**Agriculture I**

**Packet # 11**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. Which of your germinated seeds have grown the tallest?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. How tall is their average height?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. According to your research, would these plants be good for a home garden?

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4. Why or why not?

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5. What about the other seeds you planted? Would they work well in a flower or small vegetable garden?

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**Agriculture I**

**Packet # 12**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**



**Transplanting Seedlings vs. Direct Sowing Seeds**

**BENEFITS OF TRANSPLANTING**

By [Emily Murphy](https://passthepistil.com/author/emily-murphy/), February 8, 2017

Should you chuck seeds straight into the garden or grow them in modules or seedling trays first? There’s no single rule to guide you through the planting process.

Seeds have almost everything they need inside them to germinate and thrive. Give them a place to grow, add water, the right amount of heat and light and the magic begins. But as we all know, this is also where promise can turn to frustration in an instant. One minute your seedlings can go from hardy and robust to leggy and yellow, wilted with disease or simply disappear — the easy lunch of a passing bird, snail or other visitor.

**Control the Environment.** Growing seeds in paper pots, modules or trays allows you to control the environment in which they grow. Providing protection from the elements and garden pests while also controlling soil, moisture, fertility and heat.

Plant seeds indoors or in the comfort of a cold frame or greenhouse when it’s still cold outside and move them out to the garden when the weather warms — chances are they’ll be ready to flourish.

Starting seeds indoors also gives your crops more time to mature within the growing season. This is critical if you live in a cooler climate. Pumpkins, peppers, melons, leeks, cabbage, gourds and tomatoes all need more time to mature.

**Maximize Garden Space.** Every square inch counts, which is another reason why I sow as many seeds as possible in trays or pots and transplant them out when ready.

I’m also not second guessing my crop, waiting to see what might come up. When transplanting, the seed is germinated, it’s showing vigor and my chances for a successful garden are more likely from the outset.

**Successional Planting.** The saying, “sow little and often,” is one to live by, especially if you’re a small space gardener. Sowing a handful of seeds in trays on a frequent basis means you’re more likely to enjoy a continual harvest.

Try this with greens, tender herbs, bush beans and other plants that don’t take long to reach maturity. Use the “days to maturity” information on your seed packet to get the timing right but also take notes as you go. Days to maturity in your garden could be very different from those given on the packet.

**Fill in the Blanks**

1. Starting seeds indoors also gives more time to \_\_\_\_\_\_\_\_\_\_\_\_ within the growing season.

One minute your seedlings can go from hardy and 2. \_\_\_\_\_\_\_\_\_\_\_ to leggy and yellow, wilted with disease or simply

3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. There’s no single \_\_\_\_\_\_\_\_\_\_\_\_ to guide you through the planting process.

5. Days to maturity in your garden could be very different from those given on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Agriculture I**

**Packet # 13**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. You planted four different species in peat pots that can then be planted directly into the ground. Compare this with spreading seed of these plants for home use. Which method might be more effective and why?

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2. Would the best method change if you were planting perennials (which live many years such as trees and shrubs) compared to the annuals (that live only one year) that you planted in your mini greenhouse?

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**Agriculture I**

**Packet # 14**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**



**Transplanting Seedlings vs. Direct Sowing Seeds**

**BENEFITS OF DIRECT SOWING**

By [Emily Murphy](https://passthepistil.com/author/emily-murphy/), February 8, 2017

Caring for seedlings from start to finish with a little extra personal attention can not only increase plant survival and health but also optimize your growing season while maximizing space.

There are many plants that perform just fine or better if sown directly in the garden. Annuals, plants with large seeds, plants that require weathering, plants with fragile root systems and root crops being some.

**Minimize Root Disturbance.** Seeds sown directly in the garden can grow where they’re planted. There are no interruptions in growth due to moving them from one place to another. The bottom line is plants must recover from transplanting.

**Hardening Off Not Required.** Plants that are grown in a protected environment with the intention of transplanting out to the garden must be transitioned slowly to the outside world.

 This is known as hardening off. To harden off seedlings take them outside for a short period of time each day for a week. Start with an hour the first day adding an hour a day for a week. After the 7th day, when they’ve been left out for a total of 7 hours, they’ll be ready to transplant.

**Root Crops.** Root crops such as carrots don’t take well to containers. If their tap root comes in contact with an object such as the bottom of a container it will most likely fork or grow in a funny shape.

Not all root crops are as fussy, but if you have room and the weather is in your favor, plant them straight into the garden and save yourself the step of transplanting.

**Environmental Weathering.** Some plants, such as wildflowers like lupines, require environmental weathering to germinate. You can do this yourself by scaring the seeds or let nature do the work for you. Scatter seeds in the fall for spring blooms.

**Self-sowers & Volunteers.** I have a soft spot for volunteers and generally encourage heirlooms, open pollenated veggies, edible flowers and annuals to self seed. Let your plants live out their life cycle before cleaning up. Leave a few fruits such as tomatoes and cucumbers to decompose in the garden. Let sunflowers, calendula, violas and other annuals drop their seeds.

**No Special Equipment Required.** Direct sowing seeds is simple. You don’t need anything special, no grow lights or special containers, just a place to plant, good soil, water and sun.

**Fill in the Blanks**

1. Plants must recover from \_\_\_\_\_\_\_\_\_\_\_\_\_

2. Scatter seeds in the fall for \_\_\_\_\_\_\_\_\_\_\_\_ blooms.

3. Taking seedlings outside for a short period of time each day before transplanting is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

You don’t need anything special like 4. \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ or special 5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Agriculture I**

**Packet # 15**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Weekly Update**

**Name of the seed:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Number of seeds planted: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Germination Percentage: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Average height: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

General health/Notes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Name of the seed:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Number of seeds planted: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Germination Percentage: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Average height: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

General health/Notes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Name of the seed:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Number of seeds planted: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Germination Percentage: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Average height: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

General health/Notes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_