

## VEGETABLE PLANTING CALENDAR FOR SAN DIEGO COUNTY

*Provided by Roy Wilburn of Sunshine Care*

**DECEMBER-** Beets, blackberries, boysenberries, broccoli, brussels sprouts, cabbage, carrots, cauliflower, celery, collards, endive, favas, garlic, grapes, kale, kohlrabi, leek, lettuce, mustard, onions, parsley, parsnip, peas, potatoes, radish, rutabaga, spinach, swiss chard, turnips

**JANUARY-** Asparagus, beets, broccoli, brussels sprouts, cabbage, carrots, cauliflower, celery, chives, collards, endive, favas, garlic, kale, kohlrabi, leek, lettuce, mustard, onions, parsley, parsnip, peas, potatoes, radish, rutabaga, spinach, swiss chard, turnip, winter zucchini, collards

**FEBRUARY-** Asparagus, beans, beets, blueberries, broccoli, brussels sprouts, cabbage, carrots, cauliflower, chives, collards, garlic, kale, kohlrabi, leek, lettuce, marrow squashes, mustard, onions, parsley, parsnip, peas, potatoes, radish, rutabaga, spinach, swiss chard, turnip

**MARCH-** Asparagus, beans, beets, broccoli, Brussels sprouts, cabbage, cantaloupe, carrots, cauliflower, chives, collards, corn, cucumbers, egg plant, endive, garlic, honey dew, kohlrabi, lettuce, lima beans, mustard, onion, okra, parsley, parsnip, peas, peppers, potatoes, radish, rutabaga, spinach, squash, strawberries, swiss chard, tomatoes,, turnip, watermelon



### **Bagrada Bug**

**Name:** Bagrada bug, *Bagrada hilaris*. Other common names include painted bug and harlequin bug, which is also the common name of a related species (*Murgantia histrionica*). The bagrada bug is a member of the stink bug family Pentatomidae and it emits a distinctive pungent parsley odor when disturbed.

**Distribution:** The bagrada bug is known from Africa, southern Asia, and southern Europe. It was first found in North America in June 2008 in Los Angeles County, California. It has since spread throughout southern California, Arizona, and New Mexico.

**Hosts:** The bagrada bug feeds on a variety of plants in the family Brassicaceae (Cruciferae) including many important food crops: arugula, broccoli, cabbage, cauliflower, Chinese greens, kale, kohlrabi, mustard, radish, rutabaga, and turnip. It also attacks papaya, potato, corn, sorghum, cotton, capers, wheat, millet, canola, some legumes and other crops. It also feeds on an ornamental alyssum and some weeds: wild mustard, London rocket, pepperweed, field bindweed, purple nut sedge, lambs quarters, and perennial sow thistle.

**Damage:** Bagrada bug adults and nymphs have needle-like mouth parts and they remove sap from plants. It is not known to bite humans or carry disease. The insects' puncture marks appear as white patches on edges of leaves and larger stippled areas. Young plants that are heavily attacked have a wilted or scorched appearance and may not produce a head or produce multiple small heads.

**Identification:** The adult bagrada bug's body is more black than orange color and the inverted "face" on its back is a diagnostic characteristic. Photos of the bagrada bug can be seen at <http://cifr.ucr.edu>.

**Biological Control:** The bagrada bug is not native to California and there are no natural enemies here that specifically attack it. Spiders and other general predators feed on bagrada bug; however birds apparently find its taste unpleasant and may avoid eating it. Bagrada bug populations can rapidly increase and biological control alone may not keep its population in check.

**Management Options:** Bagrada bug adults, eggs and nymphs in soil are difficult to control. Solarizing soil during warm weather prior to planting will control adults and nymphs and may also control eggs if the soil temperature is high enough. Covering prepared and well-irrigated soil for a period of 4 to 8 weeks during warm sunny weather will help control some soil-borne diseases, weed seeds, nematodes, and insect pests. For more information see UC Pest Note 74145 Soil Solarization for Gardens and Landscapes at <http://www.ipm.ucdavis.edu>.

Host plants can be protected from the bagrada bug if soil is free of the pest by covering areas planted with seed or transplants with floating row cover fabric. Sunlight and air pass through the spun-bonded fabric but insects are excluded. A wide selection of row cover fabrics are sold online through garden catalogs. In small gardens hand picking may help control the bagrada bug if few insects are present on host plants. Application of insecticides is usually needed to protect young plants from severe damage when bagrada bug populations rapidly increase. Before any insecticide is used, carefully read the product label to make sure it can be used on the plants you wish to treat. Some insecticide products labeled for use in home gardens may be effective against the bagrada bug. The insecticide pyrethrin controls certain insects on contact and it breaks down quickly, usually within a day. Insecticidal soap and horticultural oils, including neem oil and paraffinic oil, kill soft-bodied insects on contact and do not have a persistent toxic residue. These materials would be more effective against nymphs than adult bagrada bugs. Other insecticides like Spinosad (an organic product) and carbaryl (Sevin) have a more persistent toxic residue which may harm honey bees and other beneficial insects.

*Except on article By V. Lazaneo, UC Urban Horticulture Advisor, Emeritus*