

Directors report February 26 through March 1st

By Grace Harris

Our new APHA president is Susie Shaw. The new 6 committee member is Karen Thomas.

2016 Workshop and convention Was the biggest one ever, with around 300 delegates And it was reported that we are growing faster than AQHA which is a feather in our cap. I saw a lot of younger members, which is good news.

Article IX State/provincial regional clubs Are required to Carry an APHA membership during their term of office; just a little advice from me; Get a lifetime membership Because I did 35 years ago And it's been a real bargain then you don't have to worry about paying for it each year.

New rules will go into effect for 2017 unless otherwise noted.

RG 110 Stallion breeding report E; All breeding Stallions Are required To be Genetic Tested by DNA and have a genetic Disease panel Test on file with APHA prior to the registration of their foals that result from breeding occurring after January 1st 2018 The genetic Disease panel test includes HYPP, PSSM, MH, GEED, HERDA and OWLS The test results which Will be available to all APHA members. Only a \$125.00 lab Fee the labs can test for the white gene now, saving breeders the wasted expense of breed fees and care of the mare and getting diseases and no white. It wouldn't totally eliminate crop failures, would help with the percentages.

All the rules that were posted didn't get out of committee for the workshop portion of our convention. One of the rules that did not pass out committee was brought back to the floor by petition: Performance halter horse rule did pass. I'm sure they're going to be working on this rule In the future because it still had some holes in it but they had been trying to get it Passed for quite a few years

Amateur Under Qualifications: # 2 Remuneration restriction; The new "f" certification as an instructor in Equitherapy by professional association of Therapeutic horsemanship International (PATH) Or similar Organizations Recognized by APHA shall not result in amateur ineligibility Passed and will be implemented In 20016 Certificate must be on File with APHA before exhibiting.

Go on the APHA website to read all the rules in their entirety.

EC and Billy Smith have been working on the possibility of moving the APHA office to Fort Worth Stockyards someone is to revamp the old Mule barns which I understand will be no cost to us. APHA would have to pay rent and would rent out our current facilities. The upside is the big beautiful Paint bronze Statues would be seen by more than 800 people which is now the number. There could be a Heritage museum for visitors. We had another Rick Rigsby seminar on the value of communicating he's a very interesting. Reg. club committee David land and Matt Atkins gave a power point presentation on communication with our electronic devices. It's important that we're always positive. If all that seen is bickering on line, will they want to join your club? Once it's out there it never goes away. It has been said "if you're not proactive, you are part of the problem." Reg. club are going to be inspecting bylaws. We're hoping there will be a format online but that's still in the idea stage.

Support the horse Council they have a website and they say that three quarters of the trails aren't up to forest service standards they have been given 85 million to take care of them. But need volunteers.

AjPHA new presidents' policy is to try for a scholarship in every zone.

China has opened up for new horses from the US it still in progress and they seem to like paint horses.

Use e- blast for shows trail rides and any function you want members to participation e-mail or call Julie Haney Staff director of regional clubs.

A Guide to White-Spotting Patterns

- **Tobiano (T):** A dominant white-spotting gene. Expression of the pattern varies, but typically includes white legs; crisply outlined spots that cross the topline somewhere between the withers and tail; normal face markings; dark eyes; two-toned tail.
 - **Reading Your Test Results:** T/T (homozygous for Tobiano); n/T (heterozygous for Tobiano); n/n (no Tobiano gene)
- **Frame Overo (O):** An incompletely dominant white-spotting gene. Expression of the pattern varies, but often includes horizontal white spotting on neck and body giving the impression of white areas "framed" by color. Bald faces and blue eyes are common.
 - **Reading Your Test Results:** n/O (heterozygous for Frame Overo); n/n (no Frame Overo gene)
- **Splash White (SW1, SW2, SW3):** An incompletely dominant white-spotting gene. Expression of the pattern varies, but often includes extensive white on face, legs and belly spots—often appears as if horse has been dipped in white paint.
 - **Reading Your Test Results:** SW1/SW1 (homozygous for Splash White 1); n/SW1 (heterozygous for Splash White 1); SW2/SW2 (homozygous for Splash White 2); n/SW2 (heterozygous for Splash White 2); n/SW3 (heterozygous for Splash White 3); n/n (no Splash White 1, 2 or 3 gene; will be listed separately on report); SW3/SW3 is not known to exist.
 - **NOTE:** These genes are reported individually on your results, and a horse might carry all, some or none of these genes.
 - **NOTE:** Although these three loci share the "SW" prefix, to match the type of pattern they produce, it is important to remember that SW1 and SW3 reside at a different gene in the genome than SW2.
- **Sabino 1 (SB1):** An incompletely dominant white-spotting gene. Expression of this pattern varies, but often includes white markings with jagged edges on face, lower legs and belly, and roaning on the body.
 - **Reading Your Test Results:** SB1/SB1 (homozygous for Sabino 1); n/SB1 (heterozygous for Sabino 1); n/n (no Sabino 1 gene)
- **Dominant White (W5, W10, W20):** A dominant white-spotting genes. Expression of the patterns varies, ranging from slightly increased face and leg markings to sabino-like to almost completely white.
 - **Reading Your Test Results:** n/W5 (heterozygous for Dominant White 5); n/W10 (heterozygous for Dominant White 10); W20/W20 (homozygous for Dominant White 20); n/W20 (heterozygous for Dominant White 20); n/n (no Dominant White 5, 10 or 20 gene). W5/W5 and W10/W10 are not known to exist.
 - **NOTE:** These genes are reported individually on your results, and a horse might carry all, some or none of these genes.

Punnett Square

Remember the Punnett Square from Biology 101? You can use it to determine the likelihood for passing on a particular gene to a foal, if you know the genotypes of both parents.

Example 1: Heterozygous Tobiano bred to non-Tobiano = 50% chance of Tobiano gene inheritance

| | | |
|-----------------------|--|-----|
| | Sire's Test Result: Heterozygous Tobiano (n/T) | |
| | n/n | n/T |
| Dam's Test Result: | n/n | n/T |
| No Tobiano gene (n/n) | | |

Example 2: Heterozygous Tobiano bred to heterozygous Tobiano = 75% chance of Tobiano gene inheritance (including 25% chance of producing a homozygous Tobiano)

| | | |
|----------------------------|--|-----|
| | Sire's Test Result: Heterozygous Tobiano (n/T) | |
| | n/n | n/T |
| Dam's Test Result: | n/n | n/T |
| Heterozygous Tobiano (n/T) | n/T | T/T |

Example 3: Homozygous Tobiano bred to non-Tobiano = 100% chance of Tobiano gene inheritance

| | | |
|--------------------------|---|-----|
| | Sire's Test Result: No Tobiano gene (n/n) | |
| | n/T | n/T |
| Dam's Test Result: | n/T | n/T |
| Homozygous Tobiano (T/T) | | |

Paint Horse Genetics
2016 APHA Convention

- **Genome:** the entire set of genetic instructions found in a cell.
- **Genes:** the building blocks in all living organisms that determine visible traits, like hair color, and non-visible traits, like blood type.
- **Chromosomes:** strings of genes. A horse has 64 chromosomes arranged in 32 pairs, inheriting half from the sire and half from the dam.
- **Locus/Loci:** a specific location on a specific chromosome—think of this like an address. “Loci” is the plural term.
- **Alleles:** variations or versions of a gene.
- **KIT:** a gene responsible for a number of white-spotting patterns
- **Heterozygous:** a genotype comprised of two different alleles.
 - Example: n/T (heterozygous *Tobiano*) or n/O (heterozygous *Frame Overo*)
- **Homozygous:** a genotype with two copies of the same allele; guarantees one copy of that allele will be passed on to offspring.
 - Example: T/T (homozygous *Tobiano*)
- **Phenotype:** the measurable impact of a given genotype on the horse.
- **Genotype:** the specific two alleles present in a horse at a given location in the genome.
- **Dominant:** a gene that requires only one copy of the allele for the effect to be visible in the horse.
 - Example: *Tobiano* is a dominant gene—a horse only needs one copy of *Tobiano* to (typically) express the pattern.
- **Incompletely Dominant:** a gene in which the phenotype of a heterozygote is expressed differently than that of a homozygote.
 - Example: palomino (heterozygous *Cream*) v. cremello (homozygous *Cream*)
- **Recessive:** an allele that is visible only in the homozygous state; none of the known white-spotting patterns are fully recessive.
 - Example: Chestnut or HERDA—a horse needs two copies of the gene for it to be expressed.
- **Melanin:** a type of pigment that’s responsible for the color of skin, hair, etc.
- **Melanocytes:** melanin pigment-producing cells. White-spotting genes influence the migration, function or survival of these cells.
- **Polymorphism:** a variant of a particular DNA sequence, some cause different phenotypes.
 - Example: changing an C nucleotide to a T within the *KIT* gene results in the W20 spotting pattern

I haven't seen Lori Nevins report yet but I'm sure it's got to be fantastic because she's on her laptop all the time and typing away so I could say she's not being paid enough haha and Linda's on rules which is a really hard committee so she's not being paid enough either and Kathy got me some free ice cream that's another story so I guess I'm the one that has to pay her haha. Brandon was in there working too I'm proud of all NW directors that were able to go to convention it's hectic but always a wonderful experience at least for me.

Congratulation; Presidents Club of distinction award certificate went to Southwest Washington Paint Horse Club and Washington State.