



Farming For Native Bees

Habitat Gardening on Brentwood Farms

Farming for Native Bees is an innovative, collaborative project between the UC Berkeley Urban Bee Lab and 8 Brentwood farms in Contra Costa Co, California addressing the precipitous decline of honey bee pollinators.



Project Goals

- Partner with farmers to establish a stable, cost-effective & sustainable supplement of native bees to honey bees
- Establish new habitats to conserve & protect California's native bees
- Learn more about native bees and their critical role in California agriculture



Did you know?

100 U.S. crops are pollinated by bees.

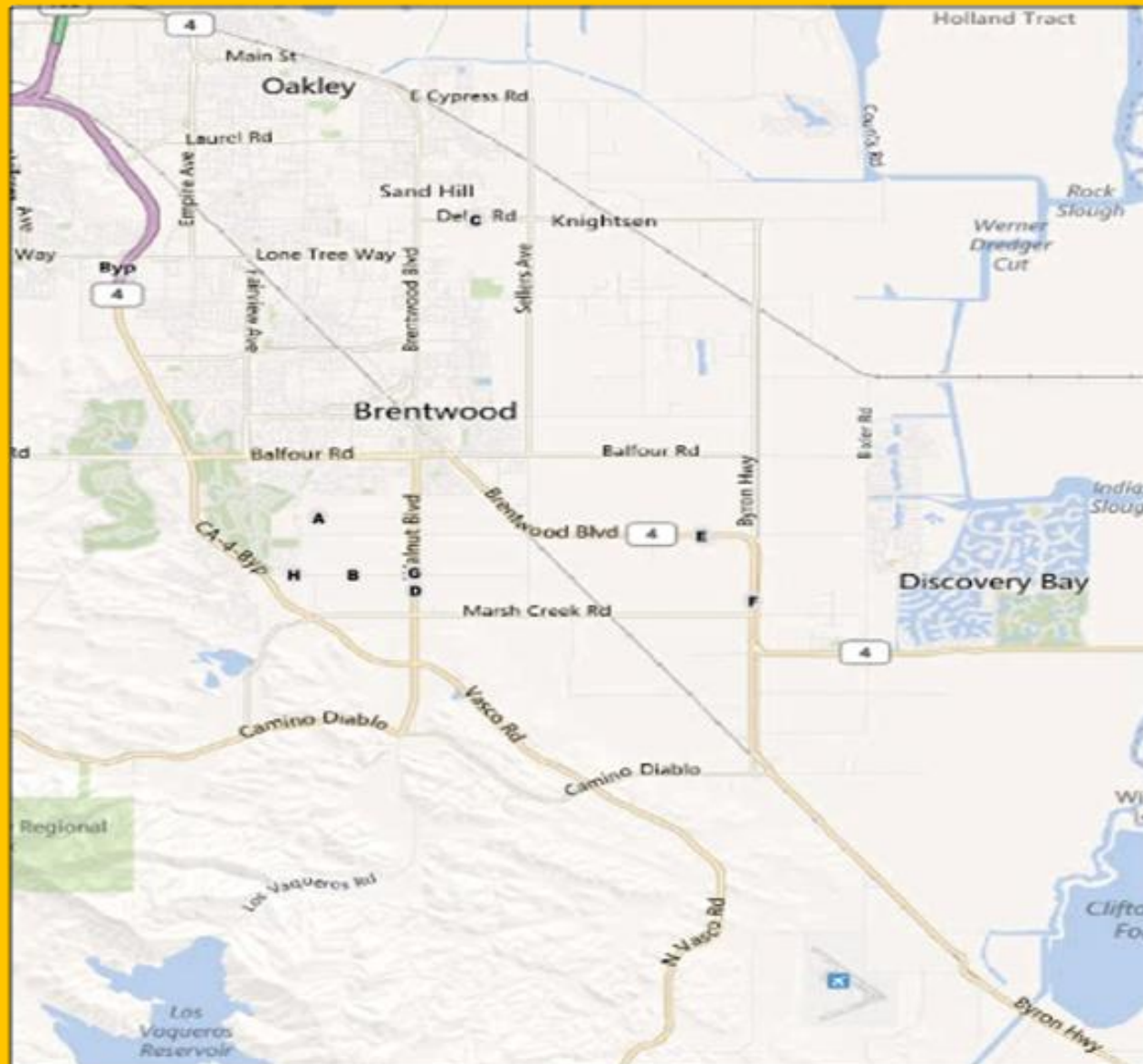
The services of bee pollinators in the U.S. are valued at an estimated \$14.6 billion annually.

Honey bees have declined by 30% in the last decade.

A substantial percentage of the pollination services required by California crops can be provided by native bees.

High quality native bee habitat can draw up to 100 species of native bees!

Farming For Native Bees Brentwood, California



- Farms In Study Area**
- ▲ Brookside Farm
 - Dwelley-Concord
 - Dwelley-Delta
 - ◆ Enos Farm
 - Frog Hollow Farm
 - Knoll Farm
 - Tachella Farm
 - Wolfe Farm

Farming For Native Bees
Brentwood, Contra Costa County, CA
Dr. Gordon Frankie
UC Berkeley March, 2012
Coordinate System: GCS WGS 1984

Map maker: Devin Richards

The Urban Bee Lab at UC Berkeley and UC Davis: Dr. Gordon Frankie, Sara Leon Guerrero, Jaime Pawelek, Dr. Rollin Coville, Dr. Robbin Thorp, Mary Schindler & Camille Giraud

To date, the lab has data-based over 6,000 native bee specimens and their associated floral hosts (300+ native bee species and 400+ plant types) from the statewide urban bee survey. In 2009, Dr. Frankie and his team were invited by the USDA-NRCS and local farmers to bring urban bee-plant knowledge to organic Frog Hollow Farm in Brentwood. The project creates native bee habitat by using plant and nesting materials to attract native bees from surrounding wildlands to supplement honey bee pollination of crop plants.

As of 2012, the project consists of 8 Brentwood farms, including 4 farms that were modified to attract native bees and 4 farms to serve as control sites. The project evaluates the potential of native bee pollination as an ecosystem service in an agricultural setting. The recent decline of honey bee populations from Colony Collapse Disorder has raised concerns about traditional reliance on honey bees.

Comparative analysis between farms is providing information on feasibility of native bees to serve as supplemental pollinators by increasing their farm habitat, in the form of special gardens. In addition, an inventory of native bees from all farms sites is being analyzed to identify key native bee species for crop pollination.

This information is being developed into a comprehensive Farm Practices guide for farmers and farm workers (in English and Spanish). Guides will provide valuable user friendly information on how to conserve native bees through managed protocols to increase native bee diversity and abundance on farms. Guides will also be used for planned native bee workshops at the farms. Bringing native bees into California's farms is critical for sharing pollination services with honey bees in California, as native bees are well known to have a more effective pollination rate when compared to honey bees.

To learn more about native bee gardening, native bees, current research, or to support the UCB Urban Bee Lab, visit our website:
<http://helpabee.org>

Nos. Bee Species to Date

	Farm	2010	2011	2012	Total
Treatment Farms	Dwelley Farms (Delta location)	-	28	46	51
	Enos Family Farm	-	13	18	24
	Frog Hollow Farm	12	30	25	37
	Tachella Family Farm	-	-	18	18
Control Farms	Brookside Farm	-	32	27	39
	Dwelley Farms (Concord location)	-	-	15	15
	Knoll Farm	12	-	16	19
	Wolfe Farm	-	29	31	41



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