



955 Benton Ave., Winslow, ME 04901 • Phone: 1-877-564-6697 • Fax: 1-800-738-6314
Email: service@johnnyseeds.com • Web Site: Johnnyseeds.com

With more than 1,500 varieties in the Johnny's catalog and over 100 varieties in the most diverse crop groups — like lettuce and tomatoes — it can be a challenge to narrow down your choices. A simple question to ask yourself is: "What am I looking for in a variety?" If there is a challenge that has limited your success in the past, there is likely a variety out there to solve it. Here are some aspects to growing to help evaluate your gardening and growing challenges and select varieties appropriate to overcome them.

LOCATION AND INFRASTRUCTURE CONSIDERATIONS

Before beginning to compare one variety to the next, it is best to think about your own production system and style, including the location of your farm and fields.

Field planted or protected environment:

Are you planting strictly in the field or do you have access to a protected growing environment, like a high tunnel or a greenhouse?

Most field varieties perform better in a protected environment than in the field; however, the reverse is not true. Access to a greenhouse or high tunnel extends the growing season and often improves yield and vigor.

For many flower varieties, it is recommended to provide protection, whether it is in a greenhouse or using low tunnels in the field, to prevent damage to the petals by rain or other weather events.

Access to a greenhouse can allow more space for starting seeds for transplants. Among the advantages of transplants are less time spent in the field, more accurate in-row spacing, and reduced weed pressure.

Length of Season:

The descriptions in the catalog may indicate that a variety is "well-suited to short-season areas". Essentially, this means it matures in a location with fewer frost-free days; in other words, days when the temperatures stay above 32°F/0°C. If you are in a location, with a long season, there may be more varieties and crops available to you. Alternatively, if you are in a cool climate, growing in a greenhouse or with low tunnels can extend the season.



Low tunnels can extend the growing season, provide protection against the elements, and increase quality of the harvested crop.

The low tunnels pictured above were made with the Quick Hoops™ 3-foot Low Tunnel Bender.

Methodology – Organic or Conventional:

Whether you are growing organically, conventionally, or somewhere in between, your growing methodology can determine which varieties are allowable to you by a certifier, or by your own personal philosophies.

Plant Hardiness Zones:

The United States Department of Agriculture maintains a map of plant hardiness zones that is based on the average minimum winter temperature. Each zone is assigned a number from 1 to 13, with a letter designation for each zone split into 2. The smaller the number, the colder the average minimum winter temperature. For example, the Johnny's Selected Seeds Research Farm in Albion, Maine is in Zone 5a. This means our average minimum winter temperature is -20—15°F/-29—26°C.

Typically, plant hardiness zones are useful to consider for perennial plants. Annuals are planted and harvested within one year, and so do not need to tolerate and survive year-round conditions. Artichokes are a perennial in Zones 7 and warmer, meaning they likely will not survive winter lows below 0—5°F/-18—15°C, but they can still be grown as annuals.

To check your plant hardiness zone, please refer to the USDA's website:
<http://planthardiness.ars.usda.gov/>

Soil:

The health of your soil not only correlates with the productivity of the crop planted in it, but can also limit certain crop choices. For example, a hard, compact, or rocky soil may lead to carrots with forked roots — any root crop may be more of a challenge in a soil of that type. However, there are varieties that may have characteristics that allow them to be successful in less than ideal soils.

Further, all crops have specific soil pH needs and nutritional requirements. Soil tests can be conducted to determine the status of your own soil, which can then be amended to meet the nutritional and pH requirements of a given crop.

Space considerations:

Perhaps the land available for planting is very small. There are many growers who are able to provide food for themselves in a small area, but also able to make a living for themselves in that space. If you are limited on planting area, consider crops and varieties that have compact plant habits, are good for trellising, or are very high yielding. Succession planting is another good way to make the most out of the space available.

VARIETY CONSIDERATIONS**Cost:**

The choice for one variety versus another can come down to the simple decision of cost. A variety with a significantly higher cost than another may have characteristics that warrant and justify the cost for adding the variety to your garden. Keep in mind, however, that seed cost is usually a very small part of the total expense of growing, so even minor improvements such as increased yield can increase profits and efficiency.

Days to Maturity:

When you consider the length of your growing season, it is important to also think about days to maturity. A short-season area would be best served by varieties that take fewer days to mature to ensure a harvest ready before the first frost. Challenges posed by long-season crops grown in short-season areas can be overcome with season extension techniques.

Being aware of the days to maturity can help succession planning. If you want to have a succession harvest, but only plant seed once, select several different varieties with varied days to maturity and plant them on the same day.

Disease resistances:

Across the country, there are locations that have higher rates of specific diseases. Other diseases are wide spread and infect plants in all regions. If you can identify which diseases are most common in your area, you can select varieties that have resistance to that disease.

No level of disease resistance is a silver bullet for preventing a disease, but it may reduce the severity or slow down the infection. A local cooperative extension service agency can aid in identifying disease pressures.

Environmental tolerances:

Climates in different regions vary enormously. It is important to select varieties that can withstand environmental extremes that occur in your location. The catalog has symbols that indicate varieties that are extremely heat or cold tolerant. Varieties may have other physical characteristics to overcome environmental challenges in your area.

Flavor:

At the end of the day and the end of the harvest, you're growing vegetables to eat them. Whether it's fresh, stored, or preserved, at some point a variety is going to be a part of a meal, so you want it to taste good.

Open-Pollinated and Hybrid Varieties:

Open-pollinated varieties, often abbreviated to "OP", reproduce themselves in kind if properly isolated. Heirloom varieties also fall under the group of open pollinated.

Alternatively, hybrid varieties are developed using traditional plant breeding methods by cross-pollinating 2 parent varieties selected for specific traits. Typically, hybrids provide improved flavor, disease resistance, vigor, uniformity, and yield. Should a grower save seed from a hybrid, do not expect the resulting offspring to look like the parent plant.

Organic or Conventional Seed:

Seeds marked as organic by Johnny's have been certified organic by a USDA-accredited organization, meaning they meet all organic standards set out by law. If you are a certified organic grower, there are stipulations you must meet regarding growing certified organic seed.

Simply put, conventional seed are seeds that have not been organically certified.

RECORDING AND REVIEWING NOTES

One of the most important aspects to selecting varieties and make the process easier from year to year is to maintain thorough and accurate records. While a variety is growing and after harvest, make notes on its performance, yield, and other characteristics that are important to you. Review your notes and records when it comes time to plan your garden the following year

Planting Requirements:

Varieties within a crop group may have their own unique needs. When reviewing a variety, consider special planting requirements.

For example, 'Purple Passion' asparagus may produce very thick spears if planted at the usual spacing, but a closer spacing can prevent that.

Raw seed or...:

Raw seed is seed as it is when it was harvested from the plant, minus chaff and plant material that has been removed through a cleaning process. Many varieties offer an alternative to raw seed that adds additional benefits.

Pelleted seed is coated with an inert, clay-based material that allows for easier handling and seeding. Most pellets only have one seed per pellet (except for multi-seed pellets; pelleted beets also have one seed per pellet, but there are typically 2–3 embryos per seed), which eliminates the need for thinning.

Treated seeds are coated with a fungicide, which can help prevent seeds from rotting in the soil when sown in cool, wet soil. Note that treated seeds are not allowed in organic agriculture.

Seasonal Slotting:

Not all varieties can perform at all times of the year. For some crops, *Brassica* species especially, planting programs are used to select varieties for the different seasons. Select varieties based on their performance in the season you will be harvesting them. For example, if you will be harvesting in the summer, select a variety with good bolting and heat tolerances. See our catalog or website for planting programs.