ABC's of Dog Breeding
What Every Breeder Should Know!

By Claudia Waller Orlandi, Ph.D.
For information on obtaining a hard copy of the _ABC's of Dog Breeding Home Study Program_ please contact the American Kennel Club at www.akc.org

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*Cover drawing by Guillermo González.*
This book is dedicated to breeders everywhere, who share a passion for dogs and the belief that there is always more to learn!

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Claudia’s involvement with the dog fancy began in the 1960’s as a Junior Handler of the St Bernard, Ch Bowser Waller. Although she has shown various breeds of dogs since, for over 25 years her passion has been breeding Basset Hounds. The Orlandi’s Topsfield Kennel is located on 200 acres in Vermont and can house between 40 to 50 Basset Hounds. Claudia and her late husband, Dom, have owned and produced over 140 champions. Topsfield Bassets hold various Breed and All-Breed records and include National Specialty winners at all levels. Nationally campaigned Bassets include Ch Topsfield Bumper Cars, CD, ROM; Ch Topsfield-Sanchu Sports Car, ROM; Ch Topsfield Beethoven; Ch Topsfield Vision Silver Noodles; Ch Topsfield-Sanchu American Express; and Ch Topsfield-Sanchu Eenie Meenie Miney Mo, all handled by Bryan Martin. Ch Topsfield-Sanchu Yahtzee, Ch Sanchu-Topsfield Go Cars; Ch Topsfield Mozart; and Ch Topsfield-Sanchu Pop Art O’Bridi were handled by Sue Frischmann. Bumper Cars, a National BISS Winner, was the Number One Hound All Breeds in 2001 and Number Two Hound All Breeds in 2002. Winner of 45 Bests in Show, he is the top Group Winning Basset Hound in the history of the breed with 250 group firsts. Ch Topsfield-Vision Silver Noodles is the top winning Basset Hound bitch in breed history. Topsfield Basset Hounds have won over 100 All Breed Bests in Show, over 500 Group Firsts and numerous Best in Specialty wins, including 3 National Specialty Bests of Breed. They have also received a record breaking 4 Hound Dog of the Year Awards, which is awarded to the hound winning the most group firsts in a calendar year. They have been Number One Basset Hound All Systems for a record 11 consecutive years.* Topsfield Bassets hold a unique 2002 BHCA National Specialty record, receiving Winners Dog and Reserve Winners Dog, Winners Bitch and Reserve Winners Bitch, 3 Awards of Merit and BOS in Sweeps under 4 breeder judges at that one National Specialty (entry of 330). Topsfield bred a 2003 Top Producing Basset Hound Sire and the 2002, 2003, 2004 and 2009 Top Producing Basset Dams. Ch Topsfield Jingle Bells, ROM, is the Top Producing Basset Hound Dam in breed history, with 21 titled offspring.

Claudia has served on the Basset Hound Club of America’s Health and Research Committee and has chaired Member Education for which she has designed an innovative concept called Basset Hound University. She has been Chairman of BHCA Judges/Breeders Education and for many years authored the column, “Breeder’s Toolbox,” in the BHCA newsletter. She has spoken at numerous National Specialties and dog clubs and has been a speaker for the AKC/CHF Breeder’s Symposia, the Eukanuba Breeder’s Symposium and various AKC Judge’s Institutes. She developed the home study program for breeders called the ABC’s of Dog Breeding, which is sponsored by the American Kennel Club and the Canine Health Foundation and conducts the following seminars: The ABC’s of Dog Breeding; Practical Canine Anatomy & Movement; Hands-On Angle Evaluation in Dogs and the BHCA Judges’ Education Seminar on the Basset Hound. She judges Basset Hounds, Dachshunds, PBGV’s, Beagles, Basenjis, Rhodesian Ridgebacks and Junior Showmanship. She is a 2009 Dogs in Review Outstanding Breeder nominee and winner of the 2009 American Kennel Club Breeder of the Year award. *Dog News Top Ten
Welcome To The

**ABC’s of Dog Breeding!**

As more people enter the rewarding world of dog breeding, the need increases for **easy-to-understand explanations** of the **genetic principles** that are **necessary** to become a successful dog breeder. Based on extensive work in the field of domestic animal breeding, the *ABC’s of Dog Breeding* takes a layman’s approach to the art and science of breeding and collects in one volume the **need to know** tools and rules used by master breeders. The greater a breeder’s understanding of **genetic concepts** and how a dog’s **traits are passed from one generation to the next**, the better his or her chances of producing beautiful, healthy dogs, that are **genetically superior with the whelping of each new generation**.

**The Challenge of Learning How To Breed Dogs**

It is an unfortunate fact that, in general, the average hobby breeder has few options regarding **traditional programs of study on how to breed dogs**. Unlike the aspiring weekend chef, who can enroll in cooking classes at a nearby college, or the would-be photographer, who can hone her skills at a school of photography, unless one is fortunate enough to have an experienced mentor, in most cases, aspiring dog breeders must chart their own course of study based on what has been published in the field of dog breeding. Hindering the process is the fact that **many valuable works on breeding and practical genetics are out of print**. The insightful works of Malcolm Willis, come immediately to mind.
The ABC’s of Dog Breeding Home Study Program was developed to help fill the need for an easy-to-understand course of study on dog breeding and is suitable for club structured breeder’s education.

Designed to be used as a course for breeders, the ABC’s of Dog Breeding is accompanied by Fill-in-the-Blank and Matching practice exercises.

Bark Smart Cards use a flashcard concept to help breeders test their knowledge about the basic principles of dog breeding!

Question: Name 4 examples of mating systems.
The ABC’s of Dog Breeding
Home Study Program

The Course Design

The *ABC’s of Dog Breeding* is designed to be used as a *fundamental course of study* on dog breeding for breeders of all breeds and is an *excellent option for Parent Clubs* looking for a foundation course on dog breeding for their *breeder education programs*. Genetics is a science and the same genetic principles apply to all species of domestic animals and all breeds of dogs. The *ABC’s of Dog Breeding Home Study Program* focuses on *convenience and flexibility* and allows breeders to *work at home* and *complete the course at their own pace*. The *Program* consists of three components: *Lessons*, a series of *practice exercises* and flashcards called *Bark Smart Cards*.

The ABC’s Course

The *ABC’s of Dog Breeding* course can be considered a *handbook of key concepts* from the fields of animal breeding and canine genetics. *Important points are indicated in bold type and are underlined*. Discussions of genetic principles are made less intimidating with the use of clip art and cartoons.

Two features of each chapter are *Real Life Stuff* sections, which serve to highlight especially important or frequently misunderstood breeding concepts, and *Bark Smart Charts*, which summarize key points.
In keeping with the simplistic approach to explaining genetic concepts, **math has been kept to a bare bones minimum** in the *ABC’s of Dog Breeding*. With the exception of the rare individual who has an advanced degree in mathematics, very few dog breeders are enthralled by the math and equations that are the backbone of animal breeding and science! Because dog breeding is not driven by the computerized data bases of performance records which can typify the breeding of livestock species, becoming a successful dog breeder does not require the use of or a background in mathematics. Mathematical equations serve to demonstrate or prove the validity of genetic principles, but in and of themselves are not necessary to learning and using genetic principles in a dog breeding program. When it is necessary to refer to important mathematical information that can benefit the dog breeder, it appears in the form of easy-to-use reference charts.

Written from a layman’s perspective by a breeder for breeders, throughout the writing of the *ABC’s* course, the guiding principle is: **How important and practical is a particular genetic concept to a dog breeding program and is the explanation as simple as possible?** Most high school students are capable of understanding the *ABC’s of Dog Breeding Home Study Program.*
The second component of the *ABC’s of Dog Breeding Home Study Program* is a series of practice exercises, which are designed to help breeders understand and learn the concepts presented in the lessons. Practice exercises use **Fill-In-The-Blanks** and **Matching** formats. Answers to all questions are also included so that breeders can immediately check their responses. The more material dog breeders commit to memory, the better their chances of remembering to use this knowledge in their breeding programs.

### SAMPLE FILL-IN-THE BLANK QUESTIONS

<table>
<thead>
<tr>
<th>type-to-type</th>
<th>linebreeding</th>
<th>inbreeding</th>
<th>intensity</th>
<th>unlike-to-unlike</th>
<th>outcrossing</th>
<th>parents</th>
</tr>
</thead>
</table>

1. To fix traits in a breeding program, a breeder should use the genetic systems of *inbreeding* or *linebreeding*.

2. The difference between inbreeding and linebreeding is the degree of *intensity*.

3. In general, matings involving *parents* and siblings are considered inbreeding.
For breeders who wish to test their knowledge and understanding of the material presented in the *ABC’s of Dog Breeding* program, the American Kennel Club will send a **Certificate of Completion** to those individuals who successfully complete the **ABC’s Test** questions on the American Kennel Club breeder education website. The Test questions use **True and False** and **Multiple Choice** formats.

The **Fill-In-The-Blanks** and **Matching** exercises, which accompany this publication, are **practice questions** which are designed to **prepare** those breeders who wish to test their knowledge on the AKC’s breeder education website.
A series of flashcards called *Bark Smart Cards* accompanies the *ABC’s of Dog Breeding Home Study Program*. Below are 2 examples of *Bark Smart Cards* based on material in the textbook.

### Sample Bark Smart Cards

**Question**

What percent of a puppy’s genes come from its sire and what percent come from its dam?

**Answer**

50% come from the sire and 50% come from the dam.

**Question**

*True or False:* Too much inbreeding “creates” genetic defects.

**Answer**

False. Recessive genes that cause genetic defects already exist. With inbreeding they are more likely to come to the surface.

After **reading each lesson** it is recommended that breeders review the corresponding *Bark Smart Cards* for that particular lesson. Flashcards are one of the best ways to **learn new information quickly and easily**.
The course also includes a feature called **Bark Smart Charts**, which provide **summaries of key concepts** that were presented in each chapter. A **Bark Smart Chart** is found at the end of every lesson in the course. Following is an abbreviated example of the **Bark Smart Chart** from **Lesson #3: Pedigree**.

1. The pedigree is never more important than the dog itself.

2. The more information on the ancestors in a pedigree, the more useful the pedigree is.

3. The higher the heritability of a trait, the more likely the puppies will resemble the parents in this trait.

4. Inheritance from grandparents tends to be unequal.
The Breeder’s Toolbox

The goal of the *ABC’s of Dog Breeding* Home Study Program is to take a *practical, step-by-step approach* to the *art and science* of dog breeding by focusing on 7 key lessons. These include (1) *genetics*, (2) *breeding systems*, (3) *pedigree*, (4) *selection*, (5) *anatomy*, (6) *kennel blindness* and (7) *genetic defects*. Understanding each one of these components can help breeders put together the pieces for a more successful breeding program.

1. Genetics

2. Breeding Systems

3. Pedigree

4. Selection

5. Anatomy

6. Kennel Blindness

7. Genetic Defects