University of California
Seed Biotechnology Center

Pollen-Mediated Gene Flow in California Cotton

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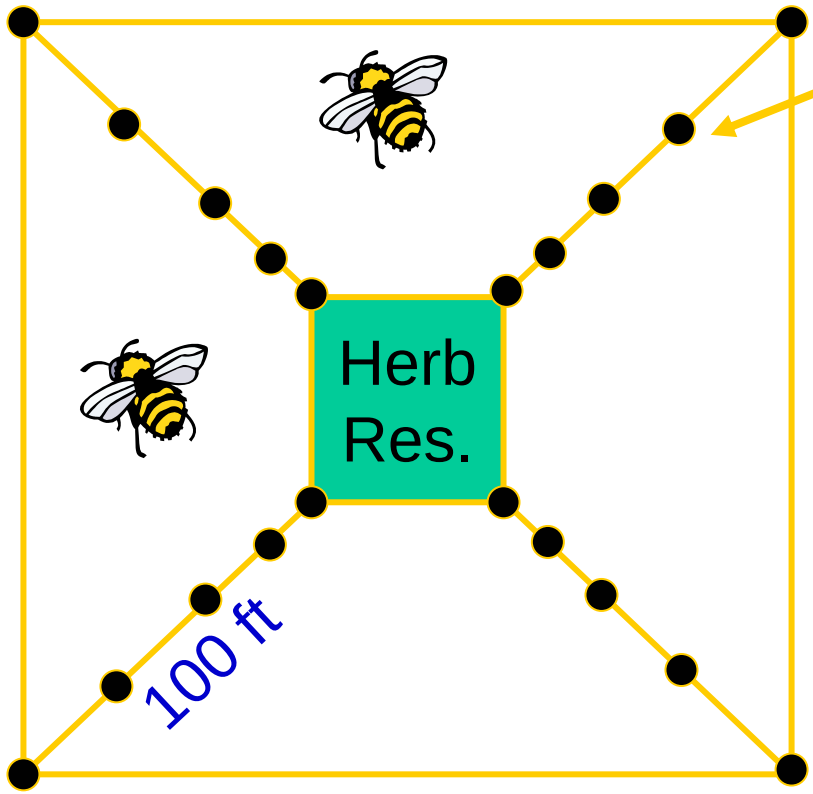
Pollen Transfer in Cottonseed Production

Experimental Plots: 2 years, 2 sites

Site 1:
Kearney Ag.
Res. Center :
High pollinator
activity



Sampling
points

Site 2:
Shafter Ag.
Res. Center :
Low pollinator
activity

Herbicide Bioassays

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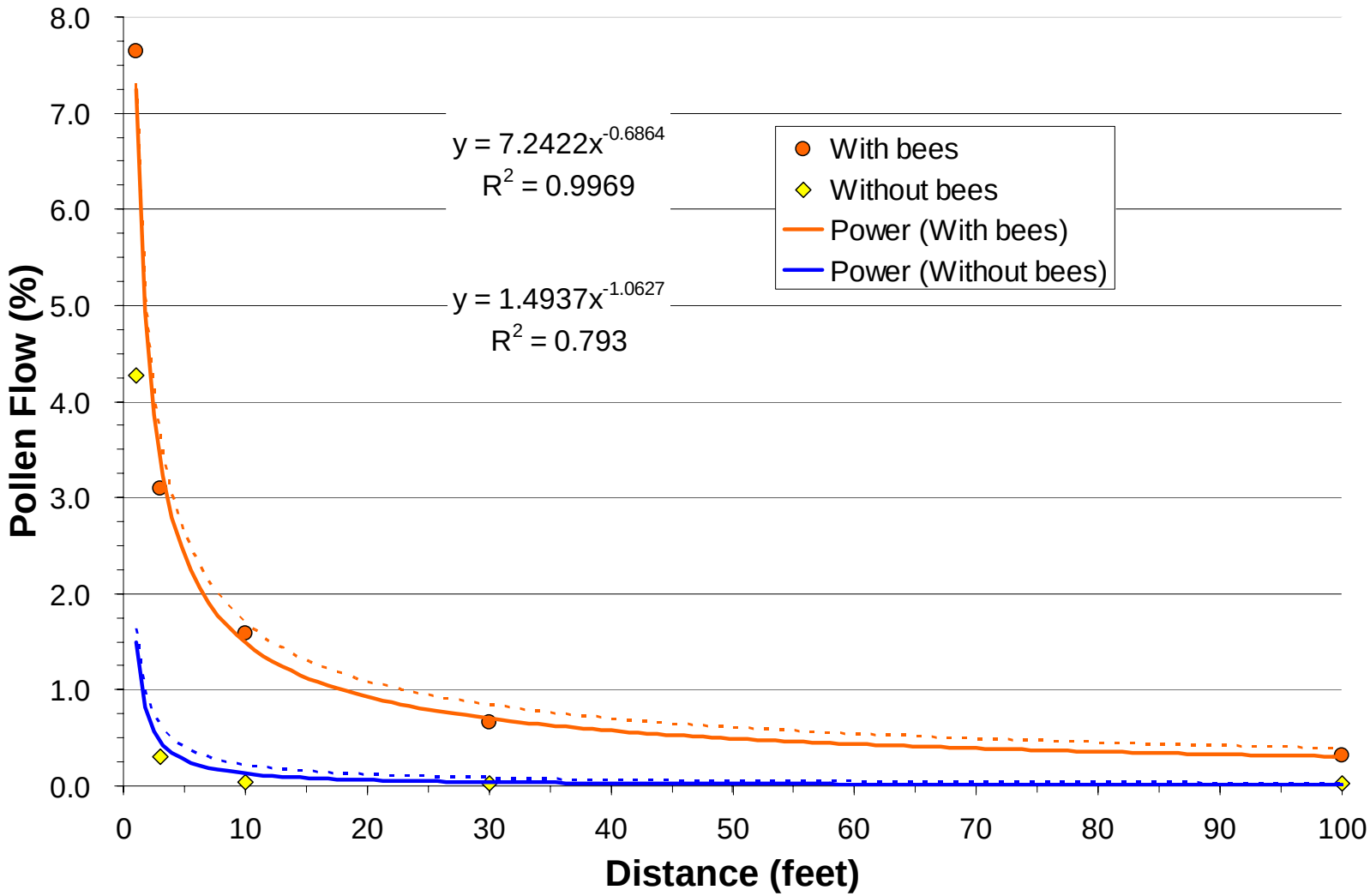
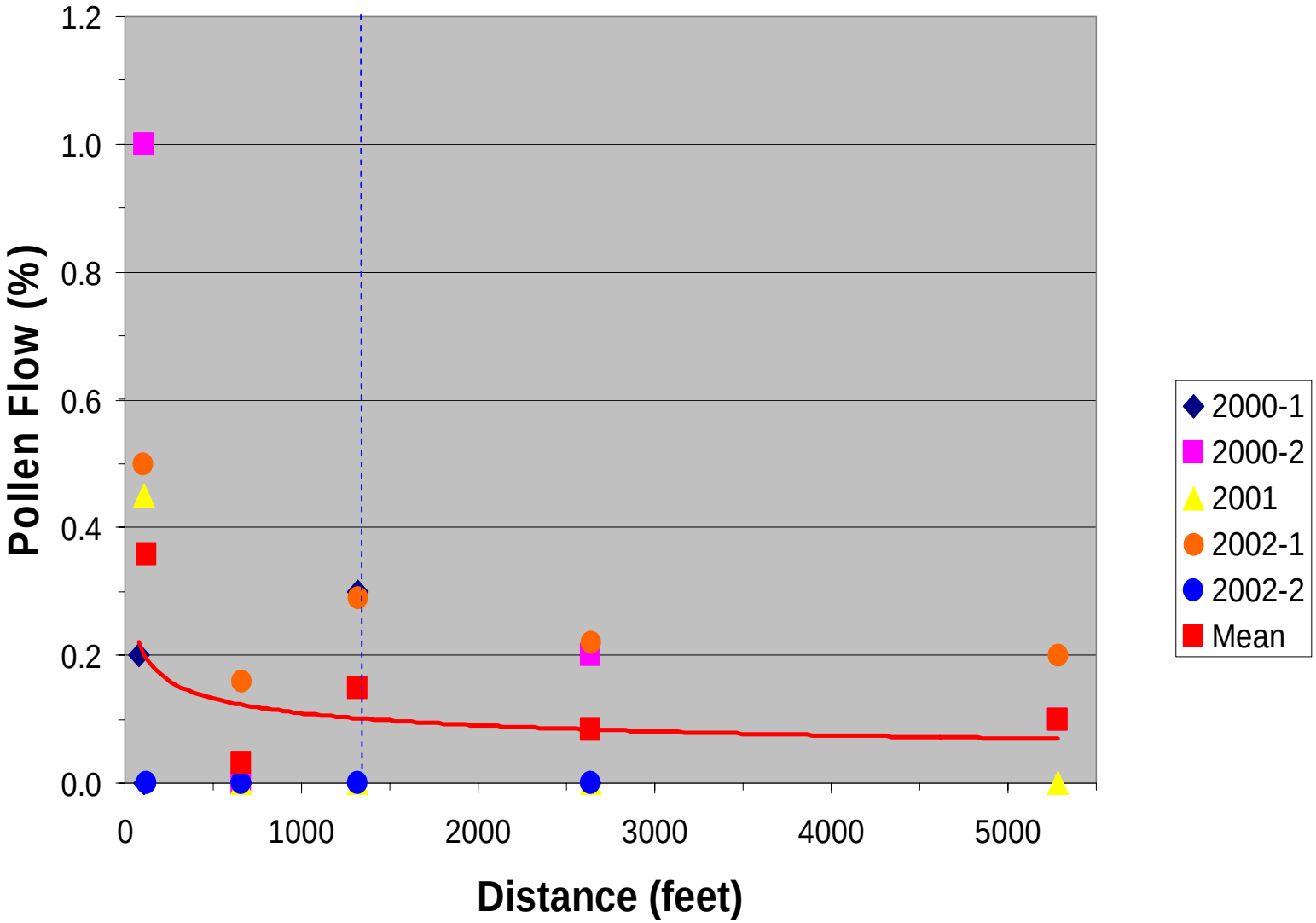
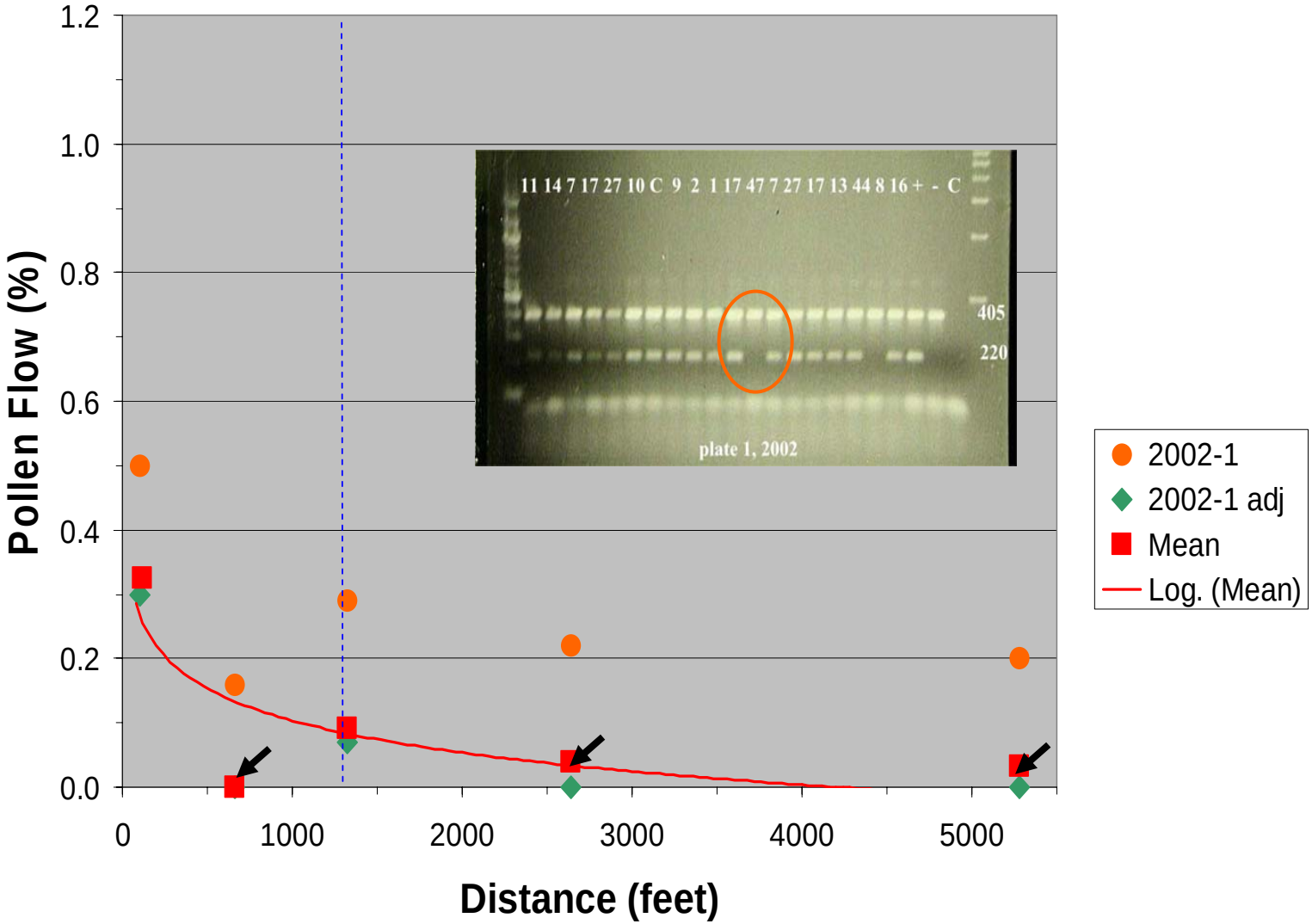
Cotton Pollen Flow



Pollen Flow in Commercial Cotton Fields



Confirming results is important



Cotton Pollen Flow: Conclusions

- Pollinators Present:
  - PGF = 7.6% between adjacent plants and 0.3% @ 30m
- Pollinators Absent:
  - Majority of PGF only between adjacent plants
  - Significant PGF only at distances < 10m; 0.03% > 10m
- PGF on avg. <0.1% @ 400m (AOSCA Foundation Seed isolation)
- Low levels of pollen (<0.05%) can be detected at distances up to 1 mile