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The Importance of Maintaining the Genes and Heritage of Working Dogs in Today's World

Scott Thomas, from the U.S. Department of Homeland Security's Transportation Security Administration (TSA) and Program Manager for the TSA's Puppy Program, presented an overview of the global need for working dogs, as well as an in-depth look at the TSA's Puppy Program. Through TSA, our government is in the process of developing their own explosive detection dogs which can then be used as bomb sniffing dogs in airports and mass transit systems throughout the country.

The TSA Puppy Program, which began in 1999, springs from a need for us as a nation to take more responsibility for our own protection. The events of 9-11 instilled a sense of urgency into the plan. A secondary purpose of the Program has been to relieve us of a dependency on working dogs bred, imported and trained in foreign countries, many of which are not bred for the specific uses that TSA has in mind. In the process of attempting to fill their need for single purpose working dogs, TSA has developed a breeding program that emphasizes the application of modern science to improve the breeding and rearing of working dogs.

See the following for a short video of one of their trained dogs in action:

<http://abcnews.go.com/Travel/BusinessTravel/story?id=4726159&page=1>

The TSA program is based on the principal that traditional breeding works. Mr. Thomas gave several examples of successful breeding programs, such as Guide Dogs for the Blind, Canine Companions for Independence, Australian Customs, and the RAAF. He emphasized that in order for breeding programs such as these to be effective, one needs to know the science behind the genetics.

The TSA program has selectively bred 470 dogs, mostly Labrador Retrievers, over the last 9 years; but not all dogs make the explosives detection team. Each dog accepted into the program undergoes health screenings for hips, elbows, eyes, and various other potential genetic ailments. Only the Penn Hip system is acceptable as a means to score their dogs' hip condition.

They have a puppy rearing and adoption plan similar to that of Guide Dogs for the Blind. During their growth phase the puppies are raised and socialized in foster homes, but are returned to TSA at regular intervals for health and temperament evaluations.

The puppies' aptitude for work is assessed every 3 months for the first year of their lives. Evaluations are based on a chase retrieve, a desire to keep possession, ability to fixate on the game, and a strong desire to search. At TSA they believe that puppies help each other through play to develop some of the desired characteristics such as tugging and possessiveness. The testers look for environmental stability (i.e., confidence, concentration, responsiveness, initiative, and hearing and body sensitivities). A high

value is placed on early petting and play so that the puppies develop a strong desire to interact with their handlers.

What they have learned from their breeding program is a need to formulate goals and to develop a strategy to meet those goals. Purpose-bred and purpose-raised dogs have differing expectations. A breeding plan for companion dogs differs from a breeding plan for working dogs.

Mr. Thomas touched on the issue of discriminate vs. indiscriminant breeding as it relates to working dogs; in particular, the issue of utilizing shelter dogs. Mr. Thomas stated that TSA does not utilize shelter dogs because 95% of shelter dogs have no training. They also have little or no known medical or behavior history. On the other hand, a purpose bred dog has a genetic basis for the job it does. The rearing of a TSA puppy is geared towards preparation for a future working career. Their health and behavioral history has been well documented. They require a minimal amount of training, which translates to more useful work in the field. There is a reduction in the cost to train, which translates to less waste and more use.

The ideal TSA working dog will meet a high health standard and will exhibit certain important behavioral characteristics. The Puppy Program at TSA was developed out of the desire to improve the odds of developing as many healthy dogs as possible possessing the desired characteristics for the job. The program managers have made a determination regarding which traits their dogs must possess in order to meet the goals of their breeding program. A value has been placed on these traits, and a program has been set up to increase the likelihood of achieving them. Knowledge of genetics helps determine the heritability and heterosis related to those traits. Their program includes a series of tests by which they feel they can effectively measure the existence and strength of those traits. They have chosen a breeding strategy that they feel will increase the likelihood of producing healthy, dependable working dogs. Finally, the plan is routinely checked for feasibility by making use of the input supplied by knowledgeable, unbiased outside parties.