

Classing standards

Compiled by Cape Wools SA
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CAPE WOOLS SA



Foreword

Proper and efficient wool classing is the first and probably the most vital link in the wool quality chain. South Africa has always prided itself on the quality of its clip preparation standards and has, over the years, built up an excellent reputation internationally in this regard.

Rapid advances in testing and improving technical standards for the cost-efficient high speed conversion of wool into a textile product accentuate the responsibility of the wool classer to ensure rigid compliance with the minimum standards outlined in this brochure.

Marketing raw materials for industrial processing requires the buyer of such materials to have access to all relevant information pertaining to the quality aspects of the consignment. It is no different for the wool buyer, who has to make up a processing lot from wool obtained from various individual clips, in most cases over a period of several weeks.

One of the most important criteria in wool buying is evenness of any measured or non-measured characteristic within an individual lot. Subsequently, the minimum variation around the measured mean value for characteristics such as fibre diameter and staple length is critically important to the buyer as it enables him to make up consignments for export or processing in a cost-effective manner.

The guidelines in this brochure provide for a wide range of classes into which the various qualities of wool in a fleece can be grouped for marketing purposes. However, it does not mean that the classer has to divide a clip into all these classes. Unnecessary fragmentation of the clip is not encouraged as this increases handling and marketing costs and does not necessarily ensure a better price for the producer.

The key to good classing is to balance these two conflicting sets of requirements to maximize the potential income of the clip.

This brochure also highlights the wool classer's responsibility to ensure good shed management principles to avoid contamination prior to classing and packing of the bale in the press.

No matter how well a clip is classed, if it is contaminated with baling twine or other foreign objects the buyer will penalise it. The same applies to clean, uncontaminated but poorly classed clips.

The classing standards in this brochure do not deviate significantly from the previous version published in 1992 by the SA Wool Board, but include some minor changes to accommodate modern buying requirements.

A review leading to this version was initiated on the premise that the regular review of standards of any kind is a prerequisite in any modern industry. Furthermore, regulated marketing of agricultural products (including regulation for classing) was removed from the Statute Book in 1996. This in itself required a review to ensure that standards previously regulated in terms of the Agricultural Marketing Act, were still valid, pertinent, reflecting market needs and available in a user-friendly format. □

Review panel

The Wool Industry Forum of South Africa sanctioned the review process for the Classing Standards during 2001. Cape Wools SA, as the executive arm of the Forum, was tasked with facilitating the process and to provide the appropriate secretarial services. The panel responsible for the review comprised:

- Convenor:** André Strydom, Cape Wools SA
- Woolgrowers:** Ben Brynard (Chairman, NWGA, Northern Cape)
- Brokers:** Johan Louw (Cape Mohair & Wool)
Robert Scott (BKB Ltd.)
Billy Saunders (Saunders Bruce & Lapersonne Wool CC)
- Buyers and Processors:** Vince Knapton (Stucken & Co (Pty) Ltd.)
John Coutts (Modiano SA (Pty) Ltd)
James de Jager (United Wool (Pty) Ltd)
Ken Hay (Chargeurs Wool (South Africa) (Pty) Ltd.)

Staff contributions from the above companies are gratefully acknowledged.



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Classing, marking and packing standards for wool

1. General guidelines for classing and marking of wool

- Raw wool must be classed into different classes or lines to ensure uniformity within lines regarding characteristics important to processors, such as mean fibre diameter (micron), staple length and strength, vegetable matter content (VM), and appearance.
- Contamination with baling twine or any other loose object must be avoided at all costs.
- Wool stained with tar, urine, dung, blood, paint, branding fluids or discoloured by fungi or chemicals must be removed prior to shearing.
- White wool contaminated with pigmented fibre or kemp must be removed and packed separately.
- When marking ink is used to identify the contents of a bale (either on the farm or after re-handling and packing by brokers or other traders prior to delivery to processors) great care should be taken to prevent the ink from seeping through and stain the wool inside.

2. Classing and marking of Merino-type wool

2.1 Definition

Merino-type wool is white wool that is free of kemp and has an average fibre diameter of not more than 27 micron (μm).

2.2 Locks wool

Dung- and urine-stained matted wool, brisket wool, top knots and cheek wool, double cuts and sweaty wool shorn from an adult sheep must be packed separately and marked as follows:

Mark	Contents
LOX 1	Long sweat locks, long matted brisket wool, long top knots and cheek wool - minimum length 40 mm
LOX 2	Shankings, short top knots and cheek wool, double cuts, hard sweaty pieces less than 40 mm
LOX 3	Light urine- and/or dung-stained wool
LOX 4	Very heavy sweat locks, dark urine-stained or dung-stained wool and hard sweaty pieces
LOX 5	Matted, very seedy locks, stained or unstained

2.3 Bellies and pieces

Wool removed from the belly area of an adult sheep and/or portions removed from the fleece that deviate from the overall characteristics of the fleece, must be packed separately and marked as follows:

Mark	Contents
	Long belly wool (at least 60 mm) and fleece pieces, white to cream with good staple formation
	Short belly wool (40 - 60 mm), deep cream or slightly yellow and with good staple formation
	Long top knots/cheek wool and short fleece pieces (<40 mm) justifying a line of 3 bales or more
	Any belly wool, deep creamy or yellow with poor staple formation, at least 50 mm justifying a line of 3 bales or more

2.4 Broken fleeces

Neck-fold wools, breech wool or portions of the fleece from an adult sheep containing excessive vegetable matter must be packed separately and marked with a single length symbol according to the guidelines given in section 2.6. If the wool is less than one bale, or if it is too short or unattractive in appearance, it can be blended with the appropriate bellies and skirting lines (see section 2.3). Good quality neck wool (if sufficient in quantity to qualify for a separate line - one bale or more) must be marked as "NKS" with the appropriate preceding length symbol (see section 2.6).

2.5 Backs

If wool from the back of an adult sheep does not deviate in appearance, quality and VM contamination from the rest of the fleece, it need not be removed and packed separately. Otherwise, backs must be removed and marked as follows:

Mark	Contents
BKS1	Dusty, noticeably weathered backs
	Inferior backs, very dusty, badly weathered, short or containing crows nests
BKS3	All backs highly contaminated with seed

2.6 Fleece wool

The portion of the fleece that is sound in tensile strength (no break), which remains after the lines described in sections 2.2 to 2.5 have been removed, must be packed separately and marked according to an appropriate combination of symbols denoting the estimated length (AA-EE) and average fibre diameter of the wool (FF, F, M, S, SS). The classification system is based on the following matrix:

Length groups	Fineness classes (microns)				
	Superfine (<19)	Fine (19,1 - 20)	Medium (20,1 - 22)	Strong (22,1 - 24)	Overstrong (24,1 - 27)
>100 mm	A AFF	A AF	A AM	A AS	A ASS
80-100 mm	A FF	A F	A M	A S	A SS
70-80 mm	B BFF	B BF	B BM	B BS	B BSS
60-70 mm	B FF	B F	B M	B S	B SS
50-60 mm	C FF	C F	C M	C S	C SS
40-50 mm	D DFF	D DF	D DM	D DS	D DSS
30-40 mm	D FF	D F	D M	D S	D SS
20-30 mm	E EFF	E EF	E EM	E ES	E ESS
<20 mm	E FF	E F	E M	E S	E SS

All fleeces deviating noticeably from the average properties of the clip must be prepared and marked according to the following principles:

- Fleece wool exhibiting a clear break in the staple or general overall lack in tensile strength (tenderness) should NOT be divided into classes but only skirted, packed separately and marked “TDR”.
- Fleece wools with average fibre diameter longer than 27 micron must be packed separately and marked with the appropriate length symbol (see section 2.6) followed by “XM”.

2.7 Mixtures of lines in a single bale

More than one line (class) may be packed into a bale, provided that the lines are properly separated by a paper divider and the bale is marked “BIN” followed by the symbols denoting the lines separated by the paper divider.

2.8 Lambs' wool

Lambs' wool shorn from sheep not older than 8 months must be packed separately and marked by length category as follows:

Mark	Contents
CL	Lambs' wool longer than 50 mm
DDL	Lambs' wool between 40 and 50 mm
DL	Lambs' wool between 30 and 40 mm
EEL	Lambs' wool between 20 and 30 mm
EL	Lambs' wool shorter than 20 mm
LBP	Bellies and pieces from lambs
LLOX	Locks from lambs
XXL	Hairy and/or coarse lambswool

2.9 Hogget wool

Fleece wool from sheep up to 12 months old, and not shorn as lambs, (i.e. hoggets) must be packed and marked by length category as follows:

Mark	Contents
AAH	Hogget fleeces longer than 100 mm
AH	Hogget fleeces between 80 and 100 mm
BBH	Hogget fleeces between 70 and 80 mm
BH	Hogget fleeces between 60 and 70 mm
CH	Hogget fleeces shorter than 60 mm

Badly weathered/dusty backs, neck wool and other skirtings from hoggets must be packed and marked in the appropriate classes described for wool from adult sheep (see 2.2 to 2.5).

2.10 Wool from young sheep

If quantity and fineness warrant separate lines, fleece wool from sheep between one and two years old can be packed and marked with the appropriate length and fineness symbols denoted in section 2.6, suffixed with a “Y” symbol. Other parts of the fleece from young sheep must be prepared and packed according to sections 2.2 to 2.5.

2.11 Miscellaneous classes

The following marks must be applied to diverse types of wool which producers may have available for marketing:

Mark	Contents
VEL	All wool removed from the skin of a slaughtered animal ("skin wool")
PLK	All wool removed from the skin of a dead animal which has not been slaughtered ("dead wool")
MAT	All fleece wool exhibiting an overall lumpy/matted appearance
KBM, KBP, KLOX, etc.	Merino type wool containing floating kemp
BRANDS	Wool stained with marking fluids, paint, tar, marking oils or any other external agent

3. Classing and marking of white wool

3.1 Definition

"White wool" means wool other than Merino-type wool or cross-bred wool, which by nature is free from pigmented fibre and kemp.

Note: The same principles for classing of white wool apply as for Merino-type wool (see section 2), and must therefore be read together with the guidelines of section 2.

3.2 Fleece wool

Mark	Contents
WF	Fine, white fleece wool with average fibre diameter of up to 20 µm
WM	Medium, white fleece wool with average fibre diameter of 20 to 22 µm
WS	Strong, white fleece wool with average fibre diameter of 22 to 24 µm
WSS	Overstrong, white fleece wool with average fibre diameter of 24 - 27 µm
WR	Overstrong, white fleece wool with average fibre diameter of 27 - 30 µm
WRR	Overstrong, white fleece wool with average fibre diameter over 30 µm
XX	Coarse and hairy fleece wool and skirtings

3.3 Hogget wool

Mark	Contents
WAH	Hogget wool with a minimum length of 80 mm
WBBH	Hogget wool with a minimum length of 70 mm
WBH	Hogget wool with a minimum length of 60 mm

3.4 Bellies and pieces

Wool removed from the belly area of an adult sheep and/or portions removed from the fleece that deviates from the overall characteristics of the fleece, must be packed separately and marked as follows:

Mark	Contents
	Long belly wool (at least 60 mm) and fleece pieces, white to cream with good staple formation
	Short belly wool (40 - 60 mm), deep cream or slightly yellow and with good staple formation
	Long top knots/cheek wool and short fleece pieces (<40 mm) justifying a line of 3 bales or more
	Any belly wool, deep creamy or yellow with poor staple formation, at least 50 mm justifying a line of 3 bales or more

3.5 Broken fleeces

Neck-fold wools, breech wool or portions of the fleece from an adult sheep containing excessive vegetable matter must be packed separately and marked with a single length symbol according to the guidelines given in section 2.6. If it is less than one bale or if it is too short or unattractive in appearance, it can be blended into the appropriate bellies and skirting lines (see section 2.3). Good quality neck wool (if sufficient in quantity to qualify for a separate line - one bale or more) must be marked as "NKS" with the appropriate preceding length symbol (see section 2.6).

3.6 Backs

If wool from the back of an adult sheep does not deviate in appearance, quality and vegetable matter content from the rest of the fleece, it need not be removed and packed separately. Otherwise, backs must be removed and marked as follows:

Mark	Contents
WBKS1	Dusty, noticeably weathered backs
	Inferior backs, very dusty, badly weathered, short or containing crows nests
WBKS3	All backs highly contaminated with vegetable matter

3.7 Lambs' wool

Mark	Contents
WCL	Lambs' wool (bellies, pieces and locks removed) with a minimum length of 50 mm
WDDL	Lambs' wool (bellies, pieces and locks removed) with a minimum length of 40 mm
WDDL	Lambs' wool (bellies, pieces and locks removed) with a minimum length of 30 mm
WEEL	Lambs' wool (bellies, pieces and locks removed) with a minimum length of 20 mm
WEL	Lambs' wool (bellies, pieces and locks removed) shorter than 20 mm
WLBP	Lambs' belly wool and pieces
WLOX	Lambs' locks excluding urine-stained and dags
XXL	Hairy/coarse lambswool of inferior quality

3.8 Locks wool

Dung- and urine-stained matted wool, brisket wool, top knots and cheek wool, double cuts and sweaty wool removed from the adult sheep must be packed separately and marked as follows:

Mark	Contents
WLOX1	Long sweat locks, long matted brisket wool, long top knots and cheek wool - minimum length 40 mm
WLOX2	Shankings, short top knots and cheek wool, double cuts, hard sweaty pieces less than 40 mm
WLOX3	Light urine- and/or dung-stained wool
WLOX4	Very heavy sweat locks, dark urine-stained or dung-stained wool and hard sweaty pieces
WLOX5	Matted, very seedy locks, stained or unstained

3.9 Miscellaneous classes

Mark	Contents
WRAM	White wool shorn from rams
WMAT	Matted, white fleece wool
	White fleece wool with a clear break in the staple or general overall lack in tensile strength
	Wool stained with marking fluids, paint, tar, marking oils or any other external agents

4. Classing and marking of coarse white and coarse coloured wool

4.1 Definition

"Coarse and Coloured" wool (C&C) is wool that by nature contain kemp, pigmented fibres and/or hair. It must be kept separate from all other wool.

4.2 Classes and marking symbols

Mark	Contents
	C&C wool stained with marking fluids, paint, tar, marking oils or any other external agent
C&C LOX	Sweat locks, urine- and dung-stained wool, short inferior pieces
C&C BP	Seedy and matted belly wool and pieces
XW	Pure white fleece wool (all coloured portions removed)
C&C	Fleece wool containing a mixture of colours

5. Classing and marking symbols for cross-bred wool

5.1 Definition

"Cross-bred Wool" means white wool with a coarse/rough handle which does not contain pigmented fibres or a clearly noticeable quantity of kemp. It must be kept separate from all other wool.

5.2 Classes and marking symbols

Mark	Contents
BRANDS	Wool stained with marking fluids, paint, tar, marking oils or any other external agents
XLOX1	Sweat locks, short hairy pieces
XLOX2	Urine- and dung-stained wool
XBP	Short skirted bellies and fleece pieces
XCBP	Good length skirted bellies and fleece pieces
XBKS1	Backs wool of dusty and/or weathered appearance, or containing plant material and deviating significantly from the fleece
XBKS2	Very short and inferior backs
XF	Cross-bred fleece wool not more than 27 μm^*
XM	Cross-bred fleece wool not more than 30 μm^*
XS	Cross-bred fleece wool not more than 33 μm^*
XX	Coarse/hairy crossbred fleece wool, including hairy skirtings
XLLOX	Cross-bred lambs' locks
XLBP	Cross-bred lambs' bellies and pieces
XL	Fine, good quality cross-bred lambs' wool
XXL	Coarse, hairy cross-bred lambs' wool
XMAT	Lumpy, matted cross-bred fleece wool

**Prefix with appropriate length symbol (see section 2.6)*

6. Packing and marking of bales

- All greasy wool for delivery to buyers, agents, brokers or processors must be packed in nylon packs complying with the appropriate SABS/Wool Testing Bureau of SA standards and specifications.
- Advice on the minimum mass for bales is to be obtained from the buyer, agent or broker receiving the clip.
- A maximum of 9 bale hooks must be used to close the bale.
- Lines prepared and packed on the farm must be marked according to the guidelines of the buyer, agent or broker. □

Notes

