Science Societies

Effects of potassium fertilization in pear trees

June 16, 2020

‘Rocha’ pear harvest in Southern Brazil, 2017. Photo courtesy of P.B. Sete.

‘Rocha’ pear harvest in Southern Brazil, 2017. Photo courtesy of P.B. Sete.

The amount of exchangeable potassium (K) contained in native soil does not always meet the necessary nutrient demand for a pear tree, which makes the use of K-based fertilizer essential. Brazilian farmers face daily challenges to increase their productivity. Such challenges include a lack of knowledge of optimum fertilizer doses and the critical levels of fertilizers.

In a recent article published in *Agronomy Journal*, researchers report on a study to determine the impact of K-based fertilizers on the quality and yield of pears in an orchard with a long history of fertilizer use in order to establish critical levels of K in the soil and leaves.

The team discovered that the levels of exchangeable K in the soil increased along with the application of K-based fertilizers, but they did not find a correlation with the K

concentration in leaves and fruits. Therefore, it was not possible to estimate the critical levels of K in the soil and leaves. Moreover, the fruits given higher doses of K showed the lowest values of ethylene production and respiration rate, which resulted in an increase in storage life in cold rooms and on the shelves.

Dig deeper

Sete, P.B., Ciotta, M.N., Nava, G., Stefanello, L.d.O., Brackmann, A., Berghetti, M.R.P., Cadoná, E.A., & Brunetto, G. (2020). Potassium fertilization effects on quality, economics, and yield in a pear orchard. *Agronomy Journal*, *112*. **https://doi.org/10.1002/agj2.20235**

More science

Back to issue

Back to home