

IWTO Licensed laboratories use the Test Method IWTO-19 to assess the amount of useable clean wool which can be obtained from shipments of greasy wool. This test method details how contaminants; VM, grease and ash, should be separated from the wool fibres to give the processor an accurate means of assessing output.

It is possible to describe the amount of clean fibre present in a number of ways. If you obtain an IWTO Test Certificate for Greasy Wool you are likely to see some different yield figures depending on which calculation has been asked for. The following definitions are for the most frequently requested descriptions of yield and its associated terms.

**Wool Base** is the percentage of a sample which is dry wool fibre free from any impurities e.g. vegetable matter, moisture, dust, grease etc.

**Vegetable Matter Base** is the percentage of a sample which is made up of burrs, hard heads, twigs, seeds, leaves and grasses free from ash and ethanol extractives.

**The Wool Base and Vegetable Matter Base** results are used to calculate the amount of clean wool fibre that is expected to be produced when a lot of raw wool is processed i.e. the **Yield** of a lot.

The Yield is expressed as both a percentage of the mass of raw wool and a clean mass in kilograms, the most commonly used yield calculations are:

**IWTO Scoured Yield at 16% Regain** is a laboratory theoretical yield commonly called the "washing yield". This estimates the yield of a lot after scouring but before any processing to remove vegetable matter so the wool base and VM base are added together as the basis of this yield. An allowance is then added for residual ash and grease after scouring and a figure of 16% regain is also added.

**IWTO Schlumberger Dry (Top & Noil Yield)** is a commercial yield which predicts the amount of Top and Noil that can be combed from a greasy lot. The total fatty matter content is 1% and a ratio of 8:1 is assumed for the conditioned weight of Top to the conditioned weight of Noil. To the wool base an allowance is added for residual ash and grease after scouring and an additional allowance is added for fibres lost during processing. 18.25% regain is added to the top and 16% regain is added to the Noil.

**Australian Carbonising Yield** is a commercial yield which allows for the expected losses during Carbonising. To the wool base an allowance is added for residual ash and grease, an additional allowance is also added for processing losses during carbonising and 17% regain is assumed.

**ASTM Clean Wool Fibre Present** is a yield calculation from the American Society for Testing & Materials. To the wool base an allowance is added for residual ash and grease and a regain of 13.64% is assumed.

If you have any questions regarding the above please feel free to contact Wool Testing Authority Europe by email: [info@wtaeurope.co.uk](mailto:info@wtaeurope.co.uk).