Benefits and Impacts of School Gardens

Recent studies have shown that gardens can be key in shifting children's nutritional practices:

- A 2020 study recently published in the *International Journal for Behavioral Nutrition and Physical Activity*, documented findings from a research team from University of Texas, Austin which studied 16 low-income schools that implemented a garden educator program for one academic year. The study found that this evidence-based program increased vegetable intake, improved glucose control, and subsequently decreased the risk of diabetes for Austin area school children.
- A 2018 research story from Harvard School of Education titled, "Let It Grow: The long-lasting benefits of a school garden — supporting health and wellness, encouraging students to choose nutritious foods" by Leah Shafer explains why garden programs positively impact children's' affinity for healthy eating.
- A 2017 evaluation of FoodCorps conducted by the Tisch Center for Food, Education, and Policy at Teachers College, Columbia University found that in schools that provide frequent, high-quality opportunities for hands-on nutrition learning, students eat up to three times more fruits and vegetables at school lunch — regardless of whether or not that food was grown in the garden.
- The effects extend outside the school day, too. A 2018 randomized control study by Nancy Wells at Cornell University found that children whose schools provided regular school garden lessons had more access to low-fat vegetables and fruit *at home* than children without that curriculum.
- While most children receive only 3.4 hours of nutrition education a year, maintaining a school garden necessitates that nutrition lessons become a consistent, built-in part of students' educational experience, says Eva Ringstrom, director of impact at FoodCorps. Research has shown that it takes between 35 and 50 hours of nutrition education a year to change kids' preferences over the long term, she says.
- "Get Fruved," an acronym for "Get Your Fruits and Vegetables," is a collaboration among 8 American universities and the Institute of Food and Agricultural Sciences. Their 2016 study shows that "if college students gardened as a child or use their green thumbs now, chances are they will eat more fruits and vegetables than those who don't."

School gardens have been shown to help level the playing field for students dealing with inequalities.

- A 2016 study in the The DuBois Review: Social Science Research on Race, looked at "how the Washington, DC School Garden Program serves as a potential gateway to reducing the achievement gap." Researchers concluded that "the presence of a school garden is associated with higher test scores and persists even when controlling for the race and class composition of students for reading and science."

Research points to school gardens' many benefits including:

- Improved food and nutrition knowledge (Parmer, Salisbury-Glennon, Shannon, and Struempler, 2009)
- Improved attitude toward, preference for, and willingness to try fruits and vegetables (Morris & Zidenberg-Cherr, 2002; Morris, Neustadter & Zidenberg-Cherr, 2001; Ratcliffe, Merrigan, Rogers, and Goldberg, 2009)
- Increased fruit and vegetable consumption (Christian, Evans, Nykjaer, Hancock, & Cade, 2014)
- Improved attitude toward school (Lieberman & Hoody, 1998)
- Improved attitude toward the environment and studying science (Waliczek & Zajicek, 1999; Skelley & Bradley, 2007)
- Improved academic achievement in all subjects, particularly science (Klemmer, Waliczek, & Zajicek, 2005)
- Increased physical activity (Bell & Dyment, 2006; Wells, Myers, & Henderson, 2014)
- Improved inter and intrapersonal skills, such as collaboration, self-esteem, pride (Thorp & Townsend, 2001; Robinson & Zajicek, 2005)

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There is a growing list of cities and school districts that have embraced school gardens as a critical tool.

- NYC
- Washington DC
- City of Berkeley, CA
- Chicago Public Schools
- Houston Public Schools
- State of Wisconsin
- State of Oregon
- Mt. Diablo Unified School District, CA
- State of Virginia
- City of Denver and Denver Public Schools