



# NEWSPAPER ARTICLES

## Fall Planting for Spring and Summer (October 15, 2022)

by Pam Wallace, Tulare/Kings Counties Master Gardener

The last two summers in particular have been long and excessively hot and dry, and nothing I planted in the early spring of 2021 thrived or grew – until Fall, when those that had limped along during the many days of 100+ degree weather finally showed signs of life, rewarding me with growth and blooms. This year, many of my spring plantings once again shriveled and died during the extreme heat.

That is why the Tulare-Kings Counties Master Gardeners continue to recommend you do your Spring and Summer planting in the Fall.

### What happens to plants during hot weather

Air temperatures from 60 to 85 degrees Fahrenheit are optimal for plant growth and development. However, when temperatures rise above 90 degrees, the following can occur:

- Leaves wilt due to water evaporation. Water evaporation through pores in the leaves is a plant's primary cooling mechanism. With prolonged high temperatures, plants can lose more water through evaporation than their roots can absorb, putting them in high stress.
- Flowers drop while plants forfeit reproduction in order to reserve their available energy to keep cool. Heat waves mean fewer blossoms and flowers.
- Photosynthesis slows. Plants uptake carbon dioxide through their pores during the process of photosynthesis. Plants with limited CO<sub>2</sub> are slower to grow.
- Sunburn is another type of heat damage. Sunburned leaves and stems become discolored and appear scorched.
- Plants experiencing continued heat stress will be unable to maintain the processes necessary for growth and development and will become stunted. They may attract pests due to a weakened immune system.



### Why Plant in Fall?

With our Mediterranean climate (hot, dry summers and mild, wet winters), root development in Fall and winter is key to a plant's success in spring and summer.

The cooler air temperature and still-warm soil temperatures of Fall are ideal for establishing new transplants. Although you won't see a lot of stem and leaf growth in the Fall, the plants are busy underground, growing and expanding their root system.

80% of a plant's root growth can take place during the fall months. Root growth will continue slowly through the rest of Fall and winter as long as the soil doesn't freeze. The last few winters in our county have been fairly mild, with far fewer freezing nights than twenty or thirty years ago. Better root growth increases the number of nutrients stored in the plant over the winter.

### Fall planting is better from a water-use perspective

- As plants begin to go dormant in the Fall, they use less water.
- The soil is cooler in the Fall, so it stores moisture better.
- You'll need less water, less frequently.
- Mulching is essential. It keeps the plants from drying out and will keep the soil warmer to prevent frost damage, should one occur.

### Fall vs. Spring Planting

Spring-planted perennials can suffer a period of transplant shock which can affect root establishment, resulting in slower growth. Plants installed in the Fall have time to develop their root structure while soil temperatures are still warm. Once spring arrives, fall-planted trees, shrubs, and perennials are ready to take off and grow because of their extensive root system. The result is more vigorous top growth and flowering.

Because autumn days are shorter with cooler average temperatures, the plant does not need to spend all of its energy trying to cool off. Instead, the energy goes to promote growth, especially root growth.

With an April or May planting, the root system won't be as well developed and may not be able to sustain the plant over the withering heat of summer. The consequence is a smaller, more stressed plant, one that requires repeated, shallow irrigations.

### **Fall irrigation for water-wise gardening**

Water is crucial during the Fall and winter. Irrigate regularly through the fall months, decreasing frequency as daytime temperatures cool. Four to six weeks after planting, the plant should have pushed new roots out and begun to establish a root "backbone."

Once a plant is established, watering frequency can be reduced. A good, long soaking every 2-3 weeks will be helpful until the rains of winter (hopefully) come.

As winter arrives, be sure to check your city's watering guidelines, as most outdoor watering in our county is restricted during winter months. Although much maligned by Central Valley residents and drivers, winter fog can actually be beneficial for our plants. According to the University of California Agriculture and Natural Resources publication #8532, fog contribution can be considered effective rainfall, and the longer that plant surfaces are wet during the day, the more that fog contributes to ETc (crop evapotranspiration).

Due to the extreme heat this summer, I wasn't able to do much gardening—in fact, it was downright torturous to watch my plants shrivel and wilt during the frequent and prolonged 100+ degree days. Now that the mornings and evenings are cooler, I intend to make up for lost time and hopefully enjoy some colorful blooms before winter.

### **The Master Gardeners will be available to answer your questions at a few select locations in the next few months!**

Visalia Farmer's Market- 1st & 3rd Saturdays, 8-11 am, 2100 W. Caldwell Ave (behind Sears)

Ace Hardware, Visalia - 1st Sat./every month, 10 am-1 pm

Luis Nursery, Visalia - 2nd Sat./every month, 10 am-2 pm

Hofman's Nursery, Hanford – 3rd Sat./every month, 10 am-1 pm

Hanford Harvest Festival – Sat., Oct. 15, 2-6 pm, Hanford Mall Parking lot

Pumpkin Succulent Class – Oct. 15, 11 am – Noon, Tulare City Library

Hanford Fall Festival – October 23, Time TBA, Adventist Health Community Garden

Halloween Event at Tulare City Library – October 29, 10:00am - 2:00 pm, Tulare Library

### **Questions? Call the Master Gardeners:**

Tulare County: (559) 684-3325, Tues & Thurs, 9:30-11:30;

Kings County: (559) 852-2736, Thursday Only, 9:30–11:30 am

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