

# WAGG'N TAIL



*January 2020*

## *Officers*

President Bill Murray 531-0432	Vice-President Mark Eby	Recording Secretary Candee Foss	Corresponding Secretary Bonnie Ames 588-6430	Treasurer Michele Murray 531-0432
Show Chairman Stacey Davis 546-0455	Board of Directors Chuck Ames Mark Glaman	Judges Selection Linda Riedel ramblewoodess@gmail.com	Historian Handling Class Bonnie Ames 588-6430	Newsletter Cheryl Stevens Draymia@gmail.com

<b><u>NEXT MEETING</u></b>  <b><u>No</u></b> <b><u>January</u></b> <b><u>Meeting</u></b>	<b>Board of Directors Meeting</b>  Board Meeting will be at the Family Expo Set-up on Jan 23 <sup>rd</sup> .	<b><u>DUES ARE</u></b>  <b><u>DUE</u></b>  <b><u>FOR 2020</u></b>
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## **Need someone to take over Newsletter duties**

MOST ARE SENT VIA EMAIL AND WITH ONLY A FEW BY SNAIL MAIL. PLAN ON 1-3 HOURS A MONTH. CHERYL—DRAYMIA@GMAIL.COM

## **Junior Showmanship Scholarship**

### **Raffle Items**

***For 2020 Shows!***

Poop Bags      First Aid Kits

Travel Packs or boxes of Kleenex

Shower Gel      Paper Towels      Dog Toys

Granola Bars

Hand Sterilizer      Lint Rollers

MICROWAVE POPCORN

**See something of interest?**

**See something fun?**

**Bring them**

### **Handling Class** **Wednesdays 7:30** **4 Paws Dogworks**

Jan 8 - Bonnie & Chuck

Jan 15 – Kim & Bruce

Jan 22 – Cindi McInturf

Jan 29 – Mark Eby

2765 Kingsgate Way Richland, WA

Dogs need to be current on their vaccinations and handlers need to sign a waiver if you have not already done so.

### **Want to suggest a Judge?**

Contact Linda Riedel at

[ramblewoodess@gmail.com](mailto:ramblewoodess@gmail.com)

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## **FAMILY EXPO** **HAPO (TRAC) ON Rd 68 in Pasco** **January 24<sup>th</sup> & 25<sup>th</sup>**

**Contact Bonnie Ames for time to bring your “very” kid friendly Dogs. A great opportunity to socialize puppies and answer questions for the public!**

# Three key strategies to reduce genetic disorders in dogs

*By Carol Beuchat PhD*

In many breeds, dodging genetic disorders is becoming a significant problem because troublesome recessive mutations can be widespread in the population. The need to avoid producing dogs that are homozygous for a particular mutation drives the search for the gene and subsequent development of a genetic test. In many cases, these efforts are funded by breeders who believe that "identify-and-eliminate" is the best strategy for dealing with the problem. (See [Managing genetic disorders: "Just eliminate the bad gene"](#).)

You can appreciate the futility of this search-and-destroy strategy when you see that even now, [the number of known disorders in dogs outstrips the available tests](#). This is genetic whack-a-mole, and it will be no more successful in eliminating genetic disorders in dogs than the strategy of trying to rid your yard of moles by shooting just the ones that stick their heads out of a hole.

Claiming that a dog is "health tested" and therefore a good candidate for breeding is wholly misleading when there might be 5 available tests for a breed, but there are also dozens of known disorders without tests and more appearing every day ([What does "health tested" really mean?](#)).

We are trying to eliminate lung cancer without giving up cigarettes. We can spend millions on research and testing to battle genetic diseases in dogs, but we cannot win this fight unless we change the breeding strategies that produce the problems in the first place. [Most genetic disorders in dogs are caused by recessive mutations](#) that have been lurking harmlessly in the gene pool for hundreds of generations. They suddenly become a problem because of the way we breed purebred dogs, by inbreeding in a closed gene pool. The level of inbreeding in a closed population will increase relentlessly, and as homozygosity increases so will the expression of disease-causing mutations. This is not just predictable, but inevitable.

In an ideal world, studbooks would be open to the introduction of new dogs that could benefit the gene pool, and there are a few kennel clubs that are now permitting and even encouraging this. But whether the gene pool is open or closed, producing healthy animals requires a healthy gene pool, and for this breeders need to practice sound strategies for genetic management. In an open gene pool, this will prevent the development of problems, and in a closed one it will reduce the incidence of genetic disorders and the rate of genetic decline.

Here are three basic principles of sound genetic management that breeders can adopt to reduce the frequency of genetic disorders in their breed.

## 1) ***Increase the number of breeding animals***

[Smaller populations become inbred more quickly](#), so the simplest way to reduce the rate that inbreeding is to maintain a larger population of breeding animals. The easiest way to do this without producing an oversupply of puppies is to increase the number of different sires being used in breeding. Instead of a few individuals producing most of the next generation, limit the number of breedings per individual and make use of more dogs.

## 2) ***Eliminate popular sires***

Popular sires are a double whammy on the gene pool. Not only do they reduce the number of male dogs contributing to the next generation by doing more than their fair share of breeding (see #1 above), they also distribute dozens or even hundreds of copies of their mutations (and ALL dogs have mutations!) in the puppies that they produce. The pups might all be healthy because they got only one copy of a mutation, but a generation or two down the road, those mutations will start showing up in pairs and suddenly breeders will find themselves dealing with a new genetic disease that seemingly came out of nowhere. In fact, the new genetic problem is the completely predictable result of a breeding strategy that creates many copies of a particular dog's mutations. Blaming the dog ("We didn't

have this awful problem until Fido introduced it to the breed!") is only an effort to deflect responsibility, because every breeder that used him as a sire participated in creating the resulting genetic problem. (For more about this, read [The pox of popular sires.](#))

### 3) ***Use strategic outcrossing to reduce inbreeding***

In many breeds, there are genetically-distinct subpopulations of dogs. They might represent bench versus field lines, color or coat varieties, geographic areas, size, or some other factor. Because they carry genes that will be less common in other groups, they can be used to reduce the level of inbreeding in a litter of puppies. The number of loci that are homozygous (with two copies of the same allele) will be reduced, and therefore the risk of expressing a recessive mutation will be less. An outcross every now and then can be sufficient to reset the inbreeding to a healthier level.

By the way, you will hear some breeders claim that outcrossing will introduce new genetic disorders to your dogs. But if you understand how recessive genes work and you practice good genetic management, those new mutations are no different than the ones already in your lines - they won't cause any problems unless you create puppies that inherit two copies in the same one. New mutations will have low frequencies in the population, and sound genetic management will keep it that way. (See [Using inbreeding to manage inbreeding.](#))

### ***Three key strategies to reduce genetic disorders***

Every dog - in fact, every animal - has mutations that could potentially cause disease, and don't let anybody try to claim that *their* dogs are any different. The key to producing healthier dogs is breeding in a way that reduces the chance that an animal will inherit two copies of the same mutation. Doing the available DNA tests for a breed then producing a litter with an inbreeding coefficient of 20% is self-defeating and just asking for trouble.

Money to identify mutations, develop tests, and screen potential breeding stock is all for naught if we are using breeding strategies that are specifically designed to increase homozygosity of the genes for desirable traits, because homozygosity of mutations will necessarily increase as well. You cannot do one without the other.

If we're serious about reducing genetic disorders in dogs, the things we must do are simple and clear. It is responsible breeders, not researchers and DNA tests, that will reduce the burden of genetic disease in dogs.

## ***Are animal rights activists winning?***

By [Amanda Radke](#) on Dec 9, 2019 at 8:23 a.m.

We're losing ground to animal rights activists, and it's time for the agricultural industry to sit up straight and pay attention.

Slowly but surely, these well-oiled lobbyists are chipping away at our personal freedoms and liberties. Should they have their way, meat, dairy and eggs will no longer be on the menu; pets will be citizens; and animals for use in zoos, circuses, medical research, carriage rides, dog sledding and other commercial purposes will be extinct.

Sound far-fetched? Perhaps not. Get a load of recent developments that are unfolding in the animal rights arena.

For starters, last week President Donald Trump signed into law the Preventing Animal Cruelty and Torture Act. Passed unanimously by Congress, on the surface, the act appears to protect animals from abuse, and it's important to note the exemptions on veterinary care, euthanasia, hunting, slaughtering animals and farm animal husbandry are included in the language.

However, even despite good intentions, this act creates vulnerabilities for animal owners.

In a statement, The Cavalry Group, an organization that works to protect and defend animal enterprises, said in a release, "The danger of this (now) law is in the vague language and definitions which will become the gateway for future amendments. And because it was an ACT and not a bill, it can and will be easily amended and have Rules promulgated under this Act. Many of you have witnessed this under the Animal Welfare Act and Horse Protection Act which some have not been favorable to animal owners or their animal related businesses."

Despite the language that exempts farm animals, you better believe animal rights activists have their sights set on the agricultural community next.

In an interview with Vox, AJ Albrecht, Mercy For Animals senior policy adviser and counsel, said, "The exceptions encapsulate all the animals that we here at Mercy For Animals advocate for," adding that "hunted and farmed animals are afforded very, very few protections under the law."

Anytime animal welfare is on the ballot, citizens will support it because of their compassion for animals. Their kind hearts are wonderful; however, there can be unintended repercussions that lead to greater animal suffering worldwide and higher grocery store bills.

Another example is in California, where animal owners are challenging Proposition 12, a measure passed in 2018 that sets minimum space requirements for veal, breeding pigs and egg-laying hens, while also forbidding the sale of raw veal, pork or eggs from animals enclosed in too little space.

According to Reuters, "The North American Meat Institute argued that enforcement would hurt producers and consumers by increasing food costs, and violated the U.S. Constitution's Commerce Clause by requiring out-of-state producers to comply or face the sales ban."

However, despite protests, a federal judge in Los Angeles refused to halt the voter-approved measure.

And then there's the Wildlife Corridors Conservation Act of 2019 (S. 1499), endorsed by the Humane Society of the United States.

Of the bill, Protect The Harvest says, "S. 1499 reads as follows, 'To establish National Wildlife Corridors to provide for the protection and restoration of certain native fish, wildlife, and plant species and for other purposes.' We have a very important question. What does the bill mean by the statement, 'for other purposes?' This seems to be left intentionally vague so that it may be manipulated and enforced at will."

These are just a few examples of the many ways activists are messing with our futures, and with any of these acts, bills and other pieces of legislation, the devil is in the details.



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