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GENETIC DIVERSITY FOR GERMINATION IN RESPONSE TO TEMPERATURE IN A SET OF LUCERNE VARIETIES

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Abstract

A large genetic diversity has been evidenced in the *Medicago sativa* complex for germination in response to temperature (Ghaleb et al., 2020). Here, we focused on a large set of 391 varieties cultivated worldwide. Their germination at 5, 15 and 34°C has been tested. The variation has been compared to the geographic origin of the varieties, their adaptation to climatic conditions (autumn dormancy) and their registration date. A significant genetic diversity has been evidenced. Non dormant varieties had a good germination at 34°C while dormant varieties were able to germinate at 5°C. The results offer prospect to improve the germinability of lucerne varieties to adapt this crop to variable temperature conditions that happen during sowing times.

Keywords: *Medicago sativa*, genetic diversity, lucerne, alfalfa

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