



**Connecting Children to  
Healthy Food and Nature**

# Why Nature



Children's stress levels fall within minutes of seeing green spaces

## Encourages a healthy lifestyle

Positively affects blood pressure

Improves critical thinking skills

Improves social relationships

Stimulates learning and increases creativity

Reduces behavioral problems in children

Improves cognitive functioning

# Why Healthy Food



**Nutrition is important for cognitive and brain development.**

**Healthy food choices are vital to a student's academic performance.**

**Malnutrition or “a lack of nutrients” leaves children vulnerable to illness and infection.**

**It can also lead to higher levels of aggression, hyperactivity and anxiety.**





## **School Gardens**

Grow La Crosse provided multiple formal educational lessons to 600 children-resulting in over 3600 garden experiences for elementary children.

## **Farm Experiences**

Over 1500 children have visited Deep Roots Community Farm with Grow La Crosse.  
90% gave kale a thumbs up.

## **Community Engagement**

Twice weekly cooking classes for YMCA teens  
Classes at the People's Food Co-op  
Fundraisers: Fall Festival on the Farm & Plant Sale

Made possible in part by our  
Corporate Sponsor







# GROW YOUR BRAIN

School Gardens

## **GROW La Crosse helps**

- Plan & install gardens
- Maintain gardens
- Coordinate volunteers and
- Provides programming

### **State Road:**

- 400 square feet of garden space
- Hoop house & permaculture area

### **Hamilton/SOTA:**

- 215 square feet of garden space
- Federally recognized food desert
- High percentage low income/access

### **Harry Spence:**

- Garden committee has created plan
- Several grants awarded
- Space has been cleared
- Installation will begin this spring



# GROW YOUR ROOTS

## Deep Roots Community Farm

170 acre working farm in La Crosse  
follows organic &  
sustainable farming practices

## Farm Experiences

Farm Camps

Field Trips

Farm Intensive Program





# Grow La Crosse provides Seed to Table Experiences:

**A child's body needs nutrition not just food:**

Giving children healthy food is not enough.  
We need to instill a love of whole foods  
through seed to table experiences.





## Recipe demonstrations

“I wish I had 1,000 kale chips and my mom would make them every day and they are very good.”

*Amelia at State Road School after our the powerful “Superhero Kale” helped prepare kale chips and arugula pesto.*

“This is paradise!” &  
“Was that raw spinach?  
I can’t believe I liked it!”

*Student comments about rainbow salad and pizza taste testing*

During our rainbow salad taste tests over **93% of children** tried four colors of fruits and vegetables



## Garden to cafeteria

“They are trying new foods from the garden in the lunchroom.”

*Teacher comment*

“I know they get excited to try the items on the salad bar and are far more willing to try them since they helped grow them.”

*Heather Skiles, mother of a child in La Crosse School District and Hamilton/SOTA cook*



Produce from our Hamilton/SOTA garden was used in the cafeteria several times per week from mid August through October.



# Teachers comments:

The students are more willing to try and eat things they have grown. They also see how easy it is to have a garden and many talk about starting one at their own houses.

Increased exposure to and willingness to try new foods. It is much more fun when they learn about them first!

Our parties consist more of healthy foods and the kids are bringing more vegetables and fruits in their lunches.

90% of teachers felt that they had seen a positive impact on their student's attitudes towards eating fruits and vegetables.





# Youth Cooking Classes

**Hands on learning:**  
Real world skills  
Team work  
Community

**Recipes:**  
Bring healthy eating home  
Self-esteem









**ON THE FARM:**  
Children bring home their harvest  
at the end of the week.





# Grow La Crosse allows Exploration of Green space:

Moving bodies exploring, discovering and playing

“Dude, I’d way rather be at farm camp than at home playing video games!”

Austin, Boys and Girls Club participant



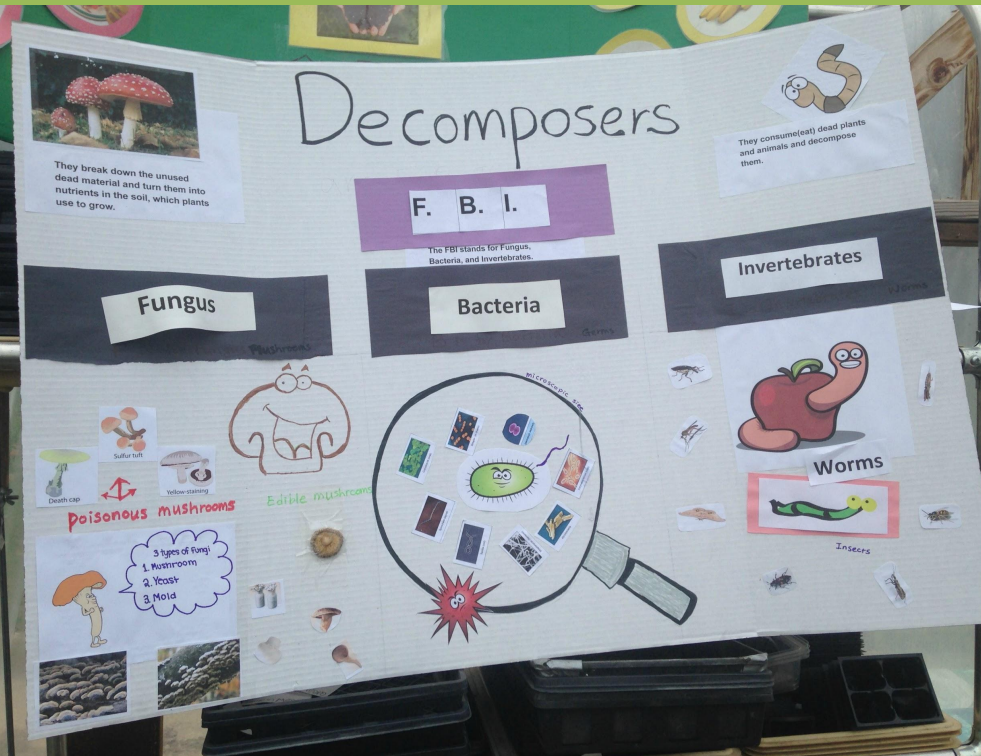






# Grow La Crosse provides Hands on education:

Environmental education connects children to the growing process and natural world.



“This student really struggles to focus in class, but when I see him working in the garden, he is so calm, focused and happy.”









## Grow La Crosse provides opportunity for **Work**

Giving them a sense of purpose  
Teaching teamwork  
Developing problem solving skills





**IN THE GARDEN:**  
Children help, plant, tend and harvest  
the food they are growing.





# Grow la Crosse teaches children to care for animals:

Teaching patience  
Learning to respect others  
Practicing compassion





# FINDING JOY IN LEARNING & GROWING

**Kate:** “Hey mom, today was the **BEST DAY EVER** because we got to go to the farm where farm camp is. I even tried kale and I liked it!” I almost fell over when she said that last part! She can’t wait for the Inspired Girls on the farm. Thank you for the great work you do.



Message from a mother of a participant in  
the Camp Shriver field trip and Inspired Girls  
on the Farm



**“My son went to camp and absolutely loved it!”** *Parent of a child who attended Boys and Girls Club week at the farm*



Supported by our corporate sponsor,  
Mayo Clinic Health System,  
we continue to  
**GROW!**





# References (2)

- Reduced anxiety and depression
  - Maller, C., & Townsend, M. (2006). Children's mental health and wellbeing and hands-on contact with nature. *International journal of learning*, 12(4), 359-372.
- Increased empathy
  - Thompson, K. L., & Gullone, E. (2003). Promotion of empathy and prosocial behaviour in children through humane education. *Australian Psychologist*, 38(3), 175-182.
- Increased attention/concentration
  - Taylor, A. F., & Kuo, F. E. (2009). Children with attention deficits concentrate better after walk in the park. *Journal of attention disorders*, 12(5), 402-409.
- Improved social relationships
  - Waliczek, T. M., Bradley, J. C., & Zajicek, J. M. (2001). The effect of school gardens on children's interpersonal relationships and attitudes toward school. *HortTechnology*, 11(3), 466-468.
  - Maller, C. J. (2009). Promoting children's mental, emotional and social health through contact with nature: a model. *Health Education*, 109(6), 522-543.
- Reduced aggression/disruptions
  - Ozer, E. J. (2007). The effects of school gardens on students and schools: Conceptualization and considerations for maximizing healthy development. *Health Education & Behavior*, 34(6), 846-863.
- Improved cognitive functioning/learning
  - Kellert, S. R. (2002). Experiencing nature: Affective, cognitive, and evaluative development in children. *Children and nature: Psychological, sociocultural, and evolutionary investigations*, 117-151.
- Improved academic performance
  - Williams, D.R. & Dixon, P.S. (2013). Impact of garden-based learning on academic outcomes in schools: Synthesis of research between 1990 and 2010. *Review of Educational Research* 2013.
  - Blair, D. (2009). The child in the garden: An evaluative review of the benefits of school gardening. *Journal of Environmental Education*, 40(2), 15-38.



# References (1)

- Reduced diabetes and heart disease
  - Davis, J. N., Ventura, E. E., Cook, L. T., Gyllenhammer, L. E., & Gatto, N. M. (2011). LA Sprouts: a gardening, nutrition, and cooking intervention for Latino youth improves diet and reduces obesity. *Journal of the American Dietetic Association*, 111(8), 1224-1230.
  - Ozer, E. J. (2007). The effects of school gardens on students and schools: Conceptualization and considerations for maximizing healthy development. *Health Education & Behavior*, 34(6), 846-863.
- Reduced development of vision changes
  - Effect of Time Spent Outdoors at School on the Development of Myopia Among Children in China: A Randomized Clinical Trial. He et al. JAMA. 2015 Sep 15;314(11):1142-8. doi: 10.1001/jama.2015.10803.
- Improved immune function (allergies, asthma, autoimmune)
  - Holbreich, M., Genuneit, J., Weber, J., Braun-Fahrlander, C., Waser, M., & Von Mutius, E. (2012). Amish children living in northern Indiana have a very low prevalence of allergic sensitization. *Journal of Allergy and Clinical Immunology*, 129(6), 1671-1673.
- Improved sleep (quantity, quality, timing)
  - Jenni, O. G., & O'Connor, B. B. (2005). Children's sleep: an interplay between culture and biology. *Pediatrics*, 115(Supplement 1), 204-216.
- Increased awareness of food choices
  - O'Dea, J. A. (2003). Why do kids eat healthful food? Perceived benefits of and barriers to healthful eating and physical activity among children and adolescents. *Journal of the American Dietetic Association*, 103(4), 497-501.