



CRC

for

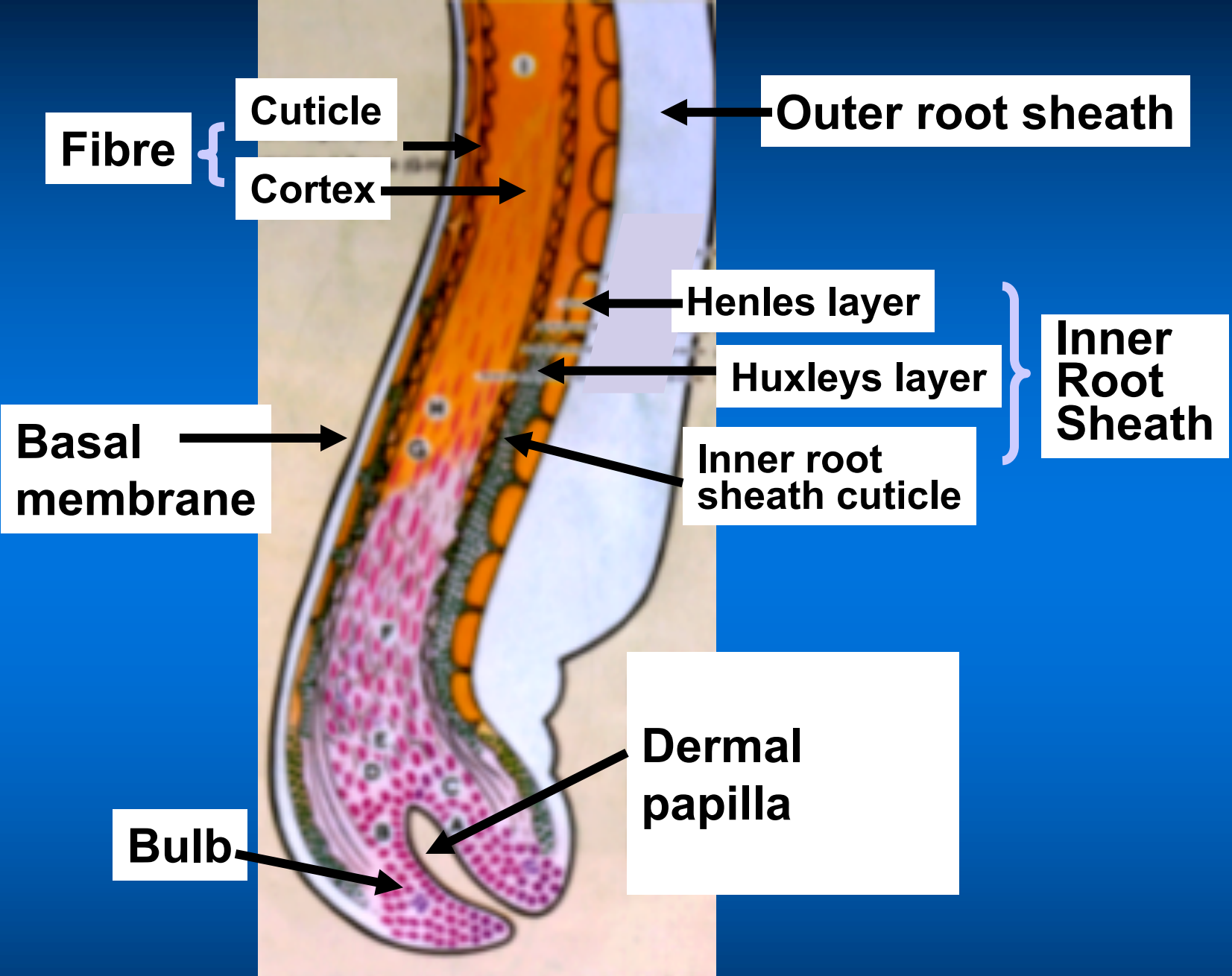
Premium

Quality

Wool

# General Follicle Structure

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





# Components of the follicle

- follicle bulb
- dermal papilla
- fibre
- inner root sheath (IRS)
  - cuticle
  - Huxleys layer
  - Henles layer
- outer root sheath (ORS)
- basal membrane

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# Inner root sheath

- **Henles layer**
  - closest to ORS/hardens first
- **Huxleys layer**
  - mobile cell population
- **Cuticle**
  - complex shapes
- **Production ratio**
  - $\text{Fibre Area}/(\text{Fibre Area} + \text{IRS Area})$

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# Outer root sheath

- Similar in all follicles
- Thickened in deflected bulbs
- Continuous with the epidermis
- High glycogen content
- Thickness varies with season/nutrition and stage of the follicle cycle

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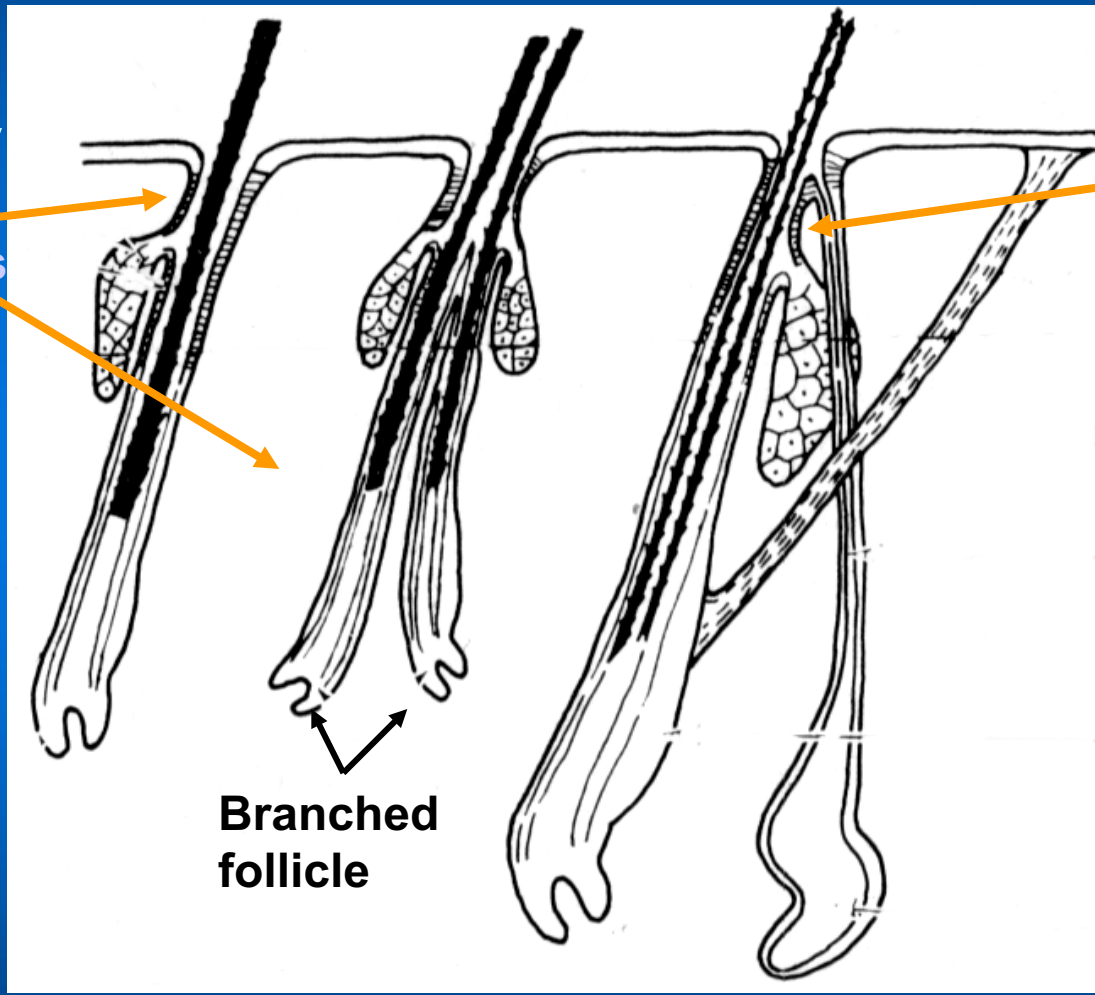
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# Primary and secondary follicles

**Secondary follicle**  
• sebaceous gland



**Primary follicle**  
• muscle  
• suint gland  
• sebaceous gland

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**Branched follicle**



# Follicles drawn parallel to the skin surface

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The remaining follicles are all secondary follicles

Primary follicle

Primary follicle

Primary follicle

- muscle
- sweat gland
- sebaceous gland