How "dirty " is your haylage.

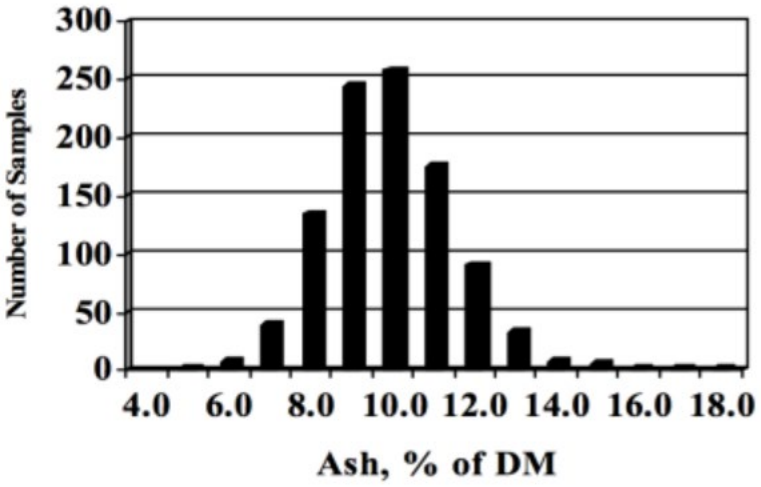
Dr Ray Reynen

By now we will be taking off second cuts and hopefully we are very happy with our first cuts for volume and quality. When we discuss haylage quality the main focus has always been protein , acid detergent fibre (ADF) , neutral detergent fibre (NDF) and energy. These are still the cornerstone of forage analysis. In the last decade we now routinely get an analysis for the digestibility of the NDF fraction. The most common metric is NDFd30. An easy benchmark to remember for assessing an optimum heavily alfalfa based haylage is to achieve 20-30-40-50. Twenty is for crude protein , 30 is for ADF, 40 is for NDF and 50 is for NDFd30. Excessively higher or lower numbers is indicative of a troublesome haylage.

A forgotten number on our forage feed analysis is ash content. Ash is the total of all mineral in the sample . These minerals are either natural in the plant or usually from soil picked up duration the harvesting process. Normal plant mineral content is 6% for grass and 8% for alfalfa. The rest of the ash is then from the soil from the field. This extra soil makes for a **dirty** forage. Typically when haylage samples are over 10 % it is a concern and it is a big concern when over 12%.

P Hoffman from University of Wisconsin has presented the results of 1000 alfalfa or alfalfa-grass haylage for ash content. Many samples are over 10 % and 12 % respectively. A significant number of samples in this data set are at 12 % and above!

Figure 1. Distribution of Ash Content in 1000 Legume-Grass Samples



So why does this matter? What harm is there from having a “dirty “ haylage ?

Elevated ash content will:

Impair the fermentation process

Use up valuable space in the ration, as soil has no nutritional value.

Potentially allow for the uptake of Clostridial pathogens

Soil is very irritating to the intestinal and abomasal lining .

As we feed more forages with higher ash levels , we need to be very careful. It is not a guarantee of trouble but no good will come from it.

The extra soil usually enters the haylage sample as we cut lower and try hard to pick up all of our crop. Tines on tedders, rakes, mergers and harvestors will pick up extra soil if we are not careful.

Ash is forgotten metric to watch on our forage analysis, but can be a factor for poor forage fermentation , decrease milk production and increase “off/poor doing” cows.

So, how **dirty** are your forages??

Ray Reynen