

Early hot spring

Not so long ago, a visitor to the Cooperative Extension office in Las Vegas asked me what might be some of the problems gardeners could face if this very early, warm spring were to continue into the summer. Like so many other things in biology, this question does not have a facile answer. The situation is complicated by heat, chill and day length.



Bolting black seeded Simpson lettuce; photo from Garden Fairy Farm, shared publicly.

We often caution people that early bud break on fruit trees could be followed by an unwelcome chill that might kill the little flowers, thus reducing fruit production. Even some vegetables will be damaged or produce a flower stalk when chilled.

The difficulties that can come about from early, sustained heat are less obvious, but definitely deserve mention. Here the problems mainly concern vegetable gardens.

Early spring (as well as mid-autumn) is usually the time for starting cool season veggies. These are those things we grow for their leaves and roots. Chard, kale, carrots

generally grow merrily until the temperatures rise into the 80's. Since the last frost dates in Southern Nevada range from March 21 to March 31, it is reasonable to expect that these cool crops should be fine for at least a month beyond that. In fact, a number of them really thrive from 45 degrees up to 70 degrees. If the weather were "normal" these would be springtime temperatures. As our planet's climate continues to change and seasonal temperatures become higher, some of these plants will be put in a difficult position. Things like spinach and lettuce will bolt as days get longer and warmer, and this is exacerbated under higher temperatures.

Bolting is not normal flowering. It is, rather, an incomplete attempt by a plant to produce seeds when environmental conditions are stressful. This is particularly noticeable with annual plants, which produce flowers and seeds once, then die, but other plants show similar behavior. When a stressed conifer produces a bumper crop of cones, it is a sign of such stress that the plant is attempting to keep its species going before it dies. For annual vegetables, bolting is a sign of stress, and the plant seldom completes the reproductive process. It begins to form a pre-floral shape like a pyramid, and produces bitter flavor compounds. These deter herbivores who dislike the taste. If the intrepid gardener does not remove the inedible vegetable, sometimes it will complete the flowering process and produce seeds. These might be viable and produce a crop for the next season.

Compared to more northerly locales, Southern Nevada day length varies less. This helps to lower the possibility that some of our favorite garden vegetables will go to seed. Seed saving aside, bolted lettuce or spinach is particularly unwelcome because it is so unpalatable.

Sustained high temperatures, starting early in the year, however, will limit the growing season for cool season vegetables. Plants protected from very high heat and long days will produce and remain edible a little longer. Northern and eastern light exposure, and shade cloth, can help with this.

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