



**California/Nevada Section
Bimonthly Update
July 1, 2007
Ninth Edition**

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* **Annual International Meeting Recap**

At the AIM in Minneapolis, Minnesota, over 1,800 registrants celebrated the society's centennial. Colorado State University faculty, Temple Grandin, gave a riveting talk about the effects of her autism on her ability to relate to animals and her engineering abilities. The next day, the meeting opened with ASABE President Charles Sukup's reading of a letter from President and Laura Bush. Physicist and author Brian Green delivered the keynote speech addressing how the seeming disconnect between relativity and quantum mechanics could be bridged by recent work in string theory. During his brief visit, President Clinton talked to us about the critical role that agricultural and biological engineers can play in the current three primary global challenges of population growth, resource depletion, and climate change. There were a number of student focused events including the Fountain Wars highlighted by ASABE Past-President Jerry Wille and Executive Vice President Melissa Moore acting as targets during the obstacle course part of the competition. Also held was a demonstration-year of the new Robotics Competition that challenges students to build a car with a specific Lego set that accomplishes a certain task. The CA/NV Section was made proud at the Awards Luncheon and your CA/NV Section Chair and incoming District 4 Rep., Victor Duraj, was joined by outgoing District 4 Representative Richard Cavaletto, District 4 Hawaii Section Chair Dan Jenkins, District 4 Rocky Mountain Chair Becky Ostermann, and District 2 Oklahoma Section Chair Sherry Hunt. Look forward to future collaborations within the District. Next year's meeting will be in Providence, Rhode Island and will mark the conclusion of the Society's centennial celebrations.

* **ASABE Awards to CA/NV Section Members & Companies**

R. Paul Singh - UC Davis - Kishida International Award
Leah Meeks - Cal Poly, SLO - Student Engineer of the Year Scholarship (\$1k)
Kevin F. Moules - Cal Poly, SLO - William J. Adams, and Maryjane E. Adams Scholarship (\$1k)
D. Downey, T.G. Crowe, D.K. Giles, D.C. Slaughter - UC Davis - Superior Paper Award
Carolyn M. Jones - USDA NRCS - President's Citation for establishment of the ASABE^100 Multi-Media Competition for High School Students
Carolyn M. Jones - USDA NRCS - President's Citation for investigating potential limitations on non-engineer ASABE members obtaining the Grade of Fellow
Laforge Systems, Inc. (Concord, CA) - AE50 for Fleximass (<http://www.fronthitch.com/v3/pages/about.htm>)
Rain For Rent (Bakersfield, CA) - AE50 for Portable Water Quality Monitoring System (PWQMS) (<http://www.rainforrent.com/>)
The Toro Company (Riverside & El Cajon, CA) - AE50 for Groundsmaster 7200 Polar Trac (<http://www.thetorocompany.com/>)
Trimble Navigation, Ltd. (Fremont & Folsom, CA) - AE50s for AgGPS TrueTracker Implement Steering System and AgGPS EZ-Boom 2010 Automated Application control systems (<http://www.trimble.com/>)

- * **www.AgIsAmazing.com**

The following excerpt from www.agisamazing.com promotes a developing project that Section leadership will be following for opportunities to promote ASABE and the CA/NV section in particular. The physical site for this Ag Science Center will be in Modesto adjacent to Modesto Junior College.

“The Ag Science Center is an interactive science and technology center highlighting agriculture. At the Ag Science Center visitors will be able to explore the wonders of nature, science, and even careers through agricultural exhibits. This 65,000 square foot facility, opening in 2009, will feature an introductory theater, retail store and deli, and a 10,000 square foot meeting hall in addition to the 18,000 square foot Ag Science Center exhibit space. Once inside the facility, visitors are taken on a special journey through the world’s most fertile soils while providing a unique insight on how the American farmer provides safe and abundant food and fiber for the world’s consumers while sustaining the air, water, and other natural resources. Visitors to the Ag Science Center will explore over 30 one-of-a-kind interactive exhibits created by a world-class team of designers. Two Learning Labs will take students deeper into science, math and language arts while teaching lessons about conservation, food, agricultural production and technology.”

* 2007 Farm Bill focus on Specialty Crops

The USDA has a program to support initiatives in specialty crops. This last April there was a stakeholders meeting hosted by USDA Under Secretaries Gale Buchanan and Bruce Knight. The 2007 Farm Bill includes the Bush Administration’s proposal to establish a Specialty Crop Research Initiative, supported by \$100 million in annual mandatory funding to provide science-based tools for the specialty crop industry. This topic was scheduled to be part of the ASABE AIM in Minneapolis in the following session: USDA Specialty Crop Research Initiative, Tuesday, 5:15PM-7:00PM. For more information, visit http://www.csrees.usda.gov/newsroom/news/2007news/specialty_crops.html

* Quarter Scale Tractor Results

Cal Poly SLO and Modesto Junior College entered machines into this 10th Anniversary competition. Both teams did quite well among 30 schools, as the following rankings suggest. Look forward to seeing their reports at the February CA/NV Section Meeting in Tulare.

Overall:	Cal Poly	9th	Modesto	16 th
Written Design:	Cal Poly	5th	Modesto	16 th
Tractor Pull:	Modesto	13 th	Cal Poly	16 th
Serviceability:	Cal Poly	12 th	Modesto	20 th
Manufacturing:	Cal Poly	10 th	Modesto	16 th
Safety:	Cal Poly	18 th	Modesto	20 th
Maneuverability:	Modesto	10 th	Cal Poly	21 st
Ergonomics:	Cal Poly	16 th	Modesto	20 th
Sound:	Modesto	4th	Cal Poly	6th

For more info about the teams, check out <http://www.quarterscale.calpoly.edu> and <http://virtual.yosemite.cc.ca.us/agens/clubs/AgMech/scale.htm>.

* UC Davis’ Bio & Ag Engineering student club

UC Davis Biological and Agricultural Engineering Department has a newly reinvigorated student club. The students held several extremely well attended organizational and business meetings, built a winning float (“Grass to Gas”) for the campus annual Picnic Day (open house), went on a tour of Genentech (a local biotechnology company), organized an internship and career information session with College of Engineering staff, and co-hosted the annual departmental year-end picnic. Although many of them are graduating and their 44-member e-mail roster will naturally drop, it is expected to rebound and grow. Congratulations to co-chairs Jaclyn Demartini and Nathan Choo and officers Nicole Liu and Denise Tu for getting things off the ground.

* Project Lead the Way

Adapted from May 2007 *The Engineerogram* (ASCE Sacramento) with statistics from ASABE

The non-profit Project Lead the Way (PLTW) Pre-Engineering curriculum encourages girls to pursue math, science, and engineering studies with a practical hands-on high-tech curriculum at about 1,300 schools nationwide. In some cases students earn college credit for successful PLTW curriculum completion. PLTW's curriculum is 33% theory and 67% application and is possible through partnerships with academia, industry, government, and diverse communities across the nation. The PLTW purpose is to "increase the number, quality, and diversity of" engineering graduates. College-bound engineering students are often required to declare their engineering discipline as a high school junior prior to having a practical understanding of what engineers do and PLTW bridges that gap through activities such as making rockets fly, wiring components, assembling model cars, and exploring the operation of elevators. Such courses not only help girls identify if engineering is right for them, but provides guidance on the engineering discipline choice. For more information, please contact PLTW (www.pltw.org, 518-877-6491).

Often the lack of hands-on with heavy math and science emphasis turns girls away from engineering. Today's engineering workplace requires an increased level of personal, customer service, and public relations skills. Employees who can clearly articulate to the public the practical application and value of engineering work are in especially high-demand. The PLTW *Talented Girls, Bright Future* booklet contains Engineering Workforce Commission and US Department of Labor (DOL) data including the number of 2003 Bachelor of Science degrees awarded by engineering discipline:

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| 1. Computer: 15,500 | 6. Industrial: 3,100 |
| 2. Electrical: 13,000 | 7. Aeronautical: 1,500 |
| 3. Mechanical: 12,900 | 8. Biomedical: 1,250 |
| 4. Civil: 7,500 | 9. Agricultural: 600 |
| 5. Chemical: 4,500 | 10. Environmental: 500 |

While we would like to see Agricultural and Biological ranked higher on the list, we are a rare and important commodity. Women currently comprise 11% of the ASABE membership which breaks down to 8% of full members, 23% of ASABE Young Professional members, and 25% of student members and the numbers are growing. The US DOL provides the following 2003 starting salary statistics based on a Bachelor of Science degree and the projected growth by engineering discipline:

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| 1. Computer: \$53,924: Very Fast | 6. Industrial: \$48,320: Slow |
| 2. Electrical: \$51,910: Moderate | 7. Biomedical: \$47,850: Fast |
| 3. Environmental: \$51,167: Fast | 8. Aerospace: \$46,918: Moderate |
| 4. Chemical: \$51,073: Slow | 9. Agricultural: \$46,065: Fast |
| 5. Mechanical: \$48,426: Moderate | 10. Civil: \$40,616: Average |

While the Agricultural salary ranking may not be as we hoped, the projected discipline growth is promising and, as we heard from Deborah Hamblin from the Irrigation Association at our February CA/NV Section meeting, we're in demand.

*** NRCS Job Opening**

USDA NRCS has an Agricultural Engineering position open in Hanford (GS-5/7/9/11) viewable at <http://jobsearch.usajobs.opm.gov/getjob.asp?JobId=59377976&AVSDM=6%2F28%2F2007+2%3A56%3A11+PM>. Applications due July 26th.

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- If you have ideas for Update items or would like to get involved in the leadership group, let us know.