

New Jersey Agricultural Education Advisory Council Roundtable Discussion Marketing High Tech Ag Science Programs

October 17, 2013

Somerset County Vocational & Technical High School

Welcome & Introductions

Bill Walker, NJAEA chair, called the meeting to order at 2:12 pm. The following people were in attendance and introduced themselves:

Secretary of Agriculture, Douglas H. Fisher,
Everett Merrill, parent and writer for the Courier news,
Ryck Suydam, President, NJ Farm Bureau,
Chrys Harttraft, Superintendent of SCVTS,
Robert Zaborowski, Somerset Freeholder,
Patrick Pelliccia' Director of Curriculum and Instruction,
Dr. Barry Jesse, Associate Dean for Academic Administration, Rutgers University, Jean Lonie, Senior, Manager, Marketing Communications, Beef Segment, Zoetis Lynne Richmond, NJDA Public Information Officer,
Frank Yesalavich, NJ FFA Foundation and Ag teachers representative,
Bill Sciarappa, Rutgers Cooperative Extension, Monmouth County,
David McNair, NJ Dept of Education,
Nick Polanin, Rutgers Cooperative Extension-Somerset County,
Ed Seidel, Chair, Somerset County Agriculture Development Board, and Somerset County Board of Agriculture,
Liz Thompson, Research Associate, New Jersey Farm Bureau,
Annaliese English, Precision Agriculture Specialist with Helena Chemical,
Don Kobayashi, Professor, Director, Undergraduate Program in Plant Biology, Dept. Plant Biology & Pathology, SEBS, Rutgers,
Paul Smith, local advisory committee,
Suzanne Van Sciver, New Jersey Nursery Landscape Association,
Tom Castronova, NJ Gardener news,
Kyle Clement, State FFA President,
Erin Noble, State FFA Specialist,
Nancy Trivette, State Program Leader, Officer of Agricultural Education,
Michael Kerwin, President & CEO Somerset County Business Partnership
Erik Fargo, Agriculture Teacher, SCVTS,
Rich Norz, State Board of Agriculture,
Dave Specca, Asst. Dir., Bioenergy Technologies & Controlled Environment, Rutgers EcoComplex,
Audrey Sanford, parent
and nine students.

Bill welcomed everyone to the meeting and explained the purpose and function of the NJAEAAC.

Agriculture Industry Opportunities

Secretary Fisher thanked everyone for joining us. He explained that employment demand in food, fiber, fuel and feed is expanding. Agriculture is changing. Successful people need skill and knowledge that is portable and transferable in order to impact the economy. Precision agriculture, urban agriculture, technology, engineering, logistics, promotion of agriculture, security in agriculture, and policy development in agriculture are expanding career areas within the agriculture industry. Agriculture is growing in New Jersey if you are willing to adapt and change. Secretary Fisher commented that we need to expose young people to 'what a day is like' in an agricultural career; or in public health, at the beneficial insect lab, or with Community Supported Agriculture (CSA) - and expose them to these career options, rather than not just tell them about it.

NJ Agricultural Science Education Overview

Nancy Trivette, Program Leader for Ag Education at the Department of Agriculture, described the 'state of agricultural education' in our 43 school districts with approved Agriculture, Food, & Natural Resources (AFNR) programs. Agricultural Education programs have evolved over the years and are being transformed academically through the infusion of STEM (Science, Technology, Engineering, & Math). The Curriculum for Agricultural Science Education (CASE) is being used in 19 districts throughout New Jersey. CASE provides a rigorous and sequential curriculum which purposefully teaches academics and STEM content in an applied, relevant manner through agriculture. CASE provides outstanding professional development for teachers and positively influences teacher recruitment and retention. CASE provides end of program assessments and helps to reflect student mastery of subjects taught. CASE helps to make sure that standards are met for teachers and students. Students are taught today's technology with the current classroom

technology, equipment and supplies. Comprehensive high school and county technical schools are establishing articulation agreements with postsecondary institutions to gain college credits for their students taking CASE courses. Traditionally, agricultural education programs prepared most students to enter entry level agriculture jobs after high school with some students pursuing college. Today, programs prepare focus on seamlessly connecting students to postsecondary education. Career and Technical Education (CTE), of which agricultural education is a part of, is focused on preparing students for global career opportunities. Global careers will require that students have post-secondary education and training. A study from the USDA states there are approximately 54,000 AFNR job opportunities annually (between 2010-2015), but we are only preparing 29,000 people, leaving a large employment gap. About 23,000 college graduates in allied areas are hired from biosciences, communications, chemistry, health sciences, etc. AgCareers.com also provides an image of a shortage of people qualified for agricultural related careers. The bottom line is there are opportunities for the students in agriculture. We must produce more food, on less land, with fewer resources in the foreseeable future. The middle class is growing and we need to prepare to handle the growing population. Nancy believes STEAM (science, technology, engineering, agriculture, and mathematics) is the solution. We need to make sure students know that agriculture careers are hot.

Overview of High Tech Ag Science Class/Labs

Erik Fargo described the history of the Somerset County Technical School agriculture program. Prior to his arrival, the program was focused on landscaping and floral design. As Erik learned about CASE, it appeared that it could serve a larger audience prepare more students for a variety of careers in agriculture. The program currently offers Intro to Agriculture, Food and Natural Resources, Principles of Agriculture - Plant, and Animal & Plant Biotechnology. The students discussed what they were learning and demonstrated how to culture E. coli. Students commented on how much they enjoyed the science aspect of the class even though they didn't originally realize how much science was a part of agriculture. Many were preparing for careers that would require some college after high school.

Round Table Discussion by Stakeholders

How do we help meet employment demand in the science, business and technology of agriculture?

*Nick Polanin asked if we had specifically identified the demand for agricultural jobs in NJ? Labor statistics reflect agriculture demand as it relates to production agriculture and/or forestry so it is hard identify statistics that include all the career areas that for which agriculture programs prepare students.

* Jean Lonie, previously with Pa. Department of Agriculture, indicated similar challenges. She also worked with workforce investment boards. Many jobs in agriculture are self-employed and not easily recognized in labor statistics.

*Agriculture is too large and un-defined as a career area because there is no clear idea of all related careers. We need to be able to identify a specific career demand.

*Nancy Trivette shared the NJ Dept. of Labor and Workforce Development 'New Jersey Key Industry Clusters' document which indicated growth in the life sciences.

How do we better communicate the agricultural science focus of secondary agriculture instructional programs?

*Annaliese English, Precision Agriculture Specialist with Helena Chemical, shared her background as agriculture student and FFA member/State FFA Officer. She also shared her experience in Agricultural Mechanics courses and on the Agricultural Mechanics Career Development Event team for her high school. Because of these experiences she was hired by Helena Chemical before she graduated college. Helena wanted someone young, enthusiastic, and able to understand technology. She is now responsible for variable rate application files, mapping, plots, record keeping, soil testing, and crop scouting using GIS technology.

*Tom Castonovo, Rich Norz, and Everett Merrill all said that regular communications (news releases) about agricultural education programs needs to be more shared with media outlets but will need to come from the local program itself.

*Tom Castonovo discussed the need to reach out to freeholders and communities to communicate all of the great stuff happening in local agricultural education programs.

*Ryck Suydam discussed the need to refresh the minds of guidance counselors so they can better understand what agriculture has to offer and can stay current with what agricultural education is all about today. Superintendent Chrys Harttraft indicated that their guidance school counselors get a tour and information about the agriculture program but she felt that they're still struggling to communicate the newer scientific emphasis of today's program.

*David McNair said that the book **Pathways to Prosperity** identifies three barriers to sharing career options, and guidance counselors are the biggest barrier; due to their insufficient numbers and knowledge of agriculture programs. The Office of Career & Technical Education (CTE) is charged with doing a better job of increasing career awareness for students. Their Office also oversees the NJ Career Assistance Navigator (NJCAN) website, in collaboration with the NJ Dept. of Labor. It's an online web based careers information system that helps students investigate career options. They are promoting this tool to help students and guidance counselors.

*Nancy Trivette mentioned that the 'name' of the agricultural education program has an impact on parents, students and the community. Today's agricultural programs are agri-science based and more designed to send students to post-secondary programs for further education. Some programs are utilizing the 'academy' concept to promote their programs.

*Superintendent Chrys Harttraft said that reaching parents with information on program is key. Parents are vital to the process of choosing their child's career path and they need to be educated on the options and careers available. SCVTHS is bettering their efforts at reaching out to parents. Bill Walker also pointed out that these same parents vote for farmland preservation as well so their knowledge and support for agricultural programs within their county is important.

*Freeholder Robert Zaborowski said that every student who spoke earlier today, mentioned being exposed to agriculture at an early age. Where he grew up in Colonia, he never felt that kids were exposed to agriculture as a career option. These students (at SCVTS) have been exposed and have a chance to consider an agricultural career because of that. Each of the students in attendance discussed their own pathways to this agricultural education program. None had much input help from their parents, who also didn't seem to have much of an idea about agricultural careers.

*Secretary Fisher asked for input from a parent related to their children's decision to attend an agriculture program and heard that information was not easily available. As a parent, she had to do a lot of research herself. Everett Merrill echoed that sentiment with his own son's story of attending this program.

*Bill Sciarappa said that in Monmouth County, using terminology like "Academy" seems to be appealing to parents and their use of the term has been very successful. Perhaps an "Agriculture Academy" would be an appealing option to parents seeking a career option for their children.

*Jean Lonie felt that we needed to expose students earlier, before they enter high school. Grammar school would be a better time.

*Everett Merrill urged the program to use the Internet and citizen social journalism to advocate/blog. Program students could help with these efforts.

*Tell our story and have our students tell their story.

How do we better communicate FFA's premier leadership and career success to potential students, parents and partners?

*Kyle Clement, State FFA President shared the kinds of leadership training available to state FFA officers and how they, in turn, provide leadership experiences to chapter members in New Jersey schools.

*The key to leadership in FFA is that the students experience leadership that they then, in turn, teach others.

*Lynne Richmond said that we need FFA members to communicate and advocate for Ag Education, ag careers, etc. just as farmers advocate for agriculture.

*Jean Lonie mentioned that her employer, Zoetis, is a huge supporter of agricultural education and looks to hire former FFA members as interns nationally and globally.

*Suzanne Van Sciver said that she has been very impressed by the public speaking ability of FFA students at the state agricultural convention. Bill Walker said that this is an example of the “heavy lifting” that every agriculturist must do. Agriculturists, as 1% of the population, have to advocate for agriculture and represent agricultural interests at every public meeting. Students in agriculture programs need to prepare for the public speaking demands of their future careers.

How do we better recruit students who are interested in and want to pursue careers in the science, business and technology of agriculture?

*Everett Merrill said that his son had a very difficult time attending SCVTHS his senior year because he was a “shared” student with his high school. Logistically, trying to work in his required courses, while working out a schedule that allowed him to be at SCVTHS, was a struggle. His shared school guidance counselors were not of much help, though the counselors at SCVTHS were very helpful. Superintendent Harttraft said that the number of academic mandated classes is becoming more demanding and admitted that there are logistical issues that they work hard to solve. She also said that we need to look into offering more courses that can serve as graduation credit concurrently.

*In the situation of Tech schools, Mr. Merrill wondered if sending districts don't want to lose their best and brightest and/or the money that is attached to each shared student. This is a problem that must be overcome.

*Tom Castronovo said that we must share what happens in this classroom.

*Liz Thompson said that students need to experience an agriculture program to get a feel for what's involved. Words/brochures don't do it justice. Career days, tours, videos, and online materials need to be provided to students and parents to show the opportunities in agriculture.

*Frank Yesalavich said the public image of the agriculture industry needs to be more positive (cranberry bog & farmer, spelling bee commercials are examples).

*Bill Sciarappa said that we must promote the success stories of programs. Monmouth County Biotechnology HS is in the top 8 high schools in the nation. Bill also felt that we should connect with younger students beyond the basic agriculture literacy (cows and fields). Articulation agreements that make college more affordable are needed now more than ever. Rutgers is now establishing agreements with high schools and technical schools to offer college credit for CASE courses.

*Collect data (contact information) for middle school aged students and do mass mailings inviting them to experience agricultural education or to consider a career in agriculture.

Closing Comments & Next Steps

Bill Walker commented that it is evident there are community visibility issues within agricultural education and agriculture careers. He felt that visibility equals viability. Today's meeting 'template' can and should be used at other agriculture programs across the state for similar conversations about careers and agricultural education. We must maintain our taxpayers commitment to the viability of farmland. The minutes of this meeting will be produced and disseminated to all in attendance.

The meeting adjourned at 4:03 pm.