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# SEED PACKETS: THE REVEALING TRUTH

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Every gardening book, magazine or guru states how important it is to read, understand and carefully follow the directions provided on the back of the seed packet.

According to the experts, the back of the seed packet provides all the important information that will to ensure gardening success. **But is that the whole story?** Before buying seeds, either at the store or from a catalog, there is some information that should be obtained and questions answered.

*Seed packets do not always mention where the seeds will grow the best.* There is a very good chance that some gardeners will be able to work very hard and grow all things, no matter where they live. But for the rest of the gardeners, it is necessary to determine the climatic conditions where they live and choose vegetables and flowers that will do well there.

## Where Is the Garden?

One of the first pieces of information needed is where you live in terms of growing things. You think you know that, but do you really? Do you know that there are eleven (11) hardiness zones developed by the United States Department of Agriculture (USDA).

Some of the seed packets have a very tiny map showing these zones. The USDA zones could also be referred to as growing or climate zones and are a guide to what plants will be able to withstand the area's minimum temperatures. The information is based on what is the coldest temperature in an area. The last update was published in 1990 and covered the period 1974-86.

There is a problem with relying entirely on the hardiness zones since they disregard all other aspects associated with gardening in a given area. A more complete reference guide for western gardeners is the *Sunset Western Garden Book's* climate zone. This twenty four (24) zone guide takes into account latitude, elevation, ocean and continental air influence, and the effect of mountains and hills. According to *Sunset's* map, there are 12 zones in Northern California. Knowing your zone will make it easier to select the right variety of seeds for your garden.

To further cloud the issue, geological and manmade elements contribute to creating microclimates unique to each garden. The slope of the property and the location of trees or structures will affect the areas adjacent to them and change the growing conditions dramatically. Most gardens will contain several microclimates. The majority of western nurseries and garden centers use the Sunset zones as a standard. But, it is definitely wise to also know what is your USDA hardiness zone.

Most catalogs and gardening books use the USDA zones and knowing your zone will help you properly interpret their climate and growing information.

## When to plant

This is the trickiest bit of information on the whole packet. Phrases like, "when danger of frost is past" litter the seed packet. What does that mean? Average dates for the first fall frost and the last spring frost are monitored and published by the National Climate Date Center. The information is based on data collected over a thirty year period

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and recompiled every decade. The last published data covered the years 1971–2000 (see References for NOAA website).

### **Plant Description**

The packet will usually give a description of what the seed will produce. If the seed is for an edible item, the description may contain information on when to harvest and how to use the plant. Flower seeds usually provide information concerning sun or shade requirements, fragrance, height, and other distinctive features. Consult other books and online sources to evaluate if this is really what you want.

### **Look for the date**

Each packet will have a packed/packaged for a particular year stamped or printed on it. Choose ones for the year in which you are planting. Getting seed packets from prior years could affect the viability of the seeds and decrease germination. Many packets will also include the country of origin. Seeds that you purchased in prior years may still be produce well, if you have stored them in a dry, cool location.

### **Planting depth**

The planting depth is critical to seed germination. Generally, large seeds are planted deeper than small ones. Incorrect depth can cause the seed to not germinate. The packet should give a recommendation on the depth the seed needs to be planted. Rule of thumb is to plant seeds at twice their width. The packet should also provide information on any special requirements that the seed will have, such as needing to be soaked or scarified (nicking the seed hull).

### **Plant Spacing or Spacing After Thinning**

Usually more seeds get planted than are needed. This is especially true with small and very small seeds. Too many seedlings in one area compete with each other for food, light, water and other necessities to survival. In order for plants to thrive and become strong, healthy plants, they will need to be thinned to the recommended spacing on the packet.

### **Germination or days to emerge**

Basically this is the same thing using different words. The seed company will provide a range telling how long from sowing until the first green of the seedling begins to show. The most important external factors include: soil temperature, water, oxygen, and sometimes light or darkness.

### **Days to Maturity**

The period of time from the last frost date in spring to the first frost date in the fall is known as the growing season. Vegetables will require a certain amount of days to maturity. Days to maturity is very important information found on packets as it will supply information as to when the seeds should be planted and still be harvested during their optimal growing season. Make sure your growing season is long enough.

### **Light Conditions**

This is found primarily on ornamental plant seeds. It tells if the plant should be in sun, partial sun or shade. Almost all vegetables benefit from a minimum of 6-8 hours of sunlight a day.

### **Soil Type**

This is the seed company's description of the optimal soil for this plant. No matter what soil is out in the garden, it can be improved by adding lots of organic material in the form of compost. If it is a plant that you really desire and your soil is the exact opposite of what is recommended, consider planting in containers.

### **Water Requirements**

Each type of plant has their own water requirements. The information on the packet allows for sowing seeds for plants of similar water needs, thus avoiding failures due to incorrect watering.

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## References

Penn State College of Agricultural Sciences Department of Horticulture, [http://consumerhorticulture.psu.edu/files/seed\\_packets.pdf](http://consumerhorticulture.psu.edu/files/seed_packets.pdf)

University of Vermont Extension Department of Plant and Soil Science, <http://pss.uvm.edu/ppp/articles/seedpkt.html>

*Sunset*, <http://www.sunset.com/garden/climate-zones/sunset-climate-zones-california-nevada-00400000036331/>

National Oceanic and Atmospheric Administration, <http://cdo.ncdc.noaa.gov/climatenormals/clim20supp1/states/CA.pdf>

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