

3 vital minerals found to enhance potato growth

A new study published in the Journal of Plant Production, an Egypt scientific magazine, has found that fertilisers rich in calcium, magnesium, and zinc can vastly improve the growth of potatoes as well as other tubers.

The study, conducted by researchers at Egypt's Mansoura University, found that the application of these fertilisers led to significant increases in the number and weight of potatoes produced. The researchers also found that the fertilisers improved the quality of the potatoes, making them more resistant to pests and diseases.



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The findings of this study are significant for potato growers around the world. By using the right fertilisers, potato growers can boost their yields and improve the quality of their crops.

"These findings provide valuable insights, especially for potato farmers looking to optimize their crop yields," Mohamed Kamal Fattah-Allah El-Tawashy, who heads the research team, said. "We hope our research will contribute to the development of more effective fertilisation strategies for potato production, which can benefit the agricultural industry as a whole," he adds

Better quality, better quantity

The research was done by a team of scientists from Egypt's Mansoura University, who tested the effects of Brandt Manni-Plex Ca-Mag and Brandt Manni-Plex Ca-Zn on potato growth and productivity.

The study found that the foliar application of calcium- and magnesium-rich fertilisers – especially in newly reclaimed soil – greatly enhanced the size of potato yields. According to the study's findings, improvements were seen in terms of both number and weight.

"This can lead to increased profitability by enhancing both the quantity and quality of the potatoes, which can then be sold at higher prices," El- Tawashy says.

"The study highlights the importance of using the right fertilisers and application methods," s/he added, "which can help farmers reduce costs associated with inefficient fertilisation techniques."

Enhancing marketability

According to the study's findings, the foliar application of Brandt Manni-Plex Ca-Zn and Brandt Manni-Plex Ca-Mag to potato plants increased both dry weight and leaf-nutrient accumulation. This, El-Tawashy explained, may be related to the minerals' functions on potato plants.

"Further studies on potatoes – along with other strategic crops – are still needed to determine the precise correlation between Calcium, Magnesium and Zinc applications and specific environmental factors," he says.

The research also found that these mineral-rich fertilizers stimulate plant growth, thus enhancing the size and total number of leaves. It also found that these three vital minerals serve to boost overall chlorophyll content.

"Our findings highlight the importance of using high-quality fertilisers and the potential benefits of foliar application," El-Tawashy says. "This will no doubt help farmers all over the world improve the marketability of their produce."

Fighting world hunger

The study's findings are a significant step forward in the development of more effective and sustainable fertilization strategies for potato production.

"By improving their fertilisation practices, farmers can also reduce the risk of crop failure and enhance the overall sustainability of their operations," El- Tawashy says. "This, in turn, will help them achieve greater profitability in the long term."

El- Tawashy and his research team plan to continue their work and explore the potential benefits of other fertilisers and application methods.

"The potato industry is a major contributor to the global agricultural sector," he explains. "Our most recent findings could have serious implications for the ongoing quest to combat world hunger."