

PRACTICE ABSTRACT 5

Seed germination protocol for small seed lots of cauliflower and broccoli

The high germination percentages of the seed samples and the growth of the derived plantlets are the main criteria to assess the quality of seed batches. The seed quality can be evaluated by seed germination tests. In the Council Directive 2002/55/EC of 13 June 2002 on the marketing of vegetable seed is defined that cauliflower and broccoli seeds being sold must exhibit at least 70 % and 75 % germination percentages, respectively.

To test the germination percentage of small seed lots, a simple method can be performed to test their quality.

Fifty seeds will be placed in three aluminum takeaway containers on absorbent paper which will be watered by distilled water without any flooding.



The seeds will be covered by absorbent paper and the aluminium containers will be placed at room temperature and in dark conditions (optimal temperature 20°C). Seedling assessment takes place at the cotyledon disclosure when the first true leaf appears.



Each day after sowing the number of germinated seeds will be registered and seedlings will be removed afterwards. After 12 days calculate the germinability (percentage of seeds providing seedlings in comparison to the total number of seeds) and the germination time (days) of the seed lots.



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THE AUTHORS

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Amelie Detterbeck is an agronomist with a strong interest in seed sciences, holding a doctoral degree in plant physiology. After her studies she joined Euroseeds, the voice of the European seed sector, as a researcher for the BRESOV project.



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THE PROJECT

BRESOV

SHAPING THE FUTURE OF ORGANIC BREEDING & FARMING

BRESOV aims to tackle the nutritional challenges of a growing world population and changing climatic conditions by enhancing productivity of different vegetable crops in an organic and sustainable farming infrastructure. BRESOV works on broccoli, snap bean and tomato as those staple vegetable crops have significant roles in meeting our global food and nutritional security goal, and under organic conditions can contribute to storing carbon and introducing nitrogen improving organic soil quality.

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