

# Updates

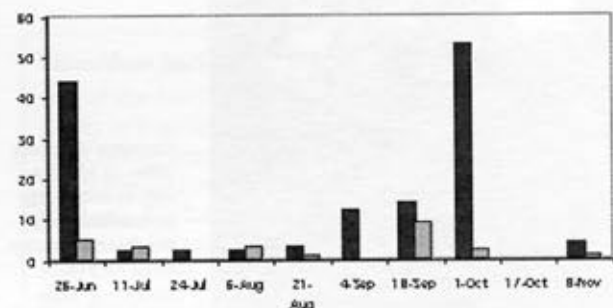
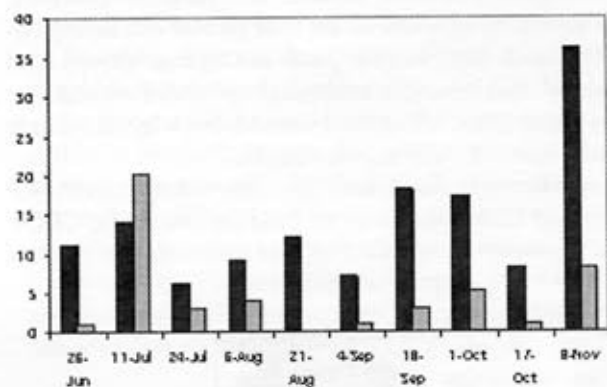
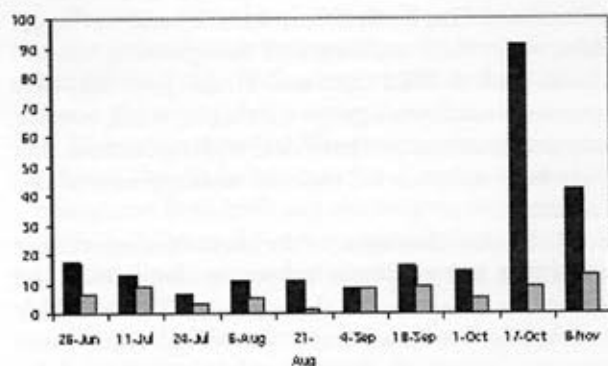
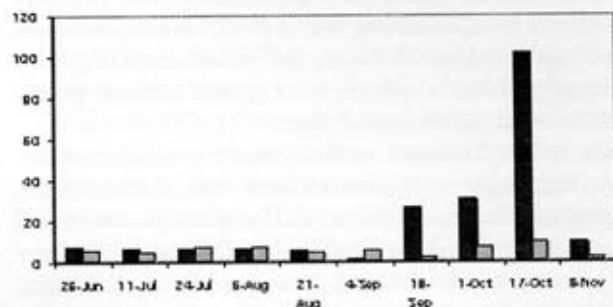
## Study of Beneficials and Pests in Hedgerows Continues

On-farm revegetation with native perennial hedgerows can help control soil erosion and runoff, as well as provide habitat for beneficial insects. In an ongoing study initiated in fall 2002, Center researchers Janet Bryer and Diego Nieto are monitoring insect populations in hedgerows, focusing on four native plant species: *Achillea millefolium* (yarrow), *Baccharis pilularis* (coyote brush), *Ceanothus* sp. (California lilac), and *Eriogonum* sp. (buckwheat).

Research questions being addressed in the study include: Which natural enemies are attracted to the native plant hedgerows? In what season are they most abundant? Do the hedgerows attract potential pest species as well as beneficials? The study is funded by a grant from the State Water Resources Control Board in collaboration with the Community Alliance with Family Farmers.

Data collected from June through November of 2003 at the Dutra, High Ground Organics, Gizdich, and Garrouette farms in the Pajaro Valley show that the perennial hedgerows are attracting more total beneficial insects than total herbivores (potential pest species). For example, the figures at right show the total numbers of beneficials and herbivores collected from the hedgerow plant *Baccharis pilularis* at the four farms throughout the season.

Monitoring of the sites will take place for another season beginning in the spring of 2004. Following the monitoring, the researchers will conduct an in-depth analysis of the data to determine the efficacy of using perennial hedgerows as a pest management tool.



Total numbers of beneficial (dark bars) and herbivore (light bars) species collected from *Baccharis pilularis* at (from top) Dutra, High Ground, Gizdich, and Garrouette farms, June–November 2003.



Beneficial insects collected from the hedgerows include damsel bugs (*Nabis* sp.). These generalist predators prey mainly on soft-bodied pest species such as aphids and lygus bugs. (Actual body length = appr. 1/3 in.)