

PW 2. Sowing :

Stratification in a cold room, sowing

Introduction

Sowing is defined as the process of planting seeds directly into the soil at the planting site, which can be a cost-effective method for establishing vegetation

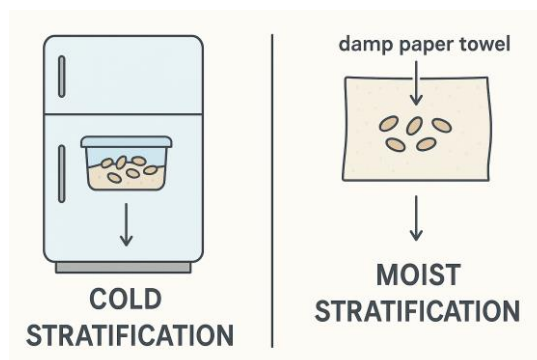
Cold stratification

Stratification in a cold room refers to a gardening technique where seeds are exposed to cold, moist conditions in a refrigerator to break dormancy and promote germination. This process mimics winter, preparing seeds of certain perennial and native plants to sprout when planted in the spring.

Cold stratification, also known as seed stratification, is the process of exposing seeds to cold and moist conditions to encourage germination. In the spring, the temperatures rise, thawing the ground and breaking the seed out of its dormancy period. The seed sheds its hard seed coat, beginning the germination process. This cold stratification helps to soften the seed coat and trigger internal chemical changes necessary for germination.

Why Do Some Seeds Need Cold Stratification?

Depending on the type of seed, cold-moist stratification may be required to break the seed dormancy period. This is because the hard seed coat needs time to break down before the seeds can germinate and sprout. Many types of wildflowers, perennials, shrubs, and trees produce seeds that must undergo a cold period for some amount of time for seed germination to begin. Generally, native plants grown in cold climates will require cold stratification before planting in the early spring.



Cold stratification can be as simple as placing seeds in the refrigerator for several weeks before planting, simulating the winter chill that they need to break dormancy.



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Benefits of Stratification:

- **Enhanced Germination Rates:** Seeds that undergo stratification often germinate faster and more reliably.
- **Better Seedling Strength:** Stratified seeds tend to grow into stronger, more resilient plants.
- **Improved Seed Viability:** This process helps to activate dormant seeds, which may otherwise fail to germinate without it.

➤ Steps of Cold Stratification

Ideal for: Many trees, shrubs, and [perennial plants](#). This process replicates winter conditions. To do this, place the seeds in a moist medium (like sand or peat moss) and store them in the refrigerator for a few weeks or months.



Cold stratification is a technique used to break seed dormancy, mimicking winter conditions and encouraging germination.

1. Choose the Right Seeds

Cold stratification is ideal for seeds that naturally require winter conditions to germinate, like many perennials, trees, and shrubs.

2. Clean the Seeds

Gently clean seeds to remove any debris, as this helps prevent mold during the stratification process.

3. **Moisten the Medium**

Use a seed-starting mix or sand, and moisten it lightly with water. It should be damp but not soaking wet.

4. **Mix Seeds with Medium**

Combine your seeds with the moist medium in a small, sealable plastic bag or container. Make sure the seeds are evenly distributed.

5. **Place in the Refrigerator**

Store the bag or container in the refrigerator, typically at temperatures between 35°F to 40°F (1°C to 4°C).

6. **Monitor and Wait**

Leave the seeds in the fridge for the recommended time, usually 30 to 90 days, depending on the seed type. Check periodically to ensure the medium remains moist, but not wet.

7. **Prepare for Planting**

After the stratification period ends, remove the seeds and plant them immediately, following the specific planting depth for the seed type.



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WORK TO DO

- Practice the same techniques of stratification of seeds.
- Draw the stages of cold stratification