

Outreach Education: Universities Adapt to a Changing Landscape and New Audience

State Extension programs have changed dramatically over the years. So, how can growers adapt and continue to solve production problems in the future?

Consider this scenario: April has arrived and another bedding plant season is days away. Anticipation is high as consumers are eager to start buying flowers and vegetables. Earlier in the week, you noticed some distorted new growth on a crop of zonal geraniums that is two weeks away from flowering. Panic strikes. In desperation you contact your university-based Extension specialist and ask if he/she can visit your greenhouse later in the morning to diagnose the problem.

Wait (screeching cartoon tires): What?

I (Peter) apologize, my mind wandered back to how my father dealt with his crop problems. I cannot remember the last time my state Extension specialist visited my greenhouse.



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Peter: Raymond, shed some light on this subject. The fact that Extension has changed dramatically is a hot button issue. Reviewing the reasons for the dramatic change and describing how we can adapt will help both established greenhouse growers and new growers understand how crop problems can be solved in the future.

Raymond: Peter, one of the main issues regarding Extension is the fact there are fewer university-based Extension specialists with horticultural crop responsibilities. In addition, university-based specialists that are members of a department faculty typically have split (two-way) appointments, which usually include Extension along with research. So, they have to spend more time at the university writing grants and publishing papers to placate the research portion of their appointment, which results in less time to visit growers. Therefore, greenhouse growers are not able to have the face-to-face discussions/interactions they were used to previously when Extension specialists had 100 percent Extension appointments. As such, there may be a disconnect between the university and greenhouse growers leading to greenhouse growers not relying on specialists for information regarding plant protection but instead using industry technical representatives.

Peter: Thanks for the insight, Raymond. It leads me to wonder if the title "Extension specialist" has become outdated. The traditional specialist has morphed into a "jack-of-two-

trades" — Extension and research. What about the possibility that Extension faculty may be responsible for teaching as well? Being tethered to campus with weekly class lectures, labs, and student office hours creates a travel dilemma as well.

Raymond: Yes, it is possible that Extension faculty may have a split-appointment that includes teaching. In addition, they may have three-way appointments (extension, research and teaching), which may make it difficult to develop quality Extension programs.

Peter: Your description of a three-way academic appointment is important for growers to understand when questioning why their specialists cannot justify greenhouse visits. While it has been fairly common for campus based "non-Extension specialist" faculty to have three-way appointments of teaching, research and Extension, the Extension component was the smallest and simply meant that the faculty member would have *some* contact with the growers in the state.

It is the other side of this coin that presents a challenge; where the specialist whose main responsibility is to serve the growers has been tasked with research and teaching responsibilities. Logic states that something had to give, and it was one-on-one grower visits that university deans directed specialists to jettison.

Framing the old Extension model further allows us to explore changes needed in the future. Under our traditional Extension system each land grant university had a full complement of specialists, which often included a horticultural crop specialist, entomologist and plant pathologist. Each state had a growers association and each growers association published a newsletter, organized educational meetings and coordinated grower tours. The Extension specialists often worked hand-in-hand with the growers association.

Their combined efforts ensured that university research was shared with growers at these meetings.

Several state associations ascended to national prominence, most continued to function at the state level, and others gradually dissolved. The Ohio Florists' Association (OFA) and Bedding Plants International (BPI) were perhaps the most visible as both the Short Course and BPI Conference became reliable conduits for researchers and Extension specialists to share information with greenhouse growers nationally.

Regional conferences focus or did focus on issues specific to geographical areas. Included are the New England Greenhouse Conference (now Northeast), the Southeast Greenhouse Conference (now disbanded) and the Farwest Show. You and I and many of our colleagues have spoken at these venues and appreciate how they complement the national conferences.

As the model evolves, two concepts are infiltrating our university and cooperative Extension institutions. One is integration of electronic communication platforms and the other is adoption of multi-university collaborations. Raymond, how are these concepts shaping the future of Extension?

Raymond: Peter, your question is related to an issue associated with the production of fewer university Extension publications although there are many sources of information that greenhouse growers can obtain and download from numerous websites. Still, there may be less university-based Extension publications available due to having fewer Extension specialists. However, there are many electronic-based information sources available affiliated with webinars, podcasts and videos. In addition, there are online courses. For example, Heidi Wollaeger

Lindberg (Michigan State University Extension) and I developed an online course on "Biological Controls for Greenhouse Growers."

Peter: It sounds like both concepts have already become standard practice for you and your Extension colleagues. As we harness advanced communication platforms we can eliminate a lot of duplicated effort in terms of every state and its growers association needing to be its own epicenter of information. I'm encouraged that an earlier era of competition between Extension programs, growers associations and conferences is evolving into a more collaborative environment that is making efficient use of dwindling federal and state funding. Have you found other means to be effective in providing education to growers?

Raymond: Yes, we have found that workshops, including those on diagnostics and biological control, are valuable in providing both technical and hands-on information to greenhouse growers. There needs to be more interaction between Extension specialists and participants instead of just PowerPoint presentations. The "old model" of having a conference with just academic or industry experts speaking may no longer be the most efficient way of transmitting information. Peter, I also wonder how effective "our" educational programs are when attendees are spending time on their electronics (e.g., cell phone, iPhones, iPads and laptops) as opposed to listening to the speaker.

Peter: I don't have an answer for that one, Raymond. Perhaps our colleagues who are teaching undergraduate students, our future growers, can tell us how they are adapting their teaching style to our first generation of handheld-device learners. I will, however, go on record as stating that success regarding hands-on workshops is not necessarily measured by attendee count. The intimate interaction you reference is only possible with groups smaller than our traditional PowerPoint presentation sessions. We need to avoid the pitfall of bowing to numbers when evaluating hands-on education. Continuing, how do you see the academic and private sector collaboration evolving to serve our growers?

Raymond: Peter, I think that the university-based academics with Extension and research appointments will have to collaborate with the private sector to sustain existing programs by developing practical or applied short- and long-term research projects, and Extension sources of information.

Peter: On another front, we are witnessing a movement where greenhouse growers are shifting a portion of their production from ornamental crops to edible crops, mainly vegetables and herbs, to participate in the locally grown food movement. For many greenhouse growers including myself this brings us back to our early careers as farmers.

As industrial agriculture grew during the last century many of us built greenhouses and switched to ornamental crops as vegetable margins declined. Ironically, we have now come full circle where ornamental crop margins have eroded and are returning to our farming roots but this time in the more controlled environment of a greenhouse. Some of today's young growers are entering our industry with the responsibility of producing both categories simultaneously without the experiences the rest of us had. While most production practices are similar when growing floriculture or vegetable crops how does this situation influence Extension?

Raymond: One of the issues associated with growers producing both ornamental and edible crops (vegetables and herbs) simultaneously in the greenhouse is that insecticides and miticides may not be registered for use on both cropping systems. Therefore, we recommend that greenhouse growers have separate growing areas within the greenhouse for ornamentals and edible crops to minimize spray drift problems.

Peter: A final comment Raymond as we conclude. Growers often find themselves in situations that relate to our discussion of university Extension specialists taking on research and teaching responsibilities. Many growers also undertake a wide range of tasks requiring them to wear many hats around their ranges.

Of particular relevance to this conversation is when greenhouse expansion occurs, particularly for small to medium sized operations. We are often the ones doing the actual building. Carpenter, plumber, electrician, welder, you name it and we become that tradesperson. Speaking from experience, whenever we built a new greenhouse to expand the family business my attention to crop production suffered. Most growers understand what their university faculty are going through. Reciprocally, most of our faculty appreciate that running a greenhouse requires a split appointment too.

Raymond, thank you for your insights. The two of us invite our colleagues and fellow growers to continue the discussion. [gpn](#)