

Protect Vegetables from Early Summer Stress



Heat, drought and pests make early summer a difficult time for foothill vegetable gardens. Cool-season cole crops like broccoli, cauliflower and cabbage are especially vulnerable. In warm areas, broccoli heads brown, cauliflower flowers too quickly and cabbage heads crack.

To compensate, try planting these crops in late June or early July rather than spring. Crops planted later will mature in fall when it's cool, increasing crop quality. Keep seeds moist after planting to improve germination and emergence. Cole crops are vulnerable to cabbage worm and cabbage looper. The latter is easily identified by its characteristic looping or inch-worm type crawl. Control these pests with a biological insecticide called *Bacillus thuringiensis* (BT).

Use organic mulches and drip irrigation to reduce heat stress on plants. Organic mulches like straw or grass clippings can cool the soil, reduce water evaporation and help control weeds. As organic mulches break down, they also release nutrients to the soil. In hotter areas, try placing white cloth tents over vegetables to shade them.

Drip irrigation is an efficient way to apply water to crops. Placed near the base of plants, water flows directly to roots rather than the alleys between crops. That helps prevent weed growth and makes it easier to stand between rows to harvest plants. Placing the drip line near the base of plants also helps keep salts in water and soil away from the plant, resulting in less salt damage to roots.

Crops like asparagus and sweet corn require extra nitrogen fertilizer in early summer. Asparagus production normally ends in late spring, when the average spear diameter is less than a quarter inch. As the spears form ferns, apply nitrogen fertilizer. Good fern development in the summer will replenish carbohydrates in the root systems for optimal spear production next spring.

Young corn plants require extra nitrogen in early June for best growth. Make a shallow trench 5 to 6 inches wide beside plants. Scatter nitrogen fertilizer in the trench. Cover with soil and irrigate immediately. Application levels will depend on soil analysis and the amount of nitrogen applied before planting.

To control weeds and insects, start early. It's easier to pull weeds when they're small. Insecticide is more effective against baby bugs than against tough adult insects. Read labels on all insecticides carefully before applying.

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.