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Correlation between germination capacity and biophoton emission of barley seeds (*Hordeum vulgare* L.)

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Summary

The aim of this work was to develop a fast, optical and non-invasive method for determining the germination capacity of seeds. The relationship between delayed luminescence and germination capacity and water content and temperature, was studied in barley seeds (*Hordeum vulgare* L.). Delayed luminescence (DL) is the photon emission from a sample directly after it has been illuminated in a dark space. DL displayed a negative correlation to the germination capacity of barley seeds, if water content and temperature were kept constant. The water content and temperature of barley seeds were also negatively correlated to DL. The mechanism of DL of barley seeds is discussed.