

Infestation biology and life history of CBB: New discoveries

(Desperate Times Require Desperate Measures)

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Feral coffee



Fate of CBB in Berries with and without ground cover





Bare ground vs Ground Cover

Lehuula Farms (Bob Nelson)



Lehuula Farms (Bob Nelson)



Kona Rainforest Farm (Robert and Dawn Barnes)



Perennial Peanut Groundcover (Kona Rainforest)



Stump Out (Lignin dissolver) vs EM-1





OSTER

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Data LDEO-Columbia, NSF, NOAA
Data MBARI
Image Landsat

Google earth

Imagery Date: 12/13/2015 19°28'27.01" N 155°30'13.40" W elev 10330 ft eye alt 75.42 mi

Bob Nelson's Farm





Results After 4 weeks

Bob Nelson's Farm		Number of Adult Females per 10 berries					
Set up October 8, 2015							
Adult Beetles		15-Oct	23-Oct	29-Oct	4-Nov	SUBTOTAL	Beetles/Berry
Plot 1	Bare	15	39	24	26	104	2.6
Plot 2	Grass	74	11	27	7	119	3.0
Plot 3	Bare	15	20	13	27	75	1.9
Plot 4	Grass	40	7	2	1	50	1.3
					6 of 10 "rotten"		

Results from Bare vs. Groundcover

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					6 of 10 "rotten"			

12-Nov	18-Nov	25-Nov	2-Dec	8-Dec	16-Dec	SUBTOTAL	Beetles/Berry	TOTALS	
20	22	28	37	76	35	218	3.6	322	Bare
16	7	0	3	27	9	62	1.0	181	Grass
21	12	2	18	47	16	116	1.9	191	Bare
0	0	3	4	23	0	30	0.5	80	Grass
				4 berries					



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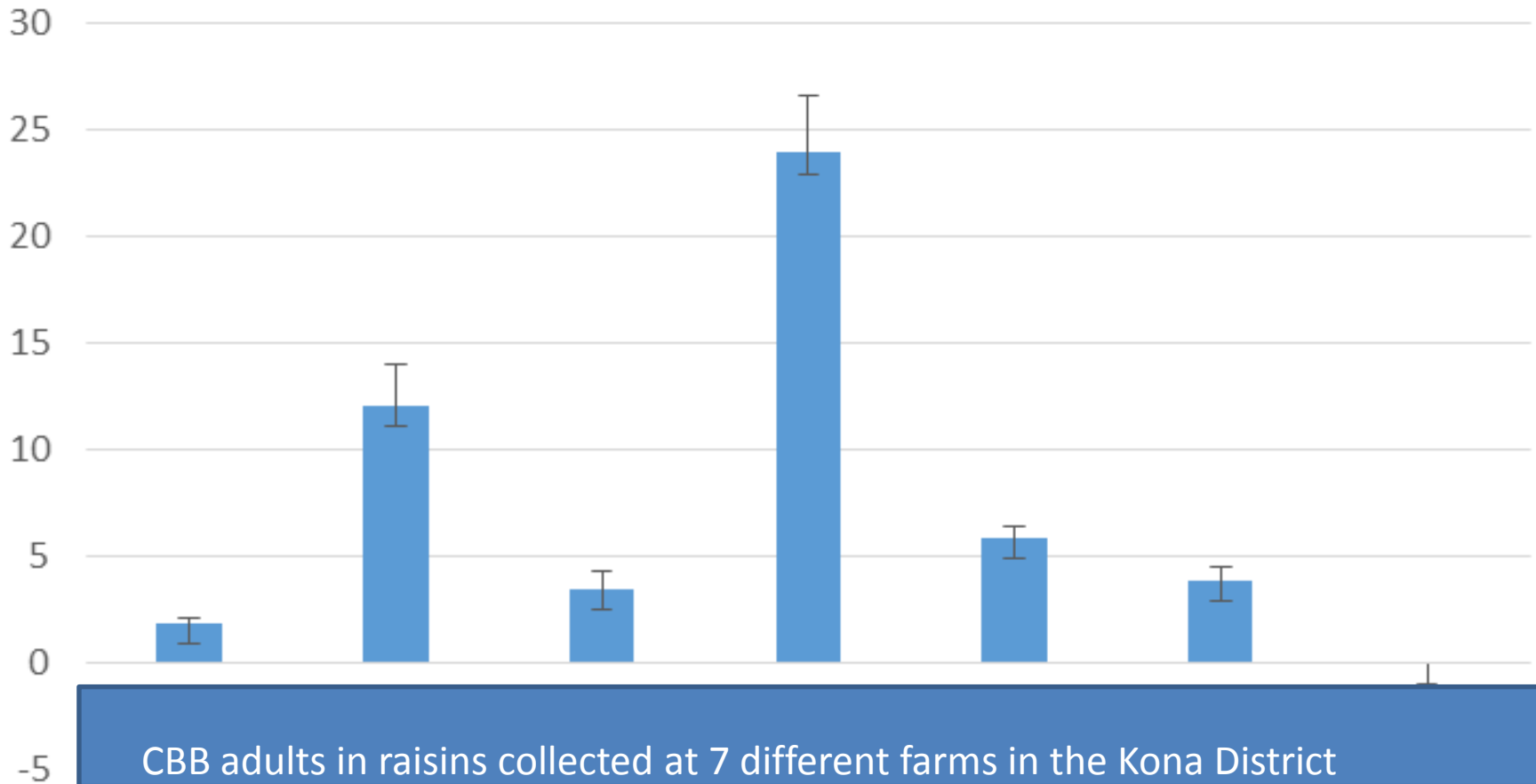


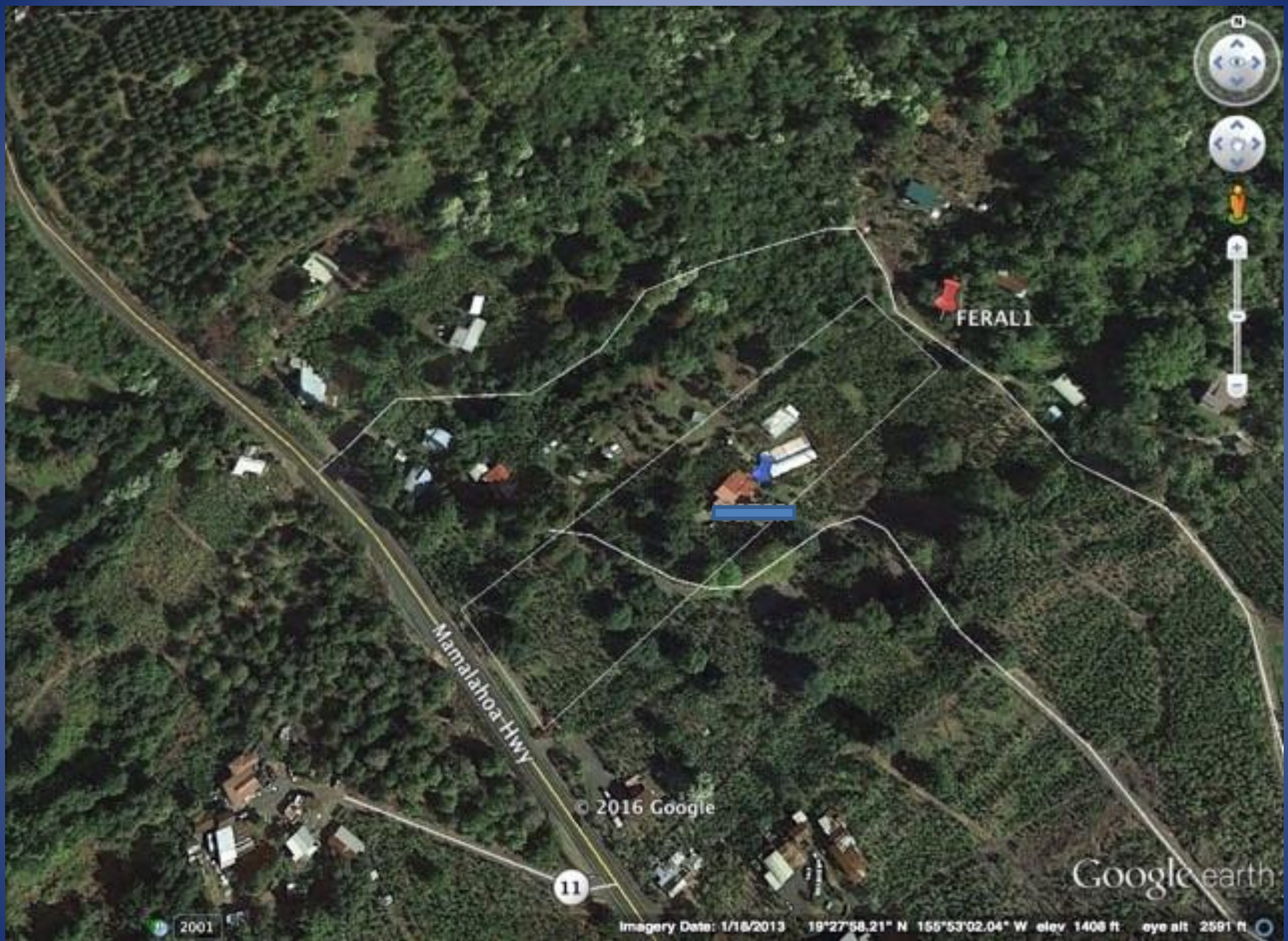
Data SDEST/UHM
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Imagery Date: 6/13/2014 19°27'48.90" N 159°51'15.44" W elev: 4005 ft. eye alt: 41.64 mi

average number of adults per raisin





Mamalahoa Hwy

FERAL1

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2001

Imagery Date: 1/16/2013 19°27'58.21" N 155°53'02.04" W elev 1408 ft eye alt 2591 ft





Nematodes could be ideal for killing CBB in rocky soil