

Seasonal Classification of Vegetables

Plants can be classified by the temperatures which produce optimum growth. The two broadest categories of plants based on temperature are cool-season and warm-season crops. Knowing these classifications can be useful in producing and managing crops.

As the terms imply, warm-season crops grow optimally in higher temperatures than cool-season crops. In Pennsylvania, warm-season crops generally are transplanted into the garden, and may be grown on plastic mulch, rather than direct seeded. This is because the growing season when the temperature is 'warm' enough for these crops to be planted in the garden is often too short for the plants to mature from seed. Cool-season crops can often be planted and produced in two growing seasons, in early spring (often prior to the last frost) and in the early fall. They must be planted early enough in the spring to reach maturity before temperatures are too warm and the seeds require cool temperatures to germinate in the fall. Warm-season crops are produced in one growing season that begins after the last spring frost.

Water and fertilizer requirements are also dependant on whether the crop is a cool-season or warm-season crop. Cool-season crops have root systems that are generally shallower than warm-season crops. This means that cool-season plants may need to be watered and fertilized more often. The plants have limited access to water because the root zone is small. Warm-season crops tend to have deeper root systems. They also need to be watered and fertilized often as higher temperatures lead to quicker water loss through plant uptake and evaporation.

In general cool-season crops are root crops and salad greens. Warm-season crops are typically fruits. See the

[Vegetable Planting and Transplanting Guide](#) for additional growing information on select plants.

Cool Season Vegetables:

Artichoke, Asparagus, Beet, Bok Choi, Broccoli, Brussels Sprouts, Chive, Cabbage, Cardoon, Carrot, Cauliflower, Celeriac, Celery, Chard, Chicory, Chinese Cabbage, Cress, Daikon, Dandelion, Endive, Escarole, Fava Bean (English Broadbean), Florence Fennel, Garlic, Horse-radish, Kale, Kohlrabi, Leek, Lettuce, Mustard, Onion, Pak Choi, Parsley, Parsnips, Pea (English, Snow, Snap), Radicchio, Radish, Rhubarb, Rutabaga, Salsify, Scallions (Bunching), Shallot, Spinach, Swiss Chard, Turnip, Watercress.

Warm Season Vegetables:

Bean (Lima, Snap), Chayote, Corn, Cowpea (Southern Pea), Cucumber, Eggplant, Muskmelon, Okra, Pepper (Bell, Hot), Pumpkin, Soybean (Edible), Squash, Sweet Potato, Tomato, Watermelon.

Source

Maynard, D.N. and G. Hochmuth. 1997. *Knott's Handbook for Vegetable Growers 4th Edition*. John Wiley & Sons, New York.

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