

fresh start, and, therefore, shows a weakness, or mark, in a particular part. This mark is a break in wool.

Atrophy is a term never used among men regularly engaged in the wool trade. Nevertheless, such a term exists. It means wasting or withering away. The fiber appears thick and thin, and frequently one-half will have a normal growth, while the other will have a distinctly thinner or smaller diameter. This is caused more by a disease in the wool itself. Hypertrophy is a formation which is very faulty, and means a morbid enlargement or swelling. This enlargement may continue through the length of the fiber, until a diameter even twice as large as other parts is attained. When this happens the internal structure is affected, which greatly reduces the strength of the fiber.

The term "untrue" is very often confounded with unevenness, but strictly speaking, the former relates to the formation of the fiber, and the latter to the whole covering of the sheep. Untrueness is considered a great fault, both in the show yard, as well as by the manufacturer. The wool is generally perfectly sound, but has an irregular appearance. Upon examination it will be seen that in the staple there are sometimes two and three different formations. In one part the crimps are close and distinct, in another part they are wider or more undulating, while in the remaining part they will almost be straight. Usually these different formations will give different diameters. Lately I have spent much time in measuring the diameters of various kinds of wool, and in one pure merino fiber I found one give 1-1,700, 1-1,100, 1-790 of an inch. Untrueness is caused by changeable temperature, also a change of food, more especially among housed sheep. It often occurs that when two different types of merino sheep are put together the progeny will show untrueness in their wool. Then it is said that the breeds have not blended or nicked.

There are three distinct classes under this head, viz: tick-stained or dingy, discolored and stained. The former fault should not exist, and would not if wool growers would only take a little precaution. The fault is mostly confined to the eastern division in this colony, and is worst in heavily timbered country, such as ironbark. The wool has an objectionable, dull, heavy, greenish appearance, accompanied with a vile, nauseous smell, and when examined shows millions of minute tick eggs. This tick is a most persistently irritating little pest, causing the sheep to be restless, and constantly rubbing itself, which alone injures the wool. But the most objectionable part is that the tick robs the wool of its proper nourishment—the yolk—thus causing it to become delicate and often tender. As a natural consequence, the color of the wool must suffer, becoming lifeless, deadened, and dingy, however clean it may be when washed. Such wools can only be dyed into darker colors than the natural one. This fault can be very easily avoided by dipping the sheep, just after shearing, in preparations always in the market, and instead of having a dingy wool, there would be a bright, taking wool, which means an increase of at least 2d per pound; in other words, about £3 10s per bale, or in a clip of 50 bales, £175, which would pay for all trouble, and the shearing expenses. Discoloration is a fault not so easily remedied as dinginess. In discolored wool, the yolk is certainly the foundation of the trouble, as to remove the affected parts means a too severe scouring process on the free wool. The cause is not far to seek. Some sheep throw off a heavier and thicker yolk than others, and if this is checked through either sickness, excessive rains, or dust, it will sicken or become diseased. This stoppage of the flow of yolk is a serious matter. The gradually decomposing yolk clings to the fibers, hardens, and in time changes into various colors, from a dark brown to a pale pink. When such is the case, the brightness is never restored, and this is a great objection in the eyes of buyers. There is no remedy for this fault. What is known as stained altogether a different fault, and cannot possibly be avoided,

as the wool is actually burnt brown solely through urine. No scouring will remove the stain, and the wool is mostly used in black goods.

The under-mentioned are terms or names used in common with faulty wools, all of which (with one exception), could be avoided by careful and judicious sheep classing. My experience teaches me that such objectionable, faulty types of wool should be really foreign to Australia. I am sorry to say neglect, want of earnestness, and very probably, in many cases, a lack of knowledge are the true causes of such defects. Under this heading there is a long list of faulty wools, and, as my space is limited, condensed explanations will be given.

**Crape Wool.**—As the name implies, the formation resembles crape. The curves are small, cling together, are indistinct, and have a confused appearance. Such wools are particularly thin, and the qualities appear veiled by the confused formation.

**Webby Wool.**—The name indicates thinness, lightness, and cloud-like, reminding one of a cob-web. The fibers are very delicate, straight, the curves wide apart and indistinct. This class has lost all its quality, and is of very little value.

**Veiled Wool.**—Wool is said to be veiled when its curves are intermixed, and scarcely discernible. This happens when a portion of the fibers of the same group do not unite to form a staple. These overlapping fibers are said to be veiled.

**Plain Wool.**—Plain is the wool when the crimps are comparatively straight, or, in other words, wanting in character. The staple formation has ceased altogether, and the fleece is held together by the binders.

**Cottony.**—This is an objectionable wool, appearing light, fluffy, and handles like cotton. The formation is very indistinct, and, although fine, lacking quality.

**Oakum-like.**—Such is the term when the curves are flat, the structure lacking uniformity, and the fibers a confused mass.

**Fluffy Wool.**—The appearance of this type is of a bulky, bold growth, the staples are broad, but thin and light.

**Cloudy Wool** is a wool with an over-cast appearance. The formation is plain, and lacks density, although it might appear close and compact. Is wanting in both character and quality.

**Wiry Wool.**—A most objectionable type. The fibers are thick, straight, hard, and the crimp structure is lost, and each grows up independently without any form of staple.

**Stringy Wool.**—This applies mostly to the staple formation, meaning that they are a thin-bodied class. The staples contain a small number of fibers, and appear very irregular, and sometimes are a little twisted. This is a sure sign of a thin, light fleece.

**Curly Wool.**—Of all wools this is one of the most objectionable. It consists of most of the imperfections to be found in wool—in fact, it may be said that the wool has changed almost to hair. The curves take all forms, all character is gone, the staples are irregular length, and have a thin, open growth.

**Thread-like.**—This name is given to wool, the curves of which are misformed, and take a spiral form. The strand formation is discontinued, and each fiber grows up independently.

**Straight-haired.**—When a wool has lost its character, it is called straight-haired. The fibers are plain, generally handle hard, and are devoid of elasticity.

**Harsh wool** is an unkind, hard-handling wool. Cottony means that the wool has become so entangled and interwoven that it becomes felted, and becomes board-like. Such wools are wanting in yolk, and through its absence, the fibers cling together and felt.

**Noily Wool.**—A wasty, fluffy, and perished wool is noily. Noils are combed out of the sound wool by the combing machine.—From the Sydney, (N. S. W.), Mail.