



# RICH'S REFLECTION

With all the news about budget cuts and college restructuring, it seems that we as agricultural scientists have done a poor job over the years of explaining the impact that our work has on society. A recent report from CAST does a nice job of summarizing some of this. CAST is the Council for Agricultural Science and Technology and they publish several reports each year on subjects that are important to agriculture. Each report is written by teams of well-respected researchers in the field. A report just published this month with the title

“Investing in a Better Future through Public Agricultural Research” summarizes the impact that publicly funded research and extension programs have had on American society. If you want to read the entire report, you can find it online at <http://www.cast-science.org/websiteuploads/File/Ag%20Research%20final%20QTA2011-1%281%29.pdf>. Below is a summary of some of the important points.

From 1948 to 2008 U.S. farm output increased by an average of 1.58%

per year, while inputs increased only 0.06% per year. They defined “agricultural productivity” as outputs minus inputs, and productivity increased by 1.52% per year during this 6-decade period.

Output increased most in the western and southern states due to increased inputs of land, water, fertilizer, and pesticides. But productivity

## ADVISING CENTER NEWS

By: Paige Thomas

Students majoring in Horticulture are starting to get Horticulture Internships for this summer. If Horticulture Majors will be using this internship experience to fulfill a graduation requirement, they must register for Hort 495 (Horticulture Internship) for 1 credit this summer. THANK YOU in advance to those faculty members who agree to be an Internship Faculty Supervisor for a Horticulture student this summer. It is VERY IMPORTANT that students schedule Hort 495 BEFORE

spring semester ends. Once students leave campus for the summer, meeting with a Faculty Supervisor and getting the required paperwork completed and signed gets complicated. If any of your advisees plan to register for Hort 495 this summer, PLEASE remind them to ‘GIT-R-DONE’ before the end of Spring Semester.

There are a couple important deadlines coming up in April:

1. Late Drop Deadline is Friday, April 8

2. Deadline to apply for College of Ag Sciences/ Dept. of Horticulture scholarship for next year is Saturday, April 30. The application is found on-line at <http://agsci.psu.edu/students>. Follow links to Scholarships.



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### Calendar of Events:

- April 1—April Fools Day
- April 8—Late Drop Deadline
- April 11—Last Date for spring graduate to upload final thesis or dissertation to eTD web site
- April 15—Tax Day
- April 22—Earth Day, Good Friday
- April 24—Easter
- April 29—Classes End

increased most in the Midwest and northeast. Increased productivity is due primarily to past investments in agricultural research.

Like education, spending on research is a long-term investment. From the time of initial investment, there is no impact for about 2 years and maxim impact is not realized for about 7 years; after 14 years the impact slowly declines for about 20 years. So changes in research funding may not become apparent for at least a decade. We are just now seeing the consequences of reduced funding that began around 1980.

A number of studies have calculated the rate of return to investing in public agricultural research. Members of this CAST report estimated the marginal rate of return during the period 1970 – 2004 for agricultural research to be about 50%. The marginal rate of return is the net profit of a product divided by the investment, so for every dollar spent on agricultural research, we get

back \$1.5. Many companies are happy with a return that is twice the interest rate, so agricultural research is a very good investment for the country.

Another study showed that society gets \$32 back for every dollar the country spends on agricultural research plus extension.

During the past 60 years the share of U.S. household income spent on food declined from 22.3% to just 9.5% and the authors credit increasing agricultural productivity for the increased living standards throughout the world.

The authors project that we will soon see some of the consequences of the country's under investment in agricultural research during the past 30 years. Food prices will likely increase due to declining productivity. The private sector has increased its investment in agricultural research, but industry research is profit-motivated, so industry invests in short-term applied research and it builds on the more basic long-term research accomplishments of publicly-funded research. In addition, the private sector has little interest in training students, so there will likely be a future shortage of agricultural

researchers.

In the past much of the federal funds for research were allocated to the states in block grants (Hatch funds), where the states decided what types of research would benefit local farmers. This was very effective because soil, climate and economic conditions vary around the country and block grants allowed states to identify local priority areas for research. More recently, federal administrators have developed the attitude that funds can be used more efficiently if awarded on a competitive basis. This approach works well for NIH because most health issues are similar across the country. However, it doesn't work as well for agriculture because administrators may not be able to identify the most important research priorities.

Somehow we have to inform our politicians and the general public that society has benefited tremendously by minimal investments in agricultural research and that continued funding is needed to keep food prices low and environmental stewardship during the next few decades.

# Congratulations!

Congratulations to Kevin Mueller, PhD in Ecology of winning an Alumni Distinguished Dissertation Award.



On 03/04/11 at 6:16 pm Ermita Hernandez's son Andres Leonel was born. At birth he was 6 lbs 11 oz. Ermita and Andres are home and doing well





# HORTICULTURE SEMINAR SERIES

ALL SEMINARS HELD IN 111 TYSON  
4:00-5:00 PM

4/6/11	Biological Control Strategies for Management of Pre- and Postharvest Diseases of Apple	Anissa Poleatewich Plant Pathology Penn State University
4/13/11	TBA	Dan Frechen Horticulture Penn State University
4/20/11	The Utility of Basal Root Whorl Number for Common Bean in Drought	Katy Barlow Horticulture Penn State University
4/27/11	Open	

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**[horticulture.psu.edu](http://horticulture.psu.edu)**

## SPRING DEPARTMENT MEETINGS

All meetings held in room 10 Tyson

APRIL

Wednesday, April 13th

10:00 AM



### HORTICULTURE AND LANDSCAPE CONTRACTING POLO SHIRTS

\$7.00

Horticulture Sizes: Large and X Large

Landscape Contracting Sizes: Medium, Large, X Large

\*\*Please come to 102 Tyson for purchase\*\*

# Department Birthdays

April 8—Kristen Haider  
April 12—Emily Lavelly  
April 15—William Stoner  
April 16—Joseph Chimungu  
April 17—Katie McDavid  
April 23—Mike Orzolek  
          Claire Lorts  
April 29—Zhi Shi



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