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## **QUALITY SUPPLEMENTARY FEED STARTS IN THE SOIL**

The value of supplementary feed depends on both the quantity and quality of stored feed harvested. Deriving a higher tonnage than last year may make the farmer "feel good", but if the quality of that feed is less than ideal, those "good feelings" might be misplaced.

The quality of silage/balage is usually assessed by lab tests taken after the crop has been harvested. Though such analyses (dry matter content, metabolisable energy, pH etc) are good and helpful, they are also rather like "shutting the barn door after the horse as bolted." If the feed quality is lower than anticipated, once it's in storage you're basically stuck with what you've got!

Environmental factors (moisture, temperature etc) play a big role in determining the quantity of dry matter harvested. Operational decisions (when to cut/wrap etc) are also important but at the end of the day, the feed value of the stored feed harvested will only be as good as the quality of the pasture/crop grown. By logical deduction, it is obvious that first and foremost, things need to be right in the soil. The quality of your soil will determine the quality of both the pasture/crop grown and the resulting supplementary feed harvested.

With pasture derived supplementary feed, the health and vigour of the legumes has a significant bearing on feed quality. A high level of healthy, vigorous clover greatly improves feed quality. Conversely, if the sward is mainly grass and/or legumes are small, quality will also be less.

Trace element levels in the soil can have a significant influence on the vigour and thrift of your legumes. Boron, molybdenum and copper levels in particular, markedly impact clover growth. Grasses are not generally as fussy about trace element levels but of course they soon become affected. If clovers are not performing well, less nitrogen is being fixed and so less is available to drive grass growth.

How do you determine whether trace element and/or other nutrient levels are adequate? Undertake a soil or herbage test. A small cost incurred at the beginning of the process to check how well the soil is functioning could save you big dollars later on. It's about getting "first things first." With silage/balage, or any plant growing in the soil, it is important to check that adequate levels of all required nutrients are available.