

Dear Tom

Skuli Magnusson (late 18<sup>th</sup> century) says that you need 5 kg of wool to clothe one person per annum. In a good year you get 1,5 kg of wool from a sheep, so you need 3,3 sheep to clothe a single person.

Skúli Magnússon (1784): "Sveita=Bóndi." Rit þess Islenszka Lærdóms=Lista Felags IV, p. 156.

Magnús Ketilsson who criticised many of Skuli's calculations agreed on the 5kg rule of thumb (1786).

At length about this in Helgi Thorlaksson's Vadmal og verflag (1992), pp. 267-334.

Some interesting remarks from his work:

Both laws and actual figures from the middle ages suggest that 12 cows and 80 ewes was the normal ratio and size for an average farm. Numbers of wethers are in addition and fluctuate more, from 3 ewes to the wether to 2 wethers to the ewe.

Wool specialists are apparently in agreement that wethers (geldir saudir) produce the best wool (p. 276). Wool from uncastrated rams was considered the worst

H concludes that an average Icelandic farm had 60-70 wethers, total sheep no then 140 (against 12 cows)

According to Gragas 20 ewes should produce 1 vætt of wool, the vætt normally considered to be 36,2 kg = 1,81 kg per ewe (Gragas I (1852), 248, 195) – possibly this is unwashed wool. In late medieval Bualog the wool from 1 ewe is considered to be 8 marks or 1,76 kg – also probably unwashed because 18<sup>th</sup> century estimates give lower figures for washed wool (1-1,2 kg). According to John M. Munro, 'Textile technology' in dictionary of the Middle ages 11 (1988), 694, the weight of the wool was reduced 15-25% by washing – so this makes sense.

A 1398 letter says that 10 wethers and 15 ewes gave 8 quarters of wool = 1,4 kg on average (washed?)

Skuli Magnusson calculates that 168 wethers give 250 kg of washed and ready to process wool = 1,48 kg per wether

It seems that these authorities do not consider there to be any difference in the quantity of wool from ewes or wethers – it is just the quality that is different, but another 18<sup>th</sup> century commentator, Magnus Ketilsson gives the following table for wool weights (based on his own measurements of his own animals:

6 15 month sheep	5,25 kg	= 0,875
24 ewes	33	= 1,375
6 2 yr old wethers	8,25	= 1,375
6 3 yr old wethers	11,25	= 1,875
6 4 yr old wethers	12	= 2,0

On average = 1,49

Magnus Ketilsson (1786) 'Nockrar Athugasemdir ...' Rit þess Islenszka Lærdóms=Lista Felags VII, 86, 91-92.

In 1976 the average in Iceland was 1,7 kg per ewe.

HP thinks that the 5 kg of wool per person only covers clothes, not bedclothes

1 ell of homespun equals 700 gramms of wool

In the middle ages a boarder at a monastery (usually well off people) was to have 20 ells of homespun = 14 kg of wool (10 sheep or so) whereas an incapable person (a child, disabled or infirm) was considered to need 8 ells 5,6 kg – there are also examples of 6 ells considered to be enough.

The workers at Skalholt in 1502 and workers at Bessastadir in the 16<sup>th</sup> century got 7-8 ells on average – again close to 5 kg.

In 1552 fully grown students at Skalholt got 10 ells per annum (7 kg), but the poorest and less fully grown got 7 or 8 ells each.

It is also apparent that these figures relate to what in Icelandic is called “slitklaedi” - wear-clothes, i.e. the clothes people used every dag and which would need regular mending or replacing. If people owned Sunday clothes that would be in addition to these figures.

It also appears that these figures do not allow for underwear – which presumably got worn out more slowly than the work clothes. In the 18<sup>th</sup> century it seems that it had become general practice to have underwear from linen.

Helgi concludes that an average farm (20 hundreds with 8 grownups and 2 children) some 60 kgs of wool would be needed annually for clothes.

In addition allowance needs to be made for bedclothes and this Helgi estimates, based on mainly 16<sup>th</sup> century sources, to be 2,8 kg per person per annum (apparently you wear up your bedclothes biannually – I am sure you didn't know that) or 27 kg for the average farm with 8 grownups and 2 children)

Helgi also mentions that many households would have needed sails and tents – but there are no figures available on what this usage was and he gives no information on how much wool would be needed for a tent for an assembly booth for instance.

Wool was also used for drapes and wall hangings – these would have a much higher production cost than ordinary clothes and it is of course difficult to estimate how necessary they were considered to be. The available examples are all about tapestries a la Bayeaux or church drapes

Helgi concludes that the average farm (10+2) needs

60 kg for clothes

30 kg for bedclothes

10 kg for sails and sundries

12 kg for tax and tithe

upto 70 kg for land rent (although it varied considerably in which medium this was paid (butter and fish being the main alternatives)

He also thinks that the wool requirements were greater during the middle ages than in the 18<sup>th</sup> century – he then goes on to try to calculate how much wool would have been available at the average farm for export and to discuss production costs

Hope this is of some use

All the best

Orri