



Seed packets labeled and organized by their indoor start date. Grouping them together by week or month can help you feel less overwhelmed when starting many plants. Photo by Abby Perry.

Want to up your gardening game? Start by reading seed packets

We all know that growing flowers, vegetables, fruits, trees—almost anything—in Wyoming can be challenging. Success is sometimes attributed to good ol' trial and error and patience. But did you know you can become a bit of an amateur expert just by reading all the information on seed packets?

Available information varies depending on the seed company, but here is a list of a few things you can expect to find.

Annual, perennial, or biennial?

The front of the packet often denotes whether the plant is a perennial, annual, or biennial. An **annual** is a plant that will not survive the winter and must be replanted every year. A few examples are petunias, zinnias, zucchini, and cucumbers.

A **perennial** is a plant that lives at least two years; it grows back from its rootstock. Some examples are strawberries, rhubarb, echinacea, and Shasta daisies.



Biennials are plants that complete their life cycle in two years. In the first year, they germinate and develop their root system, stems, and leaves. In the second year, they flower (and produce fruit if applicable). Examples of biennials are hollyhocks and carrots.

Some annuals and biennials are prolific re-seeders and can give the illusion of “coming back” year after year. Plants referred to as “tender” or “short-lived” perennials might need a little extra protection from the elements, or might only live a few years.

Harvest timing

Seed packets usually specify how many days vegetables and fruits need to reach maturity for harvest. For much of Wyoming, options in the 60- to 70-day range have a better chance of reaching maturity, though there are exceptions. To help estimate the growing season in your area, visit <https://bit.ly/bb-freeze-dates>.

Daylight and growth habit

Seed packets usually have a note about light. **Full sun** typically means at least 6 hours of direct light. Morning sun is typically less intense and cooler than

afternoon sun. **Shade** can also vary in intensity; some **part-sun** plants can tolerate “bright” shade.

The seed packet usually specifies the plant’s size and growth habit. These details can be very important for planning the planting space, ensuring that plants can be seen and receive appropriate light. Keep in mind that some plants climb as they grow. Common “climbers” include cucumbers, pole beans, squash, and peas. While not true climbers, indeterminate tomatoes will grow as tall as the space and growing season allow.

Planting depth

Seed packets also have notes about how deep to plant the seed. There is usually a relationship between the size of the seed and the planting depth. The smaller the seed, the shallower the depth.

Some plants, like hollyhocks, need light to germinate. This information is usually found under a section of the seed packet that might read “special germination instructions” and says not to cover the seed. Under the planting depth it will note something like “press into surface.”

Planting depth can make a big difference in successful germination. Gardeners aren’t always good at accurately estimating depth, but there are tools to help. A dibble (what a fun word!) is a tool that is shaped like the end of a pencil with markings on it to indicate depth. Sometimes they don’t have shallow depths like $\frac{1}{16}$ of an inch, but you can add the depth yourself if that is a requirement of the seed you are planting. You can even make your own dibble out of a pencil.

Season extension

Season extension techniques can help some crops with later maturation dates make it to harvest. For tips, visit <https://bit.ly/BB-gardening>.

Spacing and thinning

Along with planting depth, a seed packet often provides spacing recommendations and sometimes even notes about thinning.

Many gardeners struggle with thinning because once the plants germinate, they can't bring themselves to thin the little plants. If you struggle with thinning, keep in mind that more room helps the plant grow to its full potential. Planting fewer plants, more spaced out (to avoid the thinning chore), can positively impact the size of the harvest.

As you might know from experience, carrots grown too close together can be stunted (and kind of wimpy). Buying pelleted seed, though a bit more expensive, can help you plant root crops more precisely.

Sowing inside vs. sowing outside

Many seed packets have two sections: when to sow outside and when to start inside. Typically, the packet will reference a certain number of weeks in relation to the last frost (see <https://bit.ly/bb-freeze-dates> to help determine this date). For example, it may read 2–4 weeks before average last frost to start outside and 6–8 weeks before average last frost to start inside.

Some seed packets will even say recommended or not recommended. Beans, for example, do not like to be started inside. On their seed packets, the “when to start inside” section often simply states “not recommended” and doesn't even give an indication about the weeks before last frost.

Packets for other plants may emphasize starting seeds inside. Make sure to read the fine print, as these plants require an extra time commitment and indoor growing space with proper light.

For some plants, like corn, there might be a note about transplanting before the tap root hits the bottom of the pot. Following these recommendations can increase your chances of success.

Germination specifics

As mentioned for hollyhocks, sometimes seed packets include special germination instructions. Some seeds require pre-treatment before they will germinate. Packets for these seeds often have a note on the outside and more in-depth information printed inside.

Stratification and scarification are the two most common pre-treatments. **Stratification** means that the seed needs to experience some level of natural conditions before it will germinate. For instance, there are many bulbs that we plant in the fall because they require a cold treatment. Other plants may need to experience freeze-thaw conditions.

Scarification is the weakening of the seed coat to help it germinate. Soaking seeds in hot water or scratching them with sandpaper are examples of seed scarification that could be noted on a seed packet.

Additional “nuggets” of info

Seed packets usually contain some kind of paragraph-form detailed information. In this section you may find all kinds of golden nuggets, like USDA zones (most of Wyoming is between 3–5), or if the plant attracts animals like hummingbirds, bees, or butterflies.

Some plants are more resistant to or tolerant of things like powdery mildew, dry soil conditions, or cold weather, all of which could be noted in this section. There might also be notes about whether plants are poisonous (very important with pets or small kids), and if they are deer resistant. Remember, deer resistant means that plants could be eaten, but are less likely to be devoured to the ground.

For vegetables, there could also be a note about how much you are able to plant from the seed packet, such as “this packet plants two 5-foot rows” (assuming you are following the spacing recommendations).

Learning everything about being a gardener in Wyoming can be overwhelming, but picking up a few seed packets and reading how to grow those seeds successfully can be a great place to start.

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Shopping online?

Don't worry, seed companies often list the same type of information found on seed packets on their web pages.