All Breed Genetics - FAQs

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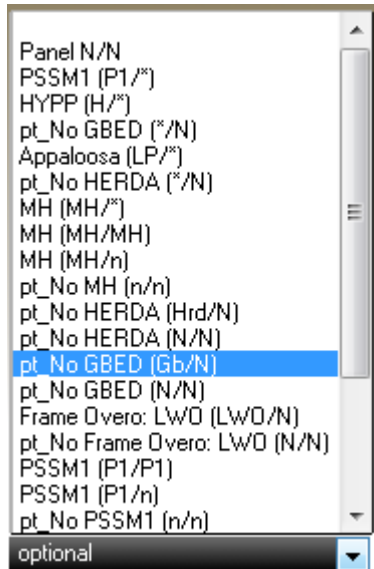
Equine Coat Color: what is the genotype of my horse (if your horse is not color tested)?

Here is a list to help you determine the genotype of your horse's coat color and what you have to select to add your horse in case you haven't tested your horse. *Make sure the "advancedmode" is disabled.*

Color:	Base Color:	Dilution:
Palomino	sorrel/chestnut	Single Cream
Red Dun	sorrel/chestnut	Dun
Red Roan	sorrel/chestnut	Roan
Gold Champagne	sorrel/chestnut	Single Champagne
Dunalino	sorrel/chestnut	Single Cream, Dun
Cremello	sorrel/chestnut	Double Cream
Buckskin	bay	Single Cream
Dun	bay	Dun
Bay Roan	bay	Roan
Amber Champagne	bay	Single Champagne
Dunskin or Buttermilk Dun	bay	Single Cream, Dun
Perlino	bay	Double Cream
Silver Bay	bay	Silver
Sable Champagne	seal-brown	Single Champagne
Smoky Black	black	Single Cream
Grullo	black	Dun
Blue Roan	black	Roan
Classic Champagne	black	Single Champagne
Silver Grullo	black	Single Cream, Dun
Smoky Cream	black	Double Cream
Silver Black	black	Silver

Phenotype versus Genotype – why did we choose this notation?

Why did we choose the notation "pt_No GBED (Gb/N)"?

The Genotype is what the genetics are. The Phenotype (pt) is what you see. And this database tells you both!

If you need any assistance – we are here to help!
This database is designed to serve the breeder and the non-pro!

Example 1 – HYPP:

If a horse carries a single copy of HYPP it is affected. Therefore it is noted in the database that only a horse that is HYPP N/N has "pt_No HYPP".
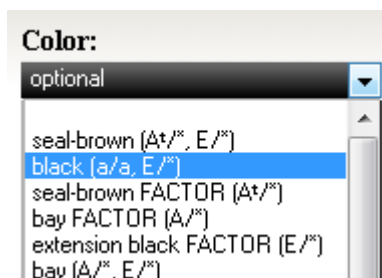
Example 2 – GBED:

A horse that has one copy of GBED (Gb/N) is a carrier but not affected – therefore the database calls this "pt_No GBED (Gb/N)". You will not find the value GBED (Gb/Gb) as this is lethal. If you add a foal and you know that one parent carries GBED but haven't tested the foal yet and it might be a carrier you can choose "pt_No GBED (*/N)" as you know that the foal for sure would only have one copy.

What does the * mean?

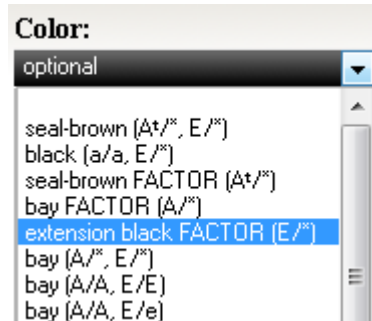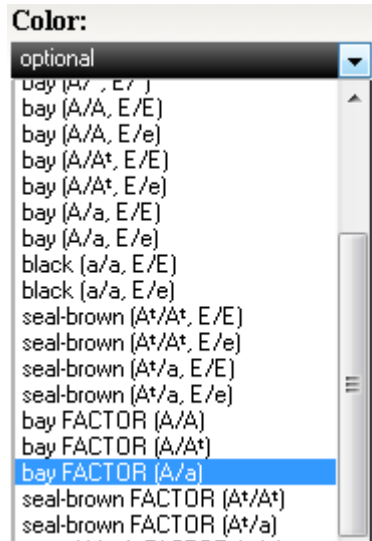The * always replaces an unknown value.

Example 1 – black horse:

You have a black horse but you don't know if it is homozygous black or not (unless you have tested). This is what you choose:

Example 2 – bay horse:

You have a bay horse out of a bay and by a black – so you know it must be Aa but it can be Ee or EE. This is what you choose (two steps):

If you are unsure, do not hesitate to contact us either at the Facebook Group "All Breed Genetics" or the contact on the webpage! We are here to assist!

What is meant by the FACTOR (seal-brown, extension-black, agouti-black)?

The "FACTOR" gives you the chance to search for a horse that carries that specific trait also if it is not visible (like in sorrel/chestnut horses) or if you look for it and don't care if the horse carries it in a homozygous or heterozygous state.

Example 1:

You look for a stallion that carries the "bay factor" as you have a double diluted mare and would like to increase the chance to breed for a buckskin instead of a smoky black – but still don't want to limit your search too much.

Example 2:

You look for a stallion that carries the "seal-brown factor" for your champagne mare as you really like sable champagnes. But you still don't want to limit your search to stallions that are homozygous seal-brown as this might yield only a few ones and will not satisfy some of your other constraints.

Example 3:

You look for a stallion that carries the "extension black factor" as you actually prefer black based horses. But as performance is more important to you, you only select the "Factor" in order to see all eligible stallions for your performance criteria.

How do I verify attributes?

Search for the horse name and then click on "verify". You can upload pictures of your Panel Test or Coat Color Testing. If you would like to verify an obvious coat color attribute like "dun" or "palomino", please upload a good picture (or more than one if you feel this is needed) to proof the color of your horse. If your horse is not tested but both parents are you need to upload a picture of all AQHA pedigrees plus the according test results.

If you upload the official pedigree, we will verify the breed and pedigree link and this alone gives you a better ranking on our search page!

Why should I verify the genetic attributes?

An attribute is verified if an according document is uploaded to proof the correctness of the data submitted. The webmaster of www.allbreedgenetics.com will verify the data in the database with the data submitted and mark each confirmed attribute as verified.

Verified attributes can not be changed anymore by any other user! This gives you the guarantee that the data of your horse is and will stay correct!

PLUS: as the proof of good data quality is an advantage for anybody who looks up a horse, we will place horses higher in a search that has more confirmed attributes as we reward good data quality!

How do I get my horse or stallion placed as high as possible on the search page?

The more attributes you verify, the higher your horse or stallion will rank on the search page as we reward good data quality.

I made a mistake – how do I change a value?

You have added a horse and now you have realised that you made a mistake. Go back to the SEARCH page and search for the horse's name. It will show up and you can EDIT the attribute. You only can edit an attribute that isn't already verified.

VERIFIED ATTRIBUTES CAN'T BE EDITED AND GIVE YOU THE GUARANTEE THAT YOUR HORSE'S DATA ARE CORRECT AND WILL STAY CORRECT.

Verifying attributes by "genetic evidence"

We do accept the verification of attributes according to genetic evidence. Please read through the following examples; they explain how this is done.

1) Verifying the attributes of a FOAL

In order to verify the genetic attributes of a foal, the official pedigree of the foal and the test results for both, Dam and Sire, are required. Please upload all these documents for verification.

Example 1:

You would like to verify the Panel Test for a foal. Sire and Dam are negative. You upload the official pedigree of the foal and the test results for Sire and Dam.

Genetic Attribute:	Sire:	Dam:	Foal (by genetic evidence):
HYPP	N/N	N/N	**N/N**
HERDA	N/N	N/N	**N/N**
GBED	N/N	N/N	**N/N**
MH	N/N	N/N	**N/N**
PSSM	N/N	N/N	**N/N**

In this case all attributes can be verified as N/N from genetic evidence.

Example 2:

Genetic Attribute:	Sire:	Dam:	Foal (by genetic evidence):
HYPP	N/N	N/N	**N/N**
HERDA	N/N	N/N	**N/N**
GBED	N/Gb	N/N	**N/***
MH	N/N	N/N	**N/N**
PSSM	N/N	N/N	**N/N**

In this case GBED can only be verified with N/* as the foal has a 50% chance of being a GBED carrier.

Example 3:

Genetic Attribute:	Sire:	Dam:	Foal (by genetic evidence):
Extension Black	E/E	E/E	**E/E**
Agouti	A/A	a/a	**A/a**
Dun	D/d	D/D	**D/***

In this case Extension and Agouti can be verified from genetic evidence. It can not be determined though if the foal is homozygous dun or heterozygous dun. Therefore this attribute is marked as D/* to indicate the uncertainty until it is tested.

2) Verifying an attributes of the SIRE/DAM

In order to verify an attribute of Sire/Dam by genetic evidence, the official pedigree of the foal is required as well as the genetic information of Dam/Sire. Please upload all required documents.

Example 1:

Genetic Attribute:	Foal:	Sire:	Dam (by genetic evidence):
HYPP	N/N	N/N	**N/N**
HERDA	N/N	N/N	**N/N**
GBED	N/Gb	N/N	**N/Gb**
MH	N/N	N/N	**N/N**
PSSM	N/P1	N/N	**P1/***

If the foal tests positive for GBED and you know that the Sire is negative, the Dam must be N/Gb by genetic evidence. It is not possible that the Dam is Gb/Gb as this condition is lethal.

If the foal tests positive for PSSM P1 and the Sire is negative, the Dam must carry at least one copy of P1. Genetically it is possible though that the mare also could be P1/P1 and therefore the attribute only can be verified as P1/*.

Example 2:

Genetic Attribute:	Foal:	Dam:	Sire (by genetic evidence):
Extension Black	E/e	E/E	E/e
Agouti	A/a	A/A	A/a
Dun	D/D	D/D	D/*

In this case the dun gene can not be verified by genetic evidence as it is also possible that the Sire is homozygous dun (D/D) or heterozygous dun (D/d) . Therefore this attribute is only verified as D/*.

Adding of PSSM positive horses

PSSM is currently discussed very controversial and we want to make sure that all PSSM positive horses in this database are confirmed as such to guarantee immaculate data quality and no false-positive entries. Therefore we require the verification of this attribute. We do accept though entries by genetic evidence also for PSSM positive horses.

More information about a horse…

If you click on the horse name in the search page you will be linked to the horse's Online Pedigree!

What is the Advanced Mode?

In the advanced mode we give those users who are familiar with genetic traits the possibility to choose exactly the right genotype.

If you are not that familiar with genetics and genotypes, just switch off the advanced mode and you will find a menu that most people dealing with horses will understand.

More help?

If you still have any questions, you may visit the Facebook Group "All Breed Genetics" where other members or an admin will help you. You also can write an email to webmaster@allbreedgenetics.com.