The Benefits of Edible Education – Literature Summaries

The following is a list of academic studies examining the positive impacts of school gardens, farm-to-school programs and school cooking programs on students (with a focus on school garden programs). For each study there is (1) a full citation, with a link where possible; (2) a summary of study parameters; (3) a summary of the findings; and (4) a list of tags for the study to facilitate use of this list. The tags focus on the benefits of school gardens, and include the following: *Academic Performance, Agricultural Interest/Knowledge, Attitudes Towards Fruits/Vegetables, Attitudes Towards Math, Attitudes Towards School, Attitudes Towards Science, Environmental Attitudes/Awareness, Fruit/Vegetable Consumption, Fruit/Vegetable Exposure, Fruit/Vegetable Preferences, Life Skills, Nutrition Knowledge, Obesity/Overweight, Preferences for Fruit/Vegetables, Student Activity Levels/Sedentary Behavior, Science Knowledge, Student Behavior, Student Satisfaction, Vegetable Identification, Willingness to Taste Vegetables.*

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Ratcliffe, Michelle et. al, The Effects of School Garden Experiences on Middle School-Aged Students' Knowledge, Attitudes, and Behaviors Associated With Vegetable Consumption, *Health Promotion Practice* (2009)

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Heim, Stephanie, Jamie Stand and Marjorie Ireland, "A Garden Pilot Project Enhances Fruit and Vegetable Consumption among Children," *Journal of the American Dietetic Association* 109 (July 2009): 1220-1226

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More Resources for Overviews and Literature Lists Regarding the Benefits of School Garden Programs

The Benefits of Edible Education – Literature Summaries

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Belot, M. and James, J., "Healthy School Meals and Educational Outcomes," *Institute for Social and Economic Research* (2009), available at https://www.iser.essex.ac.uk/files/iser_working_papers/2009-01.pdf.

- Study: This study examined the "Jamie Oliver Feed Me Better" campaign in the United Kingdom, which worked to serve healthier meals in schools. The study focused on changes in student academic performance.
- Findings: Students in schools served by the Feed Me Better campaign had improved performance in both English and Science. Authorized student absences (often linked to sickness) decreased by 15%.
- Tags: *Academic Performance*

Dirks, A. and Orvis, K., "An evaluation of the Junior Master Gardener Program in third grade classrooms," *HortTechnology* 15 (2005): 443-447, available at http://horttech.ashspublications.org/content/15/3/443.full.pdf+html?sid=de1c473e-0642-4fd9-81a4-c4209e67ffee.

- Study: This study examined the Junior Master Gardener program (developed by Texas A&M) in 14 third grade classes in Indiana, using pre and post program surveys of both students and teachers. Access to a school garden or outdoor classroom was not required for the program, but half of the classrooms in the study did have such access.
- Findings: Study indicated increased knowledge in subjects covered in the gardening program, as well as positive changes in attitudes towards agriculture and science. Students also indicated that they enjoyed the program activities and many students indicated that they shared what they learned with others.
- Tags: *Attitudes towards Science/Agriculture, Science Knowledge, Student Satisfaction*

Foster, Gary et al., "A Policy Based School Intervention to Prevent Overweight and Obesity," *Pediatrics* 121, no. 4 (April 2008), available at http://pediatrics.aappublications.org/content/121/4/e794.full.

- Study: This study assessed the impact of a multicomponent School Nutrition Policy Initiative in Philadelphia on the prevention of obesity and overweight among children in 4th through 6th grade over a two-year period. The initiative included (1) school self-assessment, (2) staff training in nutrition education, (3) student nutrition education, (4) changes in school nutrition policy, (5) social marketing, and (6) parent outreach.
- Findings: The multicomponent initiative resulted in a 50% reduction in the incidence of overweight among children. Significantly fewer children became overweight in intervention schools than in control schools, and the overall prevalence of overweight was lower in intervention schools. No differences were found with respect to prevalence of obesity, or the remission of overweight or obesity. Intervention schools also had lower rates of sedentary behavior among students after two years.
- Tags: *Obesity/Overweight, Student Activity Levels/Sedentary Behavior*

Heim, Stephanie, Jamie Stand and Marjorie Ireland, "A Garden Pilot Project Enhances Fruit and Vegetable Consumption among Children," *Journal of the American Dietetic Association* 109 (July 2009): 1220-1226.

- Study: This study evaluated a 12-week summer camp garden program, in which 4th to 6th grade campers participated in garden activities twice a week. Education activities included fruit/vegetable taste tests, preparation of fruit/vegetable snacks, and newsletters sent home to parents. The program was evaluated through surveys administered at the start of camp (before garden activities) and in the last week of camp.
- Findings: Children enjoyed participating in the program, including working in the garden, taste tests, preparing snacks and learning about fruits and vegetables. Data also indicates that the program led to an increase in the number of fruits/vegetables tried by students (overall exposure), and short-term increases in vegetable preferences and fruit/vegetable asking behavior (study did not evaluate long-term impacts).
- Tags: *Fruit/Vegetable Exposure, Fruit/Vegetable Preferences, Student Satisfaction*

Hilgers, Kimberly, Cynthia Haynes and Joanne Olson, "Assessing a Garden-based Curriculum for Elementary Youth in Iowa: Parental Perceptions of Change," *HortTechnology* 18, no.1 (January-March 2008): 18-23, available at http://horttech.ashspublications.org/content/18/1/18.full.pdf+html?sid=de1c473e-0642-4fd9-81a4-c4209e67ffee.

- Study: Assessed the Growing in the Garden program (developed by Iowa State University Extension) with respect to first grade students' awareness of and interest in science, nutrition and the environment. Evaluation was conducted through surveys of parents.

- Findings: The study indicted positive changes in awareness of and interest in science and environment (but more limited changes regarding nutrition, a topic covered only minimally in the program).
- Tags: *Attitudes Towards Science, Environmental Awareness*

Joshi, Anupama, Andrea Misako Azuma and Gail Feenstra, "Do Farm-to-School Programs Make a Difference? Findings and Future Research Needs," *Journal of Hunger & Environmental Nutrition* 3 (2008): 229-46, available at http://www.cahpf.org/GoDocUserFiles/504.Farm_to_School_Programs.pdf.

- Study: This article reviewed reports and studies from 38 farm-to-school programs. Fifteen of these studies – those that met inclusion criteria – were relied on to evaluate the impacts of farm-to-school programs on student behavior, student attitudes, and student knowledge, as well as impacts on teachers, administrators, farmers, food service and parents.
- Findings: Student dietary behaviors improve when they are served more fruits and vegetables at school, especially when the produce is fresh, locally grown, picked at peak flavor, and when students participate in related educational activities. Several of the reviewed studies reported an increase in school meal participation. Only three studies assessed changes in life skills, and two of these studies reported positive changes in this area. Of those studies that assessed student knowledge and attitudes, improvements were found in student knowledge about sustainable agriculture, gardening skills, plant identification and nutrition.
- Tags: *Agricultural Knowledge, Fruit/Vegetable Consumption, Life Skills, Nutrition Knowledge*

Klemmer, C.D., T.M. Waliczek, and J.M. Zajicek, "Growing Minds: The effect of a school gardening program on the science achievement of elementary students," *HortTechnology* 15, no. 3 (2005): 448-452, available at http://horttech.ashspublications.org/content/15/3/448.full.pdf+html?sid=16311506-96fa-44ee-b170-db9e96ced397.

- Study: This study examined the impact of school gardening activities on science achievement of elementary school students in Texas (third, fourth and fifth grades). Students participating in the garden program were instructed in science both in the garden and in a traditional classroom setting, whereas students in the control group received science instruction in a traditional classroom only.
- Findings: Students who participated in the hands-on gardening program scored significantly higher on science achievement tests than did students in the control group.
- Tags: *Academic Performance, Science Knowledge*

Lieberman, Gerald and Linda Hoody, "Closing the achievement gap: using the environment as an integrating context for learning," CA State Education and Environment Roundtable (1998), available at http://www.seer.org/extras/execsum.pdf.

- Study: This is a broad report that explains the concepts underlying "Using Environment as an Integrating Context for learning" (EIC), examines difference EIC programs in the United States, and analyzes the impact of EIC-based education on student learning.
- Findings: The report outlines several benefits of EIC programs, including (1) better academic performance in reading, writing, math, science and social studies, (2) reduced discipline and classroom management problems, (3) increased engagement and enthusiasm for learning, and (4) greater pride and ownership in accomplishments.
- Tags: *Academic Performance, Student Behavior*

Lineberger, Sarah E. and Jayne M. Zajicek, "School gardens: Can a hands-on teaching tool affect students' attitudes and behaviors regarding fruit and vegetables?," *HortTechnology*, 10, no. 3 (2000): 593-597, available at http://horttech.ashspublications.org/content/10/3/593.full.pdf.

- Study: This study examined the impact of a garden activity guide, *Nutrition in the Garden,* in 3rd and 5th grade classrooms in five Texas elementary schools. The program was evaluated with a pre-program questionnaire and journal entry and a post-program questionnaire and journal. The study looked at attitudes towards fruits and vegetables, as well as fruit and vegetable consumption.
- Findings: Children's attitudes about vegetables improved after gardening activities. Students who began the program with lower attitude scores showed greater improvement in attitudes towards vegetables. There was also an increase in fruit and vegetable snack preference scores after participation in the garden program (meaning that children were more likely to choose a fruit or vegetable snack). Third grade students had a greater increase in snack preferences than did fifth grade students, and female students had a greater increase than male students. Unlike vegetable preferences and snack preferences, fruit preference scores did not significantly improve after gardening. No significant changes were found in overall fruit and vegetable consumption.
- Tags: *Attitudes Towards Fruits/Vegetables, Fruit/Vegetable Consumption, Preference for Fruit/ Vegetables*

Lohr, Virginia and Caroline H. Pearson-Mims, "Children's active and passive interactions with plants influence their attitudes and actions toward trees and gardening as adults," *HortTechnology* 15, no. 3 (2005): 472-476, available at http://horttech.ashspublications.org/content/15/3/472.full.pdf.

- Study: This study looked at how childhood gardening experiences impacted adult attitudes towards trees and gardens. It was conducted with a nationwide phone survey of adults living in larger urban areas.
- Findings: Both passive and active interactions with plants during childhood were associated with higher adult attitudes towards trees, but the strongest influence was active gardening as a child.
- Tags: *Environmental Attitudes*

Lukas, Catherine, Leslie Cunningham-Sabo, "Focus Group Interviews with Fourth-Grade Students, Teachers, and Food Educators," Journal of Nutrition Education and Behavior 43, no. 6 (2011): 517-24, available at http://cookingwithkids.net/wp-content/uploads/2012/02/Qualitative-Investigation-of-the-Cooking-with-Kids-Program.pdf.

- Study: This study examined Cooking with Kids (CWK), an experiential food and nutrition education program for elementary school students, in Santa Fe, New Mexico. 50% of Santa Fe Residents are Latino, and the Cooking with Kids intervention was implemented in the city's lower-income public elementary schools.
- Findings: Students found the strongest impacts of the CWK program to be (1) that it helped students learn school subjects and (2) that it helped develop cooking skills and attitudes. From the student perspective, the program did not have a strong effect on the home cooking environment. From a non-student perspective, the program seemed to increase student comfort with classmates.
- Tags: *Academic Performance, Life Skills*

Mabie, Rachel and Matt Baker "The influence of experiential instruction on urban elementary students' knowledge of the food and fiber system," *Journal of Extension* 34, no. 6 (1996): 1-4, available at http://www.joe.org/joe/1996december/rb1.php.

- Study: This study examined the impact of two different 10-week experiential science programs on food and nutrition knowledge of fifth and sixth grade students in inner-city Los Angeles. There were two experimental schools (one school was 99% Hispanic, and the second school was 75% African American and 25% Hispanic). One experimental group participated in a 10-week garden project, and the other experimental group participated in three in-class projects, including bread-baking, chick rearing and seed germination. These two groups were compared with a control group taught in a traditional expository manner.
- Findings: Students in the experimental groups demonstrated greater gains in knowledge regarding California's agricultural system as well as interest in agriculture than did students in the control group.
- Tags: *Agricultural Interest/Knowledge*

McAleese, Jessica D. and Linda L. Ranklin, "Garden-based nutrition education affects fruit and vegetable consumption in sixth-grade adolescents," *Journal of the American Dietetic Association* 107 (2007): 662-665.

- Study: This study examined the impact of garden-based nutrition education on 6th grade students' fruit and vegetable consumption. The control group participated in non-garden-based nutrition education.
- Findings: Students in the garden-based nutrition program increased their intake of fruits and vegetables more than students in the control group, and also increased their intake in vitamin A, vitamin C, and fiber.
- Tags: *Fruit/Vegetable Consumption*

Morris, Jennifer and Sheri Zidenberg-Cherr, "Garden-enhanced nutrition curriculum improves fourth-grade school children's knowledge of nutrition and preferences for some vegetables," *Journal of the American Dietetic Association* 102, no. 1 (January 2002): 91-9. (Another explanation of the study can be found at Morris, Jennifer, Marilyn Briggs, Sheri Zidenberg-Cherr, "Development and evaluation of a garden-enhanced nutrition education curriculum for elementary school children," *Journal of Child Nutrition & Management* (2002) available at http://docs.schoolnutrition.org/newsroom/jcnm/02fall/morris/.)

- Study: This study assessed the impact of a garden-based nutrition education program on 4th grade students' vegetable preferences. It did so by comparing three schools in Davis, CA (schools had demographics similar to those of students throughout California). Students at one school received nutrition lessons and gardening activities, students at a second school received nutrition lessons but no gardening activities, and students at the third (control) school received neither nutrition lessons nor gardening activities.
- Findings: The garden-based nutrition education program improved students' preferences for several vegetables and improved the nutrition knowledge of students. Most of these improvements were retained at a six-month follow-up.
- Tags: *Nutrition Knowledge, Preferences for Vegetables*

Morris, Jennifer L., Ann Neustadter, & Sheri Zidenberg-Cherr, "First-grade gardeners more likely to taste vegetables," *California Agriculture* 55, no. 1 (2001): 43-46, available at http://californiaagriculture.ucanr.org/landingpage.cfm?article=ca.v055n01p43&fulltext=yes.

- Study: This study examined the impact of a garden-enhanced nutrition education program on first grade students in Davis, CA. First grade students at a Davis school without a garden were used as a control group. Students in the control group received no formal nutrition or gardening education.
- Findings: Students who participated in the garden-enhanced nutrition program showed an greater willingness to taste vegetables that were grown in the garden than did students in the control group. However, overall preferences for vegetables did not

appear to be affected, and no significant improvements were seen in student ability to correctly identify vegetables.
- Tags: *Preferences for Vegetables, Vegetable Identification, Willingness to Taste Vegetables*

Nolan, Geralyn, "The Effects of Nutrition Education and Gardening on Attitudes, Preferences and Knowledge of 2nd-5th Graders in Hidalgo County, Texas Regarding Fruits and Vegetables," Thesis, Master of Horticulture, Texas A&M University (December 2005).

- Study: Examined the effectiveness of a horticulture-based nutrition education curriculum combined with garden activities, with a focus on elementary school students' attitudes and preferences towards fruits and vegetables, as well as nutrition knowledge. Study compared pre and post-test scores for 141 students. (Nutrition education curriculum was from *Health and Nutrition from the Garden*, from the Junior Master Gardener Golden Ray Series).
- Findings: The nutritional knowledge of students improved significantly after completion of the nutrition lessons and gardening activities. Students' attitudes towards fruits and vegetables also improved (though there was some variance depending on ethnicity). Students' fruit and vegetable snack preferences also increased. Overall, participation in the nutrition education and gardening program improved students' nutrition knowledge, attitudes towards fruits and vegetables, and preferences for fruit and vegetable snacks.
- Tags: *Attitudes towards Fruit/Vegetables, Nutrition Knowledge, Preferences for Fruits/Vegetables*

Parmer, S.M. et al., "School Gardens: An Experiential Learning Approach for a Nutrition Education Program to Increase Fruit and Vegetable Knowledge, Preferences, and Consumption among Second-grade Students," *Journal of Nutrition Education and Behavior* 41, No. 3 (2009): 212-7.

- Study: This study compared three different groups of second-grade students in the southeastern United States. One group received nutrition education combined with gardening activities, the second group received nutrition education without gardening activities, and the third group served as a control group.
- Findings: Students in both the nutrition education with gardening group and the nutrition education without gardening group showed significant improvements in nutrition knowledge and fruit/vegetable preferences than did students in the control group. Additionally, students in the nutrition education with gardening group were more likely to choose and consume vegetables in the lunchroom than students in either the non-gardening nutrition education group or the control group.
- Tags: *Fruit/Vegetable Consumption, Nutrition Knowledge, Preferences for Fruits/Vegetables*

Ratcliffe, Michelle et al., The Effects of School Garden Experiences on Middle School-Aged Students' Knowledge, Attitudes and Behaviors Associated With Vegetable Consumption, *Health Promotion Practice (*2009). (This article was based on Michelle Ratcliffe's dissertation: Ratcliffe, Michelle, "Garden-based education in school-settings: The effects on children's vegetable consumption, vegetable preferences and ecoliteracy," (PhD diss., Tufts University, 2007).

- Study: Evaluated the impact of two school garden programs in San Francisco, in which students were taught science and health lessons using the school garden. Evaluation was conducted with two self-administered surveys.
- Findings: Garden-based learning improved student ability to identify vegetables, and increased student preference for vegetables grown in the school garden as well as vegetables generally. Students were also more willing to taste vegetables, and had tried more types of vegetables after participating in the garden program (including vegetables not grown through the program). Consumption of vegetable varieties at school increased in the intervention group, and students from the intervention group ate a significantly greater variety of vegetables at school than those in the control group.
- Tags: *Attitudes Towards Vegetables, Preference for Vegetables, Vegetable Consumption, Vegetable Identification, Willingness to Taste Vegetables*

Rauzon, Suzanne et al., An Evaluation of the School Lunch Initiative: Final Report, A Report by the Dr. Robert C. and Veronica Atkins Center for Weight and Health, University of California at Berkeley (September 2010), commissioned by the Chez Panisse Foundation available at http://www.schoollunchinitiative.org/downloads/sli_eval_full_report_2010.pdf.

- Study: This study evaluated the impact of the School Lunch Initiative (SLI) on fourth and fifth graders over a three-year period in Berkeley, CA. The School Lunch Initiative incorporated hands-on cooking and gardening classes into schools throughout the Berkeley Unified School District, along with system-wide changes in school food services.
- Findings: Parents with students in well-developed SLI programs were more likely to agree that the program improved their children's knowledge about nutrition and affected their eating habits. Students attending schools with well-developed SLI programs had higher nutrition knowledge scores, and more positive attitudes towards fresh produce and the environment. Younger students in schools with highly developed SLI programs increased their fruit and vegetable intake.
- Tags: *Attitudes Towards Fruits/Vegetables, Environmental Attitudes, Nutrition Knowledge, Vegetable Consumption*

Robinson, Carolyn W. and Jayne M. Zajicek, "Growing minds: The effects of a one-year school garden program on six constructs of life skills of elementary school children," *HortTechnology,* 15 (2005): 453-457, available at http://horttech.ashspublications.org/content/15/3/453.full.pdf+html.

- Study: This study evaluated the impact of a one-year school garden program on the life skills development of elementary school students. Life skills were measured in six categories: teamwork, self-understanding, leadership, decision-making skills, communication skills, and volunteerism. The study looked at third, fourth and fifth grade students in 12 schools (in two different school districts) in Texas, with students divided into experimental and control groups.
- Findings: Students who participated in the garden program increased their overall life skills, and also increased their skills in the sub-categories of "working with others" and "self-understanding."
- Tags: *Life Skills*

Skelly, Sonja M. and Jayne M. Zajicek, "The effect of an interdisciplinary garden program on the environmental attitudes of elementary students," *HortTechnology,* 8 (1998): 579-583, available at http://horttech.ashspublications.org/content/8/4/579.full.pdf+html.

- Study: This study examined the impact of an interdisciplinary garden activity guide (ProjectGREEN Activity Guide: Book 2, Interdisciplinary Activities) on second and fourth grade students from four Texas elementary schools (divided into experimental and control classes). Students in the experimental group participated in the interdisciplinary garden program for one semester.
- Findings: After participation in the gardening program, students in the experimental group exhibited more positive attitudes towards the environment than did students in the control group. Second grade students showed higher scores in environmental attitude than did fourth grade students. Students in both the experimental and control groups who participated in more outdoor activities also exhibited more positive environmental attitudes.
- Tags: *Environmental Attitudes*

Smith, Leanna L. and Carl Motsenbocke, "Impact of hands-on science through school gardening in Louisiana Public Elementary Schools," HortTechnology, 15, no. 3 (2005): 439-443. http://horttech.ashspublications.org/content/15/3/439.full.pdf+html.

- Study: This study assessed changes in science achievement for 5th grade students participating in a Junior Master Gardener program in East Baton Rouge Parish, Louisiana inner-city schools.
- Findings: Even with once a week garden sessions, and teachers with little background in garden-based teaching, use of school gardens can lead to improvements in student science achievement.
- Tags: *Academic Performance, Science Knowledge*

Waliczek, Tina M. et al., "Using a web-based survey to research the benefits of children's gardening," *HortTechnology*, 10 (2000): 71-76, available at http://horttech.ashspublications.org/content/10/1/71.full.pdf+html.

- Study: This study examined the perceptions of adults working with children in school gardens regarding the impact of gardening on children. The survey was posted on KinderGARDEN, a homepage on the Texas A&M University Horticulture Deptartment server. Adults surveyed included both parents and teachers.
- Findings: Surveyed adults reported that gardening benefited students' self-esteem and helped to reduce stress levels.
- Tags: *Life Skills*

Waliczek, T.M., P. Logan and J.M. Zajicek, "Exploring impact of outdoor environmental activities on children using a qualitative text data analysis system," *HortTechnology* 13, no. 4 (2003): 684-68, http://horttech.ashspublications.org/content/13/4/684.full.pdf+html?sid=8bad200f-d853-4ab5-8460-7aeb29411ac4.

- Study: This study examined the impact of the "Math and Science in the Outdoor Classroom" program on 6th grade students' attitudes towards math and science, as well as creative and critical thinking. Students participating the outdoor program (in Santa Fe, New Mexico) spent a half-day studying topics such as weather, water, insects and soil.
- Findings: Students successfully learned math and science through the program, and were thinking at higher levels of synthesis and evaluation. Results also indicated that students had positive attitudes towards math and science, and enjoyed participating in the program.
- Tags: *Academic Performance, Attitudes Towards Math, Attitudes Towards Science, Student Satisfaction*

Waliczek, T. M., J.C. Bradley and J.M. Zajicek, "The effect of school gardens on children's interpersonal relationships and attitudes toward school" *HortTechnology*, 11, no 3 (2001): 466-468, available at http://horttech.ashspublications.org/content/11/3/466.full.pdf+html.

- Study: This study examined whether children participating in school garden activities benefited with respect to interpersonal relationships and attitudes towards school.
- Findings: No significant differences in interpersonal relationships or attitudes towards school were found between experimental and control schools at an overarching level. However, demographic comparisons offered additional insight. For example, female students had significantly more positive attitudes towards school after participating in the program than did male students, and changes in interpersonal relationships appeared related to grade level. Additionally, in schools with more intensive and individualized gardening programs, attitudes towards school were more positive.
- Tags: *Attitudes Towards School, Life Skills*

In addition to the above studies, the following resources provide overviews and/or literature lists regarding the benefits of school garden programs:

Berlin, Linda et al., "Farm-to-School: Implications for Child Nutrition," Food System Research Collaborative, Opportunities for Agriculture Working Paper Series 1, no.1, available at http://www.uvm.edu/crs/reports/working_papers/WorkingPaperBerlin-web.pdf.

Blair, Dorothy, "The Child in the Garden: An Evaluative Review of the Benefits of School Gardening," The Journal of Environmental Education 40, no. 2 (2009): 15-38, available at http://www.csupomona.edu/~smemerson/business318/articles101/childrens%20gardens.pdf.

Blucklin-Sporer, Arden and Rachel Kathleen Pringle, "Reconnecting Kids to Nature: The Benefits of School Gardens," Natural Home and Garden (2001), available at http://www.naturalhomeandgarden.com/community/reconnecting-kids-to-nature-benefits-of-school-gardens.aspx.

Cornell University, Cornell Garden Based Learning, Highlights From Journal Articles, available at http://blogs.cornell.edu/garden/grow-your-program/research-that-supports-our-work/highlights-from-journal-articles/.

Desmond, Daniel, James Greishop, Aarti Subramaniam, *Revisiting garden-based learning in basic education* (Food and Agricultural Organization of the United Nations and International Institute for Education Planning), available at http://www.fao.org/sd/erp/revisiting.pdf.

Morris, Jennifer, Marilyn Briggs and Sheri Zidenberg-Cherr, "School-based gardens can teach kids healthier eating habits," California Agriculture 54, no.5 (2000): 40-46, available at http://ucce.ucdavis.edu/files/repositoryfiles/ca5405p40-68853.pdf.

Ozer, Emily, "The Effects of School Gardens on Students and Schools: Conceptualization and Considerations for Maximizing Healthy Development," *Health Education Behavior* 34 (2007): 846-63, available at http://heb.sagepub.com/content/34/6/846.abstract.

Stanley, Laura, Association for the Study of Food and Society, "Studies that demonstrate the positive effect of school gardens on children's eating habits," available at http://www.sneb.org/events/Mobile/Downloads/Studies%20on%20effect%20school%20gardens%20on%20children.pdf.

UC Cooperative Extension Garden-based Learning Workgroup, Research Committee, *Overview of Current Research Supporting garden-Based Learning* (2007), available at http://ourcommunityourkids.org/media/4852/OVERVIEW%20of%20Research%20supporting%20Garden-Based%20Learning.pdf.