

## Sulphur application improves silage yields and quality on Northern Ireland farm

*Grassland at Hillcrest Farm, Dromore in Co. Down has seen a boost in both silage production and quality over the last two years. Farmer Reggie Lilburn's silage pits are fuller than ever, and forage intakes are up...*

The key to Reggie's improved results has been the application of Calcifert Sulphur. This granulated fertiliser contains 39% Calcium (CaO) & 56% Sulphur (SO<sub>3</sub>) and is designed to provide essential calcium and sulphur to soils. Following a trial in 2011, all grass fields at Hillcrest received a single application of Calcifert Sulphur in March 2012 at a rate of 185 kg/ha (1.5bags/ac) for silage fields, and 125 kg/ha (1 bag/ac) for grazing fields.

### Increased grass yields

One of the most noticeable benefits at Hillcrest has been the increase in fresh weight grass yields, and Reggie is getting an extra 3.5 tonnes per acre total across the three silage cuts taken annually. This increase in yield was not just apparent in 2013, but also evident in the wet summer of 2012.

At a silage dry matter of 27%, this yield increase equates to a rise in dry matter of 0.95 tonnes per acre (2.3 t/ha). And if dry matter is priced at £130/tonne, this equates to a silage value increase of £122/acre (£299/ha). These are impressive figures when you consider the cost of the applying Calcifert Sulphur is just £14.25 per acre (£35.21/ha).

Reggie has also observed an improvement in grazing, with much less rejection across the paddocks and faster regrowth in the silage fields.

### Better quality forage

The quantity of silage isn't the only improvement that's been seen at Hillcrest Farm, the quality has improved too. In 2012 ME was 12.3 compared to the season average of 10.7. This increase in energy is worth around 320 litres of milk. Protein was also above the season average at 14.3. Reggie has also noticed improved intakes, with a current forage intake of 12.54 kg DM/head for the high yielders, and 15.5 kg/DM for the low yielding cows.



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## Tackling high magnesium levels

The soils at Hillcrest Farm have high magnesium levels, which is a direct result of applying magnesium lime for decades. High magnesium soils tend to be sticky and have a tendency to form a pan and are difficult to work. Excess magnesium will hold up the pH of the soil even when calcium levels are low. Magnesium has an effect on soil pH 1.6 times that of calcium. Therefore Calcifert Sulphur not only provides soluble calcium to help improve cell strength in the plant, but it also improves the structure of the soil by rebalancing the soil chemistry.

## The importance of sulphur

Sulphur is a key element for crop growth and is becoming increasingly deficient in all farmed soils, due to the cleaning up of the air and the resulting decrease in deposition. The sulphur in Calcifert Sulphur is in the plant-available (SO<sub>4</sub>) form, allowing the plant to use the water-soluble part of the fertiliser quickly. Sulphur is essential for the efficient use of nitrogen and plays a major role in protein production and the accumulation of sugars in the plant, leading to high D value's, protein, ME and improved silage intake characteristics.

## Summary

The silage results at Hillcrest Farm show how a single application of Calcifert Sulphur is improving both the soil structure and quality of the silage. It is now one of Reggie's priorities to apply Calcifert Sulphur at the beginning of the season to make the sulphate available to the plant. And because the nutrients are released from the fertiliser during the season, only slurry and straight nitrogen fertiliser need to be used, simplifying both fertiliser use and buying.

## About Calcifert Sulphur...

Applying Calcifert Sulphur is a quick and easy way to supply both calcium and sulphur to soil.

With a typical analysis of calcium as CaO: 39% and sulphur expressed as SO<sub>3</sub>: 56%, Calcifert Sulphur is one of the purest calcium sulphate products available on the market. Calcifert Sulphur has a neutralising value of zero, meaning it won't affect the pH of your soil.

It can be easily applied using a tractor mounted fertiliser spreader, providing flexibility to farmers and growers.

