nineteen dogs (19; 4%) were treated for ticks and no reactions were reported.

Use of heartworm prevention was reported in 268 (55%) of the dogs and reactions to the preventive were indicated in 9 (2%). Few described the reaction, but the two who did indicated sluggishness or vomiting of 1 form of the medication. Heartworm treatment was reported in 11 (2%) of the 486 dogs and no reactions to the treatment were indicated.

Giardia treatment was reported in 11 (2%) dogs. Diarrhea and vomiting were reported as a reaction to treatment in one of the dogs; however this reaction would be difficult to distinguish from the effects of the giardia alone.

Other parasite treatments reported in the last year by 18 respondents to the survey included Canex wormer, Panacur, Revolution wormer Comfortis, Drontal, Flagyl and pyrantel pamoate suspension.

VACCINATIONS

Owners of one hundred seventy-five dogs (36%) reported changing vaccination protocols within the last year. One hundred sixty-eight vaccinated less and 7 vaccinated their dogs more. Titers were used in 70 dogs (14%). Twenty-four owners (24) used titers yearly, 8 every two years, and 36 every 3 to 5 years. Five reported using titers only once in a lifetime. Use of nosodes (homeopathic alternatives to vaccination) was reported in 11 dogs.

Vaccination reactions were reported rarely in the survey and were mild.

Table 6. Use of vaccines in 486 dogs reported by the survey.

| Vaccination | Number | Percent |
|----------------|--------|---------|
| Puppy series | 440 | 90 |
| Rabies | 420 | 86 |
| Distemper | 370 | 76 |
| Bordetella | 246 | 50 |
| Parvo (killed) | 264 | 54 |
| Hepatitis | 163 | 34 |
| Leptospirosis | 123 | 25 |
| Coronavirus | 120 | 25 |
| Parvo (live) | 109 | 22 |
| Lyme disease | 63 | 2 |

Table 7. Change in vaccine protocols

| Protocol | Number | Percent |
|------------------------------|--------|---------|
| No change | 259 | 53 |
| No longer vaccinate | 52 | 11 |
| Vaccinate for fewer diseases | 21 | 4 |
| Vaccinate less frequently | 147 | 30 |
| Vaccinate more frequently | 7 | 2 |

Table 8. Frequency of vaccination for selected diseases. Values in table given as percent of number reporting. N/A=not applicable

| Frequency | Rabies | Distemper | Bordetella |
|------------------|--------|-----------|------------|
| Number reporting | 420 | 262 | 218 |
| Every 6 months | N/A | 2 | 21 |
| Yearly | 25 | 49 | 61 |
| Every 2 years | 5 | N/A | N/A |
| Every 3 years | 70 | 32 | 7 |
| > every 3 years | N/A | 17 | 11 |

EXPOSURE TO COLORANTS AND PESTICIDES

Only one dog in reported in the survey was exposed to colorants and 23 of 312 (7%) were exposed to pesticides.

REPRODUCTION

Two hundred sixty-five (265) of the 486 dogs (54%) were reported to be neutered (spayed or castrated). Twenty five dogs were neutered at 7-9 years of age. Birth control was used on only 2 dogs reported in the survey.

Table 9. Age at neutering for 261 dogs reported to be neutered in the survey.

| Neuter age | Number | Percent |
|-------------------|--------|---------|
| < 6 months | 25 | 10 |
| 6 months – 1 year | 111 | 42 |
| > 1 year | 125 | 48 |
| Total | 261 | 100 |

Table 10. Reasons for neutering in 217 dogs reported in the survey.

| Reason for neutering | Number | Percent |
|----------------------|--------|---------|
| Personal preference | 113 | 52 |
| Medical | 46 | 21 |
| Breeder requirement | 25 | 13 |
| Unsuitable | 15 | 7 |
| Behavioral | 5 | 3 |
| Adoption requirement | 3 | 2 |
| Age | 10 | 2 |
| Total | 180 | 100 |

Thirty-four dogs in the survey were reported to have whelped. Natural breeding was used in 32 of 39 breedings (82%) and AI with fresh semen was used in 7 (18%). The sire was registered by the AKC (29) or the CKC (1) in 77% of the breedings.

The 34 dogs in the survey were responsible for 58 litters. A C-section was conducted in 12 of 58 (21%) whelpings. The average litter size born alive reported for 54 whelpings was 4.6 (median

5) with a minimum litter of 1 and a maximum litter of 9. The number of puppies weaned was reported for 54 whelpings and the average weaned was 4.6. The maximum number of puppies reported to be weaned was 8. Stillbirths occurred in 11 of 54 (20%) whelpings. The number of still births ranged from 1 (6 whelpings) to 3 (2 whelping). Over 95% of the puppies born were weaned.

HEALTH STATUS

Mortality

Fifty-seven (57; 9%) of the dogs reported in the survey were dead. The average age of death for 41 of the dogs was 9.7 years (minimum-5 months; maximum 17 years). The median age of death was 12 years. Of the dogs that died from an accident, 2 were hit by a car and 2 were attacked by another dog. When illness was the cause of death the diagnosis was confirmed by a veterinarian in 22 of the 23 dogs. A necropsy (autopsy) was performed on 26 of the 29 dogs (90%) that died (The survey this year indicates that only 6 dogs were given a necropsy). Thirty-eight of the 57 dogs (67%) that died were euthanized. One dog was euthanized because of biting and aggression.

Table 11. Cause of death in 56 dogs reported in the survey.

| Cause of death | Number | Percent |
|----------------|--------|---------|
| Illness | 37 | 66 |
| Old age | 13 | 23 |
| Accident | 6 | 11 |

Table 12. Fatal disease conditions reported for 37 dogs.

| Disease | Number | Percent |
|-----------------------------|--------|---------|
| Cancer | 12 | 32 |
| Cushing's disease | 5 | 14 |
| Lyme disease | 3 | 8 |
| Bloat | 1 | 3 |
| Congestive heart failure | 3 | 8 |
| Bleeding problems | 3 | 8 |
| Kidney failure | 2 | 5 |
| Hydrocephalus | 1 | 3 |
| Vestibular disease | 1 | 3 |
| Whelping (toxicity) | 1 | 3 |
| Epilepsy | 2 | 5 |
| Cardiomyopathy/endocarditis | 2 | 5 |
| Pancreatitis | 1 | 3 |

Pathology

General disease conditions / organ systems affected are given in Table 13. Respondents to the survey indicated that disease diagnoses were made either by a veterinarian or laboratory in 91% of the cases.

Table 13. General disease conditions reported in the survey.

| Disease / organ system | Number | Rate / 100 dogs |
|------------------------|--------|-----------------|
| Eye | 31 | 6 |
| Endocrine | 26 | 5 |
| Coronary | 21 | 5 |
| Skin | 16 | 3 |
| Neurological | 15 | 3 |
| Reproductive (female) | 13 | 3 |
| Cancer | 13 | 3 |
| Orthopedic | 13 | 3 |
| Gastro-intestinal | 11 | 2 |
| Ear | 10 | 2 |
| Urinary | 7 | 1 |
| Immune system | 6 | 1 |
| Behavioral | 5 | 1 |
| Birth defects | 4 | <1 |
| Teeth / mouth | 3 | <1 |
| Hepatic | 3 | <1 |
| Reproductive (male) | 2 | <1 |

Table 14. Top fifteen definitive pathological diagnoses indicated by the survey.

| Pathology | Number | Rate/100 dogs |
|-------------------------------|--------|---------------|
| Hypothyroidism | 20 | 4 |
| Persistent pupillary membrane | 15 | 3 |
| Idiopathic epilepsy | 9 | 2 |
| Heart murmur (no diagnosis) | 9 | 2 |
| Allergic dermatitis | 7 | 1 |
| Ear infections (yeast) | 6 | 1 |
| Immune mediated meningitis | 5 | 1 |
| Sebaceous adenoma | 5 | 1 |
| Glaucoma | 5 | 1 |
| Hip dysplasia | 5 | 1 |
| Hyperadrenalcorticism | 4 | 1 |
| Inflammatory bowel disease | 4 | 1 |
| Mitral insufficiency | 4 | 1 |
| Pancreatitis | 4 | 1 |

Hip dysplasia and elbow problems

Sixty dogs were reported to have had their hips x-rayed. Of 51 dogs with reported OFA status 2 (4%) were graded excellent, 23 (45%) were graded good and 24 (47%) were graded fair. Twelve dogs were reported to have either mild (10) or moderate (2) dysplasia. [NOTE: only 5 dogs were reported with dysplasia in the above table from the file on pathology]

Only 33 of the dogs in the survey were reported to have had their elbows x-rayed. There were very few owners who indicated elbow problems.

Summary

The survey this year includes an additional 174 dogs and 91 owners. Changes reported in vaccination protocols in the survey this year reflect a movement away from yearly vaccinations in veterinary medicine.

The survey indicates that the breed in general is healthy. The median age of death reported for 41 of the dogs was 12 years. Disease conditions affecting the eye, endocrine system and cardiovascular system all were reported at a rate of 5-6 per 100 dogs surveyed. Specific disease conditions with the highest rates were hypothyroidism (4 per 100 dogs) and persistent pupillary membrane (3 per 100 dogs).

Only sixty dogs were x-rayed for hip dysplasia and 47% of 51 dogs were graded fair. Dogs with poor hips should not be bred and hip x-rays for all breeding dogs should be encouraged.