Week 8 - February 24, 2015

2014-2015 AES Officer Team

Student Opportunities  |  BRAE News and Events  |  February Calendar
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Requisition Number: PFC750
Job Title: Field Project Technician
Company: Paramount Farming
Area of Interest: Agriculture
City: Bakersfield
State/Province: California
Position Type: Full Time - Permanent
Job Description: Paramount Farming Company is California's largest grower of pistachios, almonds and pomegranates. Headquartered near Bakersfield, CA the company farms 95,000 acres in the Central Valley. Over its many years in operation, Paramount has demonstrated a strong entrepreneurial spirit to commitment to innovation and growth from its owners, management team and associates.

DESCRIPTION:
Paramount is looking for a Field Project Technician professional to join its farming team. The Field Project Technician will be assigned to coordinate and oversee a variety of field projects under the direction of the VP of Farming.

This is an entry level training and learning opportunity for recent college graduate with minimum experience and a desire to grow a career in agriculture.

PRIMARY RESPONSIBILITIES:

- Understand and follow supervisor’s directions and meet standards set for each of the job and project that may be assigned
- Assist with irrigation system/program planning
- Coordinate a variety of field projects as assigned
- Collect and report field data in writing
- Collect field samples and images
- Other technical tasks as assigned by supervisor
- Perform all tasks in a safe manner
- Other tasks as assigned

Requirements: Minimum Qualifications:
- Bachelor degree with an agriculture, irrigation systems, agribusiness, or agronomy related course major
- Advanced computer skills including the Microsoft Office suite

Desired Qualifications:
- Ability to prioritize, adapt and multi-task in a fast paced, changing environment
- Ability to think critically and analyze information
- Tech savvy with mobile devices
- Dependable and reliable
- Bilingual (English/Spanish) is a plus

Apply online at: [http://www.roll.com/careers/job-search](http://www.roll.com/careers/job-search)

Paramount Farming Company is an equal opportunity employer.
Student Opportunities

Requisition Number: PFC703
Job Title: Summer Intern (Farming or Admin)
Company: Paramount Farming Co., LLC
Area of Interest: Agriculture
City: Bakersfield
State/Province: California
Position Type: Full Time – Temporary
Job Description: Paramount Farming Company is California's largest grower of pistachios, almonds and pomegranates. Headquartered near Bakersfield, CA the company farms 95,000 acres in the Central Valley. Over its many years in operation, Paramount has demonstrated a strong entrepreneurial spirit of commitment to innovation and growth from its owners, management team and associates.

Position Summary:

Our internships offer hands-on experience in the field with mentorship from experienced professionals!

Summer interns are selected to assist department managers in specific operations of the farming business, which are related directly to students’ course of study. Interns receive excellent experience to supplement their classroom education.

Intern opportunities include:

- Corporate Administration / Business Management
- Farming Support and Management
- Research and Development
- Pest Control Management
- Equipment Engineering
- Water Management
- Entomology
- Tree Nursery

And much more!

Requirements: Preferred qualifications:

- College upperclassmen (juniors & seniors); Others levels may possibly be considered
- Interested in an agriculture related career; Agriculture major not required
- Computer proficient in Word, and Excel, and use of the Internet
- Good verbal and written communication skills
- Research and analysis skills• Ability to write and present reports as requested

REQUIRED DOCUMENTS
Please attach the following documents.
1) Resume
2) Cover letter indicating area of interest for internship placement
3) Recent copy of transcripts.

Apply online at: http://www.roll.com/careers/job-search

Paramount Farming Company is an equal opportunity employer.
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Requisition Number: PFC747
Job Title: Water Quality Supervisor
Company: Paramount Farming
Area of Interest: Agriculture
City: Firebaugh
State/Province: California
Position Type: Full Time - Permanent

Job Description:
Paramount Farming Company is California's largest grower of pistachios, almonds and pomegranates. Headquartered near Bakersfield, CA the company farms 95,000 acres in the Central Valley. Over its many years in operation, Paramount has demonstrated a strong entrepreneurial spirit of commitment to innovation and growth from its owners, management team and associates.

Paramount is looking for a Water Quality Supervisor to support its farming operations in Madera County.

DESCRIPTION:

The Water Quality Supervisor is responsible to supervise, assign, review and participate in the work related to the planning and operation of the Company’s water quality. Water Quality Supervisor will coordinate water quality data collection and reporting and implementing water quality monitoring and reporting programs. This position reports to the VP of Farming.

This is an opportunity for a recent college graduate looking to start a career in agriculture.

PRIMARY RESPONSIBILITIES:

- Provide general direction, planning, organization, and controls of the functions of the water quality and its related systems
- Develop, maintain and coordinate the water quality monitoring programs including implementing special studies related to water quality
- Evaluate treated water quality and advise of probably potentially improving water quality
- Perform analyses for water using a variety of instruments and methods
- Prepare necessary reports of routine quality control monitoring and special investigations
- Oversee and participate in investigating water quality programs
- Perform all other duties as assigned

Requirements: Minimum Qualifications:
- Bachelor degree with a related course major (i.e. Agriculture, Agriculture Engineering, Irrigation, Water Resources)
- Advanced computer skills including the Microsoft Office suite

Desired Qualifications:
- Experience or knowledge in water quality testing, field sampling and/or water treatment plant or water distribution systems, a plus
- Ability to prioritize, adapt and multi-task in a fast paced, changing environment
- Ability to think critically, analyze information, and challenge assumptions
- Dependable and reliable
- Bilingual (English/Spanish) is a plus

Apply online at: http://www.roll.com/careers/job-search

Paramount Farming Company is an equal opportunity employer.
Paramount is looking for a Water Resources Specialist to support a growing resources and planning team.

DESCRIPTION:

The Water Resources Specialist engages in a wide range of water resource and agricultural planning arenas, including but not limited to, performing a wide range of accounting, organizational, analytical and research duties. The Water Resources Specialist executes independent tasks and engages in internal and external collaboration to drive the comprehensive and innovative water resources management strategy of Paramount. The Water Resources Specialist interacts with various departments and all management levels including Ranch Support, Ranch Management, Accounting, Finance, Global Information Systems (GIS), and senior leadership. This position reports to the Water Resources Analyst.

PRIMARY RESPONSIBILITIES:

- Develop an understanding of PFC’s water supply goals and act to further those goals through effective communication and coordinated efforts with internal personnel and water district representatives
- Develop, expand and foster an understanding of the fundamentals of state and local water supplies, delivery systems and management resources.
- Conduct research and prepare written summaries for various department projects, internal meetings, external meetings and communications
- Prepare annual water budget, outlook projections, transactional summaries and data analysis regarding water usage, scheduling and financial management
- Prepare, analyze and update PFC’s general water use plan
- Manage water accounting entries, internal and external reconciliations and execute year-end closing activities for surface and banked water transactions
- Under supervision, address water related information requests from related entities
- Perform all other duties as assigned

Requirements:

Minimum Qualifications:

- Bachelor degree and 2+ years professional experience (or equivalent combination of additional education and experience)

Knowledge, Skills and Abilities:

- Intermediate accounting experience
- Advanced computer skills including the Microsoft Office suite (experience with Tableau software is beneficial but not required)
- Ability to prioritize, adapt and multi-task in a fast paced, changing environment
- Ability to think critically, analyze information, and challenge assumptions
- Desire to learn and grow
Requisition Number: PFC671
Job Title: Beekeeper Apprentice/Intern
Company: Wonderful Bees LLC
Area of Interest: Agriculture
City: Bakersfield
State/Province: California
Position Type: Full Time – Permanent
Job Description: Paramount Farming Company is California’s largest grower of pistachios, almonds and pomegranates. Headquartered near Bakersfield, CA the company farms 95,000 acres in the Central Valley. Over its many years in operation, Paramount has demonstrated a strong entrepreneurial spirit of commitment to innovation and growth from its owners, management team and associates.

Position Summary:

Wonderful Bees is building a national beekeeping operation and is currently seeking individuals interested in a Beekeeper Apprenticeship/Internship. This position will assist in the management, care and evaluation of bee colonies and business related tasks.

The apprenticeship/internship is specifically designed to give individuals the experience needed to become comfortable and confident around bees and the knowledge to become a successful beekeeper. Individuals will receive ample opportunity to practice methods of sustainable beekeeping and understand commercial honey production.

**Beekeeping experience not necessary, will train the right candidate.

Responsibilities of the Beekeeper Apprentice/Intern include, but are not limited to the following:

- Raise bees to produce honey and pollinate crops.
- Collect and extract honey.
- Transport hives to/from various locations.
- Inspect hives and treat them for disease/parasites.
- Re-queen colonies as needed.
- Build and maintain hives.

Requirements: Qualifications include, but are not limited to the following:

- B.S. or B.A. in Agriculture, Business or related field desired.
- Valid Driver’s License, preferably Class A or B.
- Knowledgeable in bee biology and behavior a plus.
- Knowledge of plant types, cycles, and how and when plants produce nectar, a plus.
- Proficient in the use of a personal computer, Microsoft programs, internet, smart phone. Tech savvy is a plus.
- Fluency in Spanish and English, a plus.

Expectations of apprentice/intern include a strong work ethic and a deep interest in bees.

Apply online at: http://www.roll.com/careers/job-search

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J.G. BOSWELL COMPANY
Job Description

Job Title: Shop Summer Intern
Department: Corcoran Ranch
Reports To: Assistant Shop Manager
Prepared By: Mendes
Prepared Date: 01-2015

SUMMARY
This person would assist the shop manager and assistant shop manager with various projects in support of farming operations. This shop maintains all farm equipment associated with operating the 100,000 acre farm. This facility has an automotive shop, a tractor shop, a welding shop, a trucking department and various other field support operations.

ESSENTIAL DUTIES AND RESPONSIBILITIES include the following:
- Engineering work with current/new equipment.
  - New Designs and changes of current equipment
  - Hydraulic, Plumbing, and Electrical schematics
- Work on equipment throughout the Fabrication, Tractor, and Automotive shops
  - Spending a couple weeks gaining hands on experience
  - Equipment: Tractors, Pumps, Implements, Autos, Trucking, etc.
- Assist in the Maintenance and Safety Training Programs
  - Develop training documents for various jobs/equipment
  - Develop lubrication and maintenance schedules
  - Troubleshoot operation and maintenance problems

Assisting the Shop Managers and Supervisors as needed and perform all duties as assigned.
Report to work in a timely manner ready, willing, and able to perform the essential duties and responsibilities of the job.

EDUCATION and/or EXPERIENCE
Enrolled in ASM, BRAE or equivalent programs.

MATHEMATICAL SKILLS
Ability to work with mathematical concepts such as strength and material calculations, probability and statistical inference, and fundamentals of plane and solid geometry and trigonometry. Ability to apply concepts such as fractions, percentages, ratios, and proportions to practical situations.

OTHER SKILLS
Requires computer proficiency in MS Office applications. Ability to use AutoCad and SolidWorks design drafting programs. Written and oral communication skills with the ability to collaborate with various on-site technical personnel and outside vendors is required. Ability to read and understand hydraulic and electrical schematics is preferred.

PHYSICAL DEMANDS: Reasonable accommodations may be made to enable individuals with disabilities.
While performing the duties of this job, the employee is regularly required to stand; walk; use hands to handle, or feel; reach with hands and arms; and talk and hear. The employee regularly is required to sit, often in a pick-up truck while driving over rough terrain. The employee is occasionally required to climb or balance; stoop, kneel, or crawl. The employee must frequently lift and/or move up to 25 pounds.

WORK ENVIRONMENT
While performing the duties of this job, the employee is somewhat exposed to outside weather conditions. The employee is frequently exposed to moving mechanical parts. The employee is occasionally exposed to high, precarious places; fumes or airborne particles; and risk of electrical shock. The noise level in the work environment is usually moderate but can be higher at times when machinery is running.

CERTIFICATES, LICENSES, REGISTRATIONS
Valid CA driver’s license with no more than 2 points on driving record.
Irrigation Internship Opportunity

Farmland Management Services

Who we are:

Farmland Management Services is a farm management company based out of Turlock, CA that manages farmland investments for institutional clients. FMS manages many acres of farmland nationwide and is looking for a student intern to test and improve the quality of irrigation efficiency on large orchards and vineyards in the California Central Valley.

Who we are looking for:

- (4) Students interested in precision irrigation technology.
  - Applicants must be qualified to perform and analyze Distribution Uniformity tests.

What you would be doing:

- Performing Distribution Uniformity tests on Micro-spray and Drip systems.
- Innovating system improvement solutions.
- Creating irrigation system schedules based on ET rates and crop needs.
- Optimizing water usage between well and surface water available.

Where you would be working:

- One intern is needed in each of the following counties: Tehama, Madera, Kern, and Tulare.
- Applicant would be working on various ranches within a selected county.

When you would start:

- Spring and/or Summer quarter options are available for 2015.

Accommodations:

- Housing options are available.
- If travel is required, transportation would be provided.

Who to contact:

Carl Evers III  
Area Manager, Madera County  
Email: carefms@att.net

- Mr. Evers will be available to meet and discuss this opportunity in San Luis Obispo on Tuesday February 24th after 5:00 pm, and on Wednesday February 25th after 12:00 pm. Email Mr. Evers to set up a meeting time.
The GREEN Program is the premiere experiential learning program for future clean energy and sustainability leaders. Our short-term, accredited, immersion programs take students on adventures to the epicenters of clean tech, sustainability, and innovative industries.

Disclaimer: This is not your traditional Spring Break. We are seeking applications from students who are looking to set themselves apart and excel with bucket-list adventures, exclusive industry access, and personal and professional growth in the best places on Earth. On The GREEN Program, you can expect to accomplish the following (and more) in 8-10 days:

• Engage in hands-on, experiential education with industry experts and professionals
• Behind the scenes access to innovative clean energy facilities and sustainability projects
• Travel to the best countries in the world focused on renewable energy and sustainability topics
• Supercharge your resume with a global perspective and unique cultural experience
• Network and develop relationships with powerhouse student leaders and professionals
• Bridge the gap between traditional textbook learning and real-time industry insight
• Participate on world-class bucket list adventure excursions
• Earn an academic transcript during our 8-10 day programs

Take a step out of the classroom and experience the clean energy and sustainability industries, while having the adventure of your life with The GREEN Program.

Call for Presentations + Science Communication Hangouts

We are also hosting two exciting Google Hangouts on science communication. You are invited to join us on:

- February 27 for “Communicating Science Using Video, Tumblr and Other Social Media” with Joe Hanson, creator/host/writer of PBS Digital Studio’s It’s Okay to Be Smart.
- March 6 for “Using visuals to communicate science” with Dennis Meredith, professional science communicator and author. These Hangouts are appropriate for scientists at any stage of their career. More information at: http://bit.ly/1C31Ljs

2015 Student Showcase Information

Students are invited to submit research project descriptions for a chance to participate in the Student Research Showcase, a global and innovative research presentation competition. Sigma Xi, The Scientific Research Society hosts the showcase to help students develop their skills in presenting research online, an increasingly important skill in our digital-driven world. Participants present a personal video, written abstract and technical slideshow. They receive feedback from judges, who are professional researchers, and can earn up to $500 for top presentations in graduate, undergraduate, and high school divisions. The Student Research Showcase will be held March 23-29, 2015. March 16 is the final deadline for presentation submission, registration, or to volunteer as a judge. Students can earn pre-approval to present by submitting their research project description to meetings@sigmaxi.org. Registration and additional information at: https://www.sigmaxi.org/meetings-events/student-research-showcase

Judging categories include Biochemistry, Cellular & Molecular Biology, Chemistry, Ecology & Evolutionary Biology, Engineering, Environmental Sciences, Geo-Sciences, Human Behavioral & Social Sciences, Math & Computer Science, Physics & Astronomy, and Physiology & Immunology. Contact meetings@sigmaxi.org with questions.
Lodi Pump & Irrigation currently have two positions available at their company; a full time irrigation designer position and summer internship. Both positions are posted on Mustang jobs and they will be attending the BRAE Career Fair in March. Make sure to check these opportunities out!

One of our very own ASM students, Patrick Larsen, is participating in the Seattle Firefighter Stair Climb. He is seeking support and donations. Here is a short message from him!

Hello! I will be participating in the Scott Firefighter Stairclimb on Sunday, March 8th in support of the Leukemia & Lymphoma Society (LLS) as a part of the CAL FIRE / San Luis Obispo County Fire team.

What is the Scott Firefighter Stairclimb?

The Scott Firefighter Stairclimb is a timed race up the stairs at the Columbia Center in downtown Seattle in full fire gear and SCBA. There are 69 flights of stairs, 1311 steps, and 788ft of vertical elevation. Although it will be challenging, it pales in comparison to what blood cancer patients must go through. All proceeds benefit The Leukemia & Lymphoma Society.

Thank you for your time and I hope that you will consider donating to this cause.

-Patrick

Listed below are the links:
- http://www.llswa.org/site/TR/Events/FirefighterStairclimb?px=1712997&pg=personal&=1453
- slocofire12.org
Announcements

BRAE CAREER FAIR
MARCH 5th
8AM-12PM

26 Companies
H.G. Makelim
Steve P. Rados, Inc.
Preston Pipelines
Ag Industrial Manufacturing Inc
ACME Engineering
Capay Organics
JG Boswell
Flory Industries
Provost and Pritchard
Deerpoint Group
Davis Machine Shop
Heinzen Manufacturing International
Orchard Machinery Corporation
HCL Machine Works
Reiter Berries
Sensient
Paramount Citrus
Bowsmith Irrigation
Exeter Irrigation
Cannon
Paramount Farms
Vineyard Professional Services, Inc
RDO Water
Nichols Farms
Lodi Irrigation
Berendsen Fluid Power

CAREERS INTERSHIPS

AES MEETING
March 4th 6PM
Building 8A Lab 1

Industry Panel
Come ask your questions
to prepare for the career fair

Dinner will be served
Scholarship Opportunities

FAFSA
Don’t forget to file for state financial aid. The deadline is March 2, 2015.
The federal deadline is not until June 30th however.

The Middle Class Scholarship (MCS) is a new program, as of the 2014-2105 school year. If your family’s income is between $100,000 and $150,000 you may still be eligible for financial aid. You must file the FAFSA to be considered for this.

Courage to Grow Scholarship
The “Courage to Grow Scholarship” was created to help students realize their college dreams. We don’t want the college dreams and plans of so many young men and women to get lost in the financial shuffle. There will be one $500 scholarship every month. The deadline for this month is February 28. There is a short application and 250-word or less essay about why you should be awarded the scholarship. The application can be found online at: http://couragegrowscholarship.com

Frame My Future Scholarship Contest 2015
This application is due by March 3. It can be found online at: http://www.diplomaframe.com/contests/frame-my-future-scholarship-contest-2015/newentry.aspx

Charles P. Lake Rain for Rent
Rain for rent offers up to twenty scholarships in the amount of $1,500 each annually to qualified college students to help them pursue a career in agriculture, irrigation technology, pumps or fluid dynamics.

Students must:
- Have completed their freshmen year at an approved university and be enrolled for next year
- Have a 3.0 or higher GPA
- Be a US citizen
- Have an emphasis of education primarily in Agriculture or Engineering with a major in an accredited school of agriculture, engineering of construction management program.

To apply:
- Attend a 3 hour orientation meeting at a Rain for Rent facility
- Forward a photo to Rain for Rent so that we may generate a news release that may be published in local newspapers and the Rain for Rent newsletter
Applications accepted Feb 1 - Apr 30
Submit applications directly to scholarshipcoordinator@rainforrent.com
*Must include an official transcript

Rain for Rent Intern Program
Eligible for students with at least one year of full-time undergraduate studies, with a GPA of 3.0 or higher and be currently enrolled in a minimum of 12 units.

Request an application from careers@rainforrent.com, due May 31
For questions refer to: www.rainforrent.com
In 1972, Dr. MacCarley began his impressive collegiate education. He began studying Mechanical Engineering here at Cal Poly, and furthered his education at UCLA. After completing his BS, he pursued his Master's degree in electrical engineering in 1978. His thesis was on electronic fuel injections for hydrogen-fueled engines as one of his passions has always been alternative fuels and energy.

Dr. MacCarley then went on to work at Hughes Aircraft Corporation under the Space and Communication Division for a year and even worked on the first ever land satellite! Then, he went on to work at the University of Denver Research Institution for three years as well as working on electronic diesel fuel injections at American Bosch. Soon after, Dr. MacCarley went on to pursue a Ph. D at Purdue University. His first semester was in Mechanical Engineering, but he’s also been torn between mechanical and electrical engineering. Eventually, he ended up transferring to electrical engineering and completed his Ph. D in 1987.

After completing his Ph. D, Dr. MacCarley came back to teach at Cal Poly! He previously worked in the Electrical Engineer department before joining us in BRAE. In the EE department he continued his passions for engines, and really built a name for himself! He has published over 125 technical journal and conference papers, and serves on the editorial review boards of four journals. He had NSF dept of energy, dept of commerce and corporate funded research, and he was working on advanced sensor processing for diesel fuel injections. Academically he specialized in digital based control systems, and was the lead in the area. He even came to create two courses. He has always been involved with cars, and in fact, he founded the Electrical Engine club at Cal Poly, and has since always been the advisor. He also suggested the start of the Future Fuels club.

The alternative fuels station is right behind the BRAE building, and some say Dr. MacCarley transitioned over to BRAE simply to be closer to his fuels. Currently he is teaching BRAE 240/471: Solar Photo System Engineering and BRAE/EE 434: Alternative Energy Vehicles. He has about five significant projects currently, involving alternative fuel conversions.

In his new position as department head, Dr. MacCarley says he is doing his best to provide solid leadership. He has been researching Ag Engineering, and joined ASAB. He is working on building his credibility in this department, and in fact has already published a research article in the field. He is excited to be in AES. Recently, he worked on a solar project with students where they installed the solar panels for this very building. That’s the first time that’s ever been done!

Dr. MacCarley is looking forward to all the great things he believes this department is capable of. He knows this department has a very qualified faculty and wonderful students. He hopes for the department to grow to meet the needs of future technological needs of California and even America.

Written by: Cristina Kinslow
## February & Beginning of March Calendar

<table>
<thead>
<tr>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
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<th>Saturday</th>
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|        |        | 24 CAFES Student Council Meeting 5pm  
- Officer Meeting 6pm  
- Tractor Pull Meeting 7pm | 25 | 26 AES BBQ at 11am  
Quarter Scale Meeting in 8-122 at 5pm | 27 | 28 Tractor Pull in Bakersfield 4pm  
Ag Olympics |
|        | 23     |         |           |          |        |          |
| 1      | 2      | 3 CAFES Student Council Meeting 5pm  
- Officer Meeting 6pm  
- Tractor Pull Meeting 7pm | 4 AES 6th General Meeting with Industry Panel 6pm  
Charlie’s Birthday! | 5 BRAE Career Fair 8-12  
AES BBQ at 11am  
Quarter Scale Meeting in 8-122 at 5pm | 6 | 7 |
|        | 9      | 10      |           |          |        |          |
| 8      | 9      | 10      |           |          |        |          |
|        | 16     | 17      |           |          |        |          |
| 15     | 16     | 17      |           |          |        |          |

Calendar: [https://connect.calpoly.edu/service/user/amaccarl@calpoly.edu/Calendar.html](https://connect.calpoly.edu/service/user/amaccarl@calpoly.edu/Calendar.html)

Dept Cal: [https://connect.calpoly.edu/service/user/amaccarl@calpoly.edu/BRAE%20Department%20Events.html](https://connect.calpoly.edu/service/user/amaccarl@calpoly.edu/BRAE%20Department%20Events.html)