

Potatoes and root vegetables

Fortalis™ is an advanced foliar spray containing our patented CaT™ technology. This optimises calcium mobility for improved yield, quality and storage of potatoes and root vegetables.



Benefits of Fortalis

- ✓ Improved crop quality, storage and shelf-life
- ✓ Increased calcium content and reduced calcium disorders
- ✓ Better skin finish and less bruising
- ✓ Increased marketable yields
- ✓ Compatibility with other Agrochemical foliar sprays.

Nutrient content

Nutrient	%w/w	g/L
Ca	10	140
CaO equiv	13.9	195
N	8	112
Zn	0.8	11

Formulations can vary by region

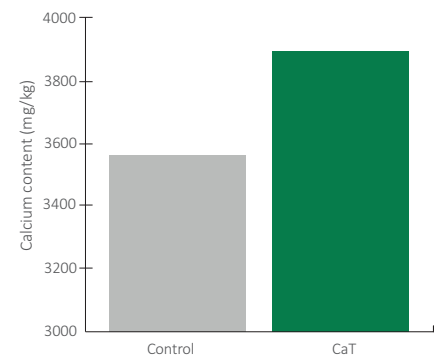
CaT™ Calcium mobility technology

Calcium is an essential plant nutrient, principally taken up with water. It is vital for cell wall and membrane structure.

CaT is designed to mobilise calcium. It stimulates selective ion transport channels in membranes, increasing the calcium concentration within cells and improving localised calcium movement. This efficient technology means you get results with a low application rate.

Increased calcium content in carrots

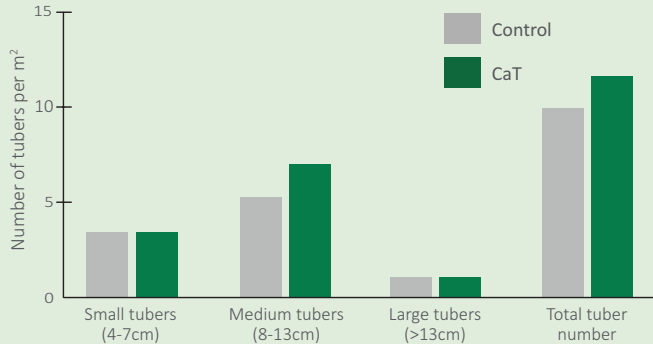
A trial was conducted in Scotland with cv. Nairobi. A CaT product was applied four times at 1 L/ha and compared to a control which was treated identically apart from not receiving the CaT applications. CaT technology increased the calcium content of the carrots by 9.6% compared to the control. CaT also gave a 19% increase in marketable yield, although this difference was not statistically different ($P < 0.05$).



Similar results have been obtained in other carrot trials, including in the US, where the higher calcium contents resulted in a reduced incidence of cavity spot.

Significant increase in potato tuber numbers

A replicated potato trial was conducted with cv. Melody in the Lockyer Valley region of Queensland, Australia. There were four replicated blocks per treatment. There was a significant 17.5% increase ($P < 0.05$) in the number of potato tubers per m^2 when a product containing CaT technology was applied on three occasions at 1 L/ha. This was primarily due to a significant increase ($P < 0.05$) in medium size tubers, but no significant change in the number of small or large tubers.

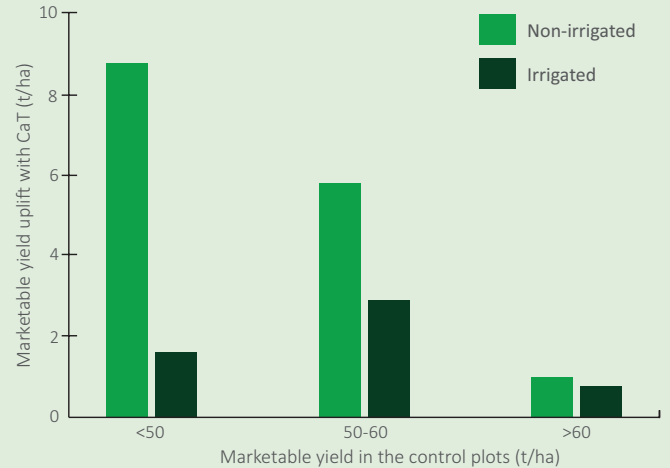


The yield increased from 16.5 t/ha to 17.7 t/ha with CaT treatment, up 7.3% on the control plots. However, due to the variability between plots this was not significant at $P < 0.05$.

Greater impact on lower yielding non-irrigated potatoes

Across all of our replicated and demonstration potato trials globally (> 200 trials) there was on average a 1.5 t/ha (3.4%) increase in marketable yield when CaT was applied.

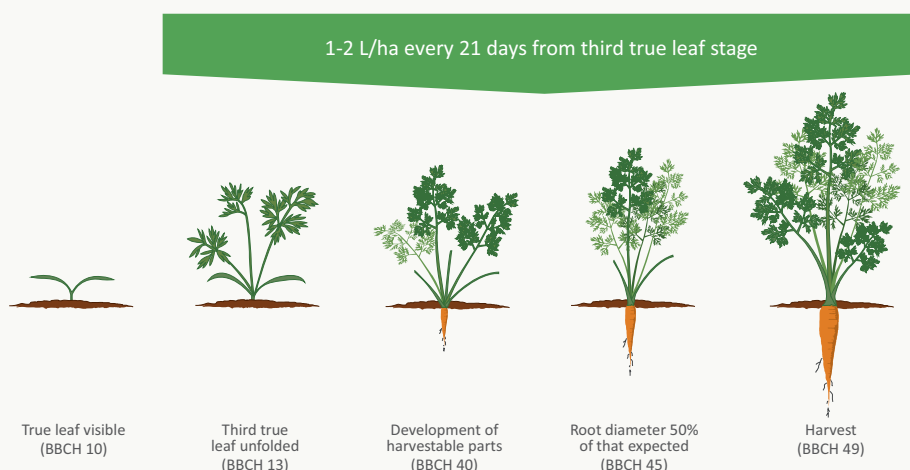
However, data from France showed that greater yield uplifts were seen in non-irrigated crops with a lower control yield (see below). The response also tended to be better in mid and late crops where there were lower tuber numbers.



Directions for use

Shake well before use. We recommend applying Fortalis in a minimum of 200 litres of water per hectare. The table below indicates the application rate and timing for potatoes and root vegetables. For more detailed advice, consult your agronomist.

Product	Rate	Spray timing
Potatoes	1- 2 L/ha	First application at tuber initiation, and two further applications after 10-14 days. If desired, a further application can be applied 2-4 weeks before desiccation
Carrots	1- 2 L/ha	Every 21 days after third true leaf stage
Parsnips	1- 2 L/ha	Every 21 days after third true leaf stage



Tank mixing

Fortalis is compatible with most pesticides, adjuvants and foliar fertilisers. Mixing with products containing high levels of sulphate or phosphate may cause precipitation. Always conduct a jar test before use to ensure physical compatibility.



Find more information on our CaT technology products for potatoes and root vegetables at: www.plantimpact.com e: info@plantimpact.com