PUBLIC ENGAGEMENT | WEB-READY EDITORIAL PACKAGE

The Awakened Seed in Lithuania

492 schoolchildren, 34 schools and a remarkable collection of classroom experiments.

492	34	18 MAY 2026
schoolchildren	schools in Lithuania	Fascination of Plants Day

492 Young Scientists, 34 Schools: Lithuania Brings Seed Priming into the Classroom

Category: Public Engagement | Fascination of Plants Day 2026 | Lithuania

How can something as small as a seed open the door to scientific discovery? In Lithuania, the answer came from hundreds of young people who turned an everyday biological process into a hands-on investigation.

As part of “The Awakened Seed” initiative developed within COST Action CA24156 PrimSeedPower for Fascination of Plants Day 2026, 492 schoolchildren from 34 Lithuanian schools joined a STEM activity exploring seed priming and germination. Teachers reported strong interest, and the material shared by schools shows how pupils progressed from a simple question—can a seed treatment change germination?—to designing treatments, collecting observations and discussing the meaning of their results.

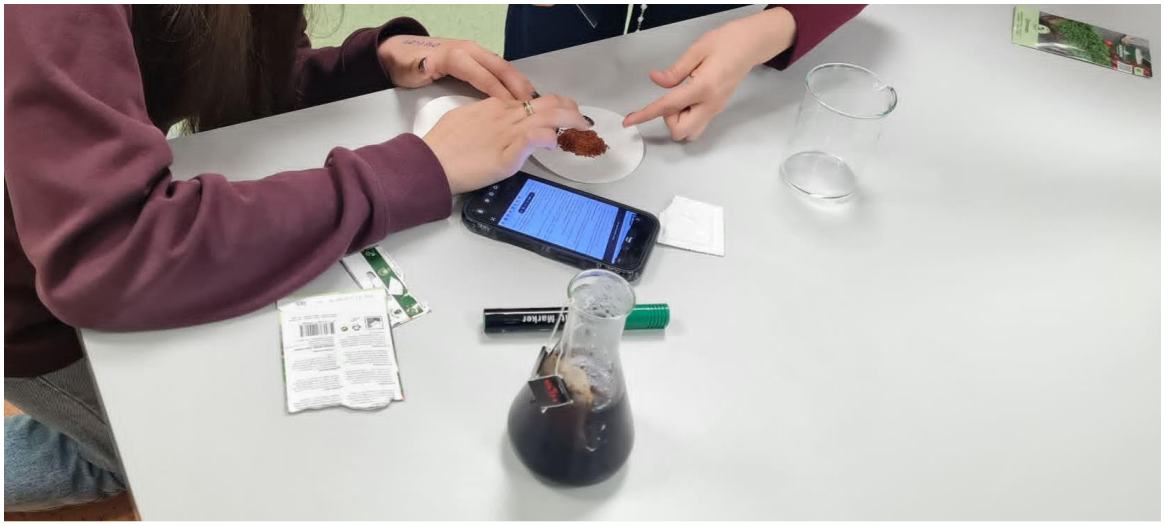


Figure 1. Pupils examining seed samples at Kybartai Kristijonas Donelaitis Gymnasium. Photograph courtesy of the participating school.

From an everyday seed to a scientific question

Seed priming refers to a controlled pre-sowing treatment that allows early physiological processes to begin without completing germination, with the aim of influencing later performance. The Lithuanian classroom activities translated this research topic into experiments that could be conducted using accessible materials. Across the examples shared with PrimSeedPower, pupils investigated water-based treatment (hydropriming) and familiar solutions or extracts such as sugar, salt and tea, alongside untreated seeds as controls.

The children learned to label samples, keep treatment groups separate, record germination over time and consider why seeds do not all respond in the same way. Just as importantly, they learned that a scientific result is not only a number: it depends on how the experiment was organised and how the comparison was made.

What the participating schools documented

Vilkija Gymnasium, Grade 4A. The class documented the experiment from preparation to observation. Photographs show treatment with water, sugar, salt and tea; drying of treated seeds; counting treated and control seeds; setting up germination tests; daily observations, including use of a magnifying glass; and completion of student worksheets. The school's report is an excellent example of documenting the entire investigative process. The material supplied does not provide a numerical summary that would justify ranking the treatments.

Vilnius District Bezdonių Julijaus Slovackio Gymnasium, Grade 3. Students investigated peas and broad beans. Treated seeds were soaked for 10 hours and then dried for 24 hours; untreated seeds were included for comparison. Their report provides a clear early observation: by the fourth day, 14 of 20 treated pea seeds had germinated, compared with 2 of 10 untreated pea seeds. No broad bean seeds had germinated by that point, demonstrating that observation time and species matter. These results belong to one classroom experiment, not a general estimate of the effectiveness of hydropriming.

Tauragė District Žygaičiai Gymnasium. Photographs document carefully organised treatment groups, labelled Petri dishes and hands-on work with seeds. Water, sugar, salt and tea treatments can be seen in the photographic record. The images demonstrate practical engagement, but the available materials do not provide sufficiently detailed numerical outcomes for a comparative conclusion.

Kybartai Kristijonas Donelaitis Gymnasium. The submitted classroom photograph captures students examining and discussing the seeds during experimental work, illustrating the collaborative and inquiry-based character of the initiative. No numerical results accompanied this image.

A closer look at one classroom result

The observations from Bezdonių Julijaus Slovackio Gymnasium provide a useful example of the difference between recording evidence and interpreting it. In the pea experiment, the reported proportion of seeds germinated by Day 4 was 70% in the water-treated group (14 of 20) and 20% in the untreated group (2 of 10). This suggests earlier germination in the treated group under the conditions used, but the groups were small and not equal in size. Such an exercise is especially valuable for teaching the role of controls, sample size, timing and replication.

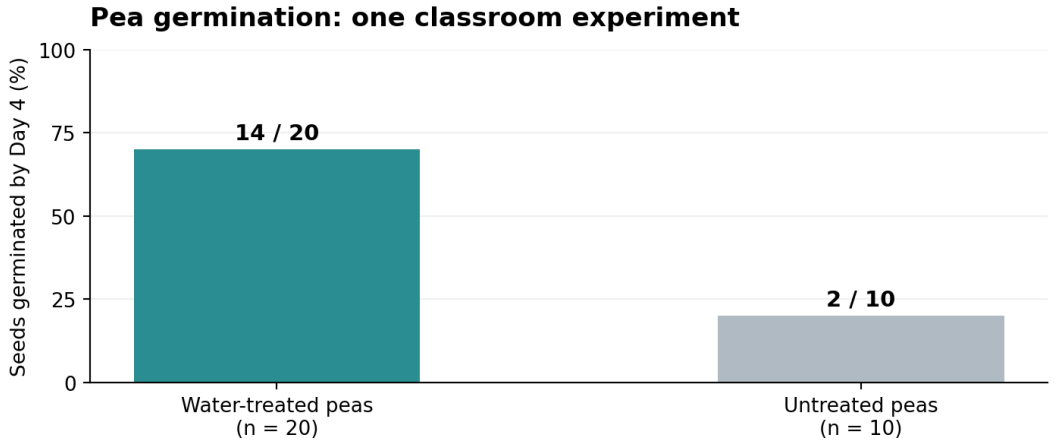


Figure 2. Day-4 pea germination calculated from one Grade 3 school report. This is a classroom observation, not a pooled result from the 34 schools.

Learning to read the data—and to ask better questions

Schools also shared worksheets and graphical summaries of germination time. Rather than declaring one treatment the “best”, these examples provide a starting point for discussing variation among seed species, treatment concentrations, soaking durations and classroom conditions. Sugar or salt solutions, for example, do not necessarily act like plain water and can have different effects depending on concentration and exposure. A fair comparison requires a consistent experimental design and sufficient observations.



Figure 3. Example of a student-generated chart of mean germination time under different treatments. Shared as an educational output; treatment comparisons have not been validated across schools.

The educational achievement is clear even where treatment effects cannot be firmly established: pupils formulated hypotheses, worked with control groups, observed living organisms, recorded data and began interpreting biological variability. Their experiments connect the science of seed germination to broader questions about plant stress and the need to develop resilient agriculture.

A thank-you to Lithuania’s young plant scientists

The enthusiasm of 492 pupils and the commitment of teachers from 34 schools show the potential of simple, well-designed STEM activities to make plant science meaningful. PrimSeedPower warmly thanks all participating schools, teachers, students and Lithuanian coordinators for contributing their time, curiosity, photographs and classroom reports.

“The Awakened Seed” is intended to remain a resource for teachers and science communicators beyond a single commemorative day. Schools and outreach organisers can access educational materials and information on sharing their experiences via the PrimSeedPower Outputs page: https://primseedpower.com/outputs/.

Small seeds. Big questions. A new generation of curious minds.

Photo highlights from Lithuanian classrooms



Figure 4. Treatment groups at Tauragė District Žygaičiai Gymnasium.



Figure 5. Classroom germination station at Vilkija Gymnasium.

ACKNOWLEDGEMENT

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