



Vegetable Matter

Commercial Yields (Schlumberger Dry, 16% Regain etc.) are calculated using the Wool Base (WB), Vegetable Matter Base (VMB) and Hard Heads & Twigs (HH). All calculated yields include standard allowances for moisture content and for the small amounts of residual ash (dust) and alcohol extractable matter (grease) left after processing.

The most important impurity however is Vegetable Matter (VM). The percentage of VM present will have an effect on the commercial processing of the overall consignment.

The amount of VM is determined by weighing a test specimen of the dried scoured sub-sample and dissolving this in hot 10% caustic soda solution. (*shown right*)

Once the wool is dissolved, only the alkali insoluble impurities, including all VM, remain. These insolubles are then rinsed, dried and weighed.

When it comes to weighing the VM, it is divided and analysed into the categories of:

- Dag & other
- Seed & Shive
- Spiral Burr
- Hard Heads & Twigs
- Skin & Slipe



When dissecting VM, the technician must separate, weigh and record each individual VM component for that sample. The WTAE computer system is self policing and will calculate the percentage for each sub-sample, and amalgamate these and calculate the average for each individual test.

Right, an example of a sieve ready for dissection. Seed, Shive, Burr, and Twigs can be seen



It is very important to understand that WTAE calculates VM content by weight; this is subsequently expressed as a percentage of the shipment weight.

It is also important to understand that the different categories of VM listed above will all have different weights.

The photograph below shows 10g specimens from 3 of the VM categories mentioned above. You will quickly see that although each of these specimens is the same weight, the volume of space they each occupy is very different.



10g by weight of seed and shive (this includes straw) fills a lot more space than either 10g of dag or 10g of hardheads and twigs even though the mass of each component is identical.

It is quite common for straw to be present in shipments of European wool as animals are often kept inside with straw used as a bedding material.

But it is also important to understand that although a visual assessment can suggest a lot of VM if straw is present in the shipment, the VM content weight, when expressed as a percentage of the whole shipment on a WTAE IWTO Certificate, can be quite low.

IWTO tests are designed to eliminate subjective assessments and provide objective analyses of wool attributes.