

Capital A, Capital E – Ripples in the Agricultural Education Pool

Michael E. Newman¹

Abstract

Dr. Michael E. Newman presented the 2016 AAAE Distinguished Lecture at the Annual Meeting of the American Association for Agricultural Education in Kansas City, Missouri in May, 2016. The article is a philosophical work based upon the author's experiences in the agricultural education profession.

Note: This presentation is available online at <https://prezi.com/kfgwywcb6ghg/capital-a-capital-e-making/> (Newman, 2016).

I ask all of you to answer a question for me. If you could meet one person from the past, who would it be? The first 100 of you to answer will included in the presentation a little later.

Dr. Balschweid, I thank you for the honor of speaking to this group.

A lot of people have done this mystery speech/distinguished lecture over the years, and, like most of them, I went back and read many of the previous ones published in the Journal of Agricultural Education. Of the last 30 years or so, I knew all but a few of the speakers, and have been taught by almost one-third of them. Of course, I reviewed them because I didn't want to repeat something that someone else had said previously. At some point during that process, though, I realized that whatever I really wanted to say, someone has already said. (For example, I could say we need to do a better job with SAE today, which is exactly what was being said 30 years ago.) Still, I enjoyed the reading, as it reminded me of how much I have enjoyed the lectures over the years.

So, my advice to those who have the honor of doing this in the future: ignore all of the old ones and just talk about what you want. That is what I am going to do, and I just hope that something I touch on today may reach some of you in a different way, perhaps coming from a different angle, so that you take away something you can use.

I know it is possible for a distinguished lecture to be useful to someone in the audience, because I have experienced it personally. In Orlando in 2013, Tim Murphy gave the Southern Region distinguished lecture. In it, he described the components of a comprehensive agricultural education program that would maintain its viability into the future (he was citing L.H. Newcomb, 1992). I had read about these components when L.H. wrote about them in 1992, but they didn't stick when I was a brand new assistant professor. In 2013, however, I was the still fairly new administrator of an agricultural education unit that had already been merged with other units into the School of Human Sciences at Mississippi State University (MSU). At that point I very much appreciated his take on this and how Texas A&M was able to accomplish their goal of including all of these components under the leadership of Glen Shinn. Maybe it didn't hurt that I have done at least a little work in all of those areas as well.

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I am pretty sure my dean hates Tim Murphy. I know there is nothing remarkable about someone hating Tim, but to my knowledge my dean has never even met Tim. He does know, however, that Tim's (and L.H.'s) description included not only agricultural teacher education, but also higher education in agriculture, agricultural communications, agricultural leadership, extension education, and international agricultural education, because I have used that talk many times to justify requests for new positions or funding.

Now, you may be thinking, why does he have a picture of Susie Whittington instead of L. H., well . . . you Google L. H. Newcomb and see what images you get. I picked my favorite one.

I taught high school agriculture and horticulture (that is a topic for an entirely different presentation) in South Mississippi, which shares a lot of characteristics of Louisiana. This is my version of the Louisiana term *lagniappe*, defined as a little something extra, a freebie, something you didn't have to pay for but you still get. Let's say I will share pearls of wisdom from my experience. I said I was going to try to be myself, and one thing I certainly am is easily distracted.

***First Thing I Know** – The best Fleetwood Mac song is “Don’t Stop” from the Live album with the USC Marching Band.*

I hope you will take away four points from my talk today.

For the first one, we'll start with this quote from Thomas Jefferson: “Cultivators of the earth are the most valuable citizens. They are the most vigorous, the most independent, the most virtuous, and they are tied to their country and wedded to its liberty and interests by the most lasting bonds. . . Those who labor in the earth are the chosen people of God.” If you feel as I do about this year's presidential election, and a quote from Thomas Jefferson reminds you of the difference between the politicians of then and now, I apologize.

1. Agricultural Education is and Always Has Been Important.

Back to the question at the start of the talk: Last fall, my wife Tricia and I began our 10th year working with the university ministry at First Baptist Church, Starkville. On the first Sunday night of the semester, we were doing ‘get-to-know-you’ activities by doing two rotating circles with about 100 kids total. The leader asks a question, and two people discuss their answers, then you rotate to another person and answer the same or a different question. At one point, our university minister asked the same question I asked you at the beginning of this lecture. He also asked what questions you would like to ask this person, but we have just the one question. Of course, there were many references to the Apostle Paul and other people from the Bible.

The person I chose was Norman Borlaug, the renowned wheat and corn breeder and recipient of the 1970 Nobel Peace Prize. Certainly my Sunday School students would tell you I chose Borlaug because I frequently work a little agriculture into my lessons (easy to do with the Bible as your primary reference, such as bringing wheat to thresh when learning about Boaz and Ruth), but I was serious. I sometimes include a little Bible into my teaching, so it works out. How did Borlaug transfer the motivation he developed by interacting with starving people as part of the Civilian Conservation Corps during the Great Depression into his work as a microbiologist, geneticist, and, eventually, plant breeder? As usual, just a cursory read of Borlaug's accomplishments led me to learn more about someone else: in this case Gurdev Khush and Henry

Beachell, considered the Norman Borlaugs of rice breeding. All of these men were recipients of the World Food Prize.

So, I got to share a little agricultural knowledge that night at church, which I am subject to do, but it also started me thinking about the question from a professional and personal standpoint. Who are the people I would most like to meet and learn more about in agricultural education and related professions? I heard Barry Croom talk about Booker T. Washington a few years ago and really enjoyed learning more about this man I had long admired. I hope to emulate this today by talking briefly about three historical figures who became my revised answer to the question asked earlier. If I could meet someone from history, it would be these three, in order.

First, though, let's look at who you selected as the answer to the question I asked at the beginning of the session (see Figure 1). We identified some of the same people, but not all of them.

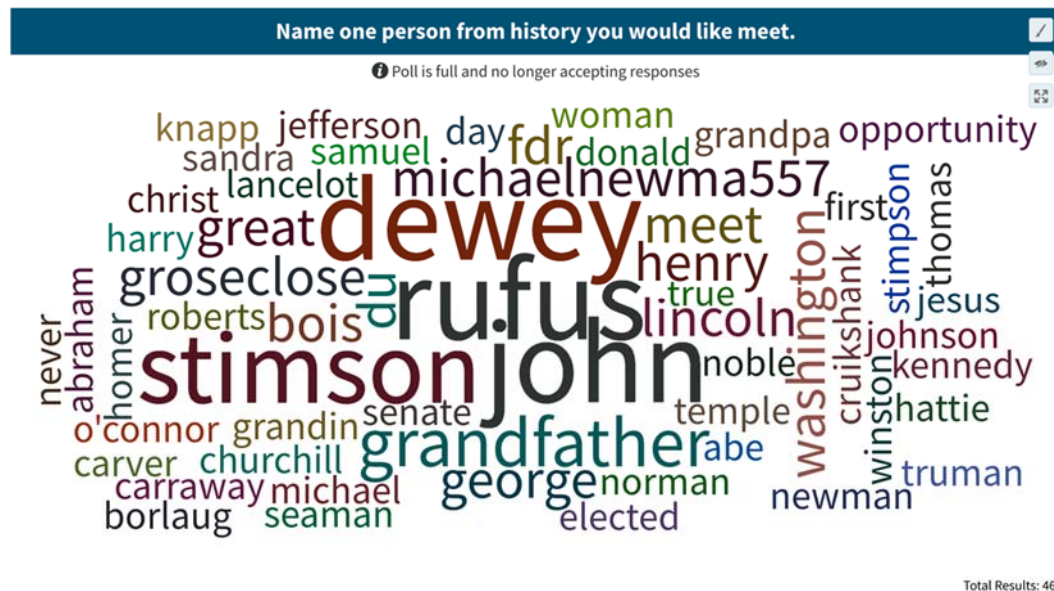


Figure 1. Results of PollEverywhere® Poll

Seaman Knapp

Seaman Knapp is certainly the best-known of my three subjects. Knapp is widely considered the Father of Extension in this country, with good reason, but he was accomplished in other ways as well. He wrote the first draft of the experiment station act (eventually the Hatch Act of 1887) and later was the second president of Iowa Agricultural College, now Iowa State University, in 1883 and 1884. He moved to Louisiana in 1886 and eventually developed the county demonstration agent system that led to the creation of the cooperative extension system when it was adopted by Congress in the Smith-Lever Act of 1914.

My respect for Knapp must come across to my students. A student who had taken my Survey of Human Sciences class made her friend stop traffic on Independence Avenue so she could take this photo of the Knapp Bridge at USDA and send it to me. She has graduated now, but, of course, I hired her as a graduate assistant.

Rufus Stimson

Since Don Johnson taught me in the history, philosophy, and policy class during my doctoral studies at MSU, I have loved the history of agricultural education at all levels. I especially love the descriptions of agricultural colleges prior to 1862, experiment stations prior to 1887, extension work prior to 1914, and secondary agricultural education prior to 1917. I know the federal acts of those years are important, but I think we often give Congress a little too much credit. For example, according to USDA no high schools were thought to have agricultural classes in 1897, but over 2,000 high schools taught agriculture in 1913, four years prior to Smith-Hughes (Scott & Shoalmire, 1973). I have always enjoyed learning about the names a degree or two removed from the forefront: Jonathan Baldwin Turner, A. B. Graham, “Corn Club” Smith, Henry Groseclose, A. C. True, and many others.

My favorite historical agricultural educator is without a doubt Rufus Stimson. I wrote my term paper on him in that class, and I still have it. (Your concerns about me being a hoarder might be justified.) Anyway, Stimson was the president of Connecticut Agricultural College (now the University of Connecticut) from 1901 to 1908, and by all accounts had a successful tenure there (Moore, 1988). If you are in teacher education and haven’t read Gary Moore’s 1988 article about him in the Journal of the AATEA, you should probably quit listening to me and go read it now. It is available on-line.

Stimson left UConn to become director of the Smith’s Agricultural School in Northampton, Massachusetts. Moore (1988) concluded that he had been formulating a new method of teaching agriculture and left to find a place to implement it. Stimson referred to it as the home project method. I later learned it as supervised occupational experience program (SOEP). Most of you know it as SAE. Moore is convinced that Stimson is the father of the project method of teaching, so I call him that as well (or the father of supervised agricultural experience). The Smith-Hughes Act of 1917 included a requirement of supervised farm practice, a direct result of Stimson’s efforts. The practice became an important part of many other areas of education, including vocational and scientific areas. Stimson was later the state supervisor for agricultural education in Massachusetts and then a research specialist for the U.S. Office of Education. One of his feats there was writing the book “History of Agricultural Education of Less than College Grade in the United States.”

Second Thing I Know – Dan Post ‘Cowboy Certified’ Over-the-Calf Boot Socks are the best and it isn’t even close. They stay up all day and your boots never rub your calves.

Cully Cobb

Cully Cobb is assuredly known by the fewest number of people in this group, so let me tell you a little about this agricultural educator, extensionist, leader, and communicator. Cobb was born in Tennessee in 1884, growing up in a town called Chamber’s Mill. His dad was a Baptist preacher, who had a small farm to help feed his family. He showed up at Mississippi A&M in February 1904 with \$2.10 in his pocket and a “vague idea” to become a medical doctor (Scott & Shoalmire, 1973). He had chosen MSU because he had heard that students could get jobs there to pay their way through school.

Cobb had to complete the preparatory (secondary) school before he could get admitted to the college. He worked each day in the greenhouse (where he also lived) and took coursework at

night. Through hard work he graduated in 1908, and took a job as the first principal at the first agricultural high school in Mississippi at Buena Vista, in Chickasaw County. In 1909, he started an adult education program for rural teachers, hoping they would introduce elementary scientific agriculture into their one-room schools. In the summer of 1910, Mississippi A&M president John Hardy said Cully Cobb had “made the best success of the agricultural high school of any man in the state (p.60).” Hardy recommended Cobb as the special agent in charge of corn clubs shortly thereafter and Seaman Knapp approved the hire (Scott & Shoalmire, 1973).

As director of the corn clubs, Cobb served with distinction. “‘The corn club work under the direction of Prof. C.A. Cobb is accomplishing wonderful results,’ wrote Richard H. Pate, head of Mississippi’s Department of Farmers’ Institutes and Extension” (p. 79). He was promoted to assistant director of Extension in 1919, but left for Atlanta later that year when he was offered the position of editor-in-chief of the *Southern Ruralist*. This was a boom time for agricultural journalism, with four other strong regional papers being published at the same time: *Progressive Farmer* (Raleigh), *Southern Agriculturist* (Nashville), *Southern Planter* (Richmond), and *Southern Cultivator* (also Atlanta). At the time, *Southern Ruralist* was the most prominent with the largest circulation (Scott & Shoalmire, 1973). After a merger with *Progressive Farmer* in 1930, Cobb became vice-president and managing editor of the company and editor of its Atlanta edition.

Cobb served five consecutive terms as president of the American Agricultural Editors’ Association in the 1920s. By the early 1930s he had become very influential in the development of agricultural policy. After all, he had written over 1,500 editorials about agriculture and improvement practices during his time as editor-in-chief. He was considered a strong possibility as secretary of agriculture in 1932, but FDR appointed Henry Wallace from Iowa. Instead, in May 1933, Cobb became Chief of the Cotton Production Section, Agricultural Adjustment Administration, a New Deal agency designed to benefit farmers. In 1937, Cobb bought controlling interest in the Ruralist Press, the company that actually printed the *Southern Ruralist* and later *Progressive Farmer*. He retired after selling the company in 1971 and became a full-time philanthropist. We have the Cobb Institute of Archeology on our campus due to his gifts.

I relate to Cully Cobb in several ways: First, I came to Mississippi State University as a small-town boy with humble means in 1981, and I worked and lived on a dairy farm so I could go to school. Second, I have children that are way smarter than I am (one of his became a neurosurgeon). Third, I love the teaching and communicating of agriculture in any form I have been exposed to thus far in my life. He obviously did as well. Fourth, I too would like to retire as a rich man and give back to my alma mater.

Another thing I really like about Cully Cobb, though, is that I know every school represented here today has similar stories they could tell about their graduates. Whenever I think about that, I feel very proud to be associated with this organization and the past, present, and future that it represents.

2. The Earth’s Population is Growing At An Unsustainable Rate.

This may be another way of saying what we do is important, but it also makes the argument that it may be more important now than at any time in our history. Currently, we have enough resources to feed the world, but that could change.

On June 8, my granddaughter Genevieve will be one-year-old and I will become 53. When she is my age in 2068 (I will be a still-spry 105), depending on the source you choose, the world's population will be somewhere between 9.8+ billion and 10.5 billion (Roser, n.d.; United Nations, n.d.). Genevieve's parents are both doctors, and it is already obvious that she is a genius, so I expect she will have money to buy food. What does concern me is whether there will be food for her to buy or if she will be one of the few people around who can afford it. My students learn about population growth and the importance of agriculture every semester during our lesson on the history of land grant colleges. Perhaps this is why Norman Borlaug was the name that popped into my head during that activity last fall, but I am glad that it did.

During my formative years, the biggest threat to the United States was considered to be communism, primarily in the form of the Soviet Union (USSR). When I was born in 1963 it was certainly the height of the cold war. Until the collapse of the Berlin Wall in 1989, the threat of nuclear war always seemed possible and sometimes seemed imminent. The Soviets certainly felt the same about us (Avramov, 2012).

At the 1961 National FFA Convention, public speaking contestant Marvin Gibson from Maryville, Tennessee (third from left in photo, see Figure 2) gave a speech titled, "We Need Research in Agriculture, Too!" In that speech he said, "A nation is as strong as its agriculture. Russia's Nikita Khrushchev reminded us of that not long ago when he told us that communism would win its contest with capitalism when the Soviets' per capita production of meat, milk, and butter surpassed that of the United States." (Future Farmers of America, 1961, p. 117). Gibson was referring to the Soviet Premier's remarks soon after Sputnik was launched in 1957. The USSR was giddy about being ahead in the space race, but Khrushchev knew that it was our agriculture that made us a stronger nation. It has always been agriculture that set the U.S. apart from the rest of the world. (By the way, Gibson won the contest, but I still don't know if it was because of his speech or because the others dropped out when they saw his hair—it was pretty intimidating.)



Figure 2. National FFA Public Speaking Finalists, 1961.

We all know what has become of the Soviet Union, and a good portion of its collapse was its inability to feed its people efficiently. I love agriculture the same way I love our country. As great as this nation is, though, we are not immune to the problems of the world. According to Chef José André, founder of World Central Kitchen, “Food is national security. Food is economy. It is employment, energy, history. Food is everything.” (André, 2015, p. 1)

In 2014, the food insecurity rate in the U.S. was 14% according to USDA (Coleman-Jensen et al, 2015), or 15.4% according to Feeding America (n.d.) (see Figure 3). I’m sure there is a difference between being food insecure and starving, but I hate to hear of anyone in our country being worried about where they will find their next meal. We should always be able to feed our people and those of other countries as well.

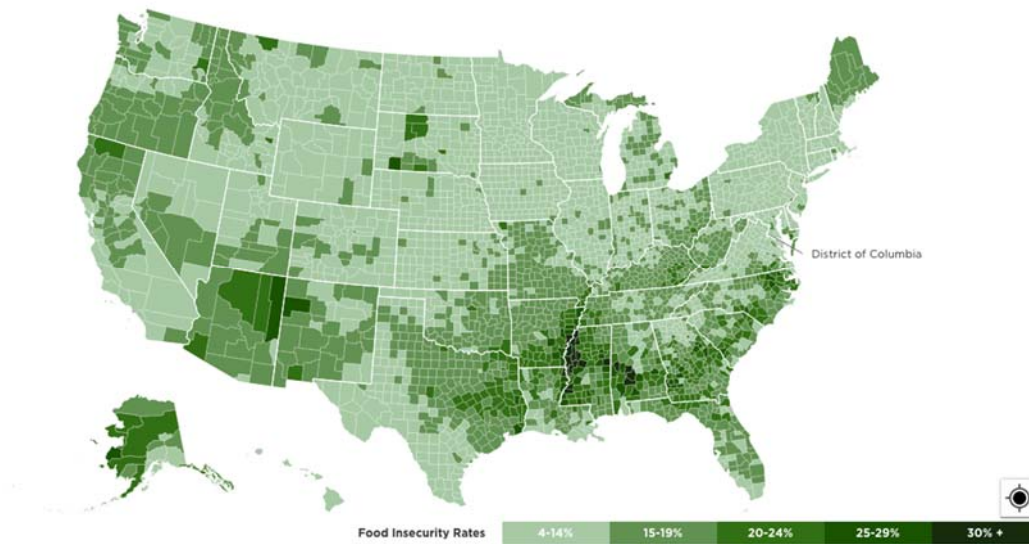


Figure 3. 2014 Overall county food insecurity in the United States (Feeding America, n.d.)

I talk to a lot of student groups, and I have said many times that if we have another world war, it will be over food and/or water. (Of course, in the post Trump era I may have to re-think that. There could be other reasons.)

We have so many avenues available to us to be a relevant and dynamic player when it comes to feeding the world. The best way, I think, is to graduate students with an appreciation for the finite resources the earth has and the commitment to practice agriculture with the idea of sustaining and replenishing these resources. I happen to believe this idea can co-exist with big agriculture.

Third Thing I Know – If you are an old guy like me and loved Waylon Jennings, Sturgill Simpson is pretty close. Try “Long White Line.”

In the spring of 1986, Kirby Barrick read James Clavell’s (1981) *The Children’s Story* to us in a graduate teaching methods course. That story, originally published in *Reader’s Digest* in 1964, certainly made me more scared of the Soviet Union, but, more importantly, it made me even more aware of the tremendous influence (and the associated responsibility) that teachers have on their students.

3. Teaching Is Still The Most Important Thing We Do.

As agricultural educators, we tend to embrace this concept fully, although sometimes not in the most efficient manner. We are all teachers at heart. According to Brad Henry (2016), “a good teacher can inspire hope, ignite the imagination, and instill a love of learning.” We have to remember, however, that teaching can’t be the only thing we do.

I think the art and science of teaching has always been fascinating and the act of being a teacher a noble calling. I think it is even more true today. This smartphone I am holding in my hand has access to a lot more information than even existed when I graduated college 31 years ago. The ability of teachers to be efficient transmitters of information has long since passed.

Nowadays, you see arguments in *The Chronicle of Higher Education* and a lot of other places about whether it is more important to teach skills (soft? leadership?) or content (see e.g., Berrett 2016). Berrett (2016) concluded that skills like writing, critical thinking, analytical reasoning, and quantitative reasoning are now almost universally desired. We had a provost candidate on campus a few weeks ago and he mentioned what he called the 4 Cs:

We want students who can 1) communicate, 2) be creative within their discipline, 3) think critically, and 4) collaborate within and across disciplines. The rub is that college courses are generally geared toward content delivery with skills usually an afterthought.

There are a lot of terms used for the same general idea: constructivism, student-centered learning, experiential learning, project-based learning, critical thinking, or flipped classroom. I like to refer to it as the problem solving approach to teaching, because I believe agricultural educators were the first to formalize its use and that is what they called it. Whatever it is called, I think of it as guiding the learning process, and the process is more about learning how to learn and apply information than it is about the teacher sharing information.

My exposure to problem solving goes back to Lowell Hedges, through Jamie Cano and Matt Raven. If you have never read Dr. Hedges’ book titled *Teaching for Connection: Critical Thinking Skills, Problem Solving, and Academic and Occupational Competencies. Lesson Plans*, then I recommend it highly (Hedges, 1996). Hedges specified the four-question method of interest approaches:

- a. Where are we now?
- b. Where are we going?
- c. What steps should we take to get there?
- d. How will we know when we have arrived?

Citing Dr. Wilbur Stewart, Hedges identified five problem types to help students develop the skills to solve problems, and he included a description of them and the procedure used to solve them:

- a. Possibilities/Factors
- b. Forked-Road
- c. Situation to be Improved
- d. Effect, Find the Cause
- e. Steps and Key Points

Later, Raven taught me to add a sixth type: Advantage/Disadvantage, a special case of forked-road, which you use when trying to decide whether to implement a new practice.

The problem-solving approach gives students much-needed experience in problem-solving while leaving room for a variety of teaching methods and content to be learned along the way. If you haven't noticed, the generation of learners (youth and adults) we are teaching now must be convinced of the **why** before they are willing to put in a lot of learning effort. This approach that was developed and refined as a way of reaching farm boys who needed help seeing the value of formal education is enjoying a renaissance as a way to reach today's learners—those already armed with the world's information at their fingertips.

People in other disciplines realize what we have. There is way more information on problem solving that has been produced lately. John Malouff (n.d.), a professor at the University of New England (Australia) has a website devoted to problem solving that is fantastic: "Over 50 Problem Solving Strategies Explained."

Many of us have studied the characteristics of effective teachers. I believe that one of them outpaces all the others: caring. Of the three professors that Cully Cobb first met when he came to Mississippi State, all of them cared about a young man who had nothing but a desire to improve himself. It is notable that all have buildings named for them on our campus now. The current College of Agriculture and Life Sciences new teaching award winner at MSU is Laura Lemons – she is also the best selfie taker I know personally. I am surrounded by great teachers - our faculty have won five of these teaching awards in the past three years. They do CVEST, but here is what I have seen: Great teachers

- Care about their students
- Inspire their students
- Make disciples out of their students
- Equip their students to be able to think and solve problems on their own
- Last, but not least, they embrace diversity and teach everyone.

While we are talking about research, here is my fourth (and final) point:

Fourth Thing I Know – *There is no such thing as a mean score. It doesn't matter if you put the word 'grand' in front of it or add some other word between mean and score. A mean is a mean, and a score is a score. Don't even get me started talking about comparing early and late respondents. Who else does that?*

4. Our Research Must Show Impact by Informing Our Practice

How do we make people better at thinking critically about food and agriculture? The human dimension is what we can bring to the table and it is so needed right now.

We have more people from the general public interested in food and how it is produced than in any time in our history. They are listening to anyone who will talk to them. Some of them are so far removed from the farm, they have no trust of people in agriculture – neither the farmers nor the scientists. To paraphrase another President Roosevelt, we need to be in the arena. That is why I was so excited to talk to Brian Meyers about his poster session this morning (. They had

7,000 hits on one of their Owl Pellets podcasts about teaching children about GMOs (Rumble, 2016). This where we need to be. Great job, Brian, Marshall Baker, Kate Shoulders and the others who have worked on this!

Having a focused research program has been espoused to the profession for a number of years—the first time I remember hearing it was by Bob Warmbrod (1986). I am sure I would have missed it, but I was working for him at the time as a GA. Later, David Williams (1991) offered similar advice.

One of the real keys to agricultural education programs being relevant and important in the future is our ability to help others improve teaching and learning and communicating in agriculture at all levels. We will do this by combining our teaching with our research and becoming known for what we do.

Especially if you are a young faculty member, your individual commitment as a professional should be to pick some part of this process and endeavor to make practitioners better at it because of your body of research over your career.

We are well-positioned today to become better at this. The AAAE National Research Agenda is a starting point. We have proven that we can improve an aspect of our research by focusing on it through the peer review and editorial process: the theoretical framework for our research has improved a thousand-fold over the past 15 to 20 years. We could do the same with the relevance/impact of our research for practitioners just by making it mandatory.

In the meantime, I suggest you ask yourself this question the next time you embark on a research project: Who will be improving their work as a result of my research? Will it be college professors, secondary agriculture teachers, 4-H agents, agricultural extension agents, agricultural leaders, or communicators? If you can't pick out an audience that will get better, maybe you should pick out some other research project.

Jasper Lee taught me to “practice a profession” rather than work at a job. Part of that mindset is saying “yes” (aka not saying “no”) to work that you feel furthers the profession, even if it seems beyond your ability or the time you feel you have available to commit to it. I believe this is the question he would tell us to ask ourselves.

Just two days ago, the United States Department of Agriculture's National Institute for Food and Agriculture (NIFA) sent out a press release for their AFRI grants. The press release refers to research, extension, and education. We all know that historically it has meant RESEARCH, extension, and education. In January 2016, the director of NIFA, Sonny Ramaswamy, told a group of agricultural education administrators (NCAC24) that he wants us involved. Some of you, however, must make yourselves available to work on big projects. Let someone else teach that class that you consider yours, at least for a semester or two.

Become known as someone who is an expert in some aspect of the teaching/learning/communication process. Look at NIFA-AFRI, ELI, NIH, and NSF requests for proposals. Start as a Co-PI or education/extension person. Become a PI later.

The NCAC24 group has been working hard because we see the potential in our profession for improvement in research, for becoming more relevant to peers at our institutions, and for influencing policy at state and national levels. I hope you get involved in the process as the opportunities allow.

Fifth Thing I Know – *Never rush only three people. If they block with five, you bring six. Get to the quarterback! Rushing three is basically telling the quarterback, “We want you to have all day to throw—wait until someone gets open.”*

Conclusion

1. Agricultural education is and always has been important.
2. The world’s population is growing at an unsustainable rate.
3. Teaching is still the most important thing we do.
4. Our research must show impact by informing our practice.

It has been my honor to speak to you today. As I look around this room, I see any number of candidates for the next great agricultural educators, leaders, communicators: the next Rufus Stimson, Seaman Knapp, or Cully Cobb. I look forward to seeing the impact you will have on our profession and on our nation and world.

Many years from now, will someone be identifying **you** as a person from history they would like to meet and ask questions? I wish for you a career that leads to such a scenario.

I thank you for your attention and interest.

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