Academic and Cooperative Extension Programs at Botanic Gardens and Arboreta: Current Status & Recommendations

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Objective and methods

Establish base-line data

- Visited 9 US botanic gardens
- Conducted 23 phone/email interviews
- Compiled 61 online surveys from the University Section of American Public Garden Association
Online survey 2010-11

Polled University Section: 173 members of APGA

Survey Respondents:
- 61 Completed Zoomerang surveys (35%)
- 51 Gardens
- 28 states and 2 Canadian provinces
Three issues across the APGA University Garden section

• 1. Academic classes on-site
• 2. Internships
• 3. Relationship to Extension Service

Some of the strongest programs are not at university-managed gardens!
1. Academic classes are present

- Complete or partial class: 21 or 35%
- None: 40 or 65%
Range of academic classes offered

Diverse but centered on horticulture, botany, I.a. and management

• Some exceptions, as:
  Food, Fiber and Fulfillment
  Fine Arts
How gardens are used for academic classes “Check all that apply”

- Students use the gardens and plant collections for class sessions and lab work. 53 or 90%
- Students learn from demonstration projects they create using the gardens and grounds. 31 or 53%
- Classes are held in the meeting rooms of our garden/arboretum. 29 or 49%
- Other, please specify 16 or 31%
What is the most limiting factor for your garden offering more academic classes? (open ended question)

- Faculty or staff limitations 29
- Location, distance to campus 11
- Lack of resources 9
- University has no horticulture program 6
- Space, no rooms 6
- Lack of priorities 3
- No parking 1

(65 responses)
Recommendations for Academic Programs

• Form joint committees or task forces to develop new programs
• Understand and meet faculty needs in order to engage their participation at botanic gardens
• Develop new programs and interdisciplinary work
  – Arts and Humanities
  – Education
  – Botany, Ecology, Biology, Forest Resources, Hort
2. Does your garden offer an Internship?

- Yes: 36%
- No: 39%
- Other: 25%

61% offer something
Internships – many models used

Wide range of definitions and expectations
- Range of individual to group activities
- Some risk-taking for projects
- Tension of paid/credit especially in Extension environment
What makes the Internship distinct from a regular staff position?

Classes & Field Trips
- Special weekly educational classes
- Write weekly reflection papers
- Spend 1 day/week on in-depth topic on public garden management

Projects
- Interns must do a project and then a presentation
- Advisor and garden supervisor oversee interns special report or project

Diverse Work/Skill range
- Interns are taught a broad range of skills; in depth work with a special staff member- curator, educational exhibition
- Interns rotate working with different staff
- Student interns must work in the plant clinic; enroll in a grad course (Morris Arboretum)
Internships – types of projects and requirements

• Group projects, individual projects, reflection papers and articles for the media are required of our interns
• Interns have focused projects and sometimes new projects that the garden has not done before
• Interns have a writing requirement; 25-50% of their time involves direct training / teaching
Recommendations – Internships

Be clear:

• What you offer: experience, salary, credit, academic value, job placement, etc.
• Your expectations of the program
• Your expectations of the students
• With staff about program benefits and resources needed
• What documents “success”
3. Extension work at botanic gardens

Community Gardens & Master Gardener’s teaching classes
What programs do you offer in conjunction with Cooperative Extension? Check all that apply

- Extension Specialists/MG teach classes on site 23 or 46%
- Master Gardener Training 20 or 40%
- MG answer questions on-site 17 or 34%
- Other, please specify 26 or 52%

(86 responses)
Other Extension Programs:

Youth-focused
- 7 gardens indicated Junior MG uses garden site or JMG is taught on site
- 4-H on-site

All the rest
- General tours, topical speakers
- MG are garden volunteers
- Programs for mentally challenged
- Staff teach for Extension
How would you rate the interaction with Cooperative Extension and/or horticultural specialists at your garden or arboretum?

• Fair, 1-2 programs a year 22 41%
• None or minimal interaction 15 28%
• Excellent, we work together on a daily or weekly basis, our programs are stronger because of our close interworking relationship 10 19%
• Good, we do 4-6 programs a year 7/ 13%
Are any Garden/Arboretum Staff Funded by Cooperative Extension?

• **NO** 50 (81%)

• **YES** 6 gardens; 5 as FTE (10%)
  
  8 Extension positions: *Garvan Gardens, AR*
  
  4 Extension positions: *Utah Botanic Center*
  
  2 Extension positions: *Missouri Bot. Garden*
  
  1 Extension position at 2 gardens
  
  1 *partial* Extension position at 1 garden
Other Comments about Extension

Positive
• 5 respondents expressed an interest in working more with Extension

Neutral/Negative
• “We have not been very successful at having (Extension) be more than tenants here.”
• “We try not to compete with Extension by offering different programs”
• “Co-operative extension is actually our biggest competition as they are able to offer courses that are similar to ours in content at a much lower cost.”
Recommendation – consider robust programs at other gardens

Classes
• Everyday Science; Plants and Society Classes for the Public
• 10 Plants That Changed Minnesota

Demonstration gardens
• Sustainable Landscaping based on Sustainable Sites Guidelines; Landscapes for Life
• Youth and Community Gardens

Programs with Green Industry/Conservation Orgs.
• Arboretum All-Stars; Missouri Plants of Merit: promoting plants with Industry, Extension and UC-Davis; NC Wildflower of the Year
Recommendation – consider state-regional outreach ideas

State Botanic Gardens Working Groups

• Annual meeting to plan statewide outreach programs
• Plant themed outreach with collaborators: Minnesota: peony, rhubarb, hosta, lilac, blueberry, lady slipper
• Collaborate on programs and provide education on emerging issues and pests: emerald ash borer, Japanese beetle, invasive plants
10 plants that changed Minnesota

Which plants changed Minnesota and transformed how we live today? Drumroll, please... See the top ten.

View a slideshow >
10 Plants That Changed Minnesota

- Public nominations via Arboretum, College and Extension website
- Expert committee selects 10 after viewing nearly 500 individual nominations, composed of nearly 100 different plants
- Educational campaign via web, K-12 curriculum; Ag in the Classroom; 4H games and State Fair “Name the 10 Plants” prizes
- At the Arboretum Freshman Seminar taught with students engaged 6:30-9:00 PM with public lecture from 7-8 PM
Wrapping up – key funding sources cited by academic gardens

- Institute for Museum and Library Science
- Mellon Foundation
- Research Experience for Undergraduates, (REU), funded by the National Science Foundation
- Stanley Smith Horticultural Trust
Recommendations: 3 fundamentals

- Garden Mission and Leadership
- Academic Programs
  - Student and faculty engagement
  - Public Courses
- Extension Programs
  - Collaboration with industry
  - Statewide programs
Summary and Conclusion

• Leadership to pursue these programs as part of overall mission and strategic plan
• Determine programs and personnel via university wide task force
• Select top priorities programs for best fit with faculty and the Arboretum
• Funding from donors who love education and the Arboretum
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