

Techniques to Help the Spring Garden

April is a risky month for Foothill gardeners because weather is so unpredictable. Gardeners face potential late spring frosts, which can wipe out warm season crops like tomatoes, chile and squash. In some years, warm weather can reduce the quality of cool season crops like leaf lettuce and peas.



Gardeners can't control the climate, but they can help protect their spring garden from frost or hot weather. By taking advantage of microclimates in the garden, the growing season for many vegetables can be extended. Planting watermelons and cantaloupes near a block wall with a southern exposure, for example, will increase the average temperature surrounding melon vines. On the other hand, planting cool season crops like leaf lettuce, spinach and cabbage on the north side of a house will help lower the temperature.

Raised vegetable beds will also warm up sooner in the spring. Planting on the south side of a raised bed running east to west will warm the ground even more. Beds can be mounded up by hand with a shovel or contained with lumber or bricks.

Apart from microclimates, mulches probably provide the best means to protect gardens against weather variations. Synthetic black plastic mulches covering a vegetable bed help to warm the soil and reduce weed growth. Warmer soils will, in turn, encourage more rapid growth of warm season crops like tomatoes, chile, squash and melons.

Perforated or woven black plastic such as landscape fabrics or weed barriers are especially useful because they allow the soil to breathe and provide good water penetration. Clear plastic generates more heat than black plastic, but it often allows too much weed growth under the plastic.

Most plant nurseries, garden centers or catalogs sell perforated or woven black plastic. Rolls 3- to 4-feet wide can be laid directly over a raised bed or spread out on level garden sites. Edges can be secured with soil or special fabric pins that anchor the plastic to the soil. Transplanted tomatoes, peppers, melons or squash should be set in place through the plastic after puncturing it with a knife or sharp trowel. Soil under the plastic should be firmed up over the roots of the transplants and then irrigated.

Perforated or woven black plastics allow for drip, sprinkler, furrow or flood irrigation, and they also catch and hold rainwater. Because mulches reduce water evaporation from the soil, water savings can be substantial.

Organic mulches like straw, hay, shredded leaves and dried grass clippings help cool the soil and they can be applied around cool season crops to maintain quality and to reduce heat stress. They can also be applied on top of black plastic mulches to prevent overheating. Organic mulches help cool the plastic and keep the roots from being damaged in hot weather.

In addition to mulches, jars, bottles, or hot caps can be placed over planted seed or transplants in early April to speed germination and growth of warm season crops. Plastic sleeves filled with water that absorb heat during the day can be placed around tomato plants to protect them from freezing temperatures.

Ambitious gardeners can use row covers or plastic grow tunnels with vertical slits for ventilation to protect whole strips of tomatoes, peppers or melons. Row covers of opaque polyester or polypropylene supported by wire hoops provide ventilation while warming the soil and plants beneath. Row covers will also help protect the plants from wind, hail, insects and even prairie dogs. Row covers should be removed in hot weather and when flowering occurs for bee pollination.

This article adapted from Cooperative State Research, Education and Extension Service, USDA. Please contact Ken Churches at cdcalaveras@ucdavis.edu or (209) 754-6475 with your agricultural questions. To speak with a Certified Master Gardener: Calaveras (209) 754-2880, Tuolumne (209) 533-5696, Amador (209) 223-6837, El Dorado (530) 621-5543.