

School Garden Sustainability

Major Challenges to the Long-term Maintenance
and Success of School Garden Programs

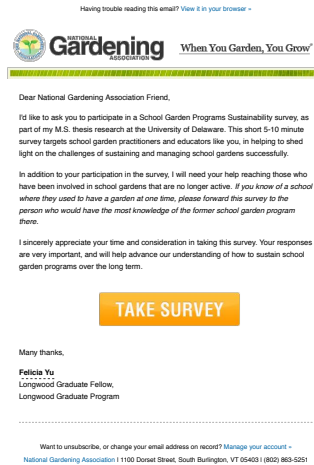
Survey results summary from M.S. thesis research
conducted by Felicia Yu, Longwood Graduate Fellow at the
University of Delaware, in cooperation with the National
Gardening Association

Research question:
What are the challenges to
school garden sustainability?

And what are the most common reasons for school garden
failure?

Survey Distribution

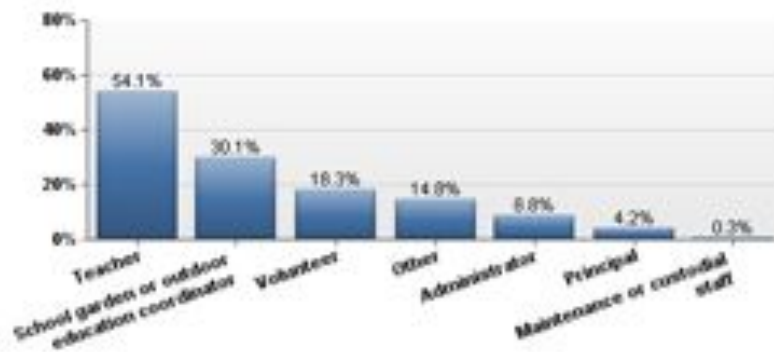
- National Gardening Association Youth Educators listserv
 - 196,580 subscribers – parents, educators, specialists working with children and gardening
- Some forwarding through other listservs or networks, but >90% of responses came within 1 week of NGA email distribution
- Active from June 18 – July 27, 2011



Survey Responses

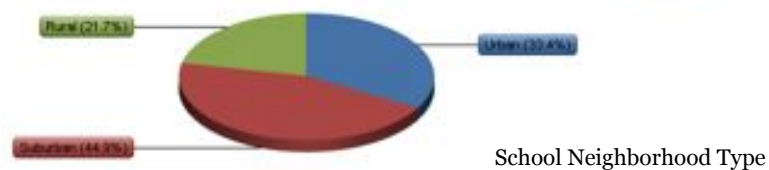
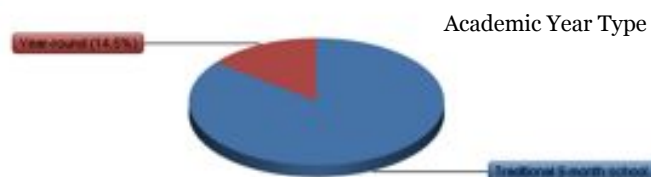
- 1,301 completed responses
 - 1166 current school gardens
 - 135 discontinued school gardens
 - Over 400 free-response comments

Roles of respondents at their respective schools/garden programs



*Multiple responses allowed; percentages total more than 100%

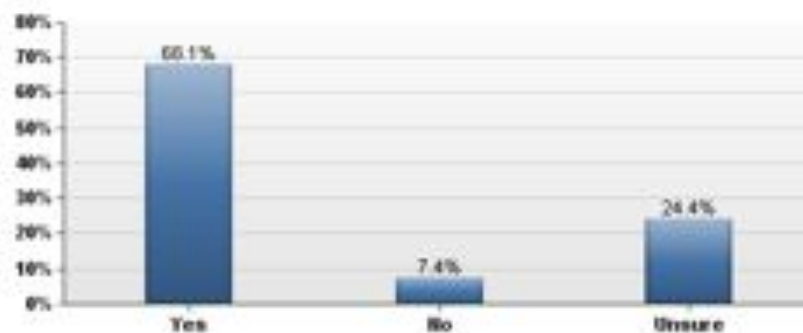
School Characteristics



School Garden Program Characteristics

- Program age
 - 78% of extant gardens <5yrs
 - 82% of discontinued gardens <5yrs
 - 55% of discontinued gardens ended 2009 or more recently
- Maintenance responsibility
 - Primarily teachers and students
- Most common subjects taught
 - Science, math, language arts, health & nutrition
- Most common non-academic subject uses
 - Cooking classes
 - Produce for donation or cafeteria
 - Vocational training, “other”

Interest in Restarting a Failed School Garden





Most Common Challenges Overall

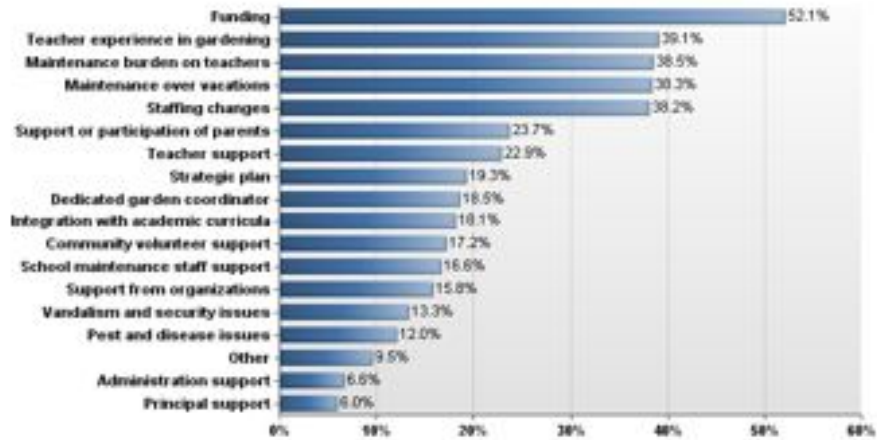
- *Funding (51.0%)
 - *Staff/leadership turnover (38.5%)
 - *Maintenance burden on teachers (38.3%)
 - Maintenance over vacations (37.7%)
 - Lack of teacher experience with gardening (37.0%)
- *These three factors were universally among the most-chosen for both extant and discontinued school gardens, even after splitting out responses by school type (public/private/charter), school year type (year round/traditional), and neighborhood (urban, suburban, rural).



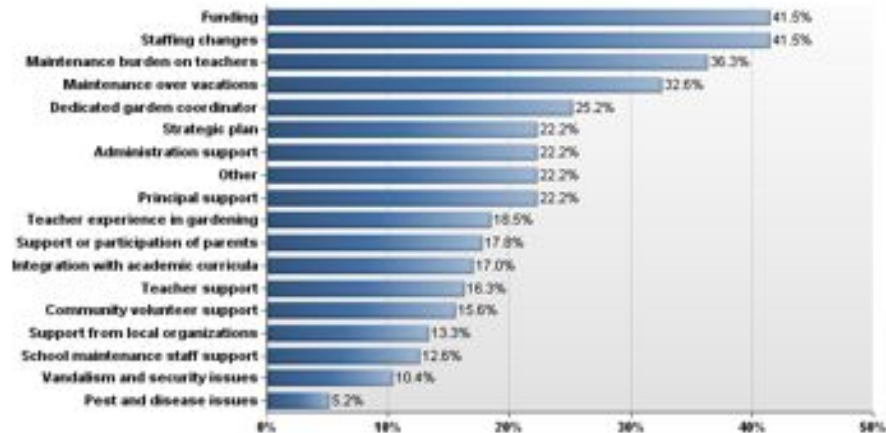
Most Common Challenges Overall

- **Exceptions:**
 - Vacation maintenance was not a major factor among year-round schools
 - Lack of teacher experience with gardening was not among the most-selected factors for discontinued school garden respondents

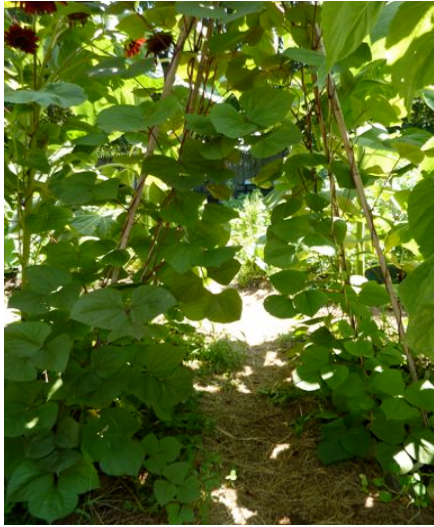
Extant School Gardens: Challenges



Discontinued Gardens: Reasons for Failure



Five Major Challenges: some context and selected comments



- Funding
- Maintenance burden on teachers
- Staff/leadership turnover
- Vacation maintenance
- Lack of teacher experience in gardening

Funding

- Recent education budget cuts → little or no dependable funding from school/district
- What funding is most needed for:
 - Cost of start-up
 - Continuing funding for maintenance: equipment & supplies
 - Ideally: salary or stipend for a coordinator

Funding

- “Money is always the first step lacking.”
- “Like all good ideas, it is only as good as the people and money behind them. The expense isn't too great, but it is a challenge in these economic times to add anything in the way of another specialist activity.”

Maintenance burden on teachers

- Teachers already feel overworked
- High-stakes testing + budget cuts = STRESS
- “I have found that teachers have the desire to do the gardening, but so much emphasis is on the high stakes standardized tests that there is NO TIME for the gardens.”
- “It seems to be a goal of so many of us, but [it also] seems to be impossible in the current ed environment with less funding, more rules, and less time to teach anything other than the standards.”





Staff/leadership turnover

- Budget cuts (again) → loss of teaching jobs
- Parent volunteers tend to come and go as students move through and graduate
- Many gardens started by one or a few key organizers, who eventually move on and leave a leadership vacuum



Staff/leadership turnover

- “I love the garden but I do worry what might become of it after I retire in a couple of years.”
- “As key parents moved on to other jobs and responsibilities, the garden began to flounder without supervision.”
- “Unfortunately, the vast majority of the gardens that I am aware of, have fallen into disrepair after the individual, be it teacher, volunteer or parent, could no longer spearhead the maintenance.”

Vacation maintenance

- Can be avoided by not growing summer crops, but those tend to be popular in children's gardening (ie. tomatoes, squash, pumpkins)
- Most schools' maintenance staff not involved
- Summer school programming has been declining
- Short growing seasons in northern locations pose additional challenges

Lack of teacher experience in gardening

- Horticultural knowledge
 - Garden-based teaching knowledge (outdoor classroom management techniques)
- "My experience is that the teachers have limited knowledge about gardening and do not have the confidence to bring it into the classroom."
 - "Teachers tell me they don't know a plant from a weed."
 - "Teachers need to be taught how to teach outside the box, or room."



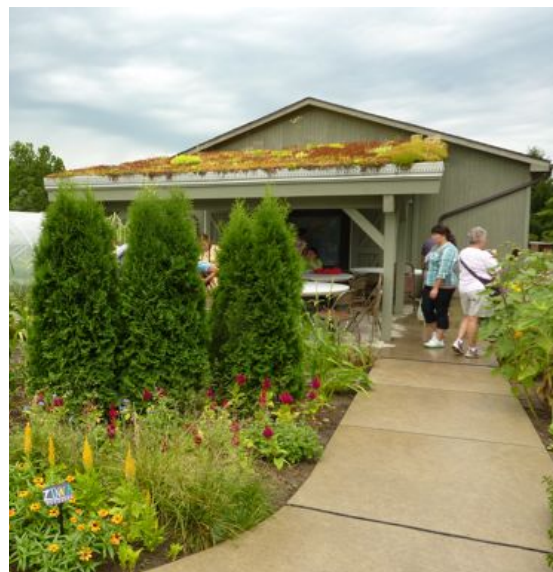
Recommendations: For school garden organizers


- Run a school garden like an organization, not just a project
- As far as possible, secure broad-based support – no stakeholder left behind
- Have a strategic plan – Plan for gradual growth, funding strategies, leadership succession



Recommendations: For outside organizations

- Increase and continue developing teacher training opportunities in both horticultural knowledge and outdoor classroom management
 - Professional development
 - Pre-service training





For full text of thesis, please contact the Longwood
Graduate Program office ([http://ag.udel.edu/
longwoodgrad/contact.html](http://ag.udel.edu/longwoodgrad/contact.html)).

Report adapted from Yu, F., 2012. *School garden
sustainability: major challenges to the long-term
maintenance and success of school garden
programs*. M.S. University of Delaware.