

The Effect of Micron and Density on Fleece Weight

Often times I hear people say that density increases after shearing and they use fleece weights to reinforce their belief.

The fact of the matter is that density is set by the end of the second semester of pregnancy and the follicles begin to be expressed early into the third trimester until birth.

It is apparent then that density is a function of genes and expression a joint function between genetic action and nutrition during the last trimester.

What does happen is that the fibres are expressed at different times during the third trimester with the result that there is not necessarily a lot of discipline within the lock and the length of the individual fibres vary.

At shearing, all the fibres start from a common starting point and the length of the individual fibres begins to become much more uniform. Discipline within the staple also improves with the result that crimp more often than not appears more improved, more defined and much more organized.

Fleece weight improves because of the greater number of longer fibres within the staple and increased micron. Some increase may be from a slight improvement in the number of follicles expressing fibres but it is thought that this would be a minor reason.

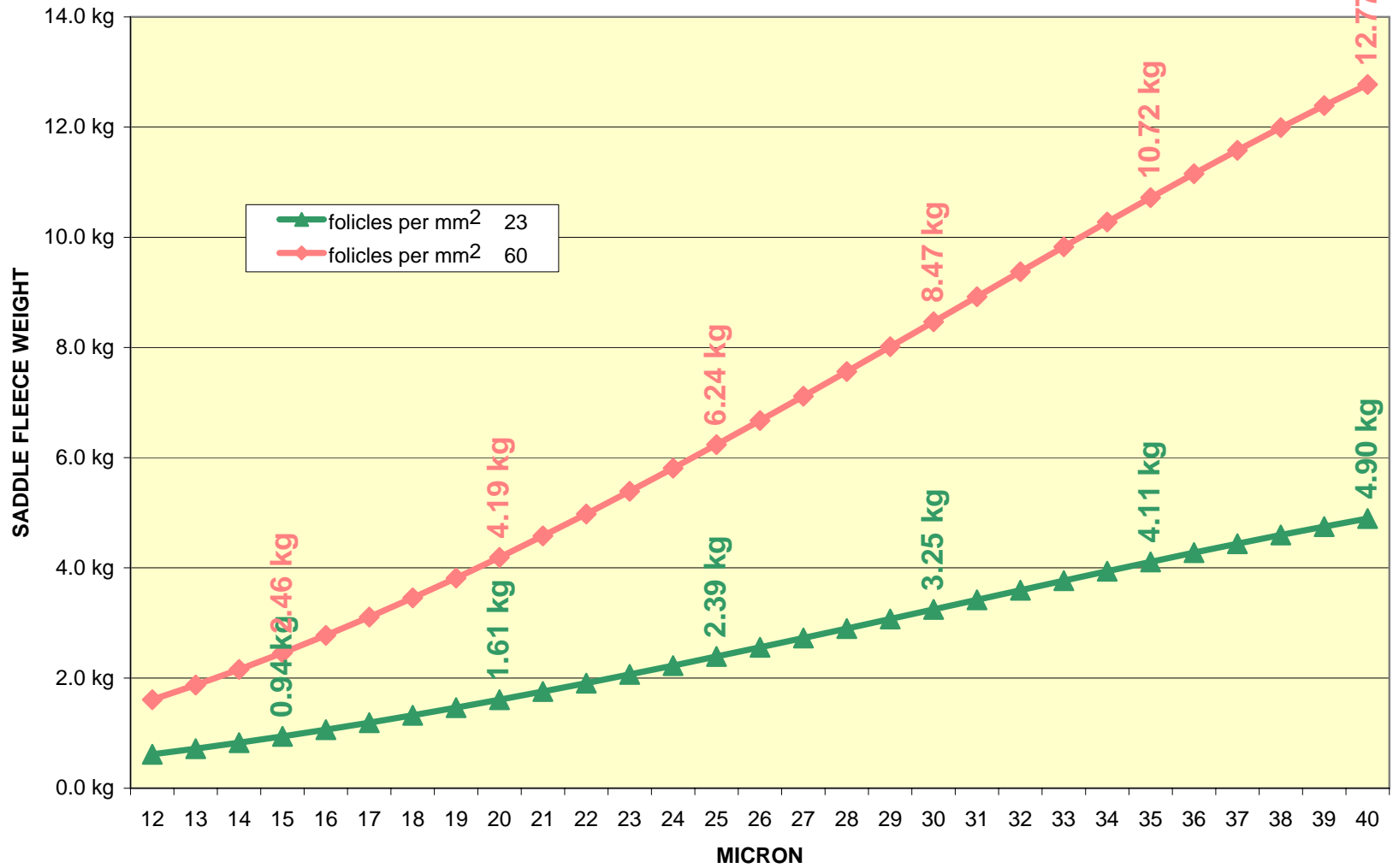
There are three things that will affect fleece weight:

1. Increased fibre length – longer fibres will create more weight at any set micron
2. Increased micron – the stronger (higher or coarser) the micron, the higher the fleece weight, and
3. Vegetable matter – usually higher in lower density fleeces.

The following graphs, kindly supplied by Nick Veltjens of Talca Alpacas in Australia, illustrate the effects of both increasing micron on fleece weight at constant densities, and the effect of increasing density at constant micron on fleece weight.

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**WEIGHT/MICRON RELATIONSHIP TO FOLLICLE DENSITY
AND INCLUDING MEDULLATION**



**FLEECE WEIGHT
AT CONSTANT MICRON, CHANGING FOLLICLE DENSITY**

