

# Clubroot control using Calcifert

Sam Holland farms in Hoscar, West Lancashire. In this part of the country it is common for farmers to swap fields with each other to enable the growing of vegetable crops on fresh land. Unfortunately the rotations get shorter and fields are often used which may not be in the optimum condition for the specific crop.

The field pictured was known to have a lower than ideal soil pH for growing broccoli, and so was treated with agricultural lime, with the aim of balancing soil pH and also preventing any potential outbreak of Clubroot disease.

To ease harvesting pressure and ensure a steady supply the field was planted in blocks. During field inspection of the early plantings it became evident that despite the agricultural lime application, there was a severe Clubroot problem. The broccoli crop was lacking vigour and wasn't developing as it should, and roots were showing signs of thickening and distortion.

## Control

Clubroot is hard to control but spores can be slowed effectively by raising soil pH to 7.2 and above. In Sam's situation, the lift in pH needed to be fast and localised. This was achieved by an inter-row application of Calcifert granulated lime, where the lime was placed close to the plant so that localised environmental control was achieved.

The actual rate applied equated to 250 kg/ha, if this had been spread across the whole field it would represent an application rate of 500 kg/ha.

The photograph of the broccoli field below shows just how effective the Calcifert application was. The left hand side of the field, which only had an application of conventional agricultural lime, was an extremely poor crop. The broccoli on the right hand was taken to full harvest due to the positive remedial and restorative effects of the pH lift achieved using Calcifert.



Inspection of the plant roots shows how the Clubroot fungus had affected the crop development; the root distortion is clearly visible on the image on the left, compared with the healthier crop treated with Calcifert on the right.



## Financial benefits

It is estimated that a field infected with Clubroot could see a minimum of 50% yield loss in the infected area. In this case it was the whole field.

Assuming a price of £800/ton of broccoli and a yield of 8 ton/ha, this should achieve a gross margin of £2,252 in a healthy situation. Therefore using Calcifert costing £130/ton at an application rate 250 kg/ha (Cost £ 32.50) sees a return of £1,126/ha by being able to harvest a full crop from the treated part of the field.

## Summary

By placing the Calcifert close to the plant, Sam reduced his costs by £32.50/ha verses a complete field application. He has also seen a significant increase in margin in the treated crop.

The rapid lift in pH due to Calcifert's characteristics of fineness and reactivity saved the crop from near total failure at very little cost compared to the return.

Crops of this type in vegetable growing areas can therefore benefit from low cost precise applications of granulated lime that do not require the whole area to be treated.

## About Calcifert...

Calcifert granulated lime is proven to neutralise soil acidity. It is suitable for all crops including grassland, cereals, fruit, oilseed rape, vines and hops.

Made from fine limestone flour combined with a water-soluble organic binder, Calcifert consists of hard granules of between 2 and 5mm in diameter, produced in the UK from limestone mined in the Peak District.

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

