

Preliminary Survey of Insects in Commercial Melon Fields in Northern California

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Introduction

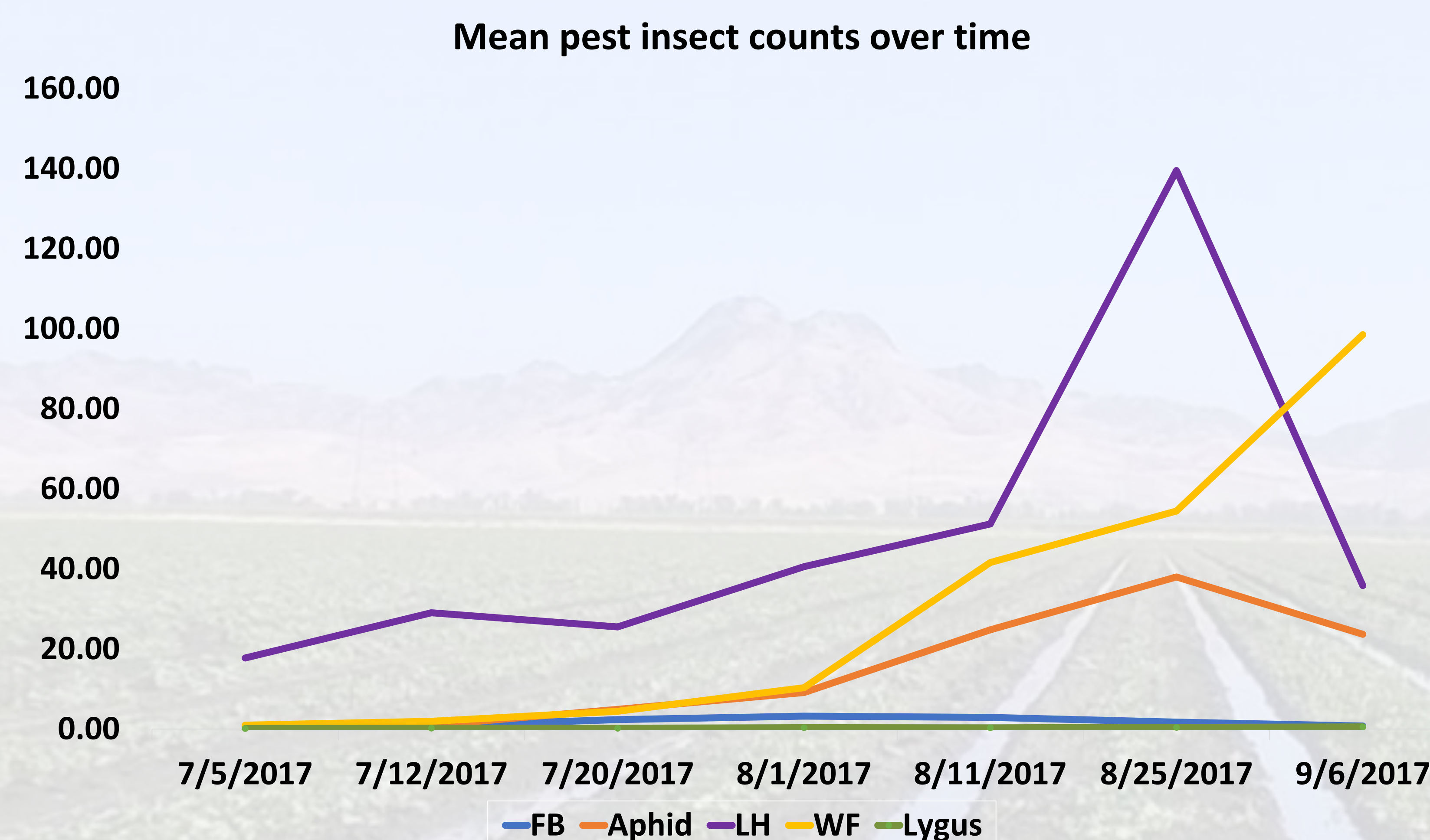
- California ranks 1st for cantaloupe and honeydew production.
- Total value of fresh-market cantaloupe and honeydew in 2014 was \$250,095,000 with 46,500 acres harvested (California Agricultural Statistics Review 2014).
- Sutter County in the northern Sacramento Valley is one of the top honeydew producing counties with 516 acres harvested in 2014 worth \$3,223,000.
- The majority of melon production occurs in Southern California.
- Fresh-market melons are susceptible to direct feeding damage by insects (like cucumber beetles) which can render the fruit unmarketable.
- Melon producers in Sutter, Yolo, and Yuba counties battle striped cucumber beetle every year.

Method

- A preliminary survey was conducted in 2017 to determine which insects are present in melon fields (beneficial and pest species) and whether sticky traps are effective monitoring tools.
- 6 yellow sticky traps (Trécé, Inc.) were placed at the edge of 19 fields in Sutter and Yolo counties.
- Traps were replaced every 7-10 days between July 5, 2017 and September 6, 2017.
- Cucumber beetles (spotted and striped), whiteflies, leafhoppers, flea beetles, aphids, and Lygus were all counted on each trap. Beneficial insects were also recorded.

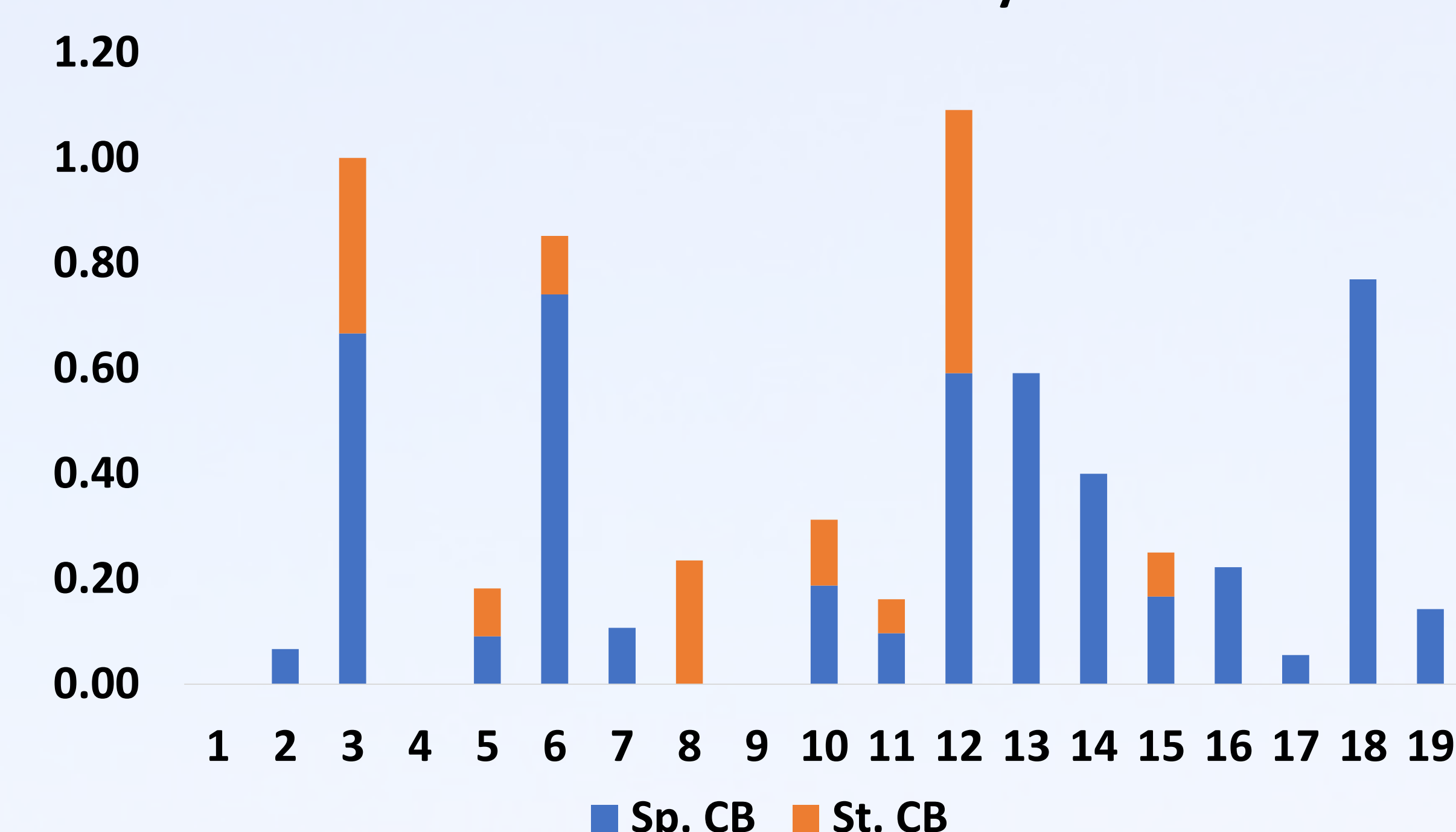
Results

- Though some target pest species were caught on traps, specific pests were monitored more effectively by scouting the melon fields. There was heavy pressure from cucumber beetles which was not demonstrated by trapping and also a large cabbage looper flight in late July, which was also not recorded on the sticky traps.

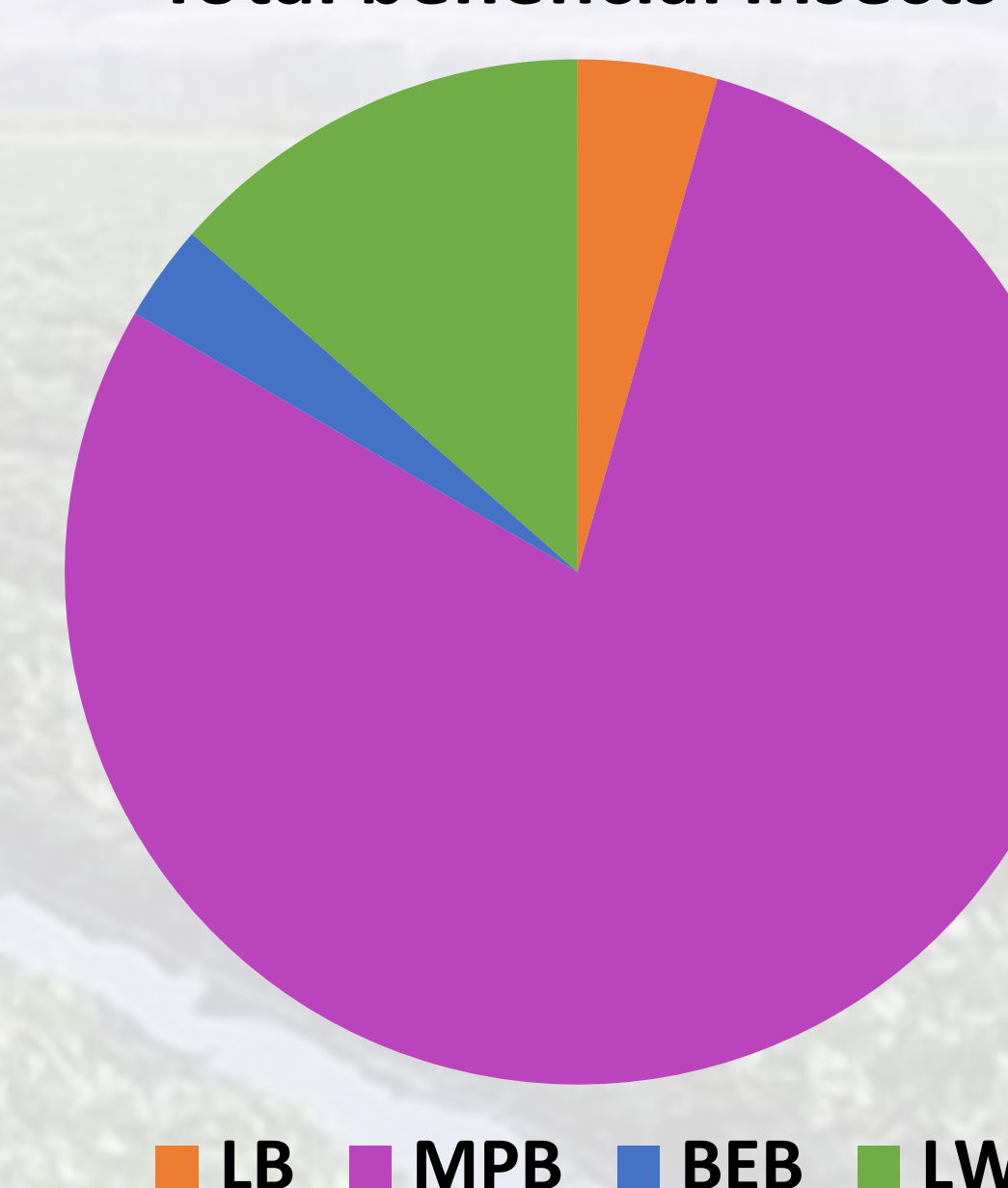


- Sp. CB= spotted cucumber beetle, St. CB= striped cucumber beetle, FB= flea beetle, Aphid= alate aphid, LH= leafhopper, WF= whitefly, LB= lady beetle, MPB= minute pirate bug, BEB= big-eyed bug, LW= lacewing adult

Mean cucumber beetle by site



Total beneficial insects



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