

## AG DIGEST

### **Watsonville native named environmental 'Leader of Future'**

Yale University junior Cesar Garcia Lopez, who hails from Watsonville, received a Lider del Futuro Award from the Monterey Bay Aquarium on Oct. 18 for his efforts to inspire others about environmental and ocean conservation, according to YaleNews.

The award, presented during the aquarium's annual Fiesta del Mar celebration, honors "the next generation who will be responsible for the administration of our oceans." During his time at Yale, Garcia Lopez traveled with first-graders to a nearby salt marsh preserve to explore biodiversity and mentored student research and projects for the New Haven, Conn., science fair. He hopes to eventually return to the Watsonville area and combine environmental education and research into a career.

While at Watsonville High School, Garcia Lopez participated in the Watsonville Area Teens Conserving Habitats (WATCH) Program, conducted by the Monterey Bay Aquarium. The program allowed students to meet local scientists while examining local environmental issues. He also completed a plant ecology and evolutionary biology research internship at UC Santa Cruz.

— *Aylin Woodward*

### **New study could help plants use sunlight better**

Scientists have developed a new method that makes tobacco plants more productive in getting energy from the sun, according to Sarah Yang, a science writer for the Lawrence Berkeley Lab.

Plants in densely planted crop fields or high shade areas do not use energy efficiently, according to Yang. Plant proteins that work together to protect crops from overexposure in direct sunlight don't turn off quickly enough in the shade, meaning the plants miss out on collecting some of the sun's rays. Then they have less energy to grow and pro-

duce our food.

In a collaborative effort, scientists from the Lawrence Berkeley National Lab, UC Berkeley and the University of Illinois found that increasing the expression of these proteins yielded more productive tobacco plants. Their study was published in the Nov. 17 issue of *Nature*.

After seeing initial success in the tobacco plants, the researchers plan to expand their study to rice and other food crops. The hope is that that finding creative methods to increase plant production will help address future food shortages.

— *Sarah McQuate*

### **Book to help middle schoolers learn about ag science**

A new book teaches middle school students where their food comes from, according to Susan Fisk on behalf of the American Society of Agronomy, the book's publisher.

"Agronomy – Grow With It!" details the basic science behind the agriculture industry and includes illustrations of complex topics like the nitrogen cycle. Each chapter also highlights a problem that scientists are currently trying to solve.

The authors hope this book will help students understand how science is connected to real world applications.

The book is a collaborative project from science lovers across the country; the authors include a plant biologist, a science writer, the academic program coordinator of a plant and soil sciences department, and a professor of education.

To purchase this book, go to [www.societystore.org](http://www.societystore.org) or find it on Amazon.com.

— *Sarah McQuate*

### **Sustainable bioenergy systems webinar scheduled for Thursday**

Want to learn about how to sustainably produce both food and bioenergy?

Watch a webinar with Bruce Dale, a chemical engineering professor at Michigan State University, on Thursday from 11 a.m. to noon.

This webinar is free and is hosted by the American Chemical Society.

To register, please visit: <https://www.acs.org/content/acs/en/acs-webinars/technology-innovation/biomass.html>. Slides will be available for download the day after the talk.

— *Sarah McQuate*

### **Castroville wetland restored to provide clean surface water**

Local groups partnered to re-flood an 18-acre wetland in Castroville on Nov. 18, according to a Business Wire news release.

Thanks to a partnership of the Monterey County Water Resources Agency, Central Coast Wetlands Group at Moss Landing Marine Labs and Pacific Gas and Electric Company, this restored wetland has the capacity to naturally clean 80,000 gallons of surface water for the local community daily.

Wetlands like this one can act as filtering systems – wetland plants can capture, process and store sediments, nutrients and pollutants from draining water.

The wetland, part of the Moro Cojo Slough watershed, with 30,000 newly sown plants, will filter and clean water pumped from the Castroville Ditch, which drains roughly 600 acres of artichokes and Brussels sprout farmland in the area.

Scientists will continue to monitor water quality in the area over the next two years to evaluate the success of this wetland project. For more information, contact either Ross Clark from the Central Coast Wetlands Group at 831-771-4411, or email [Rclark@mlml.calstate.edu](mailto:Rclark@mlml.calstate.edu). Alternatively, contact Shaun Maccoun from PG&E at 925-557-5263, or email [SRMF@pge.com](mailto:SRMF@pge.com).

— *Aylin Woodward*