Clubroot Factsheet

Series 1 for farms sheet 6

Fact: CLUBROOT IS INHIBITED WITH THE ADDITION OF CALCIUM AND BORON

Nutrient Amendment

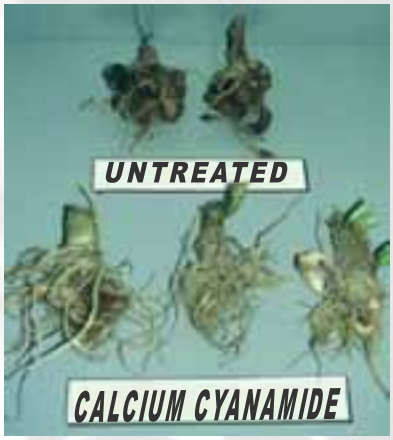
Both calcium and boron reduce the severity of clubroot gall formation.

The interaction between calcium and pH ;

The effect of calcium on clubroot development depends on pH and is more effective at neutral (6.5-7.5) pH. Calcium nitrate together with lime is better at controlling clubroot than either of these products used alone. Calcium cyanamide breaks down in soil to calcium oxide (lime) and urea and since it already contains lime, should not be applied together with lime.

Timing is important ;

- Aim to have soil pH between 6.5 and 7.5 at planting. Time application of lime to achieve this (see factsheet 5).
- To protect young transplants from infection apply formulations of calcium nitrate (containing boron) within the first three weeks after planting.
- To avoid burning and destroying young transplants, incorporate calcium cyanamide into the soil and irrigate at least 7-10 days before transplanting. Incorporate it into the soil in two bands 23 cm wide and 15cm deep along the planting row to protect the young transplant. Only very low rates of this product (approx 60kg/ha) can be safely applied at planting.



Cost effective;

The effective rate of 1000kg/ha of calcium cyanamide is reduced by two thirds by band incorporation of the product into the transplant row (see factsheet 8). This reduces the cost of treatment by more than $1000/ha.

Other Factors that influence efficacy;

Formulations of calcium cyanamide with smaller particles are more effective against clubroot. Limes with a high neutralising value and small particles are generally more effective against clubroot.
Although successful, these formulations are more hazardous to apply.
Take precautions to avoid inhalation of these particles using personal protective gear (see factsheet 5).

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