

Basic Fibre Composition

Produced for the CRC for Premium Quality Wool undergraduate program by; Dr. Janelle Hocking Edwards, The University of Western Australia.



Basic components of the fibre

- Fibre is 85% protein (amino acids)
 - C, H, N, O and S are main elements
 - these determine the fibre's chemical properties
- Some lipids are present
- The major minerals are Ca and Na



Amino acid composition

Residues per 100 residues of amino acids

Amino	Whole	LS	HS	HT
acid	wool	proteins	proteins	proteins
Arg	6.2	7.8	6.2	3.5
Cys	13.1	6.0	22.1	6.4
Gly	8.6	5.2	6.2	26.5
Lys	2.7	4.1	0.6	0.0
Met	0.5	0.6	0.0	0.0
Tyr	3.8	2.7	2.1	18.0

Premium

Quality

Wool

J. Hocking Edwards Source: Reis, P.J., (1979)