

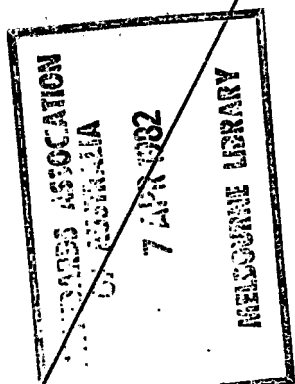
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Australian Standard 1134—1982

DETERMINATION OF WOOL BASE AND VEGETABLE MATTER BASE IN RAW WOOL



AS/NZS 1134:1996
Wool—Determination of wool
base and vegetable matter base
of core samples of raw wool
(IWTO-19-85)
(In Professional Package 54B)
31pp G
Sets out the procedures to be
used for determination of the
wool base and vegetable matter
base from which the commercial
yields of classed growers' lots,
interiors, bulk classed lots and
deliveries are calculated.
Applicable to core samples only
and covers all forms of raw wool.
It is identical with and has been
reproduced from IWTO-19-85.
(TX/12) Supersedes AS 1134—1982.
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THE FOLLOWING INDUSTRIAL, SCIENTIFIC AND GOVERNMENTAL ORGANIZATIONS and departments were officially represented on the committee entrusted with the preparation of this standard:

Australian Council of Wool Buyers
Australian Wool Corporation
Australian Wool Testing Authority
CSIRO, Division of Textile Physics
Department of Defence
Department of Primary Industry
Livestock and Grain Producer Association of New South Wales
National Council of Wool Selling Brokers of Australia
National Farmers Federation
University of New South Wales
Wool Textile Manufacturers of Australia

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PREFACE

This edition of this standard has been prepared by the Association's Committee on Testing of Wool to supersede the 1971 edition. It describes procedures for determining the actual fibre content (wool base) and vegetable matter content (vegetable matter base) in samples of raw wool. These values in turn may be used to calculate the estimated commercial yield of the raw wool by the procedure given in Appendix G. The quantity of extraneous materials, such as alcohol-extractable matter and total alkali-insoluble matter in scoured subsamples, may be determined by procedures given in Appendices E and F.

The revised procedures require that raw wool samples be drawn for testing in accordance with AS 1980 and provides for testing of two, three or five subsamples, provided that the range of results of the tests are within specified limits. Scouring procedures prefer the use of non-ionic synthetic detergent at 70°C. Because the correction for moisture content of ambient air during drying is relatively small, increments in air temperature and relative humidity have been increased, thus simplifying the correction table in Appendix C. Precision data on the method is given in Clause 9 and Appendix H.

The standard is one of a series of standards for the sampling and testing of wool. Other standards in the series are as follows:

AS 1133	Method for the Determination of Fibre Diameter of Raw Wool
AS 1362	Method for Calculation of Combined Test Certificates for Yield and Fineness of Greasy Wool in Consignments
AS 1363	Method for the Grab Sampling of Greasy Wool from Bales
AS 1401	Method for the Sonic Fineness Testing of Raw Wool
AS 1555	Method for the Determination of Wool Content and Mean Fibre Diameter of Raw Wool in Presale Lots
AS 1809	The Preservation of the Integrity of Raw Wool Samples for Display
AS 1980	Method for Core Sampling of Raw Wool in Bales
AS 2104	Method for Matching and Building Sale Lots of Greasy Wool in Bales by Objective Measurement
AS 2274	Requirements for the Issue of a Test Certificate for Raw Wool

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard

METHOD FOR THE DETERMINATION OF WOOL BASE AND VEGETABLE MATTER
BASE IN RAW WOOL

1 SCOPE. This standard sets out procedures for determining wool base and vegetable matter base in samples of raw wool drawn by core sampling methods. Methods for calculating commercial yields are included as an appendix.

2 REFERENCES. This standard requires reference to the following Australian standards:

AS 1152	Test Sieves
AS 1980	Method for Core Sampling of Raw Wool in Bales
AS 2274	Requirements for the Issue of a Test Certificate for Raw Wool

3 DEFINITIONS. For the purposes of this standard, the following definitions apply:

Greasy wool—wool from sheep or sheepskins which has not been scoured, carbonized or solvent-degreased.

Hard heads and twigs base (H)—the oven-dry mass of ash-free, ethanol-extractives-free hard heads and twigs, expressed as a percentage of the mass of the sample.

Oven-dry mass—the mass of wool obtained by oven drying the scoured subsamples at 105°C, corrected for the moisture content of the drying air.

NOTE: The oven-dry mass is determined by the method described in Appendix C.

Raw wool—wool fibre together with variable amounts of vegetable matter and extraneous alkali-insoluble matter, mineral matter, wool waxes, suint and moisture. It includes—

- greasy wool;
- wool which has been scoured, carbonized, washed or solvent degreased;
- scoured skin wools;
- slipe wools.

Sample—a core sample of raw wool drawn in accordance with AS 1980 from a lot or consignment for testing.

Subsample—the randomly drawn portion, representative of the sample, for determination of wool base.

Test specimen—the randomly drawn portion, representative of the scoured and dried subsample, to be used for determining a specific impurity in that subsample.

Total alkali-insoluble matter—the oven-dry, ash-free, ethanol-extractives-free, alkali-insoluble matter present in a test specimen (expressed as a percentage). It comprises vegetable matter together with any skin, dags, pack material, strings, paper and lime present.

Vegetable matter—the burrs (including hard heads), twigs, seeds, leaves and grasses present in wool.

Vegetable matter base (VMB)—the oven-dry mass of ash-free, ethanol-extractives-free vegetable matter, expressed as a percentage of the mass of the sample.

NOTES:

- 'Hard heads' are Ring burrs (*Sida platycalyx*), Noogoora burrs (*Xanthium pungens*), Bathurst burrs (*Xanthium spinosum*) and similar burrs of a bean-like or woody character covered in readily removable spines. They are believed not to contribute to a loss of wool during processing.
- 'Twigs' are small pieces of stick, woody leaf stalks and similar woody material. They do not contribute to a loss of wool during processing.

Vegetable matter (scoured) (V)—vegetable matter base expressed as a percentage of wool base.

Wool base (B or B_i)—the oven-dry mass of wool fibre in a sample or subsample free from all extraneous matter, i.e. ash-free, ethanol-extractives-free and free from all vegetable matter and other alkali-insoluble matter, expressed as a percentage of the mass of the sample or subsample.

4 PRINCIPLE. The proportion, by mass, of vegetable matter, ash and ethanol-extractable matter in oven-dry scoured subsamples of raw wool is determined. These values are then used to calculate, by difference, the proportion of clean, oven-dry scoured wool in the raw wool sample. The proportions of wool and vegetable matter expressed as a percentage of the mass of the sample and termed 'wool base' and 'vegetable matter base' are used to determine various commercial yields by the application of commercial allowances.

5 SAMPLING. Samples shall be drawn by the core sampling method described in AS 1980. The mass of sample drawn shall be sufficient to provide five subsamples each having a mass not less than 150 g.

NOTE: The method given in AS 1980 will produce a sampling precision of ± 0.84 percent wool base (± 1 percent clean wool content) at a probability level of 0.95.

6 PROCEDURE. The wool base and vegetable matter base of the sample shall be determined by the following procedure:

- Subsampling.* Draw two subsamples in accordance with the procedure described in Appendix A. Then test the two subsamples in accordance with steps (b), (c) and (d) below.
- Scouring.* Scour each subsample as described in Appendix B. The scouring step may be omitted if the sample consists of scoured wool containing not more than 5 percent by mass of ethanol-extractable matter.