

R&D highlights

WEST VIRGINIA STATE UNIVERSITY RESEARCH & DEVELOPMENT CORPORATION QUARTERLY
JANUARY – MARCH 2015

GRANTS & CONTRACTS UPDATES

- Dr. Micheal Fultz, Chemistry, \$44,275, Idea Network for Biomedical Research Excellence, National Institutes of Health
- Dr. Gerald Hankins, Biology, \$43,120, Idea Network for Biomedical Research Excellence, National Institutes of Health
- Brad Cochran, Extension, \$14,000, Specialty Crop Block Grant, US Dept. of Agriculture
- Dr. Barbara Liedl, Agricultural and Environmental Research Station, \$16,000, Specialty Crop Block Grant, U.S. Dept. of Agriculture
- Sherry Shafer, Regents Bachelor of Arts program, \$6,000, Degree Now – Adult Learners, W.Va. Higher Education Policy Commission
- Jaime Adkins, CASTEM, \$5,000, 4-H Robotics Program Year 2, 4-H
- Dr. Barbara Liedl, Agricultural and Environmental Research Station, \$10,000, Extension Implementation Program sub-award, U.S. Dept. of Agriculture
- Dr. Sanjaya, Agricultural and Environmental Research Station, \$336,962, Laboratory Instrumentation, U.S. Dept. of Defense
- Dr. Robert Barney, Agricultural and Environmental Research Station, \$100,010, Idea Network for Biomedical Research Education bioinformatics, National Institutes of Health
- Sherry Shafer, Regents Bachelor of Arts program, \$7,542, Complete College America, W.Va. Higher Education Policy Commission
- Melissa Stewart, Extension, \$50,000, AgrAbility sub-award, U.S. Dept. of Agriculture

PROGRAM SPOTLIGHT

Maximizing Profitability and Productivity for Sustainable Multiple Vegetable Crop Production in West Virginia High Tunnels funded by W.Va. Department of Agriculture via the USDA Specialty Crop Block Grant

By Barbara Leidl, Ph.D.

There is a major push to increase production and consumption of locally grown food across the U.S. One way for farmers to do this is to add season extension techniques, such as high tunnels, to a farming operation. In West Virginia, high tunnels have quickly risen in the farming landscape with about 20 in 2007 to over 400 in 2014. In this way, high tunnel growers are able to access lucrative early- and late-season markets.

Vegetables are the main crops grown in high tunnels with the following crops, in order of importance: tomato, sweet pepper, cucumber, muskmelon, lettuce, summer squash and eggplant. Researchers at Michigan State University found income from high tunnel production falls far short of what would pay for the cost of the high tunnel as quoted by a variety of sources. According to the researchers, many of the choices were based on management decisions and record keeping. If that is the case, then what are the best recommendations that we could make to West Virginia growers to maximize their high tunnel space, time and production costs to grow more produce profitably?

Finding information on how to grow a single crop in high tunnel, such as

tomatoes, is easy. However, most West Virginia farms are not interested in growing a single crop. Instead, they prefer to produce multiple crops to maximize profits. No schedule or recommendations for multiple crops currently exist for in-state growers. Several growers have experience with growing selected crops, but there has been no concerted effort to research this issue. There is also concern among agriculture specialists that the continual production of one or many crops within a high tunnel could create pest and nutrient build-up issues that have not been assessed. Therefore, the next logical step is to determine what crops and scheduling plans are necessary to maximize profit and yet maintain good sustainable agricultural practices in the high tunnel.

In January 2015, we began our two-and-a-half-year project to develop yearlong vegetable production schedules with associated enterprise budgets for in-state small farmers. Specific objectives are to engage four growers within 80 miles of the WVSU campus as research partners to evaluate crops, production methods and economics of high tunnel vegetable production; train the growers via quarterly meetings in production, financial and data collection methods for the project; verify monthly grower progress via check-ins and data collection; and create year-round production schedules with associated enterprise budgets to be evaluated by the project participants before being released for use by growers and agricultural service providers. Stay tuned for updates on this project.

- Dr. Barbara Liedl, Agricultural and Environmental Research Station, \$97,507, Capacity Building Grant sub-award, U.S. Dept. of Agriculture
- Kelli Batch and Sarah Halstead, Extension, \$123,000, 4-H Mentoring Year 5, U.S. Dept. of Justice
- Kelli Batch, Extension, \$109,958, Expanded Food and Nutrition Program formula funds, U.S. Dept. of Agriculture
- Patricia King, Health and Human Performance, \$4,000, Campus Tobacco Control, W.Va. Wellness Council
- Dr. Orlando McMeans and Kitty McCarthy, \$100,000, GEAR-UP 2015, W.Va. Higher Education Policy Commission
- Dr. Padma Nimmakayala, Agricultural and Environmental Research Station, \$36,880, Idea Network for Biomedical Research Excellence Natural Products, National Institutes of Health
- Dr. Gerald Hankins, Biology, \$38,500, Idea Network for Biomedical Research Excellence Natural Products, National Institutes of Health
- Dr. Kerri Steele, Criminal Justice, \$146,480, Community Assessment and Education to Promote Behavioral Health Planning and Education (CAPE) 2 – Cabell County, U.S. Dept. of Agriculture
- Dr. Kerri Steele, Criminal Justice, \$101,756, Community Assessment and Education to Promote Behavioral Health Planning and Education (CAPE) 2 – Kanawha County, U.S. Dept. of Agriculture
- Dr. Micheal Fultz, Chemistry, \$25,000, Center for Layered Polymeric Systems (CLiPS) subaward, National Science Foundation

BUSINESS AND FINANCE NOTES & UPDATES

The WVSU Research and Development Corporation continues to grow with new and exciting grants and projects. During this quarter, the Corporation added 47 new projects and grants. To meet this growth, the Corporation's Business and Finance Office continues to grow as well.

We would like to welcome Stephen Seitz to the Corporation as Interim Accounts Payable Specialist. Stephen will be handling Accounts Payable for Extension, along with EPSCOR, Workforce Clearinghouse and other accounts payable duties. Eric Jackson is now working in the Title III office over Title III budgets and accounts payable. Please refer questions regarding Title III to Jackson.

PEIA OPEN ENROLLMENT TIME:

Open enrollment for PEIA and Mountaineer Flexible Benefits runs from April 2 to May

15, 2015. PEIA and Mountaineer Flexible Benefits have been mailing or emailing the Open Enrollment booklets. Please read page 5, "What's Important for 2016." This is the time (if eligible) to sign up or make changes to your Health Insurance and/or Mountaineer Flexible Benefits. Changes were made, so please read your booklet and plan to attend the Benefit Fairs.

Business and Finance will be sending out Fixed Assets and Inventory information reports to each department head soon. Please update those reports, provide any missing information or changes and return to Business and Finance. Based on the information provided, a physical check by a Business and Finance staff member will be conducted in June or July, and possibly by the Corporation's outside auditing firm during the annual audit. As always, your cooperation is appreciated.

CAPACITY BUILDING GRANTS SUBMITTED

One of the most important grant competitions for land-grant universities is the 1890 Capacity Building Grants program, which is an \$18 million program restricted to the 19 1890 land-grant institutions in the U.S.

West Virginia State University submitted 12 grants by the March 26 deadline, the maximum allowed, requesting \$6.12 million. Grant guidelines dictate that no institution can receive more than 10 percent of the total funds available, or \$1.8 million. In past years, WVSU has done well in this competition, receiving at or near the maximum allowed for a single institution. Results of this year's competition should be announced by August.

WE HAVE A GREAT GRANT FAQ

Grant applications usually want a lot of little bits of data and information besides your program narrative and budget. The Frequently Requested Grant Information link, under the Research section of the university webpage, is a cornucopia of names, numbers, titles and just about any other obscure piece of information you might need to complete an application. You can find it at: www.wvstateu.edu/getattachment/Research/Guidelines-and-Procedures/Frequently-Requested-Information-2-2-15.pdf.aspx

POLICY ALERT

Addendums and changes have been made to the both the R&D Operation and Employee Handbooks. Please view those changes by visiting the Research and Development link on the University's web page.

When submitting Purchase Orders, please make sure all areas of the purchase order are completed, including Funding Source, full address of the vendor, contact person information and reason for purchase. The contact person information is for the individual that is responsible for the items once received, not the individual that prepares the purchase order.

WELCOME

The WVSU R&D Corp. would like to welcome the following individual:

- **Randy Ross**, Veteran and Minority Extension Agent

HAPPY BIRTHDAY!!!

Belated Birthdays

January:

Garvey Price, Padmavathi Nimmakayala, Brunetta Gamble-Dillard and Stephen Seitz

February:

Megan Sheets and Shannon Skiles

March:

Robin Turner, Christopher Postalwait, Tiffany Plear, Dr. Barbara Liedl and Eric Jackson

Upcoming Birthdays

May:

Dr. Jose Ulises Toledo

June:

Thangasamy Saminathan, Dayan Perera, Carla Boggess, Venkata Gopinath Vajja, Derrien Williams, Adam Hodges, Detria Waller and Dharmesh Patel

TRIVIA TIDBITS

What does a candidate's choice of color say about their personality?

An individual makes an impression on another within seven seconds of their first meeting. That first impression is often made merely by the individual's choice of clothing. The choice of color that a candidate wears during an interview can tell a lot to about his or her personality. In a recent survey of employers by CareerBuilder, employers pointed to key color correlations:

- Black: leadership
- Blue: team player
- Gray: logical/analytical
- White: organized
- Brown: dependable
- Red: power
- Green, yellow, orange and purple: creative

(HR Weekly, January 20, 2014)

SIGNS OF BURNOUT

Stressed employees aren't as effective as they can be. Managers need to be on the lookout for stress before it leads to burnout and eventually turnover. Watch out for these often-misread signs of burnout:

- **Irritability:** They take out even small things on strangers.
- **Reminiscing:** Employees who are unhappy tend to talk about how things were "back then."
- **Looking for distractions:** When people are unhappy or overwhelmed they look for distractions as breaks and often will obsess over email, text and other notifications.

When a manager spots signs such as these, he or she should take employees aside to discuss workload and ways to reduce stress.

(Communication Bulletin for Managers & Supervisors, December 2, 2014)

5 COMMUNICATION TACTICS THAT CAN BOOST PERFORMANCE BY 50%

Organizations with leaders who communicate effectively perform almost 50% better than those with the least effective leaders, a Towers Watson study found. Powerful communication skills are critical for the overall direction and impact of a leader's vision. It doesn't matter if it's a presentation, one-on-one directive or casual conversation. All are more effective if they are clear. Here are five essential tactics to communicate more effectively and eliminate problems that arise from misunderstandings:

- **Be Prepared:** Gather relevant facts and information, study and know more about your message than you plan on sharing.
- **Have Substance:** Many people speak to be heard. Be clear on what you want to say before you start talking. Plan your points. When listening to other people, pause before responding so you can plan what you want to communicate.
- **Be Sincere:** People can sense honesty and authenticity. Speak at the correct level. Respect your audience's knowledge level and speak to it. Avoid talking over people's heads or beneath them.
- **Repetition:** Repetition is especially important when making presentations or asking people to change their behavior or improve performance. Repeating your message ensures everyone knows what you expect and curbs those costly mistakes due to misunderstandings.
- **Be Consistent:** When the message is important to ongoing circumstances, refer to it constantly and be consistent. When communicating the message, keep the meaning and expectation consistent to ensure the positive response and outcomes you want.

(Communication Bulletin for Managers & Supervisors, November 3, 2014)

10 E-MAIL ETIQUETTE TIPS FOR THE WORKPLACE

1. **Be concise.** Longer messages are difficult to read, and most people will not read them carefully. Make sure to bold or underline important action items. Keep emails short and to the point.
2. **Avoid sarcasm.** Sarcasm can come across as rude or abrupt because the recipient can't judge your body language.
3. **Include a descriptive, concise subject line.** Many people are inundated with emails during the day and often scan the subject line to prioritize or ignore emails. Give them a clue as to the content of your email, to assist them in properly prioritizing the email.
4. **Don't send an email when emotional or angry.** Cool down and sit on sending the email for 24 hours.
5. **Use emoticons sparsely.** Sometimes it helps communicate the tone of your message when you add an emoticon. However, only do so as necessary for it can end up being annoying to readers if you use too many.
6. **Think twice before hitting "reply all."** Ask yourself, "Do all these other people really need to hear my reply?" If the answer is no, reply only to the original writer.
7. **Respond within 24 hours.** If more time is required, let the sender know you're reviewing the email and when you will get back to that person.
8. **NEVER USE ALL CAPS** or all lowercase.
9. **Start with a greeting** such as Hi, Hello, Good morning, etc., and end with a closing such as Thanks, I appreciate your time, until then, best wishes, etc.
10. **Never try to resolve a conflict via email.** Back and forth emailing is almost guaranteed to make the situation worse. Pick up the phone, walk down the hall or make an appointment to talk to the individual or individuals.

(University of Missouri Show Me Respect Steering Committee)

THE DANGERS OF SITTING

Study after study has highlighted the dangers of a sedentary lifestyle, which include extended periods of sitting. Physical inactivity is an epidemic that is causing all sorts of health problems. It has been associated with almost every chronic disease, including cancer, cardiovascular disease and type 2 diabetes. The World Health Organization has stated that physical inactivity is one of the leading health concerns and is closely associated with increased rates of non-communicable diseases. According to experts, humans need to be vigorously active for at least an hour a day. However, a very small percentage of western society achieves that.

Vigorous activity is more than just normal walking. A person's heart rate needs to be elevated, and individuals need to be engaged in an activity that is physically demanding. An hour of fast walking is an example of vigorous activity. In addition, the more physical activity you incorporate throughout the day, the better the results. This is due to the fact that sitting is an independent risk factor. The more you sit, the worse your health is going to be. Along with the one hour of vigorous physical activity, the more physical activity you can insert throughout your day, such as walking, moving or getting up to move around, the healthier you are going to be.

Sitting for extended periods of time decreases blood flow. The human body has two full circulatory systems. One is the blood system and the other, and least known of, is the lymphatic system. When you move, you push fluids through all the tissues of your body. Fluids moving through the lymphatic system are one of the main means the body fights off illnesses. The lymphatic system acts like a filter for the body by catching viruses and bacteria and killing them. Decreased circulation can result in decreased flexibility and decreased nutrients supplied to muscles and the brain. The human body can be compared to a stream of water. If the water is moving, it is full of vitality and life. If the water is still, it becomes stagnant with low oxygen, and viruses and bacteria are allowed to multiply.

Greg Wells, assistant professor in the Faculty of Kinesiology and Physical Education at the University of Toronto, and an associate scientist in physiology and experimental medicine at the Hospital for Sick Children, suggests the best idea is to try adding short bouts of activity throughout the day. Use the 20/20 rule. For every 20 minutes of sitting, stand up and stretch 20 seconds. In addition, within every two-hour block, try to find 15 minutes to do some activity, such as walking or using the stairs. Even just standing for a while is better than sitting.

Studies also show that physical activity not only improves physical wellbeing, but also cognitive performance. Physical activity and exercise activate the areas of the brain associated with memory, learning, problem solving and concentration. Physical activity actually floods the area of the brain used for cognate thought with oxygen and nutrients.

(Lab Manager, Jenny Hall, University of Toronto July 18,2014)