



Western Center for Agricultural Health and Safety • University of California, Davis

Rominger Brothers Farms make safety of its workers a high priority

Farm safety is a huge part of Rominger Brothers Farms, which works approximately 3,500 acres near Winters, Calif. The Rominger family has farmed Yolo County for five generations, beginning around 1870. Row crops are their main staples—tomatoes, grapes, wheat, safflower, alfalfa, onion seeds and rice. These crops require many different types of machinery, harvesting techniques, and a variety of workers to be successful year round.

Patty Rominger, wife of brother Rick Rominger, is in charge of worker safety for the 35 farm employees, many of whom work seven days a week during the harvesting season. Safety is vital to farming because it is a hazardous occupation with very large equipment and sometimes harsh outdoor working conditions. As part of her job, Patty inspects the farm's shop for hazards, making sure that all safety data sheets are up-to-date, power tools have guards, and shop workers use eye and ear protection.

Patty is also the farm's heat illness coordinator. She meets with the workers to talk about the weather conditions, and she coordinates trainings on



Patty and Rick Rominger of Rominger Brothers Farms near Winters, Calif.

heat illness symptoms and prevention. She says this was a little awkward and challenging at first, since she is the boss' wife, speaks only rudimentary Spanish, and had to tell many longtime workers to change their working habits to meet state regulations. However, she finally hit on the idea of explaining to the workers that she is like their resident "farm mother," who is going to keep nagging them to protect

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Q&A with ergonomics student Tyler Hunter

For the past two years, UC Davis undergraduate student Tyler Hunter has worked with WCAHS Investigator Fadi Fathallah on WCAHS projects at the UC Agricultural Ergonomics Research Center (UC AERC) at UC Davis. Tyler will graduate this fall with a degree in biological systems engineering.

AgHealth News editor Suzette Smiley-Jewell sat down with Tyler to talk about his work and research:

How did you start working with Dr. Fathallah?

Dr. Fadi Fathallah was one of my professors during the fall quarter of my freshman year. At the end of my sophomore year, I contacted him to see if he had a project that he needed help with. He had me start on the ladder project.

What is the ladder project?

We are working on orchard ladders and studying how rung spacing and ladder angle affect worker ergonomics. Standard ladder rungs are spaced 12 inches apart. However, this may not be optimal for all people, for example, shorter or taller than average. Therefore,

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National Farm Safety and Health Week, Sept. 20–26



Join us in celebrating National Farm Safety & Health Week, an annual promotion of the National Safety Council to honor the hard work, diligence, and sacrifices of our nation's farmers and ranchers. WCAHS, together with the other 10 NIOSH Agricultural Safety and Health Centers, will promote this year's National Farm Safety and Health Week message, "Ag Safety is not just a slogan,

it's a lifestyle" by social media. Follow us from September 20—26 on Facebook at www.facebook.com/AgHealthNewsUcDavis or on Twitter @Westernaghealth to get daily updates on a wide range of agricultural related topics, such as confined spaces in agriculture and roadway, child, and tractor safety. Each day will cover a new topic.

You are also welcome to access more than 80 videos on agricultural health and safety on the NIOSH Agricultural Centers' YouTube channel, www.youtube.com/USagCenters. These videos can be used by extension agents, science teachers, producers, first responders, families and others interested in agricultural safety best practices.

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themselves against heat illness by drinking water, taking frequent breaks and seeking shade. In the field, Rominger Brothers Farms provides a large covered shade structure with two picnic tables for workers to take their breaks.

Besides conducting heat illness trainings, Rominger Brothers Farms trains employees, both in-house and through the Yolo County Farm Bureau, on how to safely use equipment and work in various conditions. Examples of safety topics include ATVs,

electrical hazards, first aid and CPR, materials handling, night harvesting, power tools, sexual harassment, tractors and pesticide training.

While Rominger Brothers Farms is responsible for worker physical health on the job, they also are concerned about worker social health off the job. The farm pays to have employees participate in the annual ¡Qué Viva la Vida! conference, started by Rural Innovations in Social Economics (RISE) of Yolo County. Topics have included immigration, women's health,

children's education, family dynamics and social services. The event is sponsored by RISE, local farmers, charities and other institutions, such as WCAHS. The Romingers would like to grow the conference to other counties.

The Rominger Brothers Farms are proactive in protecting their workers, and this attitude is reflected in safety topics that they are interested in learning more about, such as: What is appropriate clothing for workers to wear—full coverage with hoodies or lighter coverage

with fewer clothes? How can we better educate our workers that water is better than soda and energy drinks to consume while working? Are OSHA "recommendations" about heat illness prevention the same as regulations? These are insightful questions from experienced, concerned farmers who value scientific research on agricultural health and safety conducted by UC Davis and the WCAHS, and policies that are evidence-based.

Tyler Hunter Q&A *continued from page 1*

climbing the steps can take more work. We have done experiments with different rung spacing, such as 10.5 inches apart, and created an adjustable rung ladder that could be tailored for a worker or group of similarly sized workers.

This same concept is being used to study orchard ladder angles. Right now the standard angle is 72 degrees, but out in the field, we found that people use it around 68 degrees. If a standard ladder is being used at this angle, then the steps need to slant downward rather than being parallel to the ground.

Thus, workers are at increased risk for slipping. The adjustable rung ladder can also be adjusted for angle.

What have you liked most about working at the UC Agricultural Ergonomics Research Center?

The opportunity and freedom to come up with new designs and then bounce them off of Victor Duraj, UC AERC's resident engineer. Victor has helped me assess my designs for workability and improvement. Our latest ladder project with adjustable rungs was a collaboration of Victor's and my ideas. I've also liked learning how to use more power tools than ever before.



Tyler Hunter

What has been the most challenging part of the work?

Getting things to work. It is frustrating when what you expect to happen doesn't. For example, designing and making something only to find out that the bolt hole is off by a few millimeters or creating a software program and being ready to run it only to find a bug. Then you have to start over.

Why did you pick biological systems engineering as your major?

I always liked to build and design things that I could see. I also like biology and math.

What is your major like?

I've had to take courses in biology and learn all about the human body (e.g., anatomy) along with my core engineering studies.

What about life after graduation?

Get a job! My ideal job would be working for a company that allows me to design equipment to help make occupational work less stressful on the body.

Any other interesting projects you've worked on?

Right now I am working on a battery lifter for the GEM cars used on the UC Davis campus. Each car has six batteries, weighing 80 lbs each. The mechanic that replaces them manually lifts them out and does a couple of cars per day. He has been suffering from backaches and sometimes must take sick leave. The lift will mechanically remove the battery and replace it, so manual lifting is no longer done.



GIFTS TO WCAHS help advance science and training to promote farmworker health and safety and disseminate knowledge to our stakeholders. If you would like to donate, please send a check to: Western Center for Agricultural Health and Safety, Attn: Sherri Gallagher, University of California, One Shields Ave., Davis, CA 95616-8757

Fadi Fathallah director of new Agriculture Safety & Health Program



Fadi Fathallah, professor of biological and agricultural engineering at UC Davis and a WCAHS investigator, was appointed director of a newly awarded Agricultural Safety and Health (ASH) Training Program for Ph.D. students at UC Davis.

ASH is part of the Northern California Education and Research Center, funded by NIOSH, with other programs at UC Berkeley and UC San Francisco. While these two other programs cover various occupational and environmental concerns in numerous industries, none focuses on agriculture.

Participating WCAHS faculty in ASH includes Kent Pinkerton, Stephen McCurdy, Deborah Bennett and Marc Schenker. A total of seven professors are taking part in the program from four colleges and schools on campus: Agricultural and Environmental Sciences, Engineering, Medicine and Veterinary Medicine. Classes will include those in engineering, environmental toxicology and public health.

ASH is the first Ph.D. program to focus specifically on agricultural health and safety in California. The purpose is to train leaders to make agriculture a safer industry.



University of California
One Shields Avenue
Davis, CA 95616-8757

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Director..... Marc Schenker
Assoc. Director Kent Pinkerton
Director of Outreach..... Stephen McCurdy
Director of Research..... Fadi Fathallah
Director of Evaluation Julie Rainwater
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Education/Outreach Specialist... Teresa Andrews
Scientific Editor Suzette Smiley-Jewell

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