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VISUAL SHEEP SCORES

Producer Version 3 – 2019

awi Australian Wool Innovation Limited
mla MEAT & LIVESTOCK AUSTRALIA

ABOUT THIS GUIDE

Visually assessed traits are included in the breeding objective of all stud and commercial sheep breeders, regardless of their target market or environment.

In 2007, following extensive industry consultation, Australian Wool Innovation (AWI) & Meat and Livestock Australia (MLA) developed the Visual Sheep Scores to:

- Provide the Australian sheep industry with a standardised set of visual assessment scores for the consistent description of important phenotypic traits of all breeds of sheep;
- Develop a quick and simple scoring system to help sheep classers and breeders select sheep on visually-assessed traits to accelerate genetic gain;
- Enable sheep breeders and classers to record and submit visual score data and genetic information to Sheep Genetics to progress development of across-flock Australian Sheep Breeding Values* (ASBVs) for visually-assessed traits; and
- Enable researchers to estimate the heritability of visually-assessed sheep traits, and to measure their relationships, if any, on important production traits such as fleece weight, fibre diameter, growth rate and body weight.

In 2012 and 2018, the Visual Sheep Scores were reviewed in order to update them to the current requirements of the industry.

In addition, the visual standards and scoring system contained in this guide are endorsed by the Australian Merino Sire Evaluation Association (AMSEA), and include all compulsory traits visually assessed at Central Test Sire Evaluation sites across Australia.

Remember, profitable selection is based on identifying traits that have significant commercial value. When selecting traits for your breeding objective, ensure the selection balance is maintained. Be mindful of all traits that determine the commercial profitability and quality of your flock.

* Developed by Sheep Genetics, ASBVs enable ram breeders and commercial sheep producers to compare the genetic potential of rams and ewes for a range of production traits, independent of the environment and location.

VISUAL SHEEP SCORES

This guide provides the Australian sheep industry with a common language for the visual description, recording and classing of all breeds of sheep according to important visual traits.

Visual Sheep Scores are designed for ram and commercial flock breeders that choose to class and select sheep on one or any number of visually-assessed traits as part of their overall breeding objective.

Visual scores gathered on individual sheep may be submitted to Sheep Genetics with other pedigree and performance information to assist the sheep industry with the development of across-flock ASBVs for visually-assessed traits.

Designed for use on both male and female sheep equally, the Visual Sheep Scores provided in this guide have been divided into seven sections:

1. Wool Quality Scores
2. Pigmentation Scores
3. Conformation Scores
4. Cover and Wrinkle Scores
5. Breech Scores
6. Lambing Scores
7. Classing Scores

A set of illustrative standards and simple instructions on 'how' and 'when' to visually score sheep are provided for each trait. However, unless otherwise stated:

- A single score of 1, 2, 3, 4 or 5 is recorded for each trait; and
- Score 1 depicts LEAST expression and Score 5 depicts MOST expression of the trait.

Sheep should be scored relative to the score diagrams in this booklet. The scores should **not** be distributed across the flock being scored from 1 to 5 irrespective of the range in the flock. Sheep should also **not** be scored according to the scorers perception of 'least' or 'most' – sheep must be scored according to the diagrams with the aid of the words that describe the trait.

For traits in which low levels of variation exist, **half scores between the 1 to 5 whole numbers** may be given in order to increase the level of variation recorded within the flock. This may assist to more easily differentiate between animals. If the analysis of the scores is to be carried out in whole numbers, half scores will be collapsed to the score below. i.e. 3.5 score becomes 3 score.

WOOL QUALITY SCORES

Wool Quality Scores provide visual standards for the description of physical fleece and fibre traits that contribute to the economic value of wool.

Wool Quality Scores are available for 6 traits. Visual scores of 1 to 5 are provided for each trait.

With the exception of wool character, Score 1 depicts LEAST expression of the trait and Score 5 depicts MOST expression (i.e. rule of thumb is Score 1 is LESS and Score 5 is MORE of each trait).

Wool Quality Scores can be taken on both male and female sheep at various ages. It is essential to record the age of the sheep when scores are taken, with the optimal age recommended in the table below.

Wool Trait	Age	When
Fleece rot	• Over 6 months	• Anytime, provided a minimum of 5 months of wool growth
Wool colour	• Over 6 months	• Anytime, provided a minimum of 5 months of wool growth
Wool character	• Over 6 months	• Anytime, provided a minimum of 5 months of wool growth
Dust penetration	• Over 6 months	• Anytime, provided a minimum of 5 months of wool growth
Staple weathering	• Over 6 months	• Anytime, provided a minimum of 5 months of wool growth
Staple structure	• Over 6 months	• Anytime, provided a minimum of 5 months of wool growth

FLEECE ROT (FLROT)

Age: Over 6 months and after a significant fleece rot challenge.

When: Anytime, provided a minimum of 5 months of wool growth, and preferably after a significant fleece rot challenge and before dust is deposited in the affected wool.

Definition: Fleece rot is caused by high humidity leading to multiplication of fleece rot bacteria at skin level, causing staining and, in more severe cases, exudate from the skin. Fleece rot score refers to the width of the band in the wool of stain and/or crusting that results from fleece rot bacteria. Stained bands can be yellow, green, red-orange, pink-violet, blue, brown or grey in colour. Crusting results from skin exudate deposited in the wool and when fresh or the fleece is wet it may be soft, however still gives the feel of extra staple thickness.

Note: Fleece rot should not be confused with dermatitis ('lumpy wool'), which tends to form columns of hard lumps along the staple.

How to score: Open the fleece at a minimum of **three sites** along the full length of the backline and look for evidence of bands of stain and/or crusting. The highest score across the sites is recorded as the score.

Rule of thumb: A sheep with Score 1 has no staining or crusting. A sheep with Score 5 has a band/s of 'crusting' greater than 5 millimetres wide, with or without stain.

Score 1:

No band of stain or crusting.

Score 2:

Band of stain <10mm wide. No crusting.

Score 3:

Band of stain >10mm wide. No crusting.

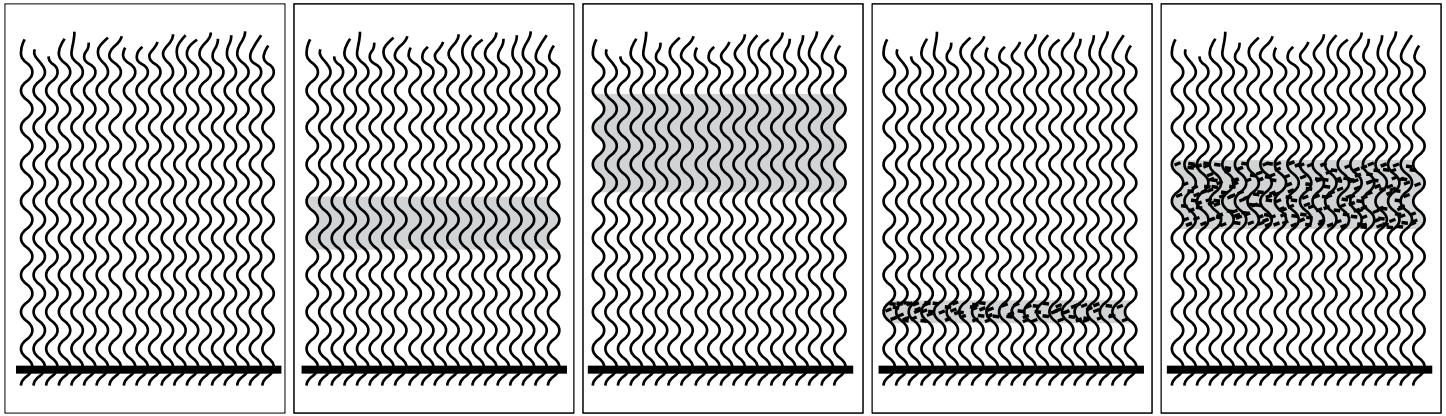
Score 4:

Band of crusting <5mm wide, with or without stain.

Score 5:

Band of crusting >5mm wide, with or without stain.

FLEECE ROT (FLROT)



Score 1	Score 2	Score 3	Score 4	Score 5

WOOL COLOUR (COL)

Age: Over 6 months.

When: Anytime, provided a minimum of 5 months of wool growth.

Definition: Wool colour describes the intensity of whiteness and yellowness of greasy wool. The degree of yellow may vary within a score, however score the intensity of colour.

How to score: Open the fleece at a minimum of **three sites** – side of shoulder, mid-side and hip. The highest score across the sites is recorded. Colour does not need to be present along the entire length of the staple to be recorded. Colour that results from fleece rot should **not** be scored as wool colour.

Rule of thumb: A sheep with Score 1 has the brightest white wool, whereas a Score 5 sheep has a very intense type of yellow.

Score 1:

Has bright white wool.

Score 2:

Has off white wool.

Score 3:

Has mildly yellow wool.

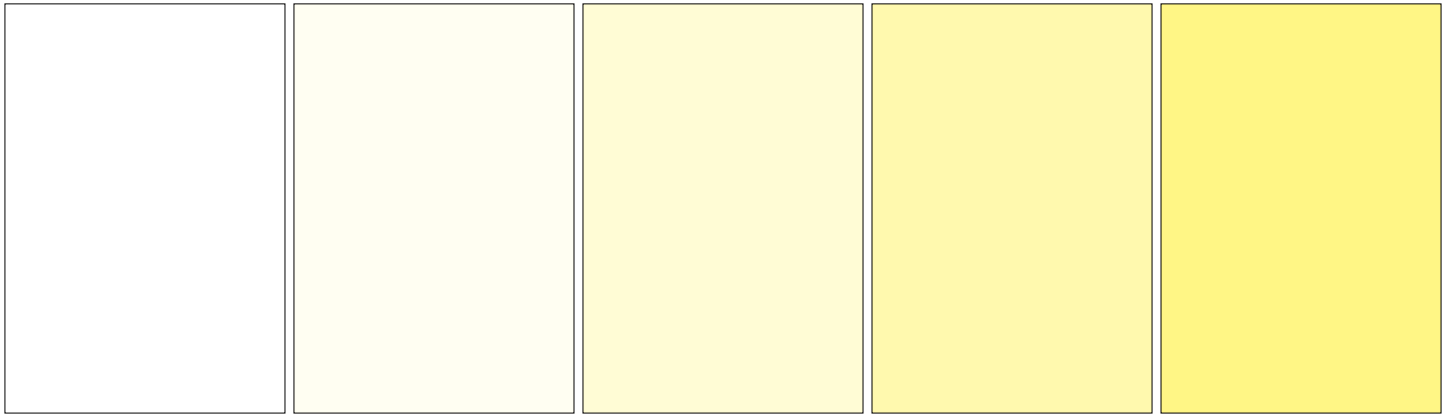
Score 4:

Has intense yellow wool.

Score 5:

Has very intense yellow wool.

WOOL COLOUR (COL)



Score 1	Score 2	Score 3	Score 4	Score 5

WOOL CHARACTER (CHAR)

Age: Over 6 months.

When: Anytime, provided a minimum of 5 months of wool growth.

Definition: Wool character describes the definition of crimp, in terms of both evenness and depth.

How to score: Open the fleece cleanly at a minimum of **three sites** along the middle of the side of the sheep from shoulder to hip. Evaluate the evenness and depth of the crimp along the length of the staples and across all staples at the site. The highest score across the sites is recorded. It should be noted that wool character is not an assessment of crimp frequency (quality count).

Rule of thumb: A sheep with Score 1 has very even and very deep crimp along the entire length of the staples observed at the opening. A Score 5 sheep has 'flat' wool due uneven crimp or crimp lacking depth.

Score 1:

Very even and very deep crimp.

Score 2:

Even and deep crimp.

Score 3:

Crimp is lacking evenness and depth.

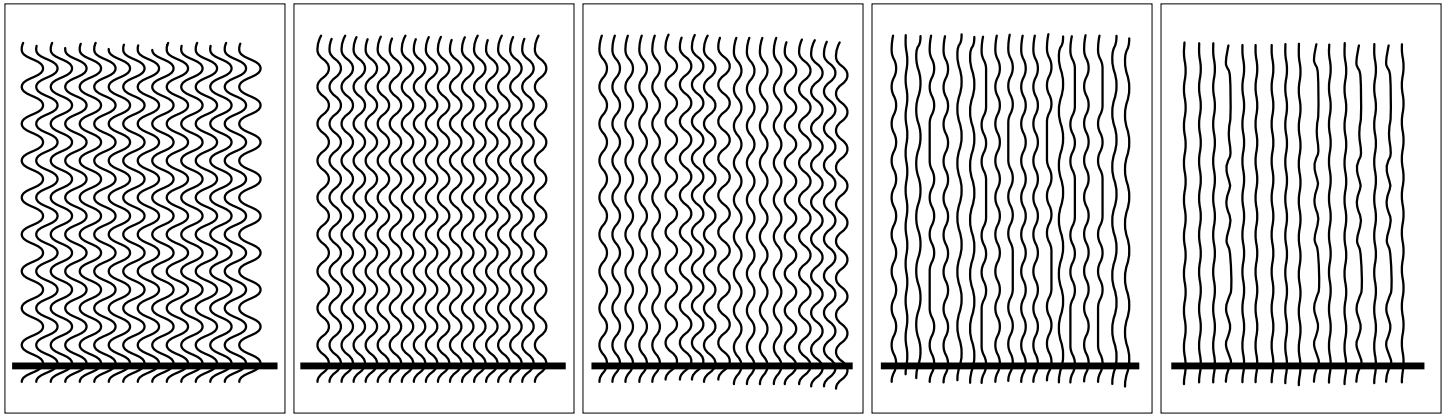
Score 4:

Crimp is severely lacking evenness and depth and the staple starts to look 'flat'.

Score 5:

No crimp evenness or depth and as a result looks 'flat'.

WOOL CHARACTER (CHAR)



Score 1	Score 2	Score 3	Score 4	Score 5

DUST PENETRATION (DUST)

Age: Over 6 months.

When: Anytime, provided a minimum of 5 months of wool growth.

Definition: Dust penetration is the degree of a solid level (not just light or flaky) of dust penetration down the staple.

Note: Dust penetration and staple weathering can be confounding traits. Depending on environment and season, only one trait may need scoring.

How to score: Open the fleece at a minimum of **three sites** along the full length of the backline. The highest score across the sites is recorded as the score. When scoring **rams**, it may be necessary to score along the middle of the side of the sheep from shoulder to hip, to avoid scores being confounded by rams who have been ridden.

Rule of thumb: A sheep with Score 1 has no significant dust penetration. A Score 5 sheep has dust penetration almost all, or all, of the length of the staple.

Score 1:

Staple is free or near free of dust penetration with only the very tip of wool (<6% of staple) affected by dust.

Score 2:

Staple has 6-20% solid level of dust penetration.

Score 3:

Staple has 21-40% solid level of dust penetration.

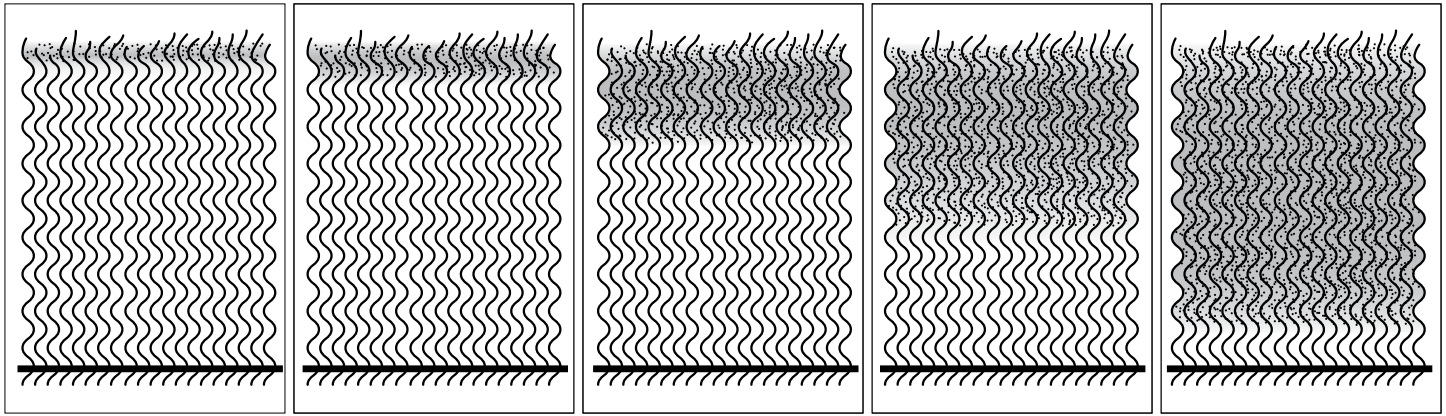
Score 4:

Staple has 41-70% solid level of dust penetration.

Score 5:

Staple has 71-100% solid level of dust penetration.

DUST PENETRATION (DUST)



Score 1	Score 2	Score 3	Score 4	Score 5

STAPLE WEATHERING (WEATH)

Age: Over 6 months.

When: Anytime, provided a minimum of 5 months of wool growth.

Definition: Staple weathering is the degree of deterioration down the staple due to penetration of light and water, i.e. 'swollen' staple, and when more severe, 'paint brush' tip.

Note: Staple weathering and dust penetration can be confounding traits. Depending on environment and season, only one trait may need scoring.

How to score: Open the fleece at a minimum of **three sites** along the full length of the backline. The highest score across the sites is recorded as the score.

Rule of thumb: A sheep with Score 1 has no significant deterioration of staple due to penetration of light and water. A Score 5 sheep has extensive deterioration of fibre structure along nearly all, or all, of the length of the staple.

Score 1:

Staple is free or near free of deterioration (<6% of staple) due to penetration of light and water.

Score 2:

Staple has 6-20% deterioration due to penetration of light and water.

Score 3:

Staple has 21-40% deterioration due to penetration of light and water.

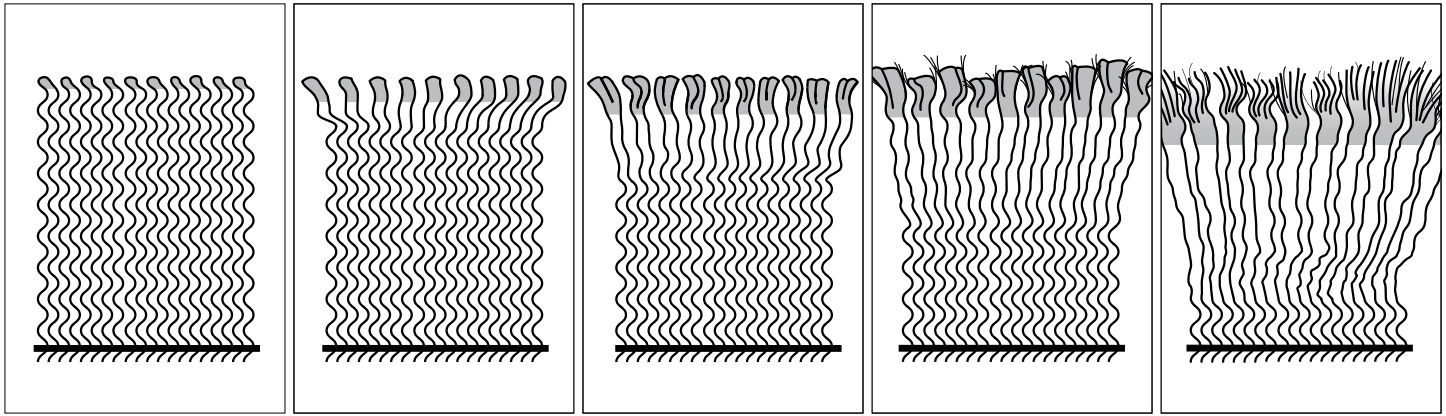
Score 4:

Staple has 41-70% deterioration due to penetration of light and water.

Score 5:

Staple has 71-100% deterioration due to penetration of light and water.

STAPLE WEATHERING (WEATH)



Score 1	Score 2	Score 3	Score 4	Score 5

STAPLE STRUCTURE (SSTRC)

Age: Over 6 months.

When: Anytime, provided a minimum of 5 months of wool growth.

Definition: Staple structure describes the arrangement of fibre bundles comprising each staple, in particular the average diameter of the staples observed at an opening.

How to score: Open the fleece at a minimum of **three sites** along the middle of the side of the sheep from shoulder to hip. Evaluate the average diameter of the staples at an opening. The highest score across the sites is recorded.

Rule of thumb: A sheep with Score 1 has extremely fine fibres bundles (<6mm), whereas a Score 5 sheep has extremely large bundles of fibres (>30mm) which in general makes the staples 'blocky' in appearance.

Score 1:

Staple comprises very fine bundles, i.e. staple width of less than 6mm in diameter.

Score 2:

Staple comprises fine bundles, i.e. staple width of 6-10mm in diameter.

Score 3:

Staple comprises medium bundles, i.e. staple width of 11-20mm in diameter.

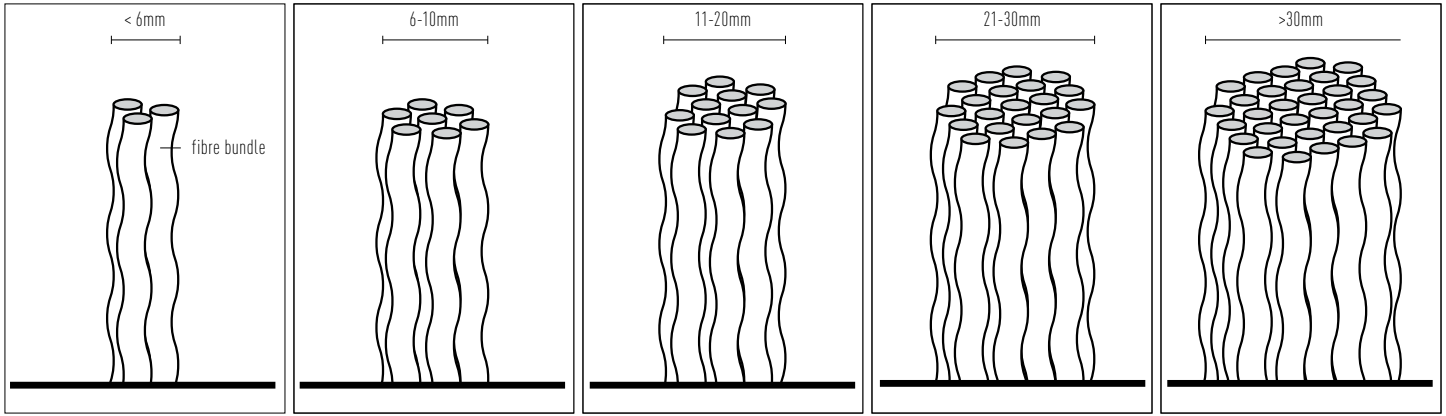
Score 4:

Staple comprises large bundles, i.e. staple width of 21-30mm in diameter.

Score 5:

Staple comprises 'blocky', extremely large bundles, i.e. staple width of greater than 30mm in diameter.

STAPLE STRUCTURE (SSTRC)



Score 1	Score 2	Score 3	Score 4	Score 5

PIGMENTATION SCORES

Pigmentation Scores provide visual standards for the description of pigmentation traits that contribute to the economic value of wool and the visual appearance of sheep flocks.

Pigmentation Scores are available for 4 traits. Visual scores of 1 to 5 are provided for fibre pigmentation and non-fibre pigmentation, where Score 1 depicts LEAST expression of the trait and Score 5 depicts MOST expression (i.e. rule of thumb is Score 1 is LESS and Score 5 is MORE of each trait).

Scores of 1 and 5 only are provided for recessive black and random spot (i.e. a 'yes' or 'no' expression of the trait).

It is essential that random spot and recessive black are scored and recorded separately from fibre pigmentation.

Pigmentation Scores can be taken on both male and female sheep at various ages. It is essential to record the age of the sheep when scores are taken, with the optimal age recommended in the table below.

Wool Trait	Age	When
Fibre pigmentation	• 2 to 10 weeks	• Lamb marking*
Non-fibre pigmentation	• 2 to 10 weeks	• Lamb marking*
Recessive black	• 2 to 10 weeks	• Lamb marking*
Random spot	• 2 to 10 weeks	• Lamb marking*

* Pigmentation scores can also be submitted to Sheep Genetics if pigmentation is identified after lamb marking such as classing or shearing.

FIBRE PIGMENTATION (FPIG)

Age: 2 to 10 weeks.

When: Lamb marking*.

Definition: Fibre pigmentation refers to the percentage of dark fibres at different sites of the sheep, in particular the body, legs, face, poll, ears, eyelashes and back of neck (birthcoat halo-hair). Pigmented fibres are normally black, grey or red-tan in colour.

Note: Importantly, fibre pigmentation is scored separately from random spot (Australian piebald) and recessive black (Agouti gene).

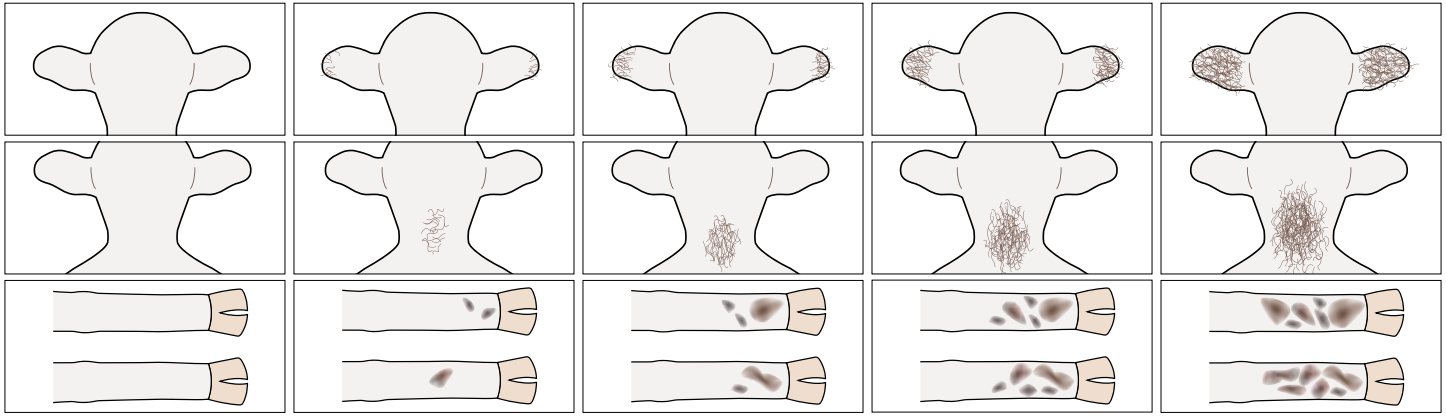
How to score: A single score of 1, 2, 3, 4 or 5 is recorded for each of the seven sites – body, legs, face, poll, ears, eyelashes and back of neck (birthcoat halo-hair).

Rule of thumb: If the body, ears, legs and eyelashes have no pigmentation (Score 1), but if 41-70% of the fibres on the back of neck are pigmented, then Score 4 is the overall score recorded for the trait.

Score 1:	Score 2:	Score 3:	Score 4:	Score 5:
No pigmented fibres at any site.	1-20% pigmented fibres at one or more sites.	21-40% pigmented fibres at one or more sites.	41-70% pigmented fibres at one or more sites.	71-100% pigmented fibres at one or more sites.

* Pigmentation scores can also be submitted to Sheep Genetics if pigmentation is identified after lamb marking such as classing or shearing.

FIBRE PIGMENTATION (FPIG)



Score 1	Score 2	Score 3	Score 4	Score 5

NON-FIBRE PIGMENTATION (SPIG)

Age: 2 to 10 weeks.

When: Lamb marking*.

Definition: Non-fibre pigmentation refers to the percentage of pigmentation on the areas of the sheep, in particular the bare skin of the nose, lips, eyelids and hooves. Pigmented skin and hooves are normally brown-tan or black-grey in colour and can be solid or smudges.

How to score: A single score of 1, 2, 3, 4 or 5, is recorded for three sites – nose/lips, eyelids and hooves.

Rule of thumb: A Score 1 sheep has no skin or hoof pigmentation at all. If a sheep has no pigmentation (Score 1) on the nose, lips or eyelids, but 41-70% of the total hoof area is pigmented (Score 4), then Score 4 is the overall score recorded for the trait.

Score 1:

No pigmented area i.e. 0% of all bare skin sites and all four hooves.

Score 2:

1-20% pigmented area of one or more bare skin sites and/or 1-20% of the total hoof area.

Score 3:

21-40% pigmented area of one or more bare skin sites and/or 21-40% of the total hoof area.

Score 4:

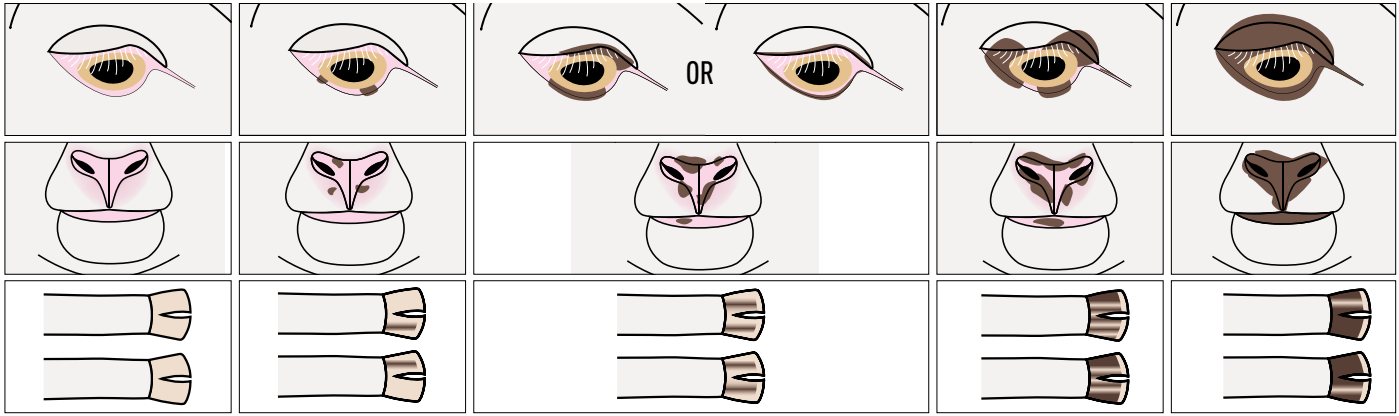
41-70% pigmented area of one or more bare skin sites and/or 41-70% of the total hoof area.

Score 5:

71-100% pigmented area of one or more bare skin sites and/or 71-100% of the total hoof area.

* Pigmentation scores can also be submitted to Sheep Genetics if pigmentation is identified after lamb marking such as classing or shearing.

NON-FIBRE PIGMENTATION (SPIG)



Note: Score 5 diagrams shows 100% pigmented area of all bare skin sites. Score 5 does not need to be 100% pigmented.

RECESSIVE BLACK (BLK)

Age: 2 to 10 weeks.

When: Lamb marking*.

Definition: Caused by the Agouti gene, recessive black refers to the presence of pigmented wool or hair fibres anywhere on the face or body that present as relatively symmetrical markings. Pigmented fibres can be black, dark and light grey, brown or tan in colour. Importantly, recessive black is scored separately from random spot and fibre pigmentation.

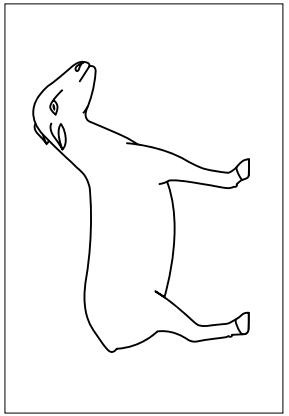
Note: If the face or body is completely white or has a random pattern on one side of the face or body (i.e. non-symmetrical), the sheep should be scored as random spot (Pg. 26).

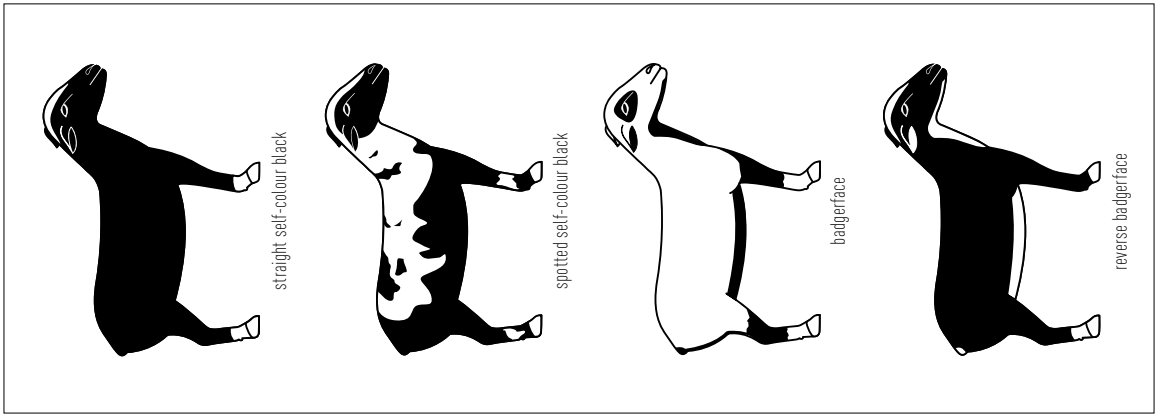
How to score: A single score of 1 or 5.

Rule of thumb: If a sheep has relatively symmetrical markings on both sides of the face or body then it is going to be one of the recessive black patterns (Score 5) of 'straight self-colour black', 'spotted self-colour', 'badgerface' or 'reverse badgerface'.

* Pigmentation scores can also be submitted to Sheep Genetics if pigmentation is identified after lamb marking such as classing or shearing.

RECESSIVE BLACK (BLK)





Score **1**

Score **5**

RANDOM SPOT (SPOT)

Age: 2 to 10 weeks.

When: Lamb marking*.

Definition: Random spot (Australian piebald) refers to the presence of a distinct patch of pigmented fibres anywhere in the wool-growing area on the face or body, whether small or large in size. Pigmented fibres are normally black-grey or brown in colour. Importantly, random spot is scored separately from recessive black and fibre pigmentation.

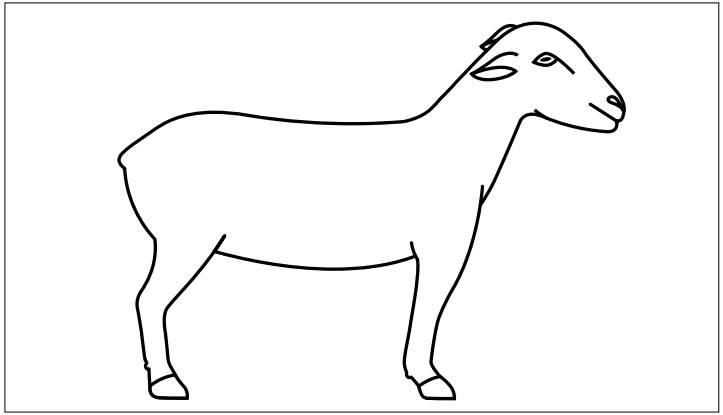
Note: If both sides of the face or body are spotted (i.e. symmetrical), the sheep should be scored as recessive black.

How to score: A single score of 1 or 5.

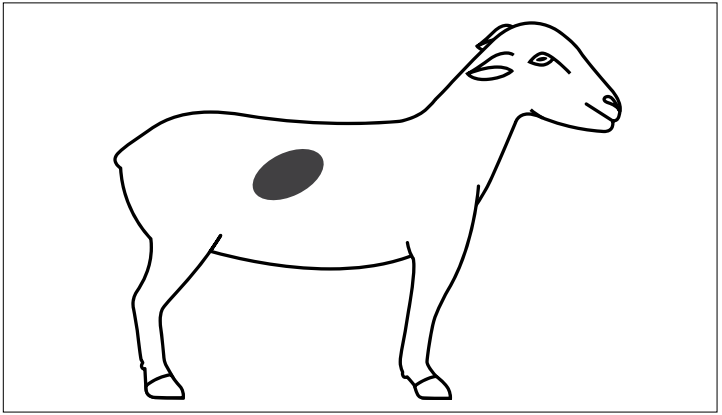
Rule of thumb: A random pattern is characterised as a rounded, pigmented, wool or hair spot; usually only one or, if more than one, not symmetrically positioned (i.e. distributed unevenly to one side of the face or body in the wool-growing area).

* Pigmentation scores can also be submitted to Sheep Genetics if pigmentation is identified after lamb marking such as classing or shearing.

RANDOM SPOT (SPOT)



Score **1**



Score **5**

CONFORMATION SCORES

Conformation Scores provide visual standards for the description of physical body and structural traits that influence the soundness and productivity of sheep flocks.

Conformation Scores are available for 5 traits. Visual scores of 1 to 5 are provided for each trait.

Importantly, the 'Score 1 is LEAST' and 'Score 5 is MOST' scoring scale does not apply to the Jaw trait. In this case, Score 1 depicts undershot expression and Score 5 depicts overshot expression of the trait.

A single score is recorded for all conformation traits. This includes combined traits (legs/feet and shoulder/back), where the highest score of the multiple sites is recorded.

Conformation Scores can be taken on both male and female sheep at various ages. It is essential to record the age of the sheep when scores are taken, with the optimal age recommended in the table below.

Conformation Trait	Age	When
Jaw	• Over 4 months	• Anytime
Legs/Feet	• Over 4 months	• Anytime
Shoulder/Back	• Over 4 months	• Within 1 month post shearing
Horn	• Over 4 months	• Anytime
Teeth Eruption	• From 12 months	• When at least 50% of the group are a Score 2 or more

JAW (JAWR)

Age: Over 4 months.

When: Anytime.

Definition: Jaw refers to the soundness of jaw structure, in particular the alignment of the lower jaw and its teeth relative to the top jaw and its pad that the lower jaw teeth bite onto.

How to score: A single score of 1, 2, 3, 4 or 5.

Rule of thumb: The upper and lower jaws of a Score 3 sheep line up squarely at the teeth i.e. teeth rest 'on the pad', whereas a Score 1 sheep has a heavily 'undershot' jaw and a Score 5 sheep has a heavily 'overshot' jaw.

Score 1:

Heavily 'undershot' jaw. Lower jaw is significantly shorter than the upper jaw and as a result the teeth are well behind the pad, i.e. at yearling age greater than 3mm behind the edge of the pad at the centre of the jaw.

Score 2:

Jaw is marginally 'undershot'. Lower jaw is slightly shorter than the upper jaw and as a result the teeth are slightly behind the pad, i.e. at yearling age 1 to 3mm behind the edge of the pad at the centre of the jaw.

Score 3:

Upper and lower jaws line up squarely at the teeth, i.e. teeth rest 'on the pad'.

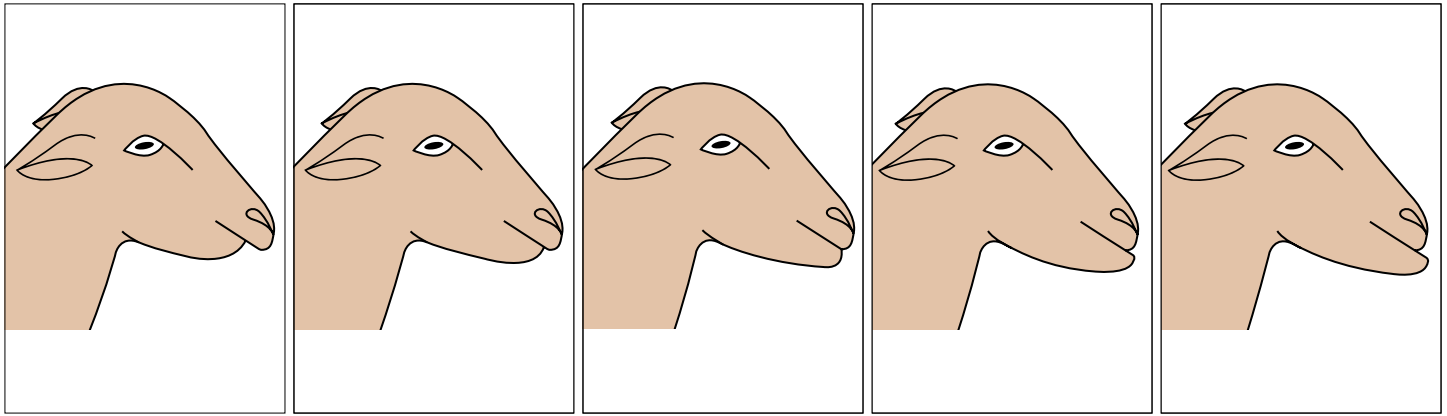
Score 4:

Jaw is marginally 'overshot'. Lower jaw is slightly longer than the upper jaw and as a result the teeth are slightly in front of the pad, i.e. at yearling age 1 to 3mm in front of the edge of the pad at the centre of the jaw.

Score 5:

Heavily 'overshot' jaw. Lower jaw is significantly longer than the upper jaw and as a result the teeth are well in front of the pad, i.e. at yearling age greater than 3mm in front of the edge of the pad at the centre of the jaw.

JAW (JAWR)



Score 1	Score 2	Score 3	Score 4	Score 5

LEGS/FEET (LEGS)

Age: Over 4 months.

When: Anytime.

Definition: Legs/Feet is a combined trait. It refers to the overall soundness of the front and back leg and feet structure and in particular the orientation of the legs and feet and angulation of the hocks and pasterns in relation to the feet. The back leg structure should be scored as the sheep is walking away from the assessor. Additional information is available in the Researcher Version of the Visual Sheep Scores that contains scores for the component traits that make up Legs/Feet.

How to score: A single score of 1, 2, 3, 4 or 5. The highest score across the leg and feet component of all four legs is recorded.

Rule of thumb: If the hocks and pasterns of the back legs and feet have moderate angulation (Score 1), but the pasterns of the front legs have extreme angulation (Score 5), then Score 5 is overall score recorded for the trait.

Score 1:

Straight legs that stand squarely on their feet; no distortion of the hoof shape; moderate angulation of hock and pastern.

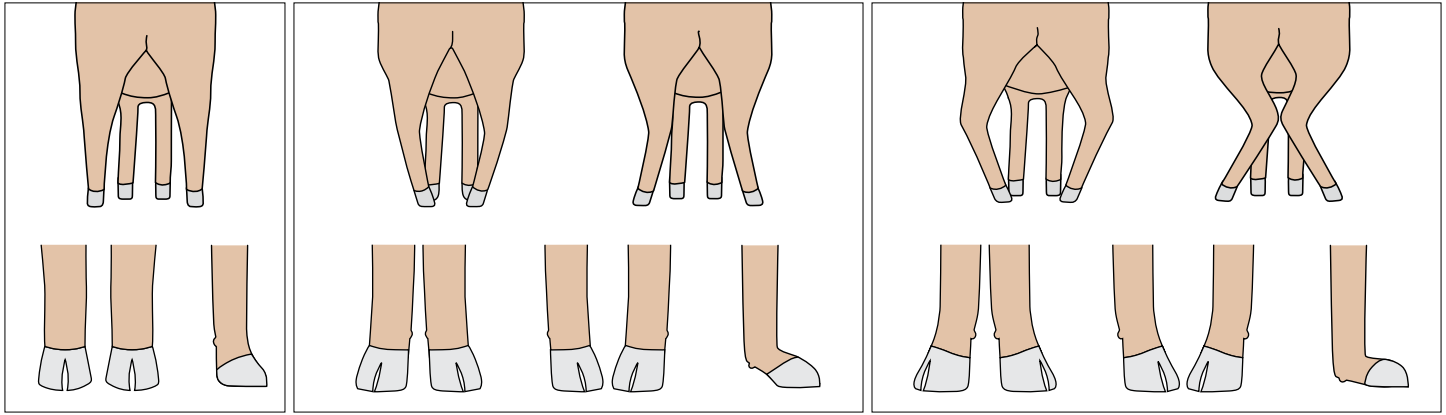
Score 3:

Significant hock angulation, and/or legs and feet orientating slightly inwards or outwards, and/or moderate distortion of the hoof shape, and/or significant or small angulation of the pasterns.

Score 5:

Extreme hock angulation, and/or legs and feet orientating inwards with hocks touching or 'bowed' outwards, and/or extreme distortion of the hoof shape, and/or extreme, very small or no angulation of the pasterns.

LEGS/FEET (LEGS)



Score **1**	Score **3**	Score **5**

SHOULDER/BACK (BACK)

Age: Over 4 months.

When: Within 1 month post shearing.

Definition: A combined trait, Shoulder/Back refers to the soundness of the shoulder blades and their position in relation to the neck and spine. Additional information is available in the Researcher Version of the Visual Sheep Scores that contains scores for the component traits that make up shoulder/back.

Note: Care should be taken when scoring sheep in good condition that excess loin muscle is not mistaken for a slightly arched back (Score 3).

How to score: A single score of 1, 2, 3, 4 or 5.

Rule of thumb: A sheep with Score 1 has angular shoulders and a straight back between the top of the shoulder blades and hips. A Score 5 sheep has shoulder blades that sit well above or well below the spine, or an extremely 'dipped' or 'arched' backline.

Score 1:

Shoulder blades sit squarely either side of the spine i.e. no trough or ridge between the shoulders; back straight between shoulders and hips.

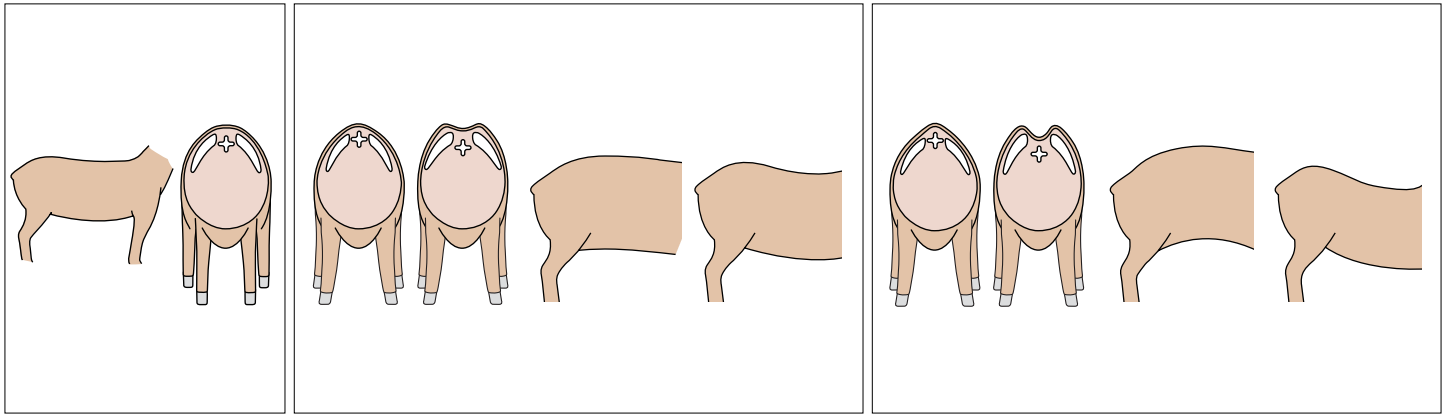
Score 3:

Shoulders positioned below the spine to create a 'ridge' or above the spine to create a 'trough' between the shoulder blades; back dips or arches slightly behind the shoulders (relative to the shoulders and hips).

Score 5:

Extremely high and wide shoulder blades that create a deep 'trough' above the spine or extremely low and narrow shoulder blades that create a sharp 'ridge' above the spine and/or back dips or arches severely behind the shoulders (relative to the shoulders and hips).

SHOULDER/BACK (BACK)



Score **1**	Score **3**	Score **5**

TEETH ERUPTION (TE)

Age: From 12 months.

When: When at least 50% of the group are a Score 2 or more. Regular monitoring of a sample of the group may be required in order to determine the appropriate time.

Definition: Teeth eruption refers to the timing of the loss of lambs teeth and eruption of permanent teeth.

How to score: A single score of 1, 2, 3, 4 or 5.

Rule of thumb: A sheep with Score 1 has only lambs teeth showing. A Score 5 sheep has both permanent teeth fully showing.

Score 1:

Only lambs teeth showing.

Score 2:

Lambs teeth missing or one of either of the permanent teeth starting to show.

Score 3:

Both permanent teeth slightly showing.

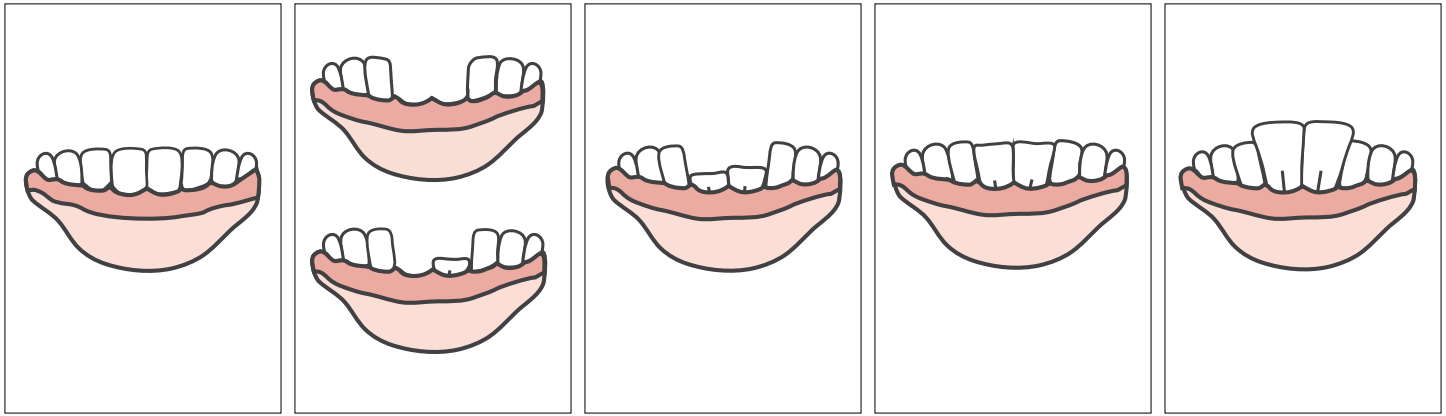
Score 4:

Both permanent teeth half showing.

Score 5:

Both permanent teeth fully showing.

TEETH ERUPTION (TE)



Score 1	Score 2	Score 3	Score 4	Score 5

HORN (HORN)

Age: Over 4 months.

When: Anytime.

Definition: Horn refers to the expression of horn length. Horn length can vary from no horns, small scurs, medium horns and a full set of horns. Whilst horn can be scored on ewes, it is most commonly a ram score.

Note: Whilst only score 1, 3 and 5 are described below, a score of 2 or 4 can also be given.

How to score: A single score of 1, 2, 3, 4 or 5.

Rule of thumb: A sheep with Score 1 is a poll animal with an indentation in the skull. A Score 5 sheep has a full set of symmetrical horns.

Score 1:

POLL
A detectable indentation in the bone of the skull at the horn site.

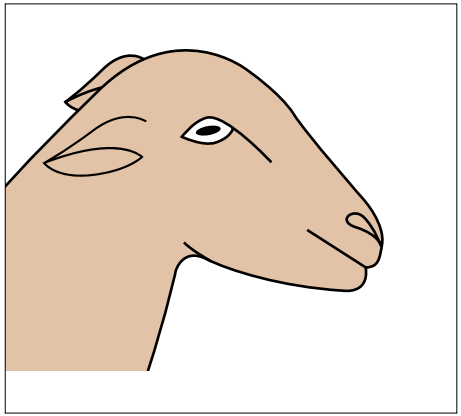
Score 3:

SCUR
Small growth at the horn site 10mm or more in length.

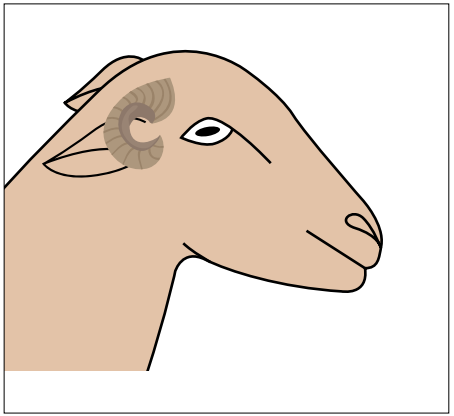
Score 5:

HORN
Full-grown, symmetrical horns firmly attached to skull.

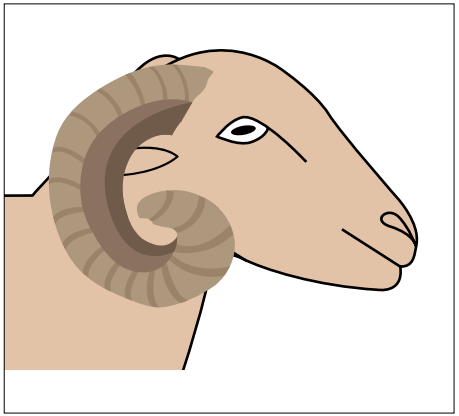
HORN (HORN)



Score **1**



Score **3**



Score **5**

COVER AND WRINKLE SCORES

Cover and Wrinkle Scores provide visual standards for the description of wool cover and skin wrinkle traits that influence the welfare and productivity of sheep flocks.

Cover and Wrinkle Scores are available for 3 traits. Visual scores of 1 to 5 are provided for each trait.

Cover and Wrinkle Scores can be taken on both male and female sheep at various ages. It is essential to record the age of the sheep when scores are taken, with the optimal age recommended in the table below.

Cover and Wrinkle Trait	Age	When
Face cover	• Over 4 months	• Anytime, provided a minimum of 3 months of wool growth
Body wrinkle	• Over 4 months	• Within 1 month post shearing, preferably straight off-shears
Neck Wrinkle	• Over 4 months	• Within 1 month post shearing, preferably straight off-shears

FACE COVER (FACE)

Age: Over 4 months.

When: Minimum of 3 months wool.

Definition: Face cover refers to the degree of wool cover on the face, including the top of head and jowl.

How to score: A single score of 1, 2, 3, 4 or 5.

Rule of thumb: A sheep with Score 1 has an open face with no wool on the jowls or top of the head. A Score 5 sheep has wool covering its entire face, commonly referred to as 'wool blind'.

Score 1:

Open face with no wool in front of the ears or on the jowls.

Score 2:

Wool cover over the top of head; some on the side of muzzle, but not joined between the ears and eyes.

Score 3:

Wool cover over the top of head and on the side of muzzle; wool joined between the ears and eyes.

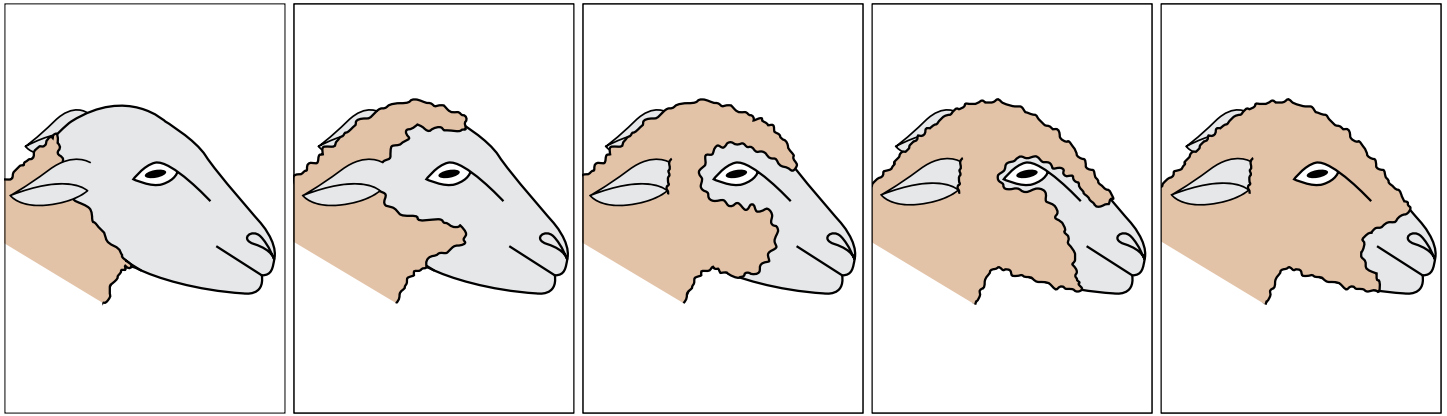
Score 4:

Wool cover from the top of the head down the muzzle; clear channel remains between the eye and the mouth.

Score 5:

Heavy wool growth over the entire face with the exception of the eyes, nose and mouth areas; wool from the top and side of the muzzle joining.

FACE COVER (FACE)



Score 1	Score 2	Score 3	Score 4	Score 5

BODY WRINKLE (BDWR)

Age: Over 4 months.

When: Within 1 month post shearing, preferably straight off-shears.

Definition: Body wrinkle refers to the degree and quantity of winkle on the body.

Note: Body wrinkle and neck wrinkle are highly correlated traits. Depending on the flock, only one trait may need scoring.

How to score: A single score of 1, 2, 3, 4 or 5.

Rule of thumb: A sheep with Score 1 has a plain body with no wrinkles. A Score 5 sheep has extensive wrinkles and heavy folds of skin over its entire body.

Score 1:

Plain-bodied sheep with no body wrinkle.

Score 2:

Plain-bodied sheep with a few small wrinkles over the body.

Score 3:

Slight wrinkling over the body.

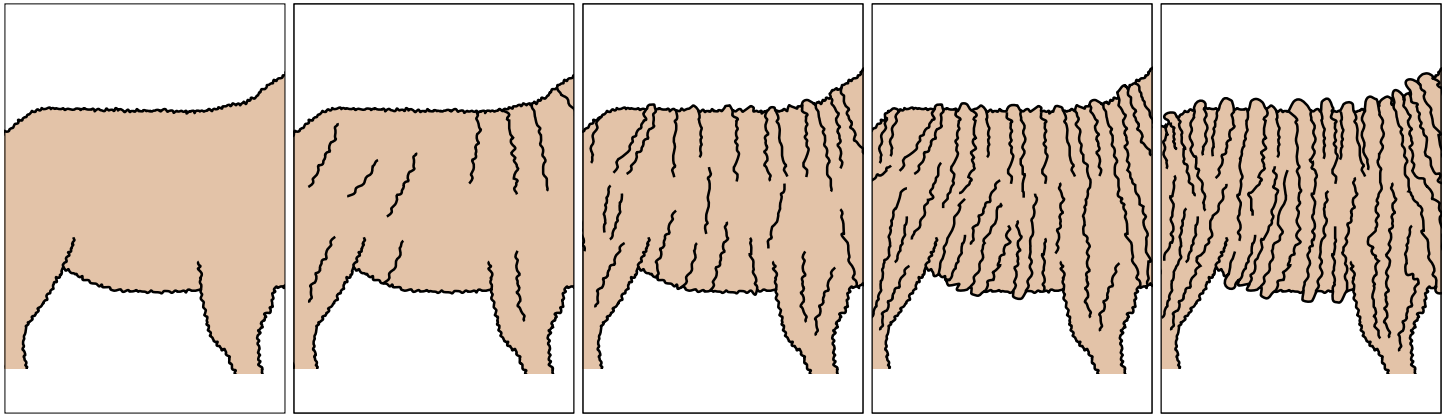
Score 4:

Heavy wrinkling over the body.

Score 5:

Very heavy wrinkling and heavy folds of skin over the body.

BODY WRINKLE (BDWR)



Score 1	Score 2	Score 3	Score 4	Score 5

NECK WRINKLE (NKWR)

Age: Over 4 months.

When: Within 1 month post shearing, preferably straight off-shears.

Definition: Neck wrinkle refers to the degree and quantity of wrinkle on the neck and apron region.

Note: Neck wrinkle and body wrinkle are highly correlated traits. Depending on the flock, only one trait may need scoring.

How to score: A single score of 1, 2, 3, 4 or 5.

Rule of thumb: A sheep with Score 1 has a plain neck with no wrinkles on the underside. A Score 5 sheep has extensive and heavy folds of skin on the neck and apron regions.

Score 1:

Plain-bodied sheep with no wrinkle on the neck or apron.

Score 2:

Plain-bodied sheep with a few small wrinkles or skin folds on the neck or apron.

Score 3:

Slight wrinkling and few skin folds on the neck or apron.

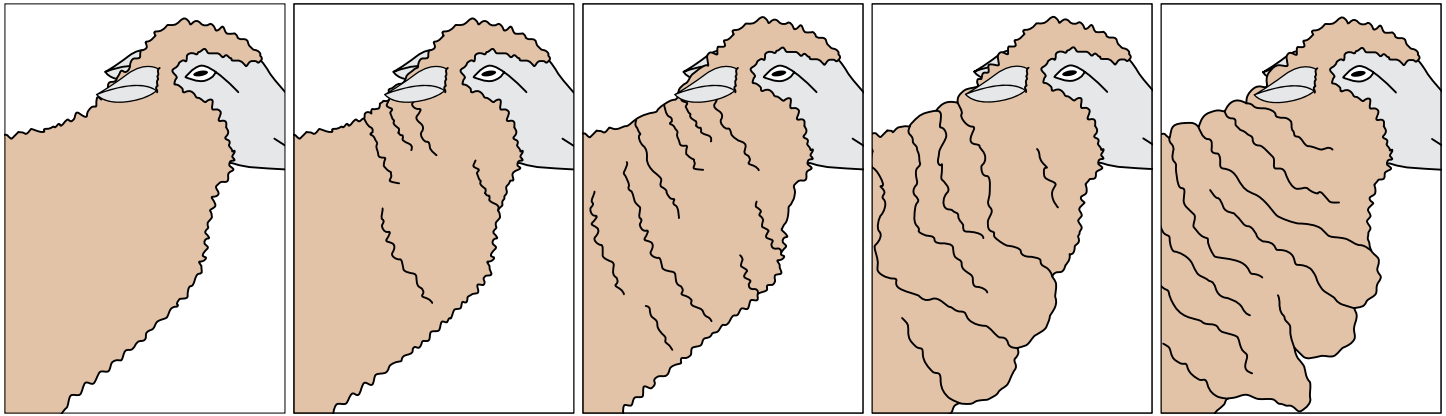
Score 4:

Heavy wrinkles and skin folds on the neck and apron.

Score 5:

Very heavy wrinkles and large skin folds on the neck and apron.

NECK WRINKLE (NKWR)



Score **1**	Score **2**	Score **3**	Score **4**	Score **5**

Breech Scores

Breech Scores provide visual standards for the description of breech traits that influence the susceptibility of Merino sheep flocks to breech flystrike.

Breech Scores are available for 5 traits. Visual scores of 1 to 5 are provided for each trait. Mulesing can affect the physical expression and score of each trait.

Breech Scores can be taken on both male and female sheep at various ages. It is essential to record the age of the sheep when scores are taken, with the optimal age recommended in the table below.

Breech Trait	Age	When
Breech cover - lambs	• 2 to 10 weeks	• Lamb marking, preferably in the cradle
Breech cover	• Over 4 months	• Within 1 month post shearing
Crutch cover	• Over 4 months	• Anytime
Breech wrinkle -lambs	• 2 to 10 weeks	• Lamb marking
Breech wrinkle	• Over 4 months	• Within 1 month post shearing
Dag	• Over 4 months	• Prior to crutching
Urine Stain	• Over 4 months	• Anytime, provided a minimum of 4 months of wool growth in breech area

BREECH COVER – LAMBS (BCOV)

Age: 2 to 10 weeks.

When: Lamb marking, preferably in the cradle.

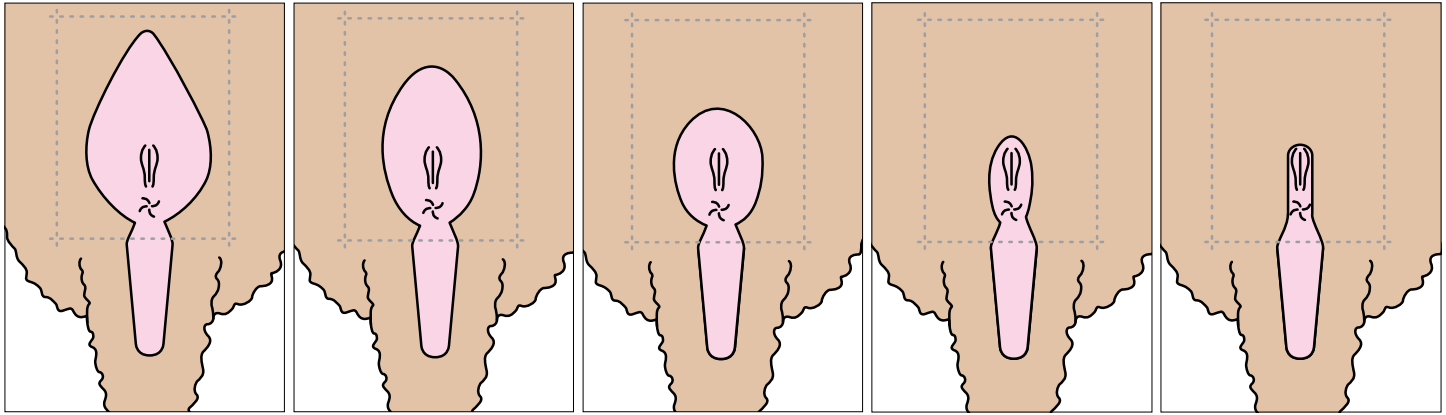
Definition: Breech cover refers to the amount of natural bare skin around the perineum and breech area, in particular, the depth and width of bare skin below and surrounding the vulva or anus. It is important to consider the width and depth of the bare skin in combination when scoring breech cover, however, width is considered more important than depth. Some animals have short 'fluffy' fibres growing on the bare skin at certain times of the year. This should be scored as bare skin. Males and females will appear differently, however all animals should be scored as they are observed and not adjusted for sex.

Note: Only visual scores on unmulesed sheep (or lambs prior to mulesing) can be submitted to Sheep Genetics.

How to score: A single score of 1, 2, 3, 4 or 5.

Rule of thumb: A Score 1 sheep has natural bare area that extends outwards around the anus and vulva, and right down to the bottom of the breech area (the channel). A sheep with Score 5 has complete wool cover i.e. no natural bare area at all. If a sheep has deep natural bare area that extends to the bottom on the breech area (Score 1), but is a very narrow natural bare area, then the overall score should be adjusted back by 1, i.e. the overall score would be Score 2 as the width of the bare area is more important that the depth.

BREECH COVER – LAMBS (BCOV)



Score 1	Score 2	Score 3	Score 4	Score 5

BREECH COVER (BCOV)

Age: Over 4 months.

When: Within 1 month post shearing.

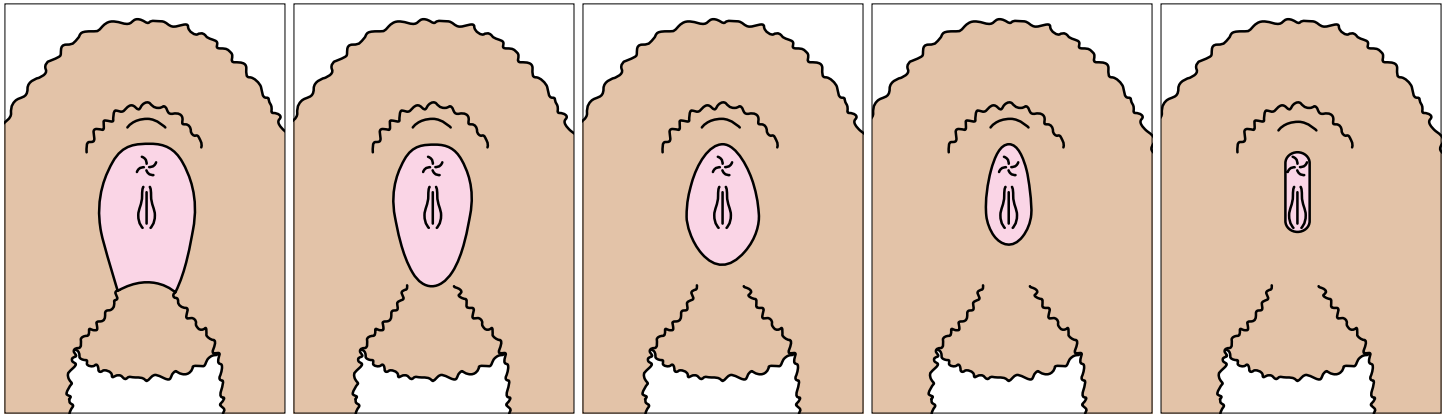
Definition: Breech cover refers to the amount of natural bare skin around the perineum and breech area, in particular, the depth and width of bare skin below and surrounding the vulva or anus. It is important to consider the width and depth of the bare skin in combination when scoring breech cover, however, width is considered more important than depth. Some animals have short 'fluffy' fibres growing on the bare skin at certain times of the year. This should be scored as bare skin. Males and females will appear differently, however animals should be scored as they are observed and not adjusted for sex.

Note: Only visual scores on unmulesed sheep (or lambs prior to mulesing) can be submitted to Sheep Genetics.

How to score: A single score of 1, 2, 3, 4 or 5.

Rule of thumb: A Score 1 sheep has natural bare area that extends outwards around the anus and vulva and right down to the bottom of the breech area (the channel). A sheep with Score 5 has complete wool cover i.e. no natural bare area at all. If a sheep has deep natural bare area that extends to the bottom on the breech area (Score 1), but is a very narrow natural bare area, then the overall score should be adjusted back by 1, i.e. the overall score would be Score 2 as the width of the bare area is more important that the depth.

BREECH COVER (BCOV)



Score 1	Score 2	Score 3	Score 4	Score 5

CRUTCH COVER (CCOV)

Age: Over 4 months.

When: Anytime.

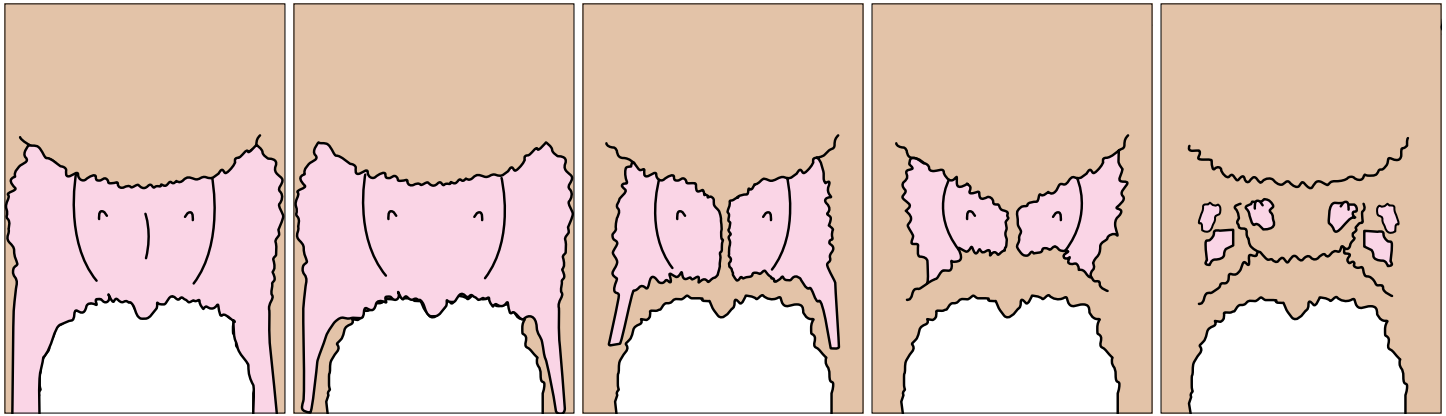
Definition: Crutch cover refers to the amount of natural bare skin from which wool would normally be removed by the first blow during crutching, in particular, the pubic area, groin and inside back legs. Males and females will appear differently, however animals should be scored as they are observed and not adjusted for sex.

Note: Visual scores on mulesed sheep can be submitted to Sheep Genetics as long as the entire group is mulesed and no selective mulesing is undertaken. It is essential to record the mulesing status of the sheep when scores are taken.

How to score: A single score of 1, 2, 3, 4 or 5.

Rule of thumb: A Score 1 sheep has natural bare area that extends completely throughout the pubic, groin and breech region, as well as right down the inside back legs beyond the hocks. A sheep with Score 5 has almost complete wool cover, i.e. no natural bare area.

CRUTCH COVER (CCOV)



Score 1	Score 2	Score 3	Score 4	Score 5

BREECH WRINKLE – LAMBS (BRWR)

Age: 2 to 10 weeks.

When: Lamb marking, either standing or in the cradle. When scored in the cradle the below diagrams can be used upside down. It should be noted that when scored in the cradle, lambs may appear less wrinkly than if the lamb is standing.

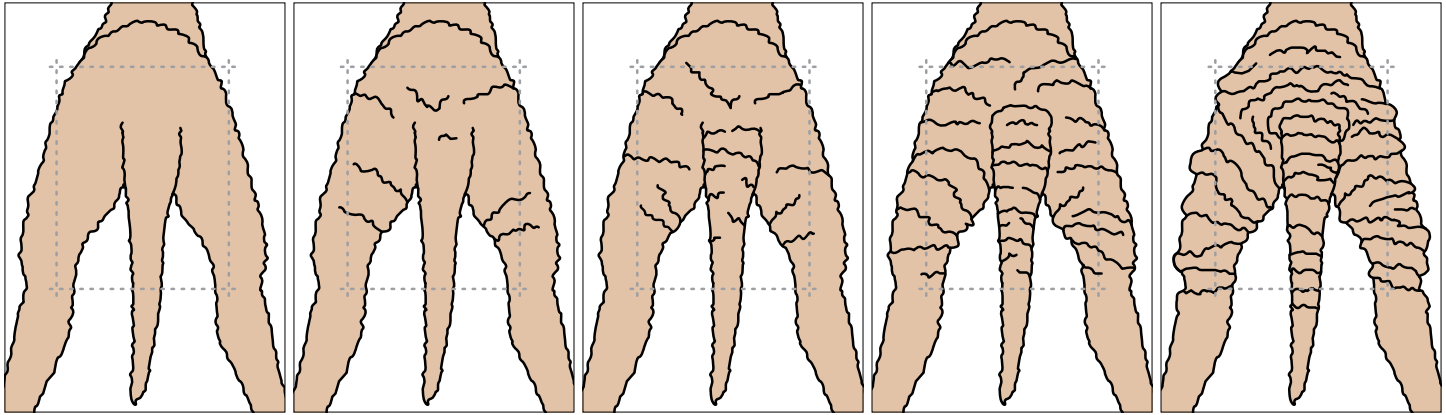
Definition: Breech wrinkle refers to the degree of wrinkle at the tail set, sides of the tail (bat wings), adjacent to the anus/vulva and down the hind legs.

Note: Only visual scores on unmulesed sheep (or lambs prior to mulesing) can be submitted to Sheep Genetics.

How to score: A single score of 1, 2, 3, 4 or 5. The highest score of either the tail set or leg zone is recorded.

Rule of thumb: A sheep with Score 1 has no wrinkle. A Score 5 sheep has extensive wrinkle at the tail set, sides of the tail (bat wings), adjacent to the anus/vulva and down the hind legs.

BREECH WRINKLE – LAMBS (BRWR)



Score 1	Score 2	Score 3	Score 4	Score 5

BREECH WRINKLE (BRWR)

Age: Over 4 months.

When: Within 1 month post shearing.

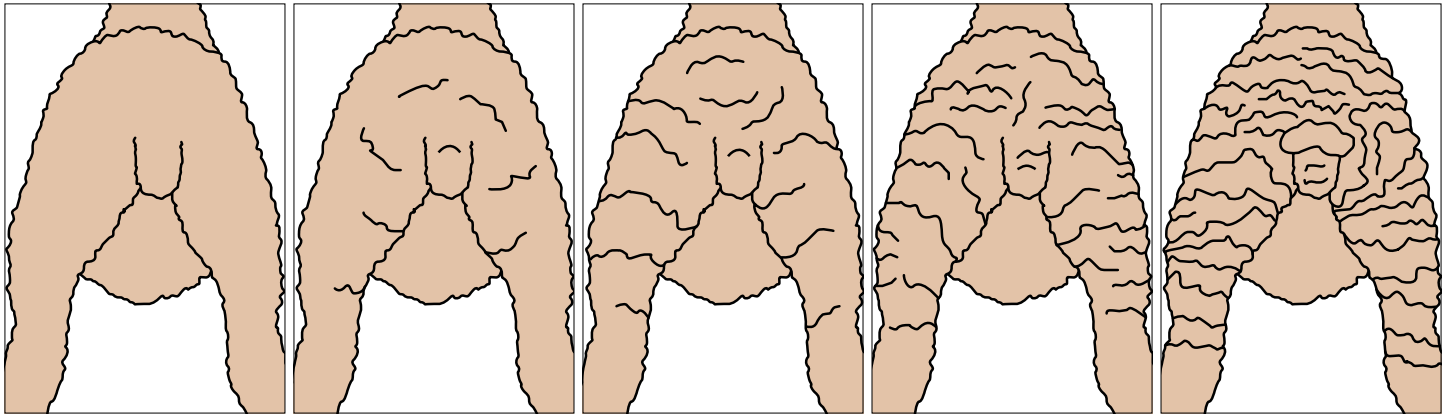
Definition: Breech wrinkle refers to the degree of wrinkle at the tail set, sides of the tail (bat wings), adjacent to the anus/vulva and down the hind legs.

Note: Only visual scores on unmulesed sheep (or lambs prior to mulesing) can be submitted to Sheep Genetics.

How to score: A single score of 1, 2, 3, 4 or 5. The highest score of either the tail set or leg zone is recorded.

Rule of thumb: A sheep with Score 1 has no wrinkle. A Score 5 sheep has extensive wrinkle at the tail set, sides of the tail (bat wings), adjacent to the anus/vulva and down the hind legs.

BREECH WRINKLE (BRWR)



Score 1	Score 2	Score 3	Score 4	Score 5

DAG (DAG)

Age: Over 4 months.

When: Prior to crutching; 60 days after the season break following a worm burden (when one exists) or when 30 - 40 per cent of the flock is scouring.

Definition: Dag formation is caused by the adhesion of faecal material to the breech area. Dag refers to the quantity of faecal material adhering to the wool surrounding the breech and extending down the hind legs.

When scoring dag, the sweaty fribs that some sheep have around the breech should not be included.

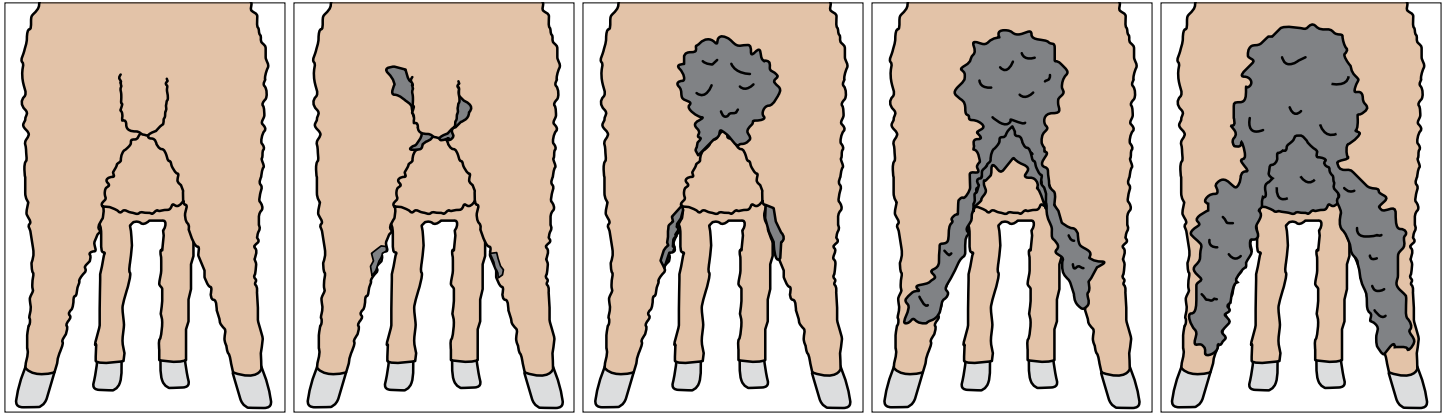
Note: Visual scores on mulesed sheep can be submitted to Sheep Genetics as long as the entire group is mulesed and no selective mulesing is undertaken. It is essential to record the mulesing status of the sheep when scores are taken.

How to score: A single score of 1, 2, 3, 4 or 5.

Rule of thumb: : A sheep with Score 1 has no dags. A Score 5 sheep has extensive dags in the breech area, and extending right down the hind legs to the pasterns.

It should be noted that mulesed sheep may present with no dag in the breech area, but dag on the hind legs. In this case, the sheep should be scored in relation to the dag on the hind legs.

DAG (DAG)



Score 1	Score 2	Score 3	Score 4	Score 5

URINE STAIN (URINE)

Age: Over 4 months.

Sex: Ewe.

When: Anytime, provided a minimum of 4 months of wool growth in breech area.

Definition: Urine stain is caused by the absorption of urine in the breech wool.

Urine stain refers to the area of breech wool, including the wool on the hind legs and tail, that is clearly stained by urine. Diagrams only show the variation in stain on the leg, however, stain on the tail (when present) should be accounted for.

When scoring urine stain, the sweaty fribs that some ewes have around the vulva should not be included.

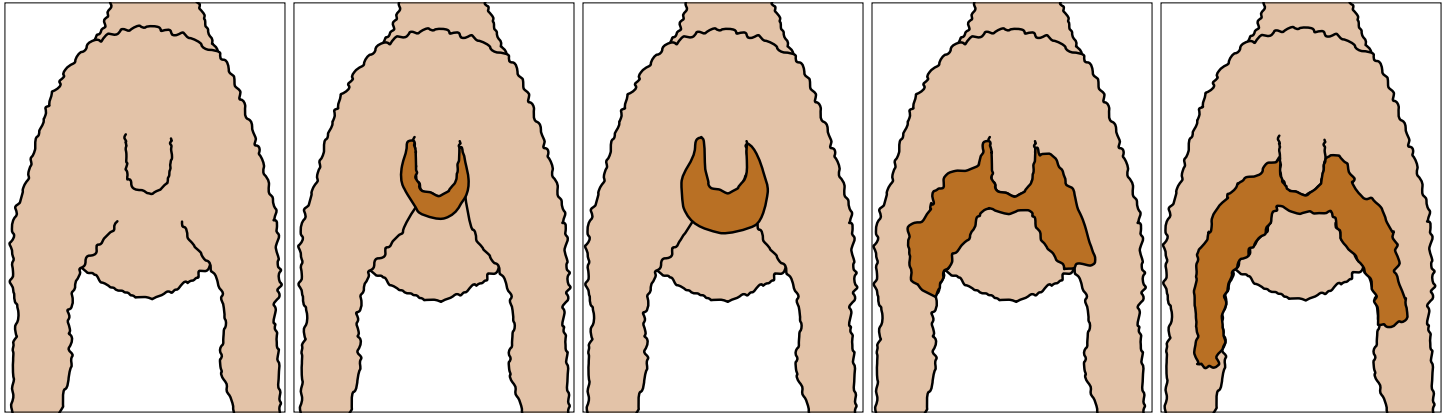
Note: Visual scores on mulesed sheep can be submitted to Sheep Genetics as long as the entire group is mulesed and no selective mulesing is undertaken. It is essential to record the mulesing status of the sheep when scores are taken.

How to score: A single score of 1, 2, 3, 4 or 5.

Rule of thumb: A ewe with Score 1 has no urine stain. A Score 5 ewe has extensive urine stain in the breech area and extending down the hind legs. If a ewe has urine stain extending further down one leg than the other, then the leg with the greater extent of urine stain is scored.

It should be noted that mulesed sheep may present with no urine stain in the breech area, but urine stain on the hind legs. In this case, the sheep should be scored in relation to the urine stain on the hind legs.

URINE STAIN (URINE)



Score 1	Score 2	Score 3	Score 4	Score 5

LAMBING SCORES

Lambing Scores provide standards for the description of traits that influence the ability of a ewe to give birth to and rear a lamb.

Lambing Scores are available for 2 traits. Visual scores of 1 to 5 are provided for each trait.

Lambing Scores can be taken on ewes at various ages. It is essential to record the age of the ewe when scores are taken.

Lambing Trait	Age	When
Maternal Behaviour	• Over 12 months	• Within 24 hours post lambing
Lambing Ease	• Over 12 months	• At the time of birth or within 24 hours post lambing

MATERNAL BEHAVIOUR (MB)

Age: Over 12 months.

Sex: Ewe.

When: Within 24 hours post lambing.

Definition: Maternal behaviour refers to the ewe's behaviour towards its lamb(s). It can be scored through assessing the distance a ewe travels from the lamb when the lamb(s) is handled by operators. It is important that the same process is used to record all ewes lambing.

How to score: A single score of 1, 2, 3, 4 or 5.

Rule of thumb: A ewe with Score 1 shows excellent maternal behaviour and stays close to the lamb(s). A ewe with Score 5 shows poor maternal behaviour and little interest in the lamb(s). Where a ewe has multiple lambs and preferential treatment is being given to a particular lamb, a score should given for each lamb, with the average score attributed to the ewe.

Score 1:

Ewe stays close to the lamb(s) and operator.

Score 2:

Ewe stays within 10 metres of the lamb(s) and operator.

Score 3:

Ewe stays within 30 metres of the lamb(s) and operator.

Score 4:

Ewe runs away but readily returned when operator moves away.

Score 5:

Ewe runs away and is difficult to get to return to the lamb(s) or the lamb(s) is abandoned.

LAMBING EASE (LE)

Age: Over 12 months.

Sex: Ewe.

When: At the time of birth or within 24 hours post lambing.

Definition: Lambing ease refers to the level of difficulty a ewe has during the lambing process.

How to score: A single score of 1, 2, 3, 4 or 5.

Rule of thumb: A ewe with Score 1 gives birth unassisted without difficulty. A ewe with Score 5 requires veterinary assistance or dies during birth. If a ewe gives birth without assistance when the operator is not present, a Score 1 can be recorded, even though the birth was not observed. A score 2 can be recorded for ewes when the birth is not observed but there are clear indications, such as a swollen head, that the ewe has experienced a difficult birth.

Score 1:

No operator intervention is required to assist birth and there are no indications that the ewe has experienced a difficult birth, such as the lamb having a swollen head.

Score 2:

Slight operator intervention is required to assist birth, however ewe would more than likely have given birth to a live lamb herself, or the ewe has given birth without intervention but there are clear indications that the ewe has experienced a difficult birth, such as the lamb having a swollen head.

Score 3:

Significant operator intervention is required to assist birth where the ewe would more than likely not have given birth to a live lamb herself.

Score 4:

Malpresentation

Score 5:

Veterinary assistance is required, the ewe dies or is required to be euthanised.

CLASSING SCORES

Classing Scores provide standards for the description of sheep relative to the flock's breeding objective.

Classing Scores are available for 2 traits. Visual scores of 1, 3 or 5 are provided for each trait.

Classing Scores can be taken on both male and female sheep at various ages. It is essential to record the age of the sheep when scores are taken, with the optimal age recommended in the table below.

Classing Trait	Age	When
Classer's Visual Grade	• Over 6 months	• Anytime, provided a minimum of 5 months wool growth
Overall Selection Grade	• Over 6 months	• Anytime, provided a minimum of 5 months wool growth

CLASSER'S VISUAL GRADE (GRADE)

Age: Over 6 months.

When: Anytime, provided a minimum of 5 months wool growth.

Definition: Classer's Visual Grade describes the standard of the sheep for visual performance relative to the flock's breeding objective.

How to score: The sheep should be assessed in a classing race or box that allows good access and the ability to clearly observe each sheep as an individual.

Rule of thumb: A sheep with Score 1 is a TOP and is in the top 10-30% of the group. A Score 5 sheep is a CULL (or sale sheep) and is in the bottom 10-30% of the group.

Score 1:

TOP
Sheep is in the top 10-30% of the sheep in the group.

Score 3:

FLOCK
Sheep is in the middle 40-80% of the sheep in the group.

Score 5:

CULL
(SALE) Sheep is in the bottom 10-30% of the sheep in the group.

OVERALL SELECTION GRADE (OSGRADE)

Age: Over 6 months.

When: Anytime, provided a minimum of 5 months wool growth.

Definition: Overall Selection Grade describes the overall standard of the sheep for both visual and measured performance relative to the flock's breeding objective.

How to score: The sheep should be assessed in a classing race or box that allows good access and ability to clearly observe each sheep as an individual.

Measured information such as individual trait information or index needs to be presented to the classer to enable them to make an overall assessment.

Rule of thumb: A sheep with Score 1 is a TOP and is in the top 10-30% of the group. A Score 5 sheep is a CULL (or sale sheep) and is in the bottom 10-30% of the group.

Score 1:

TOP
Sheep is in the top 10-30% of the sheep in the group.

Score 3:

FLOCK
Sheep is in the middle 40-80% of the sheep in the group.

Score 5:

CULL
(SALE) Sheep is in the bottom 10-30% of the sheep in the group.

STAGE CODE

The following Stage Codes should be used when submitting data to Sheep Genetics.

Name	Code	Age*
Birth	B	Birth to 24 hours
Weaning	W	42-120 days (7-16 weeks)
Early post weaning	E	120-210 days (4-7 months)
Post weaning	P	210-300 days (7-10 months)
Yearling	Y	300-400 days (10-13 months)
Hogget	H	400-540 days (13-18 months)
Adult	A	540 days or older (18 months or older)

* The average age of the sheep in the management group.

ACKNOWLEDGEMENTS

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