



Learner's Guide To **WOOL HANDLING**



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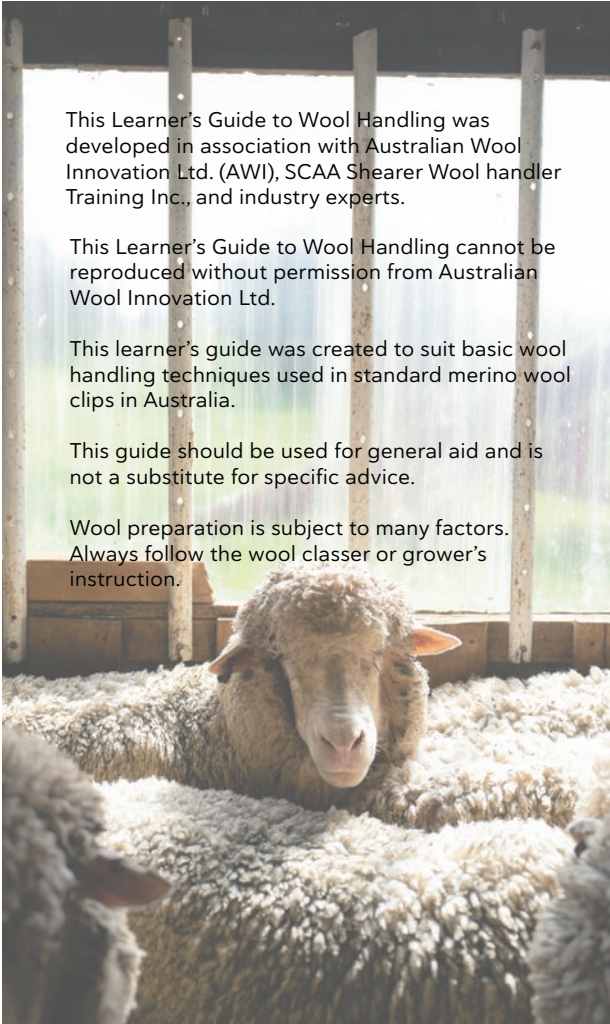
This Learner's Guide to Wool Handling was developed in association with Australian Wool Innovation Ltd. (AWI), SCAA Shearer Wool handler Training Inc., and industry experts.

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This learner's guide was created to suit basic wool handling techniques used in standard merino wool clips in Australia.

This guide should be used for general aid and is not a substitute for specific advice.

Wool preparation is subject to many factors. Always follow the wool classer or grower's instruction.



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ROLES IN THE SHEARING TEAM

WOOL HANDLER

A wool handler's primary role is to identify oddments and prepare the wool clip under the instruction of the wool classer or grower. The aim is to produce uniform lines of wool to promote the best return for the grower. This guide has been created to help anyone learn the skills and knowledge required to become a wool handler.

WOOL CLASSER

The wool classer is responsible for preparing the wool clip according to the AWEX Code of Practice (COP) standards. Always prepare the wool as instructed by the wool classer.

It is very important to be attentive in team meetings and to have a firm understanding of what the wool classer expects of you at every new shed or mob change etc., as there are many variables that impact the preparation of a clip. Be sure to always ask questions.

WOOL PRESSER

The wool presser is responsible for packing and pressing wool into bales, then labeling, documenting, and storing the bales.

PENNER-UPPER

The penner-upper or sheepo's role is to continuously move sheep through the shed keeping the catching pens full and emptying the let out pens. This role is often combined with the role of wool pressing.

CONTRACTOR

The shearing contractor has contracts with wool growers and employs all members within the shearing team.

WOOL GROWER

The wool grower or farmer is the owner of the sheep, they are responsible for the sheep and shearing shed preparation prior to shearing. The wool classer will communicate with the wool grower on many factors contributing to the overall clip preparation.



AWI FOUR PILLARS OF WOOL HANDLING

TEAMWORK

Using a system and communication between the wool classer, wool handlers, and shearers is crucial to ensuring efficiency within the team. All members of a wool harvesting team are dependent upon one another to complete their tasks.

Each team member is responsible for completing their job role correctly, in order to produce a quality product and share an even workload.

“Be the best that you can be, because that’s what’s best for the team and a team is what we are”

TIMING

Correctly anticipating a task relies on decision making, reaction time and reading the pace.

Wool handlers are required to match the pace of the wool flow. Being consistent creates predictable movements, allowing teammates to make better timed decisions.

TECHNIQUE

Using the correct technique when performing each task makes the job easier, faster and improves quality.

TEMPERAMENT

Wool handlers must remain open minded, be self-critical and optimistic in order to promote a good work environment and enhance productivity.

Remaining level-headed ensures techniques are performed correctly under pressure, with effective teamwork and sound decision-making for timing..

“Slow is smooth, smooth is fast”

YOUR FIRST DAY AS A WOOL HANDLER

STANDARD WORKING HOURS

A work day consists of 4x 2-hour work periods called ‘runs’.

Start time is typically 7:30am.
Arrive to shed at least 15 minutes before starting.

First Run	7:30am - 9:30am
Smoko	30 minute break
Second Run	10:00am - 12:00pm
Lunch	1 hour break
Third Run	1:00pm - 3:00pm
Smoko	30 minute break
Fourth Run	3:30pm - 5:30pm

WHAT TO BRING

Clothing

- ☐ Closed-in shoes, suitable for active use
- ☐ No loose clothing
- ☐ Comfortable/ active wear clothing

In your bag

- ☐ Drink bottle
- ☐ Sweat towel
- ☐ Nutritious foods (if meals are required)
- ☐ Work diary to record runs worked per day
- ☐ Personal broom

Documentation

- ☐ Bank details
- ☐ Tax details
- ☐ Superannuation



WOOL HANDLING JOB ROLES

T
A
S
K
S

BROOM

- Prepare belly wool
- Prepare crutch wools
- Sweep board
- Move piles

PICK UP

- Set up fleeces
- Pick up and throw fleece
- Help with skirting

TABLE

- Fleece preparation
- Roll up
- Tidy the wool room

ROTATING / SYSTEMS

The rotation is the system used for wool handlers to swap roles evenly throughout the run/day. The standard rotation period is 30 minutes.

Before starting, it is important for wool handlers to communicate and create a rotation system that all team members are clear on. This should outline the responsibilities and what tasks to prioritise within each job role.

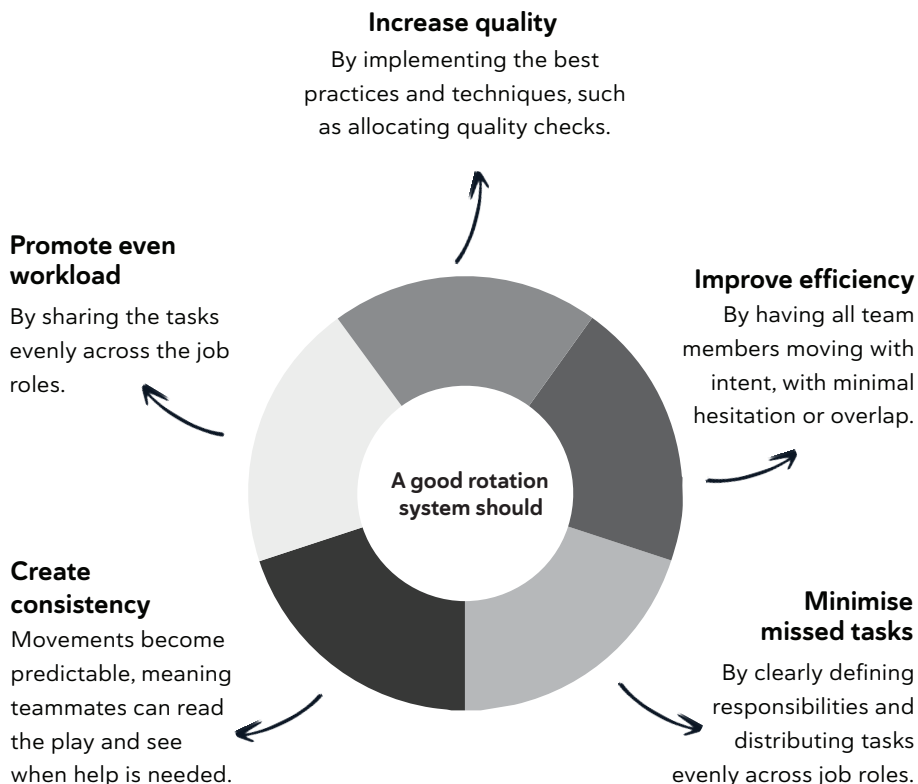
Your tasks within each job role will depend on:

- Staff ratios
- Clip preparation standards
- Speed of wool flow
- Shed design

You may be asked to do a mixture of roles, for example broom/ pickup, where you will be expected to handle tasks from both roles at the same time.

Aim to complete all tasks associated to your role with minimal assistance.

If you have time, look to help your teammates and don't hesitate to ask for help.



CLEAN UP

In the last 5 minutes of your rotation, make sure your area is clean and ready for your teammate by:

- Tramping all butts and changing if needed
- Emptying boxes
- Giving your area a good sweep
- Picking up piles

Take your mess with you

BASIC HOW TO: BROOM

PRIORITIES

1.

REMOVE &
PREPARE
CRUTCH WOOL

2.

PREPARE &
ORGANISE
BELLIES

3.

SWEEP
BOARD

The broom is your main tool, it needs to follow you through your job roles. Place in a common area where it is quickly and easily accessible.

BROOM WORK

'How-to' video demonstrates:

- Broom design
- Holding technique
- Sweeping technique
- Hands-free technique



SWEEPING THE BOARD

The shearers stand needs to be swept clean of any wools (commonly locks) after every fleece is picked up, before the shearer drags out another sheep.

BELLY

1. Observe the belly whichever side it lands (laying it flat).
2. On the white side, check for skin, locks, and possible brisket. On the dirty tip side, check for urine stain.
3. Flip to the other side and check over.
4. Move the belly by placing next to a sheep where the next belly is about to drop, or place in the pack holder/ stack in the bin if timing allows.



WETHER BELLY

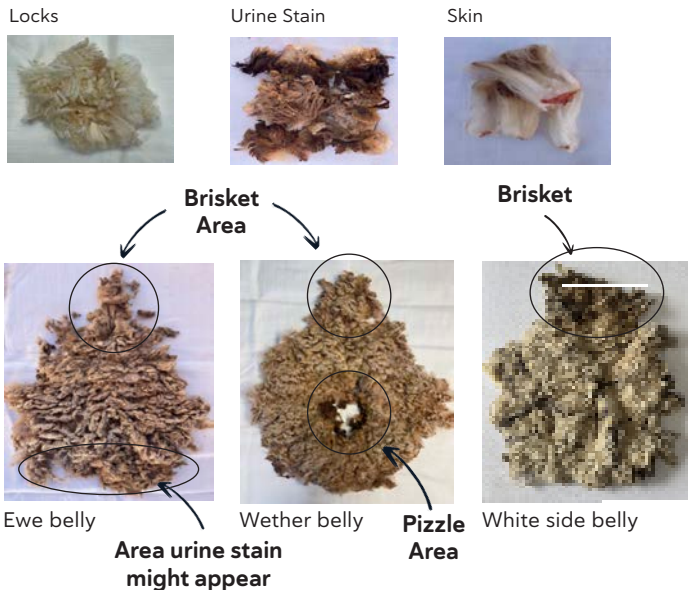
If it is a wether belly, urine stain, referred to as 'pizzle stain', is removed by breaking the belly open and skirting around the stain.

Communicate with the team to decide who is responsible for removal of pizzle stain. This is commonly the person on broom. Ensure all completed bellies are broken open from the pizzle area to clearly indicate to other teammates that the pizzle stain has been removed.



Continuously organise bellies by laying them flat on top of each other. This makes it easier to prepare bellies, clears space for sweeping piles and makes it easier for the teammate on pickup to help move bellies without having to enter the board area.

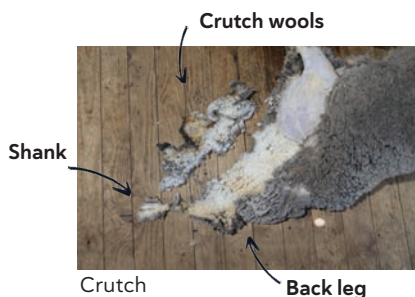
TYPICAL BELLY ODDMENTS



CRUTCH

Timing is crucial when preparing the crutch. Use your judgement of the shearers' style, pace, and the cleanliness or the amount of work required in the crutch to implement correct timing.

1. The crutch only becomes accessible once the shearer has completed shearing the first leg. When the handpiece is directed towards the shearers' foot, use the corner of the paddle to clear crutch wool.
2. If required, use the 'hands-free broom technique' to skirt off the shank and long urine stain.
3. After removing the crutch wools, position the back leg of the fleece to be in-line with the sheep's body. This prevents the shearer from stepping on the back leg with either foot as they step up to shear the neck.



TYPICAL CRUTCH ODDMENTS



Always be aware of the position of the sheep's legs and where the handpiece is going.

Use your hands rather than the paddle to remove shanks or long stain, as you have more control and therefore minimise the removal of good wools.

Placement of the back leg is important as it effects the set up of the fleece. If placed incorrectly, the shearer may step on the leg and move it out of position. This makes setting up the fleece more difficult and less efficient, as extra time is taken to find and reposition the leg.

MOVING PILES

A system commonly used to move piles on both open & closed boards is:

1. Stain - moved in-between or behind shearers
2. Belly - moved in the middle of board
3. Locks - moved outside of the board

Keep your eyes up! Know what section the shearer's are up to, so you can accurately anticipate the next task and position yourself where you need to be.

Utilise hands to move small piles.

Save time walking up and down the board by anticipating the next task and moving piles accordingly. For example, moving a stain pile in front of a crutch that hasn't dropped yet, placing locks next to a fleece that is about to be picked up, and moving bellies next to a sheep where the belly hasn't dropped yet.

Leave piles tight and neat, and pick them up before they get too big.

Piles should always be moved in the direction of their appropriate pack.

ROAD RULES

The wool handler on broom should always step towards/in between the shearer's while the person on pickup goes on the outside. This allows both wool handlers to do their job while avoiding collision.

BASIC HOW TO: PICKUP

PRIORITIES

1.

SET UP
FLEECES

2.

PICK UP &
THROW

3.

HELP TABLE
OR BROOM

4.

JUMP/
CHANGE
PACKS

Each step of the pickup process is important, as the initial set up and pick up technique will determine the fleece's landing position on the table.

SET UP

Aim to arrive at the fleece as the last leg is being shorn to allow time for set up. Factor in the shearer's pace, style, and your distance from wool table for accurate timing.



1. Identify first back leg.
2. Position yourself so that your feet are at the neck of the fleece.
3. Lift the front leg and move it back toward yourself to flatten. Both back legs should now be exposed.
4. Square up and compact the fleece by pulling the fleece toward yourself.

First Back Leg

This is the leg we position when preparing the crutch

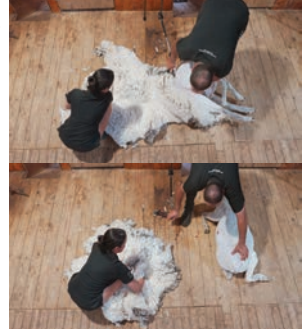
1.
2.



3.



4.



PICK UP

Aim to have fleece in your hands just as the shearer stands up to enter the pen. This prevents hindering the shearer, and also provides the teammate on broom with more time to sweep the board.

1. Place hands on both back legs and slide together to gather crutch area and grab legs.
2. Pull fleece back on itself until it is flat when looking down.
3. While still holding onto the back legs, release only your peace fingers and scoop underneath the shoulders of the fleece. Lift and stand up with the fleece in a tight ball.



Peace Fingers



Using pinky, ring fingers, and thumb to grab and hold back legs.



Do not let go of back legs.

Be sure to keep feet together to use as a backboard when rolling the fleece back. This allows you to get a tight grip on the fleece, preventing the wool from dropping.

You should be able to hold the fleece away from your body using only your hands, like a ball.

If the fleece is dropping, place it on the ground and re-gather before throwing.

THROW

Landing the fleece correctly on the table allows for easy identification of fleece parts and oddments ready for efficient fleece preparation.

1. Position yourself a step back from the base of the table.
2. Use momentum and aim the fleece high to project the fleece over the length of the table.
3. Release only your 'peace fingers' when throwing so that you are still holding onto the back legs after you throw.
4. The neck of the fleece should land at the top of the table (furthest from you), and the back legs at the base of the table (closest to you).



Ensure all wool lands on the table. Retrieve any fleece wool that may have dropped down the board or off the end of the table.

If the table is full, place the fleece on a clean area of floor, out of any main routes, or on the end of the table.

Anticipate the timing of fleece roll up so you don't waste time holding a fleece. Instead, place the fleece down and help skirt or with other tasks if time allows.

Release peace fingers



BASIC HOW TO: TABLE

PRIORITIES

1.

**PREPARE &
ROLL FLEECES**

2.

**MAINTAIN A
CLEAN WOOL
ROOM**

3.

**CHECK
ODDMENTS
FOR
UNIFORMITY**

SKIRTING

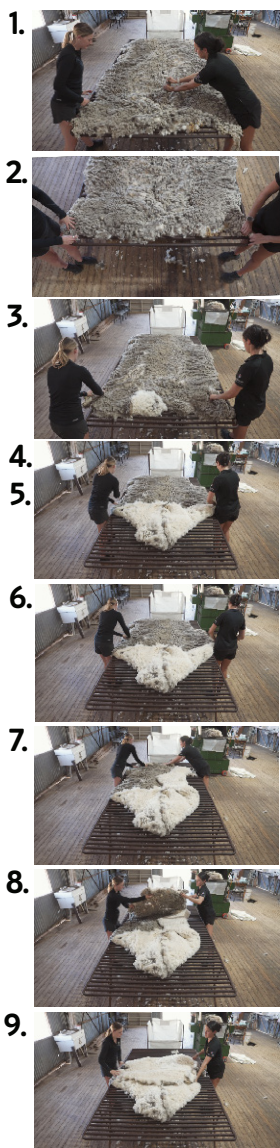
We skirt with our thumb, index, and middle finger, using our fingertips in a walking motion to separate the pieces from the fleece wool. The inside hand gathers the fleece wool and is the guide to how much is taken off, while our outside hand gathers the pieces.

Skirting this way will naturally pull the fleece towards you, to flatten and expose the edge where sweat pieces are found.



When skirting, always position your body so that you are facing the direction that the pieces are going. It is important to make intentional throws into the correct bin or butt, to prevent cross-contamination and minimise double handling.

Always continue skirting until you meet the teammate who is skirting the opposite side of the fleece. This ensures the fleece is completed and does not waste time.



TABLE

Fleece preparation is the process of skirting the fleece to create uniformity. The wool classer will decide on the level of skirting required, as all fleeces are different. There is no 'one size fits all' in the amount of wool removed.



1. Scan the top of the fleece for any inferior wools, such as brand or locks.
2. Check for, and remove the shank. Then remove short or stained wool from the crutch area.
3. Proceed to skirt the sweat pieces off the back legs.
4. After skirting the back legs, flip over to expose the white side and check for any skin or missed pieces.
5. Scan the side for any belly wool.
6. Skirt sweat pieces from the front leg, checking for shanks.
7. Flip front leg to white side to check over.
8. Skirt the neck and flip backwards to expose white side.
9. Finally, flip your side of the fleece over to the wool classer.



OTHER TASKS

SETTING UP THE WOOL ROOM

The set up of the wool room is very important, as it maximises wool flow, efficiency and minimises cross-contamination.

The set up of the wool room will depend on the shed design e.g. an open, closed, or raised board, and also the wool preparation required in that clip.

When setting up the wool room, pack holders and boxes should be placed in practical areas. This helps to keep the workspace compact, minimising turning & throwing distance, while also leaving main routes clear, and space for piles.

Boxes and pack holders for contaminants such as STN, DAG, SKN should be strategically placed to avoid cross-contamination from throwing.

It is also recommended that all packs and boxes are labeled to avoid confusion.

CHANGING/ LABELING PACKS

When placing a wool pack in the holder, the bottom four corners should be touching the ground to make removal easier once full.

When wool butts are full, wool handlers are required to jump/tramp the butts by stomping on the wool and pushing it down. This is repeated each time the butt appears full, until the top corners of the butt are tight, indicating it is ready to be changed. This creates predictable weights, saves space in the wool room, and makes pressing more efficient.

Clearly label the butt's contents and date (if using old packs with multiple descriptions) on the inside flaps.

FOLDING A PACK

Used packs are folded for neat storage between uses.

MAKING A BOX

Wool packs can be used to make boxes to store wool when pack holders aren't provided.

STACKING

Stacking wool is an important tool as it:

- Displays uniformity in a line
- Exposes any faults
- Is more efficient for the wool presser
- Is neater and saves space, reducing overflow and cross-contamination
- Makes for predictable weights

Bellies should be splayed flat and piled to roughly the height of an average person. Once the first stack reaches this height, an identical stack can be started directly in front and so on.

Pieces should be piled at the back of the wool bin.

Stacking is not a priority. Ensure all other tasks are being completed first.

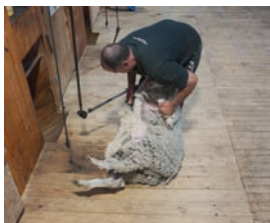


Bellies



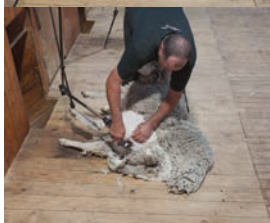
Pieces

SHEARING SECTIONS



Belly:

The belly is the first section to be shorn. The belly will be removed for wool handler's preparation. It is an indicator that the crutch will be shorn soon, once the belly lands.



Crutch & Undermine:

Shorn after the belly. Wool handler is required to prepare crutch wools and position the back leg.



Neck:

The shearer will step up, making the crutch wool no longer accessible. This is why it is important to have correct timing when getting the crutch.



Long Blow:

This is where the front leg/ shoulder of the fleece falls over the first back leg.



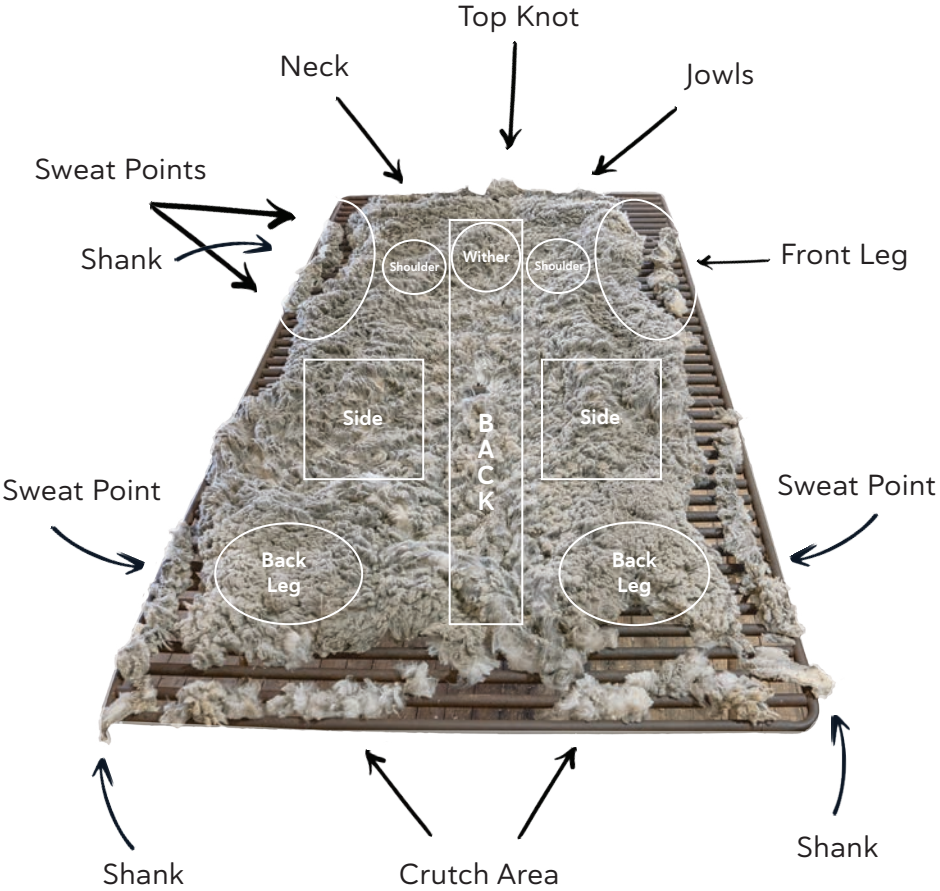
Last Leg:

This is when the wool handler should arrive to set up the fleece. Arrival time should depend on the shearer's speed, and distance from the wool table. This is also an indicator that the board will need to be swept soon.

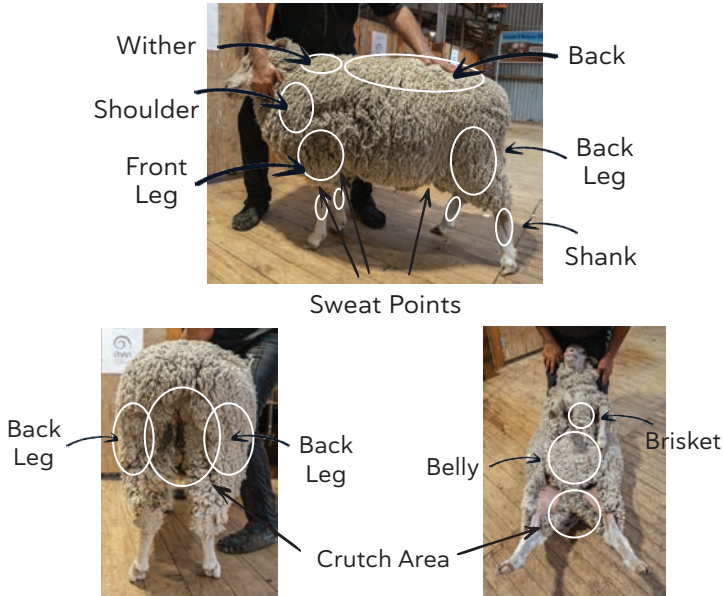
IDENTIFYING ODDMENTS

FLEECE DIAGRAM

It is important that wool handler can identify the different parts of the fleece, as each part contains specific oddments and fleece types.



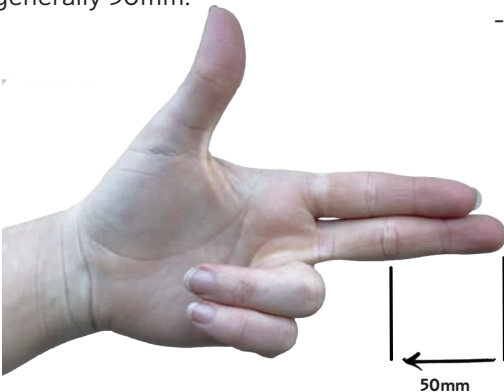
WHERE IT COMES FROM



WOOL LENGTH INDICATOR

Wool preparation is based on separating wools by length over 50mm and under 50mm.

Fingers can be used as a guide to measure the length. From the tip of the finger to the second knuckle is generally 50mm.



CONTAMINANTS

Contaminants have major effects on the wool pipeline. Every effort should be made to contain and prevent them. Notify the classer if you find any:

- Black wool
- Non-fleece materials, such as bailing twine, wire, or rubbish.

All wet wool must be dried before pressing



Locks:

Wool under 50mm. Locks mainly consist of second cuts and short regrown wool.



Soft Shank

Shanks:

Wool from the hock of the sheep. Shanks may contain short medullated fibres. Hairlike.



Hard Shank

Dag:

Wool coated in hard clumps of dung.





Long Urine Stain



Short Urine Stain



Brisket:

Wool from the chest on the belly. Brisket may be removed if classer directs, due to colour, cott, or length.



Belly:

Wool from the stomach of a sheep.



Pieces:

The bulk of what is skirted off the fleece, made predominantly of sweat fribbs.



Jowls:

Wool from the jaw of the sheep, Jowls are distinctly different from the pieces, due to cott or high VM (vegetable matter) content.



Top Knot:

Wool from the top of the sheep's head.



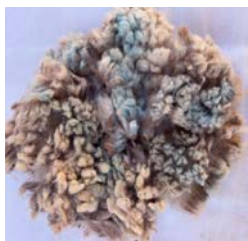
Water Colour



Dusty Back



VM Back



Backs:

Wool from the back of the sheep/center of the fleece that may contain VM or dust. The classer may instruct to remove backs, in order to improve the main fleece.

Brands:

Sheep marking substances, e.g. raddle, sprays, or brands found in the wool. Brands can limit the ability to dye wool light pastel colours.



Pen affected:

Wool that has been soiled from dung or wet from urine, typically on the surface on the fleece.



Dermatitis:

Columns of hard scabs/lumps found in the wool caused by a bacterial infection.



Fly:

Wool that is the consequence of fly strike. Fly is typically green, and can be wet or dry.



Black:

Black wool is a contaminant and must be strictly removed from white wool breeds.



Skin pieces:

Wool that has skin attached. Has processing implications.

GLOSSARY

Terms that might be announced by team members and require immediate action:

Black wool

When 'black wool' is announced, wool handlers must immediately respond by removing ALL black wool and fibers and placing them in the appropriate area instructed by wool classer. Communicate with classer if the sheep needs a raddle or if the entire fleece needs to be removed.

Cut-out

A call to inform a change of sheep, which could cause a change in wool preparation, or inform the end of shearing.

Dermo

A call to inform wool handlers of dermatitis affected wool. Communicate to the wool classer before placing the fleece on the table and follow their instruction.

Fly

A call to inform wool handlers of fly blown wool, so that they can remove the affected wool and dispose of it, under the classer's instruction.

Raddle

A term/ call made by shearers, in which you are required to mark the sheep that they are currently shearing with the raddle (a coloured spray or chalk). This is used to identify sheep.

Sheepo

A term/call made by shearers to fill up their catching pen with sheep. You may be required to fill up the pen or communicate to the penner-upper that they are needed.

Wether

A call to inform wool handlers to check the belly for pizzle stain and possibly apply raddle.

Wool away

A call made by shearers when a wool handler needs to immediately remove a fleece off the board.

WOOL TERMS

Brand

Raddle found in the wool, e.g. wool coloured with chalk or spray.

Branding

The action of painting ink over a stencil to apply the “brand to a bale”.

Carding wool

Wool that is shorter than 50mm length.

Combing Wool

Wool greater than 50mm in length.

Clip

The total amount of wool shorn on a property in one year. Or, metal clips used to close bales and butts ('bale clips').

Cotted

Matted section of a fleece.

Dermatitis (Dermo)

Wool that is matted or clumped together caused by a bacterial infection.

Fleece

The main body of wool that forms the sheep's coat.

Flyblown

Sheep or wool infested or affected with or by maggots.

Line

Each different grade of wool is separated and referred to as a 'line of wool', e.g. A line of fleece wool, a line of belly wool or a line of locks.

Oddments

Another term for all other lines of wool that aren't fleece wool, such as locks and shanks.

Overgrown

Any wool that has more than 12 months growth.

WOOL TERMS

Over-skirting

Removing good fleece wool while skirting, which ultimately down-grades the wool in the pieces lines.

Pen Stain

Fleece wool discoloured by sheep's faeces while the sheep are being penned. Usually a dark green colour.

Pizzle Stain

Urine stained wool found on bellies from around the pizzle of male sheep.

Second Cuts

Refers to locks.

Scourable

Wool that can be washed clean of all impurities and colour.

Stain

Wool fibres that are affected predominantly by urine that can't be removed by scouring and are permanently discoloured.

Staple

A group of individual wool fibres 'clumped' together within a fleece.

Top Knot

Wool from the top of a sheep's head.

Under-skirting

Not removing all the wool faults from the fleece.

Vegetable Matter (VM)

The term to describe all burr, seed and hardhead found in wool.

Wet Wool

Wool that needs to be dried. Wool that is packed wet can ignite through spontaneous combustion.

SHEEP TERMS

Lamb

Young sheep from new born to 6 months of age.

Weaner

Young sheep older than 6 months that has not been shorn.

Hogget

Young sheep which has previously been shorn.

Ewe

A female sheep.

Ram

A male sheep with its sexual organs intact used for breeding.

Wether

Male sheep that has been castrated. The majority of male sheep on a farm are wethers.

Stag

Male sheep that has not been castrated properly.

Cull

An inferior sheep that is removed from the flock.

Pizzle

Male sheep's penis.

Mob

One group of sheep within a flock. A flock may comprise several mobs according to age, sex or breed, e.g. lambs, hoggets, wethers or ewes, crossbred or merinos.

Merino

Sheep breed.

Crossbred

Sheep breed.

Cut Out

The end of a particular mob of sheep within a flock.

EQUIPMENT TERMS

Bale

Wool pressed into a pack using a wool press meeting specifications set in the 'AWEX Code of Practice' for the preparation of wool.

Bale Fastener/ Clip

Metal clasp used to close a bale of wool.

Bale Hook

A tool to help grasp bales of wool while handling.

Batts

Plastic batts used to pick up loose wool.

Bin

Storage for a line of wool prior to pressing.

Broom / Paddle

Specialised broom or floor sweep used by a wool handler.

Butt

A wool pack containing wool packed down by hand/ by stamping wool.

Pack Holder

Frame used to hold a wool pack to be used as a butt.

Raddle

A chalky like substance used to identify sheep.



Wool Table



Wool Pack



Pack Holder



Batts

EQUIPMENT TERMS

Set Up

Set up the shearing shed particularly the wool room prior to commencement of shearing by allocating bins and placing pack holders in practical locations.

Stencil

Plastic or metal template used for branding bales.

Tally Book

A book used to record the numbers shorn by each individual shearer (tally) and used to determine wages.

Wool Book

Book for recording bale numbers, content, weight and pertinent information. This is maintained by the wool presser.

Wool Pack

Specifically designed bag made of nylon to pack and transport wool.

Wool Press

A machine used to package wool.

Wool Table

Table on which fleeces are placed for skirting and rolling.



Bale Fasteners



Bale Hook



Stencil



Bins

SHED AREAS

Board

Area used for shearing the sheep.

Camp-out Shed

A shearing shed where accommodation and meals are supplied to the team.

Catching Pen

Pen adjacent to the board where the shearer catches their sheep prior to shearing.

Chute

The ramp which a sheep slides down into the let-out pen after being shorn.

Hospital Pen

A designated pen for sick or Injured sheep.

Let-out Pen

An individual pen for each shearer to release their shorn sheep into.

Porthole

The entry into the let-out pen from a shearing board.

Quarters

Name for accommodation provided at camp-out shed.

Stand

Section of a shearing board allocated and used by one shearer.

Wool Room

The dedicated area within a shearing shed where fleeces are skirted and classed.

NOTES PAGE...
