

# Executive Summary: Scientific studies of dogs and puppies from commercial dog-breeding establishments (puppy mills)

## **BACKGROUND**

Commercial breeding establishments, or puppy mills, are large-scale facilities where dogs are confined in small enclosures for their entire reproductive lives with little to no exercise or positive human contact. The sole purpose of such facilities is to mass-produce puppies to sell them for profit through retail pet stores and via the Internet.

## **SYNOPSIS**

In two large-scale studies of dogs from high-volume commercial breeding establishments (one study focusing on the adult breeding dogs and the other on the puppies sold through pet stores), the evidence showed conclusively that these breeding facilities are highly injurious to both groups of dogs, resulting in severe, extensive and long-term harm to the behavioral and psychological well-being of the dogs.

## Study 1: The adult breeding dogs

## WHAT THE STUDY LOOKED AT

This study compared a wide array of psychological and behavioral characteristics of 1,169 dogs formerly kept for breeding purposes in commercial breeding establishments with pet dogs owned by members of the general public.

## RESEARCHERS

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## THE PUBLISHED PAPER

Mental health of dogs formerly used as 'breeding stock' in commercial breeding establishments. FD McMillan, DL Duffy, JA Serpell. *Applied Animal Behaviour Science* 2011; 135: 86-94.

## WHAT THE STUDY FOUND

- The results showed a broad range of abnormal behavioral and psychological characteristics in the former breeding dogs from large-scale commercial breeding establishments, including significantly elevated levels of fears and phobias; pronounced compulsive and repetitive behaviors, such as spinning in tight circles and pacing; house soiling; and a heightened sensitivity to being touched and picked up.
- The psychological harm demonstrated in these dogs is severe and long-lasting. Much of the harm is
  irreparable and will remain a continued source of suffering for years after the dogs leave the breeding
  facility, in some cases for the entire lifetime of the dog.

## CONCLUSIONS

- Current laws at both the national and state levels are not based on current scientific knowledge of animal psychology, quality of life, suffering, and welfare, and are thus inadequate to protect dogs from the psychological harm resulting from living in commercial breeding establishments.
- Legislation to adequately protect the welfare of dogs in confinement needs to be updated to reflect current scientific knowledge.

To obtain a copy of the published study, contact Dr. Frank McMillan (dr.frank@bestfriends.org).

# Study 2: The puppies

## WHAT THE STUDY LOOKED AT

This study compared the psychological and behavioral characteristics of 431 adult dogs who were purchased as puppies from pet stores with adult dogs purchased as puppies from small-scale, private breeders.

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## THE PUBLISHED PAPER

Differences in behavioral characteristics between dogs obtained as puppies from pet stores and those obtained from noncommercial breeders. FD McMillan, JA Serpell, DL Duffy, E Masaoud, IR Dohoo. *Journal of the American Veterinary Medical Association* 2013; 242: 1359-1363.

## WHAT THE STUDY FOUND

- Dogs obtained as puppies from pet stores received significantly less favorable scores than breederobtained dogs on most behavioral variables measured. Compared with dogs obtained as puppies from
  noncommercial breeders, dogs from pet stores had significantly greater aggression toward human
  family members, unfamiliar people and other dogs; greater fear of other dogs and typical life events;
  and greater separation-related problems and house soiling.
- For no behavior evaluated in the study did pet store dogs score more favorably than noncommercial breeder dogs.
- The chances of a dog developing serious behavior problems is much higher for dogs purchased as puppies from pet stores, as compared to dogs obtained from small, noncommercial breeders.

#### CONCLUSIONS

 On the basis of these findings, combined with findings from earlier small-scale studies of dogs obtained from pet stores, until the causes of the unfavorable differences detected in this group of dogs can be specifically identified and remedied, the authors of this study withhold any recommendation that puppies be obtained from pet stores.

- Dogs sold by pet stores are misrepresented to consumers as a high-quality product, because the data now shows that consumers are not receiving what they believe they are paying for. The increased risk of behavior problems that pet store customers face as their dog matures includes aggression issues, which pose a significant risk of human injury. Consumer protective legislation is urgently needed in this area.
- Legislation to improve the conditions in the large-scale commercial breeding facilities supplying puppies
  to pet stores is needed to assure that the puppies are not at any increased risk of maturing into adult
  dogs with serious behavior problems.

To obtain a copy of the published study, contact Dr. Frank McMillan (dr.frank@bestfriends.org).

## **Overall Conclusions**

- Current laws provide inadequate protection against harm to breeding dogs and puppies associated with commercial breeding establishments.
- Consumers purchasing puppies from pet stores are unknowingly assuming a risk of difficult and serious behavior problems in their dogs, including dog behavior that can endanger their own safety.
- If dogs are to be bred to produce puppies for sale, all of the dogs and puppies should be assured a decent quality of life based on the most current scientific research.

## For More Information

For more about Best Friends Animal Society, go to **bestfriends.org**. To learn about Best Friends' puppy mill initiatives and what you can do to help, visit **puppymills.bestfriends.org**.