

Wisconsin Agricultural Education & Workforce Development Council

2010 Annual Report

Introduction

The Wisconsin Agricultural Education and Workforce Development Council was created by Wisconsin Act 223, enacted on 4/7/2008. To review the complete Act go to <http://www.legis.state.wi.us/2007/data/acts/> WisAct 223. In September of each year a report is required to be delivered to the Legislature, Governor and other specified Institutions. The Report must include the following:

1. A summary of the activities of the Council during the fiscal year ending on the preceding June 30.
2. The Council's reaction to the annual agricultural program reviews prepared by the Department of Public Instruction for primary and secondary schools, the WI Technical College System, the University of Wisconsin System and the University of Wisconsin Extension-Cooperative Extension with input from or review by the University of Wisconsin System administration.
3. A list of current and anticipated challenges related to agricultural education.
4. Recommendations of the Council, including any recommendations related to the structure of the Council or the termination of the Council.
5. Dissents of any Council member related to the activities and recommendations of the Council.

Executive Summary

During the 4th Quarter of 2009 the WI Agricultural Education & Workforce Development Council faced significant challenges. A number of issues negatively impacted the progress of the Council. These issues included the following:

1. The Council and the Executive Committee of the Council were becoming more concerned about the value and impact the Council was having on Wisconsin's Agriculture.

2. While the Vision, Mission & Objectives had been identified; few concrete results or successes were difficult to measure.
3. The lack of funds to run the Council had become a major limiting factor and threatened to bring an end to the initiative.
4. The WI Agricultural Economy was weakening and major fund raising was non-existent. The ability of WI agricultural businesses to support this initiative was questionable.
5. Due to funding constraints at the end of 2009, the Council was unable to maintain its full time Executive Director. To maintain the momentum of the Council a strategic decision was made to hire a part time Executive Director until additional funding became available.

The Executive Committee re-evaluated what was needed to turn the Council toward being a productive and effective group. It focused on the original purpose for developing the WI Agricultural Education & Workforce Development Council. The short term Action Plan included the following:

1. Re-energize and re-engage both the Council & the Executive Committee to the Vision and Mission of the Council. Mark MacPhail, McCain Foods was selected as the Council and Executive Committee Chair.
2. Re-established expectations for members serving on the Council.
3. With the help of the Department of Agriculture, Trade and Consumer Protection; an application for a \$25,000 WI Department of Workforce Development Sector Grant was completed and awarded to the Council which provided funding for the Council for the 1st half of 2010.
4. The Council was selected by the Workforce Development Boards of South Central & South West, WI to be the Agriculture Convener.
5. The Council limited its focus to 4 or 5 priorities.
6. Jack Ourada was hired in January 2010 to serve as the Executive Director on a 50%-LTE basis.

At the first Council Meeting in February of 2010 the direction for the Council was set for the 1st 6 months. The momentum continued to build through the year with results discussed and reported at the April and June meetings. Council Membership, contact information, minutes and more detailed background information on the WI Agricultural Education and Workforce Development Council can be found at the Council website: <http://wiaglink.org/>

The activities of the Council through June 2010 reflect a positive turn. A listing of those activities for this period of time includes the following:

1. Established 4 Council Action Plans/Priorities:

- Workforce Development Initiative for Agriculture (the focus of this was to meet the contract expectations of the WIRED (Workforce Innovation in Regional Economic Development) Grant from the Workforce Development Boards of SC & SW, WI). The WIRED Agricultural Projects were integrated in the Council.
- Launch the Why Ag Campaign: The Why Ag initiative is a new resource that links qualified job candidates with companies that have employment needs. The strategy is to position agriculture as an industry abundant with diverse, growing and viable job opportunities. The objectives include:
 - a. Heighten labor force awareness and interest of job opportunities in agriculture
 - b. Link agricultural-based employers with a qualified workforce and skilled labor.
 - c. Strengthen the perception and understanding of agriculture's strong, viable and sustainable role in Wisconsin's workforce and economy overall.
 - d. Improve knowledge and understanding of agriculture workforce needs.

The targeted audiences include individuals seeking jobs in skilled labor, trade and manufacturing roles. This would include displaced workers, under-challenged employees and those simply seeking greater opportunity and/or viability in their job or career. It further is intended to offer new opportunities for many individuals including youth, high school, technical school or college students that may not have previously considered this industry for their career. It will involve agricultural employers seeking to recruit/hire and be available to influencers of those seeking jobs in their communities.

- Develop an Agricultural Specialty License Plate to promote and celebrate WI Agriculture and help financially support the FFA Foundation, 4-H Foundation and the WI Agricultural Education Foundation, Inc. Discussion points to complete a Memo of Understanding were developed. This action will be initiated in late fall 2010.
 - Support Agriculture Education by building the interest of young people in Agriculture. This is intended to support all aspects of Agricultural Education, including support for Agriculture Instructors and building partnerships with Agriculture Businesses.
2. Council Members hosted 5 listening sessions with over 40 agricultural, natural resources and food businesses leaders from throughout the state. The purpose of the meeting was to gather direct feedback from businesses to better understand the training and

workforce development needs of agriculture, food and natural resources businesses. The sessions focused on specific information to identify past training challenges and future training needs. In addition, 9 other reports and studies were obtained and reviewed. The information was summarized and serves as base information for the Council and its priorities. Information and feedback that was obtained was critical to drafting the Industry Partnership Grant Application.

3. The Council worked together with and assisted the Workforce Development Board of SC, WI to apply for an Industry Partnership Training Grant. The base information used for the grant application was provided by the feedback provided by the agricultural, natural resources and food business listening sessions and Council member input. The grant was approved in August 2010 in the amount of \$284,855.00. This grant has a significant impact on the future of the Council and will be a major component of the plans for the 2010-2011 year.
4. The WI Agricultural Education Foundation, Inc in concert with the Council finalized the Strategic Marketing Communications Relationship Agreement with Filament Marketing to develop the Why Ag Campaign. The agreement serves as the formal documentation of the understandings, timeline and budgets for the completion of this initiative.
5. The Council developed a financial plan. A budget was set for each of the Council & Foundation Initiatives. A fundraising campaign plan was completed to establish strategies to solicit funds from agriculture, food & natural resources businesses. This campaign will be statewide and be initiated in the fall of 2010.
6. Participated in the WI Association of Agricultural Educators (WAAE) Professional Development Conference.

Annual Agriculture Program Reviews

Agriculture Education in Wisconsin's PK-12 Public Schools

Agriculture education continues to prepare students for careers in the agriculture industry, while developing student's leadership skills through FFA and their Supervised Agriculture Experience (SAE). Today's agriculture education departments have developed a comprehensive structure that includes areas such as biotechnology, veterinary science, alternative energy, food science, horticulture and landscaping. With such variety, students are being prepared for the 21st Century. The question is: are there enough students learning about agriculture education to meet the needs of the industry?

Program Status:

- Over 44,000 students on average per year take agriculture education courses. This amounts to 6.7% of the total population of career and technical education courses.
- Over 17,700 agriculture education students are also members of the Wisconsin Association of FFA
- Two new agriculture education programs were established this past year. Horicon and Almond-Bancroft will be offering agriculture education courses as well as an FFA Chapter.
- Over 4,000 FFA members competed in career development events ranging from agriculture mechanics to environmental and natural resources
- The Department of Public Instruction (DPI) continues to implement an agriculture/science equivalent credit process to award science credit for agriculture courses. Over 50 schools and over 120 courses have been approved.
- Over 160 agriculture education departments use the Center for Agricultural and Environmental Research and Training (CAERT) a lesson library, online textbook and assessment program which is aligned to the Wisconsin Model Academic Standards. This program is similar to Project Lead the Way (PLTW), in providing rigorous and relevant teaching materials in agriculture education
- The implementation of career clusters and pathways in Agriculture, Food and Natural Resources as well as Science, Technology, Engineering and Mathematics (STEM) expands career development opportunities and help transition secondary to post secondary.

Wisconsin Technical College System

The Wisconsin Technical College System (WTCS) provides the state with the critical, essential technical occupations we all rely on. We respond to the needs of our communities by helping one person at a time and by bringing people and jobs together.

The systems' 16 colleges equip graduates with real world, hands-on experience they apply to specific occupations that provide us all with security and quality of life. The technical colleges stimulate local economic development by providing a well-educated workforce based on the occupational needs, as well as providing the innovation to meet emerging opportunities, for

local business and industry. From biotech to electronics to health care to public safety – great paying jobs await technical college graduates.

The technical colleges have a long history of offering high quality programs in agriculture and natural resource career pathways. In the 2009-2010 school year, these programs included 16 associate degree programs, six 1-year technical diplomas, one 2-year technical diploma, and two short-term technical diplomas. These programs offer students training in wide variety of agriculture and natural resource related professions including farm business, dairy herd management, veterinary technician, and laboratory science technician.

| | | PROGRAM | | | | | | | | | | | | | | |
|----------------|--|---|-----------------|--------------------|-----------|--------------|-----------|----------------|-------------|-------------|--------------|---------------------|---------------------|-----------------|---------|----------------------|
| | | AGRICULTURE, FOOD AND NATURAL RESOURCES | | | | | | | | | | | | | | |
| Program Number | Program Name | Blackhawk | Chippewa Valley | Fox Valley Gateway | Lakeshore | Madison Area | Mid-State | Milwaukee Area | Monroe Park | Nicole Area | Northcentral | Northeast Wisconsin | Southwest Wisconsin | Waikacha County | Western | Wisconsin Indianhead |
| A | 10-006-2 Agri-Business/Science Technology | | | | | | | | | | | | | | | |
| A | 10-070-1 Agricultural Equipment Technology | | | | | | | | | | | | | | | |
| e | 32-070-1 Agricultural Power & Equip. Technician | | | | | | | | | | | | | | | |
| A | 10-003-2 Agriculture/Outdoor Power Equipment | | | | | | | | | | | | | | | |
| A | 10-006-3 Agri-Science Technician | | | | | | | | | | | | | | | |
| A | 10-001-5 Arboriculture – Urban Forestry Tech. | | | | | | | | | | | | | | | |
| A | 10-484-1 Biorefinery Technology | | | | | | | | | | | | | | | |
| A | 10-007-4 Bioscience Technician | | | | | | | | | | | | | | | |
| o | 31-091-1 Dairy Herd Management | | | | | | | | | | | | | | | |
| A | 10-091-4 Dairy Science | | | | | | | | | | | | | | | |
| A | 10-506-1 Environmental & Pollution Control Tech. | | | | | | | | | | | | | | | |
| o | 30-090-1 Farm Business & Production Management | | | | | | | | | | | | | | | |
| o | 30-090-2 Farm Management | | | | | | | | | | | | | | | |
| o | 31-080-4 Farm Operation | | | | | | | | | | | | | | | |
| A | 10-325-1 Golf Course Management | | | | | | | | | | | | | | | |
| o | 30-001-3 Green Industry Technician | | | | | | | | | | | | | | | |
| A | 10-001-1 Horticulture | | | | | | | | | | | | | | | |
| o | 31-001-1 Horticulture Technician | | | | | | | | | | | | | | | |
| A | 10-091-3 Laboratory Animal Technician | | | | | | | | | | | | | | | |
| o | 10-506-4 Laboratory Science Technician | | | | | | | | | | | | | | | |
| o | 31-506-4 Laboratory Science Technician Assistant | | | | | | | | | | | | | | | |
| A | 10-001-4 Landscape Horticulture | | | | | | | | | | | | | | | |
| A | 10-057-1 Natural Resources Tech. | | | | | | | | | | | | | | | |
| A | 10-482-2 Renewable Electricity Technician | | | | | | | | | | | | | | | |
| A | 10-483-1 Renewable Thermal Energy Technician | | | | | | | | | | | | | | | |
| A | 10-091-1 Veterinary Technician | | | | | | | | | | | | | | | |
| o | 10-527-2 Water Quality Technician | | | | | | | | | | | | | | | |
| A | 10-482-1 Wind Energy Technology | | | | | | | | | | | | | | | |

Graduates from agriculture programs in the Wisconsin Technical College System have a very high success rate at being employed in their chosen field of employment. The Wisconsin Technical College System conducts graduate follow-up surveys six months after graduation on graduate’s success rate finding employment as well as median starting salary. For Agriculture programs, the 2009 survey indicates that 91% of Wisconsin Technical College System graduates were employed and 89% were employed in an agriculture related field. The median starting salary for these graduates was \$27,038. These numbers are slightly less than previous years which reflect the downturn in the economy. Even with the slight reduction in employment, there are very good employment opportunities for the systems graduates. In addition, according to the 10-year trend data, most Wisconsin Technical College System Agriculture programs show steady to slightly increasing enrollment.

Agribusiness Division – All

| Program Name | Program Number | No. of Grads | Re-sponses | In Labor Force | Number Employed | Percent Employed | Number Employed Related | Percent Employed Related | Seeking Employment | Median Salary Hourly | Median Salary Annual | Ave. Hours / Week |
|--|-----------------------|---------------------|-------------------|-----------------------|------------------------|-------------------------|--------------------------------|---------------------------------|---------------------------|-----------------------------|-----------------------------|--------------------------|
| <i>Associate Degree Totals</i> | | 200 | 150 | 130 | 118 | 91% | 101 | 86% | 12 | \$12.34 | \$26,954 | 42 |
| <i>Short-Term Technical Diploma Totals</i> | | 91 | 45 | 41 | 37 | 90% | 34 | 92% | 4 | \$12.11 | \$41,007 | 65 |
| <i>One-Year Technical Diploma Totals</i> | | 57 | 47 | 38 | 36 | 95% | 33 | 92% | 2 | \$9.10 | \$27,040 | 57 |
| <i>Two-Year Technical Diploma Totals</i> | | 22 | 17 | 16 | 13 | 81% | 13 | 100% | 3 | \$12.07 | \$30,079 | 48 |
| <i>Agribusiness Division Totals</i> | | 370 | 259 | 225 | 204 | 91% | 181 | 89% | 21 | \$10.56 | \$27,038 | 49 |

The Agriculture Programs in the Wisconsin Technical College System provide an excellent opportunity for Wisconsin’s students to obtain the skills necessary for a successful career in agriculture and natural resource fields. Even though the technical colleges have had success in providing this education for our students, there are challenges to continuing this success in the future. Some of those challenges are listed below in the Agriculture Education Challenges section of this Report.

The University of Wisconsin System:

General Aspects Regarding Undergraduate and Graduate Education in Agriculture and Natural Resources

The three largest contributors to the Wisconsin economy are agriculture, forestry and forest products, and tourism. Programs in agriculture and natural resources are offered by UW-Madison College of Agricultural and Life Sciences (CALS); UW-Madison School of Veterinary Medicine (UW-SVM); UW-Platteville School of Agriculture (SOA); UW-River Falls College of Agriculture, Food and Environmental Sciences (CAFES); and UW-Stevens Point College of Natural Resources (CNR).

Enrollments in UW-System colleges and schools of agriculture and natural resources experienced rapid growth during the last decade. During 2009–2010 the number of undergraduates exceeded 6,000 while the number of students seeking graduate degrees reached 1,400. In the last eight years our programs have grown collectively by just over 24%. Enrollment in agriculture programs at UW-Platteville have experienced the greatest growth,

increasing by 57% since 2002. Student numbers in agriculture and natural resources programs at UW-River Falls and UW-Steven's Point have increased by about 37% during the same time period. Enrollment in CALS at UW-Madison has increased by 16.5% while student numbers in the UW School of Veterinary Medicine have remained stable.

Highlights from Individual UW System Campuses

Madison College of Agriculture and Life Sciences (CALS)UW

- Enrollment: over 2,500 undergraduate students in 25 majors within eight different degree areas including Natural Sciences; Agricultural Sciences; International Agriculture and Natural Resources; Natural Resources; Agricultural Business Management; Biological Systems Engineering; Dietetics; and Landscape Architecture.
- 27% increase in the number of degrees granted during last decade.
- Enrollments in genetics, biochemistry, agricultural journalism, and nutritional sciences/dietetics have doubled over the last eight years.
- Biology, which graduated its first majors in 2000, now graduates upwards of 100 students per year.
- Major curriculum review resulted in:
 - Development of a new major in environmental science.
 - Approval of a new "CALS International" certificate program.
 - Discussion regarding the development of certificate in global health.
 - Exploring ways to streamline and reconfigure its eight degree programs to better serve students and the agriculture industry.
- Farm and Industry Short Course
 - Established in 1885 and continues to attract students to the 17-week educational program.
 - Over 40 courses in the areas of soils, crops, poultry, dairy, meat animals and general livestock, horticulture, agricultural engineering, agricultural economics, human relations and communications.
 - Over 6000 graduates have gone on to productive careers in agriculture.

Links:

UW-Madison Home: <http://www.wisc.edu/>

College: <http://www.cals.wisc.edu/>

Career Services: <http://www.cals.wisc.edu/students/careerServices/>

Farm and Industry Short Course: <http://fisc.cals.wisc.edu/>

University of Wisconsin-Madison School of Veterinary Medicine (SVM)

- Enrollment: over 360 students enrolled in the Doctorate of Veterinarian Medicine [enrolls 80 students each year into the four-year professional degree (DVM) program (60 seats are reserved for Wisconsin residents)], Master of Science and Doctorate of Philosophy programs.
- Historically, about half of students entering the program come from towns with less than 25,000 residents.
- About 22% of the incoming students for the past six years have noted food animal as their primary career interest, plus an additional 15-18% are interested in mixed animal practices (combining food animal, equine, and small animal practice). About 36% of the incoming Class of 2014 noted food animal as their primary career interest, with a decreased interest (about 5%) in mixed animal practice.
- About 32% of fourth year students have elected food animal or mixed animal educational tracks, and 40% of the students in the class of 2009 selected that option.
- Recruiting Initiatives focused toward undergraduates and high school students:
 - VetMORE (Veterinary Medicine Outreach, Recruitment and Education)
 - SVM students with interests in food animal practice have hosted hands-on learning days for high school students and their high school agriculture instructors.
 - Spoke at Wisconsin high school teacher conferences.
 - Created “leave-behind” teaching aids, along with suggested curricular materials, for high school teachers.
 - FAVeMedS (Food Animal Veterinary Medical Scholars Program):
 - Admissions and mentoring program targeted at first-year undergraduate students who are academically strong and have a documentable long-term interest in food animals and a career of food animal medicine; students from three UW System colleges with strong animal science programs are eligible for the program.
 - Students who successfully complete a series of specific courses and mentored clinical and research experiences will be automatically offered a position in the DVM program following their third year of undergraduate education.
 - Eliminates one year from their undergraduate studies and consequently one year of additional debt.
- Concerned with meeting the broad needs of the profession in multiple areas, the School seeks and admits students with a passion and commitment for pursuing rural practice.
- Research: The SVM Comparative Biomedical Sciences (CBMS) graduate program provides advanced research training in a variety of topics related to diseases of animals and man.
 - These include training in infectious diseases and physiological disorders.

- public health, food safety, zoonoses and regulatory disorders of the respiratory, central nervous, gastrointestinal and reproductive systems.
- Funding sources available to support research training include training grants from the National Institutes of Health, Merck-Merial, Pfizer, and the Walter and Martha Renk Endowed Laboratory for Food Safety.

Links:

School website: <http://www.vetmed.wisc.edu/home>

Majors and minors: <http://www.uwplatt.edu/soa/major.html>

Faculty and Staff: <http://www.uwplatt.edu/soa/personnel/index.html>

Pioneer Farm: <http://www.uwplatt.edu/pioneerfarm/>

University of Wisconsin-Platteville School of Agriculture

- Enrollment: approximately 625 undergraduate students in six majors and interdisciplinary programs. This represents an increase of 57% since 2002. Male to female student ratio roughly equal.
- Fastest growing programs are animal science, agricultural business, soil and crop science and reclamation, environment and conservation.
- Upgraded teaching facilities for Ornamental Horticulture including construction of Pioneer Greenhouse (2002) and Dottie Johns Pioneer Gardens (2004).
- Upgraded teaching and research facilities at Pioneer Farm including the Agriculture Technology Center constructed in (2003), Pioneer Farm including the Cooper Living & Learning Center constructed in (2004), Swine Center constructed in (2004), Dairy Center constructed (2006) and Feed Processing Center constructed (2006). Renovation of the Beef Center and Wisconsin Beef Improvement Association Bull Test Facility is planned.
- More students study internationally mainly through short-term (two to three weeks), faculty-led international experiences; and study abroad experiences through student-to-student exchange programs with universities in the Netherlands and Norway.
- Internship program has observed record high student numbers that last three years (over 70 per year).

Links:

UW-Platteville Home: <http://www.uwplatt.edu/>

School website: <http://www.uwplatt.edu/soa/>

Majors and minors: <http://www.uwplatt.edu/soa/major.html>

Faculty and Staff: <http://www.uwplatt.edu/soa/personnel/index.html>

Pioneer Farm: <http://www.uwplatt.edu/pioneerfarm/>

UW-River Falls College of Agriculture, Food and Environmental Sciences (CAFES)

- Enrollment: over 1500 undergraduate students in 15 majors and interdisciplinary programs. Represents growth of 25% over last four years. One graduate program (MS in Agricultural Education) with 20 students. Approximately 75% of CAFES students are WI residents. The gender distribution remains close to the UWRF ratio of 40% male/60% female. Ratio of incoming students from non-farm background is near 50%.
- Nearly all undergraduate programs continue to exhibit increasing or stable enrollments.
- Animal Science remains the largest program in CAFES with approximately 500 students.
- Agricultural Business, Conservation, Dairy Science, and Horticulture each have over 100 students with Agricultural Education near that mark.
- Agricultural Engineering Technology, Crops/Soils, and Environmental Science exhibiting significant growth trends.
- Significant activities in sustainability including curriculum development and implementation along with research and outreach projects in composting, biodiesel, alternative energy, and other initiatives.
- Strong international programming efforts through both student study abroad experiences and faculty/staff research and outreach efforts.
- Renovation and updating of Lab Farms, Food Pilot Plants, Greenhouse, and other facilities remain a priority.
- The CAFES Internship program remains strong with increasing opportunities for students.

Links:

UW-River Falls Home: <http://www.uwrf.edu/>

College website: <http://www2.uwrf.edu/college-of-agriculture/>

Program: <http://www2.uwrf.edu/college-of-agriculture/majors.htm>

Faculty and Staff: <http://www2.uwrf.edu/college-of-agriculture/people.htm>

Laboratory Farms: <http://www2.uwrf.edu/college-of-agriculture/farms.htm>

Internship Office: <http://www2.uwrf.edu/college-of-agriculture/internship.htm>

UW-Stevens Point College of Natural Resources (CNR)

- Enrollment: 1,342 undergraduate majors; 150 undergraduate minors; 120 graduate students. Wildlife and forestry are the most popular programs.

- Paper science and engineering (PS&E) continues to be very important to the Wisconsin economy.
 - Awaiting word on accreditation for the engineering aspect of paper science program from ABET.
 - 100% graduate placement and very attractive salary levels.
- Biofuels and Alternative Energy Initiatives:
 - Major research projects
 - Interested to develop minors.

Links:

College website: <http://www.uwsp.edu/CNR/>

Undergraduate Programs: http://www.uwsp.edu/cnr/undergrad_programs.aspx

Graduate Programs: <http://www.uwsp.edu/cnr/Graduate/index.aspx>

Faculty and Staff: <http://www.uwsp.edu/cnr/faculty.aspx>

Quick Facts: <http://www.uwsp.edu/cnr/quickfacts.aspx>

University of Wisconsin Extension – Cooperative Extension

The University of Wisconsin Extension – Cooperative Extension (UWEX) provides research-based education, technical assistance, and consultation in all of Wisconsin’s 72 counties, and increasingly to an audience that spans beyond the state. Cooperative Extension in Wisconsin is divided into four program areas -- Agriculture and Natural Resources; Community, Natural Resource and Economic Development; Family Living; and 4-H Youth Development.

Within the Agriculture and Natural Resources (ANRE) program area, more than 80 educators serve the state’s 72 counties and their citizens. These county-based staffs are connected to a network of about 100 faculty and scientists with Extension-funded positions on the campuses of UW-Madison, Platteville and River Falls. County and campus-based staff works closely together on educational program delivery as well as the applied research that leads to new knowledge.

Although the ANRE program area is not directly engaged in workforce development for K-12 and university students, programs are focused on business success and environmental and community sustainability. An essential element for success is continuing education. The ANRE program area strives to meet the on-going educational needs of agricultural producers, their employees and the facilities, equipment, service and supply businesses and organizations that support them (consultants, agricultural service providers, lenders, government agency

personnel, etc.). ANRE also meets the on-going educational needs of food industry personnel and the businesses and organizations that support food industry processors.

The ANRE program area is divided into working teams that focus on issues that include: dairy; fruit crops; emerging agricultural markets; grains; farm and risk management; land use and agriculture; food industry research, service and training; livestock; forage; nutrient management; fresh market and commercial vegetable crops; horticulture; and, bioenergy. Programs are needs and research-based, almost always developed in partnership with those affected. The focus of programs is on increasing the professional skills of managers and employees, encouraging the adoption of proven technologies and best management practices, and environmental resource protection. ANRE county and campus based staff are also closely involved in teaching within the Farm and Industry Short Course, and they get very involved in 4-H youth activities connected to agriculture.

The Extension 4-H Youth Development program connects directly with youth in grades 5-K to one year past high school graduation. Through 4-H, young people engage in their communities and develop skills to navigate the challenges of a complex world. 4-H programs are designed to deliver the essential elements of youth development: belonging, mastery, generosity, and independence. Over 36,000 youth are enrolled members of 4-H clubs in Wisconsin. Another 285,000 Wisconsin youth get involved in 4-H and other Cooperative Extension programs through special educational opportunities at school, in after school programs, or at neighborhood or youth centers. Professional 4-H Youth Development educators work with over 17,000 adult volunteers and nearly 3,000 youth volunteers in carrying out 4-H Youth Development programs in local communities. One important program focus of 4-H in Wisconsin and nationally is the Science, Engineering, Technology, and Mathematics (STEM) program. 4-H is addressing our nation's critical challenge by preparing **1 million new young people** to excel in science, engineering, and technology by 2013. Through 4-H Youth Development programs youth have the opportunity to explore and master many fields related to agriculture and the sciences.

Council Reaction to Agricultural Program Reports

The Council strongly supports and endorses the agricultural programs as outlined by the Department of Public Instruction, WI Technical College System, the University of Wisconsin System and University of Wisconsin Extension-Cooperative Extension. Agricultural Education is

at the center of **growing Wisconsin's ability to compete by creating a stronger and sustainable workforce**. The Council has an action plan to support agriculture education to enhance the societal interest in agriculture by supporting career exploration, education and opportunities. The purpose of the plan is developing an interest in agriculture with the current and future workforce by providing excellent Agricultural career information and supporting the agricultural career pathways with appropriate education and training. The key steps with this action plan are to build an interest in agriculture as a career, support agriculture educators and involve agricultural businesses in education.

Agricultural Education Challenges

PK through 12 Public School Challenges:

- Expanding agriculture education programs in Wisconsin. Currently there are 250 school districts offering agriculture education out of the 426 school districts
- Expanding agriculture education programs in urban school districts
- Sustaining rural agriculture education programs during periods of declining PK-12 enrollments
- Expanding the number of agriculture/science equivalency approvals - 49 out of the 250 programs have approved agriculture/science equivalent credit
- Continuing to counter false impressions that agriculture education is not a rigorous agriscience course offering
- Promoting quality curriculum and instructional facilities for an agriculture education program to meet the STEM needs

Wisconsin Technical College System Challenges:

- Financial
 - Lack of resources to add staff or programming
 - Operational costs in Farm Business Production Management Program
 - One-on-one time for instructor and each farm in the program
 - Mileage for the instructor
- Agriculture Industry Image
 - Uncertainty and risk inherent in farm businesses
 - Negative perception of agriculture related careers
 - Lack of family support for children to enter agriculture related careers
 - Lower wages and longer work hours than other competing career options

- Student demographics
 - Declining number of high school graduates
 - Smaller number of students growing up on farms
 - Increased competition from other career paths
 - Fewer new producers (FBPM-Farm Business Production Management)
 - Lack of career awareness
 - Lack of Career Pathway awareness for students and their families

University of Wisconsin System Challenges:

In the face of increased enrollment our programs in agriculture and natural resources face many challenges. Most of our challenges can be grouped into two categories: attracting and retaining students and budgetary deficiencies resulting from reduced support from Wisconsin Governance.

- ***Challenge One: Attracting and retaining students in agriculture and natural resource programs.*** Our agriculture programs face fierce competition from other majors and career paths with more "flash" than agriculture and natural resource management. This challenge is becoming evident as more of Wisconsin's college-age students are not from a family farm. Other programs with higher wages and greater appeal continue to challenge our ability to attract and retain women and students of varied racial and ethnic heritage.
- ***Challenge Two: Budgetary deficiencies resulting from reduce support from Wisconsin Governance.*** The current economic environment has resulted in significant reductions in state resources for UW-System campuses. Reduced state dollars has forced UW-System institutions to shift support of our programs to students by increasing their tuition and fees and expanding undergraduate enrollments. This paradigmatic shift makes it difficult for UW-System institutions to achieve their mission of providing an *affordable* high quality education for *all* Wisconsin residents. To counteract this trend UW-System institutions have worked more collaboratively with Two Year Campuses and the Wisconsin Technical College System to further develop and expand articulation agreements. We anticipate that this collaboration will increase the number of students holding undergraduate degrees and qualifying for positions in our agriculture industry. Budget cuts resulting in furloughs, reduced salaries and increased workloads has made it difficult to fill positions and recruit top faculty and staff professions. In addition, salaries for Wisconsin professionals are not keeping pace with our peer institutions, resulting in the loss of valuable human capital to peer institutions in other states. Budget cuts coupled with the expectation for UW-System to increase enrollments and expand its role in the public sector have placed significant pressures on our precious resources.

Council Structure Recommendations

While the Council struggled at the end of 2009, the original purpose that drove the legislation to create the Council still exists. 2010 brought a renewed commitment and energy for the Council to fulfill its vision. All of the functions as originally identified remain and are still necessary for Wisconsin's Agriculture to succeed. The Council must remain to carry out the following functions as defined by the Act:

1. Increase the hiring and retention of well qualified employees to industries related to agriculture, food and natural resources.
2. Promote the coordination of educational systems to develop, train and retrain employees for current and future careers related to agriculture, food and natural resources.
3. Develop support for employment in fields related to agriculture, food and natural resources.
4. Recommend policies and other changes to improve the efficiency of the development and provision of agricultural education across educational systems.
5. The Council shall seek to accomplish the purposes by advising state agencies on matters related to integrating agricultural education and workforce development systems.

Council Member Approval of Activities & Recommendations

The WI Agricultural Education & Workforce Development Council 2010 Annual Report was handed out and reviewed at the September 10, 2010 Council Meeting. Each council member was requested to review the Annual Report and Council Activities to provide their approval or dissent of the Council. Chair Mark MacPhail requested that any dissent to the Council activities should be given along with recommendations for the Council to consider. Subsequently the Council received member approval of its activities and 2010 Annual Report.

Wisconsin Agricultural Education & Workforce Development Council

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