

MiniLab

2.1

Experimenting

Salt Tolerance of Seeds

Salinity, the amount of salt dissolved in water, is a nonliving (abiotic) factor. Might salt water affect how certain seeds sprout or germinate? Experiment to find out.

Procedure

- 1** Soak 20 seeds in freshwater and 20 seeds in salt water overnight.
- 2** The next day, wrap the seeds in two different paper towels moistened with its own soaking solution. Slide the towels into separate self-sealing plastic bags.
- 3** Label the bags “fresh” and “salt.”
- 4** Examine all seeds two days later. Count the number of seeds in each treatment that show signs of root growth or sprouting, which is called germination. Record your data.
CAUTION: *Be sure to wash your hands after handling seeds.*

Analysis

1. Did the germination rates differ between the two treatments? If yes, how?

2. What nonliving (abiotic) factor was tested in this experiment? What living (biotic) factor was affected?

3. Would all seeds respond to the presence or absence of salt in a similar manner? How could you find out?
