

# **Taking Agricultural Education to The Next Level**

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Thank you for the invitation to present the AAAE Distinguished Lecture this year. I consider this both an honor and immense challenge. You've heard mystery speakers in years past describe the intimidation factor they've felt in preparing for and presenting their distinguished lectures. I assume that most of the previous speakers have faced the same fear that I have today – will I offer anything meaningful, or inspirational, or perhaps even transformational in some way to those in this room and the wider discipline? My idealistic hope is that my remarks will spur some level of positive change in agricultural education. But here's our dilemma, good ideas are not really all that hard to come by. Read, listen, reflect, put some informed and creative people in a room for 30 minutes and the ideas will come. Recognizing promising ideas requires a higher level of skill, but lots of people can do this as well, though many good ideas are lost in the interference that people create, either intentionally or unintentionally. It's the execution of great ideas that requires the really tough work. Significant change, whether incremental or transformational, requires determination, persistence, and hard work. So how have we done in agricultural education over the years? We've run some races very well, had a disappointing pace in others, and probably started more races than we've finished, but we can do better. Agricultural education colleagues, it's time to take our discipline and our profession to *The Next Level*.

Let's take a quick stroll down memory lane. What have been the significant changes in agricultural education in the last 100 or so years? We know that agriculture was taught in some elementary schools in the late 1800s, but at the time of the 1862 Land-grant Act, agriculture was taught in only a few secondary schools. As colleges of agriculture became established, agriculture was mostly taught in the last two

years of the four-year degree, so agriculture deans recommended that agriculture be taught in the secondary schools to help prepare agriculture students for college – major change #1. The Smith-Hughes Act of 1917 formalized and funded agriculture as an instructional program in the secondary schools and included funds for teacher preparation – major change #2. Agricultural education rolled along as a vocationally oriented production agriculture program for the next 45 years until passage of the Vocational Education Act in 1963. Suddenly, agriculture instruction in the secondary schools included horticulture, forestry, small animal care, agribusiness, and other areas – major change #3. About that time, one of the first university agricultural communication programs was started at the University of Illinois. Beginning in the 1970s and over the next 30 years, a majority of agricultural education programs began relocating one by one from colleges of education to colleges of agriculture – major change #4. Agriculture deans generally embraced the relocation of agricultural education programs to their colleges, perhaps because agricultural communication programs were already housed in colleges of agriculture in many cases, and they saw some connections. One note: if these agricultural education programs had not relocated, most would probably not be in existence today due to the serious philosophical divide in the 1980s between faculty members in agricultural education and other faculty members in what were predominantly vocational teacher education units in colleges of education. Those comprehensive vocational education departments have now all but disappeared from university campuses. In 1988 the National Research Council released a landmark report that called for expanded purposes of agricultural education in schools to include agricultural literacy and science integration – major change

#5. As agricultural education faculty members gradually began to embrace their broader role and new environment, along came major change #6 – new, somewhat larger academic units in colleges of agriculture that most often included agricultural education, agricultural communication, and/or extension education, and in a few cases, already existing leadership education programs. And so we stand today, I believe, at the edge of the next major change in our discipline, one that will require a new maturity and unprecedented resolve if we are to take agricultural education to *The Next Level*.

We have made excellent progress in advancing agricultural education, but we are not even close to our potential. We are passionate about our cause of agricultural education, yet willing to accept the status quo at times, even when we know the potential for advancement is significant and within reach. I wonder why. Why is change, fundamental change, so difficult? Do we consciously connect our knowledge of change processes to efforts aimed at advancing our discipline? Our isolated perspectives on occasion and “leave us alone” posture at times undoubtedly have hindered the advancement of our discipline and profession. Interestingly, history has shown that when external pressure is great enough, such as the science integration movement that started back in the 1980s, we do find ways to change and adapt in agricultural education. In fact, many of the significant changes in agricultural education have been driven by forces external to our profession. But in the absence of perceived external threats we can easily become complacent and satisfied with the routine. The opportunity to make a high level impact in agricultural education lies before us today like never before. How will we respond?

I see four major ways that we can take agricultural education to *The Next Level*. First, we need to embrace the notion that agricultural education is a single, broad social and behavioral science discipline that includes teaching and learning in formal and non-formal settings; reaching widely varied target audiences through interpersonal, group, and mass communications; and strengthening the leadership capacity and effectiveness of individuals and organizations – education, communication, and leadership all within an agriculture and natural resources context. Our

common purpose is quite clear (we are all in the people development business), and our disciplinary roots are the same at the broadest level. I would sum up agricultural education in this way. Our passion lies in developing individuals and understanding how they interact in groups and organizations within an agriculture and natural resources framework. Our work in agricultural education focuses on using research-based strategies in education, mass and interpersonal communication, leadership development, and change principles to help individuals, groups, and organizations advance toward their potential. Our hope is that these efforts will lead to greater personal and organizational success, while supporting a strong, viable, and sustainable agriculture and natural resources sector. Shared root disciplines, shared contexts, highly complementary methods, common goals. We are well positioned at this moment to cast aside any continued focus on differences in our disciplinary areas and take agricultural education to *The Next Level* as a single discipline with a fundamentally important purpose – to develop individuals who will help ensure the future of agriculture and help create an agriculturally educated public that actively supports the sustainability of agriculture as an industry and way of life in the decades ahead. This is the essence of our academic and professional existence. I feel more strongly about this shared cause in our discipline today than ever before in my professional career. But to see our common cause we must first change our perspective. Think about Wall Street from a street-level view. We would see different buildings, businesses, architecture, and so on as we look down the street. It's pretty tough to grasp what's around us and what's on the horizon from this perspective. But if we step back away from the details, or better yet, take a broader view from above, the chaotic details disappear and we can see patterns, commonalities, destinations. That's what we need to do in agricultural education – step back and look at the bigger picture. Though not openly stated, the first version of the National Research Agenda (NRA) was intentionally designed to take us from the street level view and help us gain a new perspective of our discipline from about the 20th floor. The NRA 2.0 will take us further to the top and give us that skyscraper perspective, a Next Level view

of our work, our discipline, our place in the people arena of agriculture. The challenges are much too great for continued solo, segmented performances in our discipline. The only way we have a reasonable chance of significantly impacting today's complex agricultural issues is if we unify our discipline and approach disciplinary and interdisciplinary problems in a routinely collaborative manner.

Research is a second area of our discipline that needs to be taken to *The Next Level*. Some of you have read the 2009 National Research Council (NRC) report titled *A New Biology for the 21st Century*. This report, which is getting a lot of attention in USDA circles, makes a powerful argument that only through an integrated science approach will solutions be found for major societal needs in food, the environment, energy, and human health. The report states that only a fully integrated approach among the many science disciplines will create the *research capacity* required to tackle these broad and complex problems. Further, such integrated research must be complementary to and not replace continued, excellent disciplinary research in biology, chemistry, physics, and so on. I believe these same principles hold true in agricultural education. Only through a fully integrated approach across our subdisciplines of formal and non-formal education, communication, and leadership – *A New Agricultural Education* – will we begin to make meaningful research contributions to the complex issues in agriculture and natural resources. We need more scientists in our discipline who develop deep expertise in a key area of inquiry and who offer that expertise as an expert member of interdisciplinary research teams tackling complex research problems. A parallel from the NRC report suggests that integrating knowledge across our subdisciplines in agricultural education will permit deeper understanding of human behavior, lead to solutions to agricultural issues that are informed by social science research, and strengthen our discipline. First and foremost, we must systematically advance the science of our discipline. Only then will we be in a strong position to contribute to interdisciplinary research teams.

Let's take a quick look at our science. What has our research told us about effective laboratory teaching; about effective educational

programs and communication campaigns; about motivating and engaging students in the study of agriculture; about how opinions and perceptions of agriculture and natural resources are shaped, altered, or firmly held; why certain individuals emerge as effective leaders while others have all the tools but have no leadership impact; why some communities are vibrant and resilient and others are in decline; why the public, in general, could care less about its food-producing, life-sustaining, and lifestyle-supporting industry? We must have research-based disciplinary expertise and a much better working knowledge of the science of our discipline if we are to contribute in a substantive way in resolving major research problems. In the research proposal development course that I teach each summer, on the first day of class I invite the students to share their thesis or dissertation topics. Later in the same session I ask students to work in groups to identify the top three most pressing issues in their disciplinary area. I then pose the question, "Assuming that the profession at large concurs with your top three issues, is your thesis/dissertation focused on one of these issues? If not, why not?" As researchers, we have a responsibility to ask ourselves this same question before we undertake a research project. Does this project have the potential to inform a solution to a major issue or problem in our discipline and/or the broader agricultural and natural resources arena? If the answer is honestly no, then we should redirect our efforts. And we must intentionally and thoughtfully apply our science to the solution of real and important problems. Too often I sense that we connect our research to the literature only as an academic exercise undertaken to meet manuscript guidelines. Are we really shaping our research based on what is currently known and intentionally conducting research to add to our knowledge base and inform practice? Our faculty and academic units need to invest in and focus their research in a way that creates clear disciplinary identity and scientific depth. We need to invest much more effort in pursuing cumulative, additive scientific investigations. We need to strengthen our focus on disciplinary science and organize our science so it is readily accessible and informative to both our fellow researchers and practitioners in the field. In doing so we and our potential research partners

will know in what areas and on what projects we can confidently contribute.

When addressing the NCAC–24 Committee at the University of Arizona several years ago, David Cox, Associate Dean for Research at Arizona and former agricultural education faculty member said, “We need to conduct less research about our stakeholders and more research for our stakeholders.” He’s exactly right. We need to be more solution–based rather than knowledge–based as we plan our research outcomes. Even though our discipline is based on the processes of human thought and action, we cannot accept additional insight into those processes as our only final research product. We also need to take our research to *The Next Level* by using this research–based insight to help formulate solutions to the key problems in agriculture and agricultural education. Our research has historically been driven by “what” questions. We need to refocus our research on the “why” questions that potentially explain the phenomenon under investigation, and then follow this by designing and testing potential solutions aimed at changing practice. We should use existing theory to initially shape our research and be willing to revise and adapt that theory as we learn more about how people think and behave with regard to agricultural issues. As we take agricultural education research to *The Next Level* we must replace activity as our implicit metric of research productivity with a disciplined focus on impact.

About 10 years ago I was invited to deliver the distinguished lecture at the AAEE Southern Region Conference. I told the story of Charles Brown, a senior faculty member at the University of Illinois who had been recognized a few years before with a prestigious college award for his work in plant breeding. The presenter noted the following about Dr. Brown’s work: the best oat breeding program in the world, has done more to increase oat yield and quality than any other breeder in recent history, developed the highest yielding oat variety in history, and his varieties were grown on more than one–third of all oat acreage in the nation. Or how about a faculty member at the University of Florida who after testing more than 4,000 substances over 15 years discovered a safe, yet equally effective alternative to Deet insect repellent? Talk about commitment, persistence, focus! These are great examples of

conducting research that impacts practice. Taking our research in agricultural education to *The Next Level* means having scientists in our discipline who, over the course of their careers, discover solutions to the most important issues and problems in our discipline and in agriculture and natural resources. We have avoided tackling the most significant research problems in our field because they are too complex, require too much time, and require a long–term commitment. We have the intellectual capacity within our profession to accomplish great things, and our college deans are inviting us to join the “impact party” with open arms, but we often stand outside the door because we’re not prepared, willing, or able to apply our expertise in addressing these higher level needs. We need to proactively position ourselves to be key players in these interdisciplinary research arenas by becoming deep experts in our discipline and then seeking opportunities to contribute to interdisciplinary research teams. Among other changes, we need for our associate and full professors to remain engaged in research and actively lead ongoing research programs that address important issues in our discipline and in the agricultural industry. Consider this evidence: in the five volumes of the *Journal of Agricultural Education* published from 2004 through 2008 only three faculty members averaged at least one article per year as the lead author. Graduate students and young faculty members are carrying the research load in our discipline, leaving our disciplinary science to advance at a slower than required pace. Too often our most capable and experienced researchers turn the investigative reigns over to the “young whippersnappers,” as I was routinely called in my early teaching days, just when those faculty members have the knowledge, research skills, and conceptual understanding to begin to really make an impact with their research programs. In talking about research productivity with my department chair colleagues at the University of Florida, they say that their most productive and impactful researchers are internally driven to discover new knowledge. These researchers build their own research teams, often serving as the primary idea source and overall manager instead of the actual researcher. We’re talking about a cultural shift in our professoriate – weekly conversations with our colleagues about research and teaching,

weekly time set aside for writing and research, making research a higher priority among our many faculty responsibilities, conceptualizing and actively pursuing long-term research programs, using stakeholder needs as the starting and ending points in our research, shifting assignments so our best researchers are given the maximum possible opportunity to conduct research, being more selective in our research projects for maximum stakeholder benefit, conducting solutions-driven research, routinely disseminating recommendations to respective stakeholder groups at the conclusion of our investigations, and converging our collective research time and energy around a smaller number of more fundamentally important problems. Finally and most importantly, when we look in the mirror we should see both an expert teacher and a capable scientist.

The *New Agricultural Education* to which we must aspire requires us to become less independent in our research and more openly collaborative and interdisciplinary. We need to take the initiative and find the resources to organize research workgroups that brainstorm, plan, conduct, and evaluate collaborative research on a long-term, ongoing basis. I realize that creating productive research teams that are active over the long term is not easy, but I believe we can begin to make this happen. Our AAEE Special Interest Groups can proactively prompt the development of productive research teams. We can make more productive use of our time at conferences in maintaining the momentum of our research teams. We need to immerse our graduate students in collaborative research locally and across state lines. We need to think bigger in terms of research design and impact and develop larger scale conceptual models to guide long-term research programs. We need to hold each other accountable, individually and collectively, in ensuring that our discipline is advancing in knowledge and scientific discovery and we, individually and collectively, are significantly contributing to research-based solutions in agriculture and natural resources. We need to organize recurring opportunities for our researchers to talk at length with each other about their shared research programs. These and other strategies will surely advance the science and impact of our discipline and take agricultural education to *The Next Level*.

A third area of our discipline that must be taken to The Next level is our role as comprehensive academic units in colleges of agriculture. We must not overlook the obvious: colleges of agriculture invited us to join them over a 30-year major transitional period not because they had extra money to spend but because they generally felt that we could contribute to their teaching, research, and extension missions in important ways. Have we made the most of their investment? Relocating to a college of agriculture and continuing business as usual in a new office is like adding a Smartboard to a classroom but only using it as a projection screen. As faculty members in colleges of agriculture, we need to realize that our stakeholders have fundamentally expanded to include the broad agricultural community. Our agricultural education units must become integrated into the goals and priority programs of our colleges and institutes of agriculture. We have made some progress in this area, but we are far from achieving *The Next Level* to which we should aspire. The issues of the day in agriculture and natural resources demand our expertise more than ever before. In my nearly 30 years as a faculty member I have never seen a time where our expertise in agricultural education is more valued, more sought after, and more embraced by the various agricultural disciplines. As the tagline on our department's logo reads, *connecting people and agriculture*, the solution to every major agriculture and natural resources issue today has a complex people dimension. Our colleagues in colleges of agriculture are, by and large, ill equipped to address these critical human factors, and they're realizing this more and more. We have the expertise to significantly contribute to these solutions. What we don't have is much experience in applying our expertise in these broader contexts, and in some cases, the confidence needed to do so. And time, as we are currently structured, is surely our number one enemy when it comes to leading and contributing to these large, complex projects. Nonetheless, we must find a way. Working at *The Next Level* is, in my opinion, a prerequisite for our continued growth and strength as academic units in colleges and institutes of agriculture. A few months after speaking to more than 50,000 FFA members in Indianapolis last fall, Mike Rowe, of television's *Dirty Jobs*

fame, posted a message on his website titled, “The Future of Farming.” He asked a great question, “How is it that 300 million Americans – all addicted to eating – have become so disconnected from the people who grow our food?” We in agricultural education have a role to play in answering this question and in rebuilding the public’s connection with agriculture. We have a window of opportunity to pull our chairs up to the table and work alongside the scientists in our sister agricultural disciplines, rather than sit quietly in the outer circle, or even in the building next door. We must take our effort to *The Next Level* if agricultural education is to become widely embraced as a worthy scientific contributor to research-based solutions in agriculture and natural resources.

The fourth area in which we must proactively take agricultural education to *The Next Level* centers on our faculty. Most importantly, we must prepare and develop faculty members who are broad thinkers and who embrace the notion of a unified discipline of agricultural education with a larger purpose. We need to develop future faculty members in all areas of our discipline who are genuinely intrigued with the “why” questions that will unlock the solutions to the most pressing issues in our discipline and the larger agriculture and natural resources context. We have an interesting paradox in our profession. Our promising young researchers are most often mentored by faculty members whose professional interests and activities are dominated by teaching. This potentially leads us to unconsciously focus the professional interests of these young faculty members toward a teaching-first perspective of their faculty role. Our faculty members must know that they are vitally important contributors to the full land-grant mission. We’ve also done a disservice to our graduate students if we allow them to isolate their course work, research, and outreach projects in a single dimension of our discipline. As suggested in the NRC report, we must develop scientists who have a deep knowledge in one disciplinary area and a working knowledge in the other dimensions of our discipline. If students leave their graduate program with this larger disciplinary perspective, they will be ready and eager to collaborate with faculty members in all areas of

our discipline when they assume a faculty role. Sharing a common language at some level will provide the understanding required for envisioning integrated projects and embracing shared goals. Our discipline needs this, our departments need this, and the problems of the day demand this. We have inadvertently hindered this area of development of our graduate students by historically segmenting our AAAE conference research paper sessions by disciplinary area. For example, a session with papers focused only on extension education implicitly says (a) only extension educators need attend and (b) the research problems addressed are not relevant to faculty in other areas of our discipline. Just this past spring I attended an agricultural communication research paper session that was held concurrently with similarly segmented AAAE paper sessions, and I think I was the only non-communication faculty member or graduate student in the room. As I listened to the excellent papers, I kept wishing that all of the AAAE members at the conference were in that session, because the research presented focused on fundamentally important agricultural issues that could be most effectively addressed by drawing on the expertise and capacity of our full discipline. Just as we expect of our graduate students, our faculty also need to embrace a larger view of our discipline and how we can be most effective in our respective units. Our academic units must provide an integrated and collaborative daily work environment. If our newly prepared faculty members find themselves in an academic environment that does not embrace the notion of disciplinary unity and genuine collaboration within and beyond their academic units, we run the risk of only inching toward *A New Agricultural Education* versus taking large, confident strides toward this goal.

I firmly believe that the faculty members in a department are largely in control of the destiny of that academic unit. Hire great faculty, support them, remove barriers to their success, encourage them, mentor them, and enjoy celebrating their successes. However, we also need to realize the primary reason that faculty members have been hired in agricultural education. Historically, with a few exceptions around the nation, we have primarily hired faculty members to lead programs, almost always academic programs of some sort. This is

drastically different from the typical hiring patterns in other departments in our colleges, where the objective is predominantly to hire capable scientists who can lead the discovery and application of science in a specific dimension of their respective discipline. The implications of these two alternate universes are huge in terms of faculty time available to contribute to interdisciplinary research and extension projects. I'm not suggesting any lesser emphasis in our units on academic programs. I'm simply saying that we are way out of sync with our sister units, and we need more agricultural education faculty members with assignments that provide significant time for discovery and outreach. In order to achieve this next level of development in our units, we must demonstrate to our college administrators and fellow scientists that our expertise is needed and helpful when responding to priority issues faced by the industry.

So, allow me to leave you with some fundamentally important, unanswered questions for our profession:

1. Who is best positioned to look at our profession and discipline from above, see how and where the traffic flows, and note the vibrant and neglected areas, growth opportunities, refueling stops, and dead ends? Who will lead us toward *A New Agricultural Education*?
2. What role can and must AAAE and related professional societies play in proactively advancing agricultural education as a unified discipline and enhancing the capacity of our profession?
3. Can we move now toward paper sessions at our research conferences that are organized by issues rather than by the traditional segments of our discipline?
4. How can we enhance the leadership capacity and effectiveness within our profession and proactively pursue evolutionary and transformational change with pure vision and unwavering persistence?
5. How do we advance the science and discipline of agricultural education to a point where it exists and is seen as a valuable and unique player in addressing the complex issues in agriculture and natural resources? Who's standing guard over our profession and our discipline?
6. How can we refocus the goals of scientists in our discipline away from intermediate outcomes and toward solutions for stakeholders?
7. How do we develop agricultural education faculty members that embrace their responsibilities to teach and conduct research with equal enthusiasm, energy, and commitment? How do we develop faculty members who see themselves as teachers and scientists?
8. How can we become outstanding teachers whose practice is based on research and outstanding researchers whose investigations are based on practice?
9. How do we develop agricultural education academic units that are equally known for outstanding teaching, research, and outreach? How do we convince university administrators to make the necessary investments needed to create these academic units?
10. How do we transform and restructure our academic units to provide the faculty time needed for conducting long-term, high impact research programs?
11. Can we, as a profession, reorient our view of disciplinary science needs, societal issues, and agricultural problems from a top-of-the-building perspective, recognizing that only through a shared vision and integrated approach will agricultural education have the capacity to make meaningful contributions in the long term?

My message to the profession today and to each of you is that our best work is ahead of us, and we must jointly commit to creating *A New Agricultural Education* – one characterized by (a) a unified discipline with greater disciplinary capacity; (b) a stronger and deeper scientific base; (c) a broader purpose in colleges of agriculture; and (d) faculty members with broad perspectives and deep expertise in their discipline. Our window of opportunity to take agricultural education to *The Next Level* is right before us, but it won't remain open for long. We must act now in bold and new ways. Our agricultural industry needs us, our citizens and policy makers need us, and our discipline needs us to make this higher level commitment. Now is the time to refocus our efforts toward a greater common cause in agricultural education and

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*Taking Agricultural Education...*

proactively use our unique disciplinary expertise in collaboration with other scientists to ensure that American agriculture is solidly positioned to

continue its vital role in our society in the decades ahead.

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