# Expanding kids' vegetable preferences through farm-based education

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### Background

In 2010, Full Circle Farm (FCF) approached Dr. Christopher Gardner at the Stanford Food Summit to form a research partnership. The partnership allows Stanford University to conduct community based participatory research at FCF, and in return Stanford provides staff for a summer farm camp for Sunnyvale youth. In our work on the farm, we hope to better understand how a harvesting and cooking connection to food might help overcome some of the barriers to healthy eating.

Last year, three Stanford undergraduates worked in conjunction with FCF to investigate the effects of a weeklong farm-based education program on vegetable preferences in children ages 8-14. This study was unique in the literature because to date, no studies had examined the effects of a high intensity, short duration farm-based intervention on children's vegetable preferences. This year, we expanded on last year's project by looking specifically at gardening and eating exposures to try to understand the mechanism by which vegetable preferences change. We studied children ages 5-14.

### Methods

# **Qualitative Data Collection:**

- 15 minute focus groups of six to seven kids
  - What is something you harvested at camp this week, and what was it like to try it?
  - What is a new vegetable you ate this week, and what was it like to try it?
  - If you were in charge of the grocery shopping in your household, what would you buy at the grocery store to cook your family dinner?
- Camper journals

#### **Quantitative Data Collection:**

- Kid pre/post surveys
- Parent pre/post questionnaires
- •Tracking exposures through camp curriculum

### **Preliminary Findings**

- Kids seem more willing to try new vegetables that they harvested or cooked themselves
- Kids seem more willing to try new vegetables at camp than at home because of feelings of empowerment to make production and consumption choices
- Kids seem more willing to eat vegetables grown on the farm than bought at the grocery store

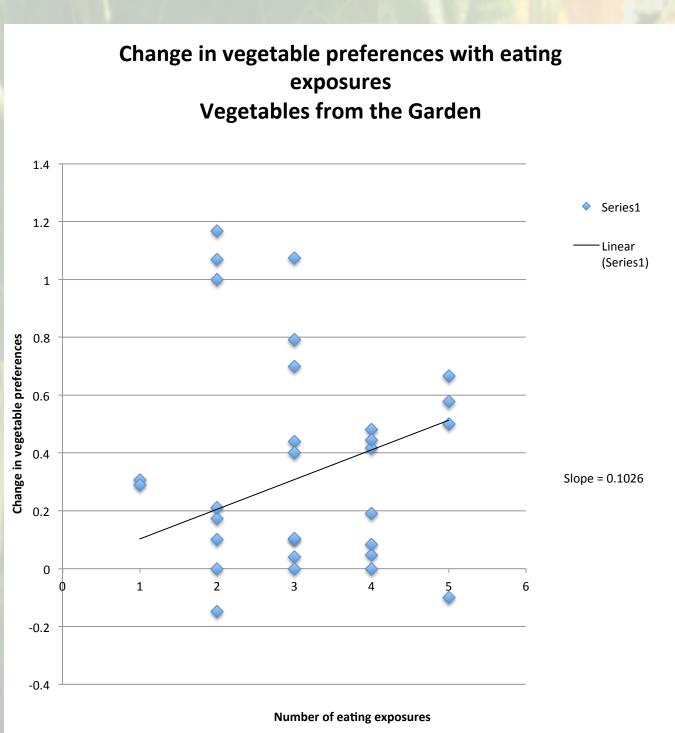


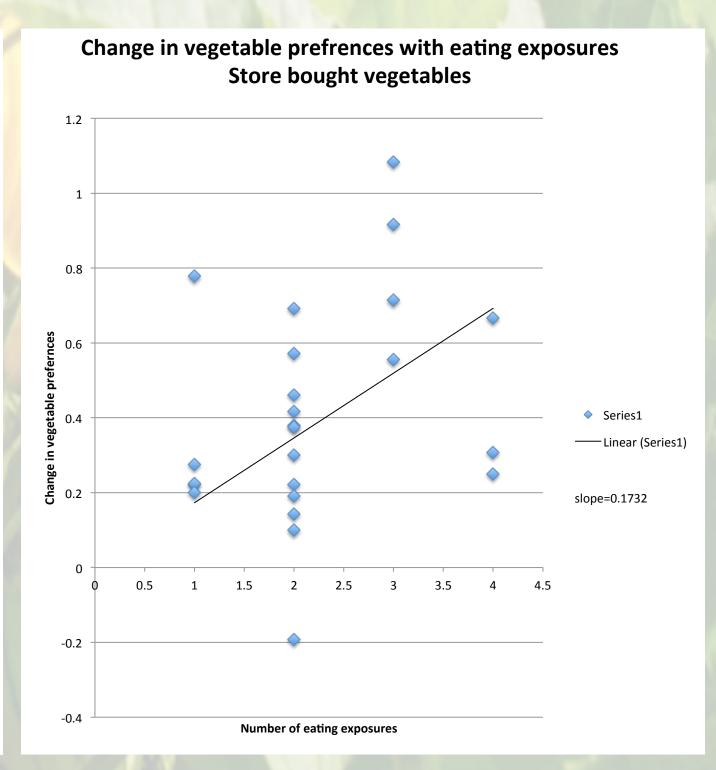


#### Sample Focus Group Quotes:

"I learned how to harvest [squash], how to twist it off, how to wash it and prepare it. I learned that you can sautée it [...] and season it however you want. So that was a really fun vegetable to cook and to eat."

"I really liked how everything was fresh. It made it nice. So, if it were an option, I'd probably not go grocery shopping and instead have my own garden."





We chose to graph the average change in preference for each vegetable with the number of times the kids ate that vegetable that week. We found that there is a stronger relationship between eating and increased preferences than gardening and increased preferences.

#### Possible explanations:

- Inconsistencies in data collection with the children
- Kids already liking vegetables like corn and cucumbers
- •Not specific enough garden exposures to have a significant difference on top of eating

#### What's Next

Moving forward, we will continue data analysis with the results from all six weeks of camp, the parent questionnaire results, and follow-up surveys. We plan to analyze the findings from focus groups and journals using line-by-line coding. Some **further questions** we are considering as well are:

- Is there a difference in vegetable preference change between siblings who attend camp together?
- How does change in vegetable preference compare between new campers and returning campers?
- How do parent habits impact camper vegetable preference change?
- Is the graphical relationship true for all six weeks?
- What is the mechanism behind preference change?



# Acknowledgements

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