

## **BRIEF COLOUR EXPLANATION BUCKSKIN & DUN**

The Buckskin Horse Association of NSW registers buckskins, smokey blacks, duns and grullas in the main Studbook & Appendix. Different genetic factors work on horses to produce buckskin/smokey black and dun/grulla. In this brief overview we will not delve into the detailed genetics, rather we will explain how the different shades and colours occur.

The first point to make is that the presence of a dorsal stripe does not mean that a horse is buckskin or dun. This is a primitive marking that can occur in all colours and is very different to the very distinct dorsal stripe that is found on a true dun.

The various shades and types of colouring which are recognised as Buckskin occur in a variety of breeds of horses. In Australia, the dominant breeds of horses registered by the Buckskin Horse Association are the various pony breeds (Welsh, Australian, Highland, Connemara, Miniature etc) Quarter Horses, Australian Stock Horses and Part-breds of various registries. The Association also registers horses of unknown breeding.

### **CREAM DILUTION GENE**

Cream dilution is the factor that turns a bay horse into a buckskin, a brown into a dark buckskin (burnt buckskin), black into smokey black and chestnut into palomino.

The cream gene does not express on black, that is why the mane, tail and points of a buckskin remain black while the body colour is diluted. Despite what people say, because of this it is not possible to visually distinguish a smoky black (previously known as black buckskin) from a fading or true black.

Where two Cream Dilution genes occur the horse is referred to as perlino (2 cream genes + bay or brown), smokey cream (2 cream genes + black) or cremello (2 cream genes + chestnut). From this you can see that buckskin cannot breed 100% buckskin, a buckskin contains one cream and one non-cream gene and has only a 50% chance of passing on the cream gene.

### **BUCKSKIN**

Buckskin is essentially a body coat colour which includes golden or bronze coloured hair and black skin with a black mane and tail and black or dark brown points. The term Buckskin covers all the variations that occur in these basic colours from pale cream to dark bronze and almost black. It occurs when the cream dilution gene works on a bay or brown coat colour. Light coloured guard hairs may be found growing off the body into the base of the mane & tail. A dorsal stripe may be present but it is not very prominent.

Sometimes Buckskins are further categorised via their shade.

A Seal Point Buckskin is a form of standard Buckskin with a set of pale brown rather than black points. It occurs when the cream dilution gene works over what would be a wishy-washy bay coat

A Burnt Buckskin is a dilute brown and similar to a buckskin only with extreme dark shading of black or brown hairs throughout and will sometimes appear to have a smutty base. It occurs when the cream gene works over a very dark bay or brown base coat colour. Some burnt buckskins are visually so dark that they can be difficult to distinguish from smoky black, genetic testing for the presence of a dominant agouti (A) factor will confirm the correct colour. (Agouti is the factor that a bay or brown horse contains that lightens the base black coat but restricts the black to the mane, tail & points. A black horse is recessive for the agouti allele aa)

## **SMOKEY BLACK**

A Smokey Black (previously referred to as Black Buckskin) is a dilute black and can only be distinguished from a black by its genetic base. A smokey black horse is a cream dilution gene working over a black body coat and can be determined genetically by the presence of two recessive agouti alleles (ie the absence of a dominant agouti allele).

## **DUN GENE**

Dun is an intense colour which is a dark hide with an abundance of pigment in the hairs. Dun differs from Buckskin in the respect that the body colour is a duller shade. The Dun gene will work on all base colours to dilute the coat colour but the mane and tail will retain the base colour as will the very prominent dorsal stripe which widens over the loins and extends into the mane and tail. The base colour is also seen on the ear tips in which the top 1/3-1/2 of the ear is dark (unlike the dark edge only of a buckskin), the dun horse also often has additional stripes across the wither, on the legs and a dark mask on the face.

Unlike buckskin, Dun can occur in a homozygous form meaning that a horse can have two Dun genes and still look Dun. Such individuals will breed 100% Dun foals as they do not have a non-dun gene to throw.

### **DUN FACTOR POINTS:**

Dorsal stripe – may be black, brown or red in colour and will vary according to the body colour. The distinct stripe will run along the backbone from the withers to the tail extending into the mane & tail. The width of the stripe will vary and will usually widen slightly over the loin area. A dorsal stripe can occur in any coloured horse but will be most prominent on a true Dun.

Leg Barring – horizontal stripes of varying widths appear across the hocks, inside and front of hind legs, back of forearms and across the knees.

Ear tips - on a true dun the top 1/3-1/2 of the ear is the darker base colour. On a buckskin the ear is only outlined with a dark edge.

Shoulder stipes or Shadowing – transverse stripes over withers running down the withers in varying widths and lengths. Occasionally more than one stripe is seen in different length. In some cases a large shadow effect is seen due to a large area covered or stripes close together forming the shadow.

Neck Shadowing – usually dark areas through the neck extending into the hollow of the shoulder. Dark shadowing or dark lines will point down from the base of the mane.

Cobwebbing on Forehead – cobwebbing originates under the forelock. Lines extend in varying lengths over the forehead resembling a spiders web. Occasionally lines extend completely around the eye.

Face masking – shading of the darker base colour on bridge of nose with same colour, usually around the eyes. The masking effect may spread to the jaw and muzzle or be outlined around the lips and nostrils.

Mane &/or Tail Frosting – white hairs on either side of mane or inter spread throughout the mane, in the tail, course, white hairs appear at the dock of the tail and they extend down the outside. Frosting always originates at the dock and never from the base of the tail.

Mottling – this is not to be confused with dapples on the horse body. Mottling is found on the forearm, gaskin, shoulders and stifles. It appears as a circular motif in shades darker than the body colour. Mottling gives the appearance of reverse dapples.

Back Barring – this is dark stripes originating from the spine & extending around the barrel giving a tiger striping effect.

Dun can express on all colours, the more common ones are listed below:

**GRULLA** (pronounced grew-yah) is a Dun gene working to change a black body coat. The body colour is described as a mouse colour or blue or dove or slate coloured with black points. Grullas have distinct black dorsal stripes, leg barring and shoulder stripes. The darkest shade of grulla is barely distinguishable from the true black.

**RED DUN** is a Dun gene working to change a chestnut body coat. These will vary in body shades from pale apricot to quite a dark red with darker red points and mane and tail. Chestnut coloured leg barring and shoulder stripes are common on the red dun. A prominent dark chestnut dorsal stripe is present. The face will often show a mask and wither shadowing is common, frosting and socks are accepted.

**BAY DUN** is a Dun gene working on a bay body coat. The colouration can be similar to that of a Buckskin but the Dun will have a very prominent black dorsal stripe, leg barring and a flat tone to the body colour and will also have the half ear tips unlike a buckskin on which only the edges of the ears are black.

Dun can alter any base colour. Other examples are:

**DUNALINO** – palomino + dun. This looks like a palomino with a flat body coat and distinct dark palomino dorsal stripe, leg barring etc.

**DUNSKIN** – buckskin + dun. This can be difficult to distinguish from Bay Dun . The outward appearance is similar to the standard Buckskin with body colour yellow, golden or orange brown but it has a very prominent black dorsal stripe and commonly a shoulder stripe and leg barrings but the body coat will usually be slightly more golden than a bay dun

**PERLINO DUN** - perlino + dun. This is a very light shade of yellow body colour almost appearing to be white. The Perlino Dun has rusty coloured points similar to a perlino. A dorsal stipe with shoulder stripe and leg barring must all be present.

### **DUN FACTOR CLASSES**

No one body colour is preferred. The horse exhibiting the most examples or more prominently than another with equal number of points of the above mentioned points will be declared the winner.

White markings are not prohibited – but point will be deducted at the judge's discretion.

Conformation is not to be considered in a dun factor class. Horses are not given workouts in dun factor classes.