



Breeders' Briefcase

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Testing Helps Breeders Achieve *originally appearing in The AKC Breeder Newsletter*

By Theresa Shea, editor

Responsible breeders can use genetic testing to improve the health of their breeds.

Choosing which sires and dams will produce your next generation of show dogs, field trialers and devoted family companions is an arduous, educational and potentially very rewarding process.

Now more than ever before, breeders are able to take advantage of an increasing variety of pre-breeding tests that can tell them essential characteristics about their dogs. After carefully selecting your best bitch or stud dog based on phenotype (those dogs which best conform the AKC breed standard, which specifies the ideal specimen of a particular breed of dog), it's time to take advantage of a wide variety of pre-breeding tests that can help ensure the success of your breeding program.

Start with the basics

It's a good idea to have a semen check performed on an intended stud dog prior to breeding.

"You don't want to use your dog three or four times to find out that he hasn't produced puppies and won't ever produce puppies," said Dr. Frances Paulin, a Connecticut veterinarian and German Shorthaired Pointer breeder. "We just had an incident where someone was bringing in a male to check for semen quality, and there

was nothing there. You want to find the root of the problem. Sometimes there's a question of maturity. Sometimes I might refer a client to a reproductive specialist."

Any veterinarian should be able to perform a semen check, and some experienced breeders do the checks themselves.

"I'll take a bit of the dog's collected semen and put it under the microscope. I usually let the owner look under the scope as well so they can get a feel for what I'm looking for," Dr. Paulin said. "You need to make sure the semen is active, that there is an adequate concentration of sperm and adequate motility."

Breeders should also have their dogs tested for brucellosis, a not-so-common sexually transmitted disease. Brucellosis, an infectious bacterial disease, can cause sterility or spontaneous abortion in affected dogs. It's known as a sexually transmitted disease, but brucellosis can be passed in urine. Dogs can contract the disease by coming in contact with an infected dog's urine, even without having had direct contact with the infected dog.

"We don't see brucellosis very often now, but you certainly want to test for it," said Dr. Paulin. "If your dog has been around other dogs, you could come into contact with it and never know it."

The test for brucellosis is a simple blood test, and results can be available in about 10 minutes. If the test is positive, veterinarians will usually send it to a lab for confirmation.

“Typically what we recommend if a dog or bitch tests positive for brucellosis is spay or neuter,” Dr. Paulin said. “The disease lives in the reproductive tract and could render a bitch or dog sterile.”

“We just don’t hear about brucellosis very often, but the one time you don’t test for it, you may pay for it,” Dr. Paulin said.

Genetic Testing:

Making the science work for you

Each day scientists get closer to identifying more genetic causes for disease and developing tests that identify these diseases or disorders in dogs. Much research and testing is breed-specific.

“We sponsor scientific research today that’s leading to the availability of more and more genetic tools that enable us as breeders to make sound breeding choices and decisions. Genetic testing means that breeders can identify the ailments that affect their particular breeds. Not only can we identify those dogs who show phenotypic signs of disease, we can identify those affected dogs who are carriers for the disease as well,” said AKC Canine Health Foundation President Wayne Ferguson and longtime Saint Bernard breeder.

“Genetic testing is leading to better breeding practices and healthier dogs who live longer. This research allows us to make changes to improve our breeding programs.”

Some of the best ways for novice breeders to find out about genetic disorders affecting their particular breeds are to talk to experienced breeders or mentors in the breed, read the national breed club’s website and publications, visit other websites, such as the Canine Health and Information Center (CHIC), and the Orthopedic Foundation for Animals.

Where do I start?

Carefully choose your bitch or stud dog that most closely matches the AKC breed standards, which specifies the ideal specimen of a particular breed of dog. Then it’s time to take advantage of a wide variety of pre-breeding tests that can help ensure the success of your breeding program. There’s a lot of information out there – much of it breed-specific – about hips, elbows, eyes, hearts, thyroids and more.

If you’re interested in finding out more about the genetic tests available for your breed:

- Consult your breeder mentor and the national breed club or “parent” club for your breed. You may link to the parent club of your choice by visiting the “Breeds” section of the AKC website.
- Visit these essential websites:
 - AKC Canine Health Foundation website
 - Orthopedic Foundation for Animals
 - Canine Health Information Center (CHIC)

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