

Effects of potassium fertilization in pear trees

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'Rocha' pear harvest in Southern Brazil, 2017. Credit: 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 those fertilizer.

In a recent article published in *Agronomy Journal*, researchers report on a study to determine the impact of K based fertilizers on 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.

More information: Paula Beatriz Sete et al, Potassium fertilization effects on quality, economics, and yield in a pear orchard, *Agronomy Journal* (2020). [DOI: 10.1002/agj2.20235](https://doi.org/10.1002/agj2.20235)

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