

COUNTY FARMERS AND RESIDENTS ADAPT TO CHANGING WEATHER

On the heels of the warmest February on record in Shenandoah County, Shenandoah Forum reached out to county farmers and residents who are coping with the trend of shorter, warmer winters and more frequent and extreme storm events. In their stories, we found that resiliency and creativity are key to address such uncertain conditions.

FARMS

Changing weather patterns are a mixed bag for agriculture, the backbone of Shenandoah County's economy. Agriculture is our top economic sector and of course is tied to the success of other big economic drivers in the county, like tourism and outdoor recreation.

According to industry leaders, farmers can expect to see declines in some crops and increased yields in others, as the growing season extends and temperatures increase. Extended periods of drought could increase stress on crops (and farmers too!) Longer growing seasons, though, may mean longer grazing seasons, netting a savings for farmers who purchase hay. But the longer duration of hotter days could be tough on livestock. Heat stress can reduce weight gain, while wetter weather, warmer temperatures, and increased stress may increase the rate of disease and parasites.

FRUITS

Greta Brumback Liskey is the fifth generation to be farming at Woodbine Farms and Market in Strasburg. With three generations still active on the farm, the oldest uncle being 92 years old, the family has seen a variety of growing seasons. Here is what



Greta had to say about changes in the weather:

There is no such thing as a typical season and Mother Nature follows a calendar of her own. Some years, our apple trees may bloom three weeks early, but despite the variety of weather influences we experience throughout the growing season, including frost, drought and rain by harvest time we are generally still within a five-day window of average picking days. Often a weather event we think will be problematic to a crop has a positive outcome. For example, a short-term drought in the orchard industry can be stressful for the trees but it can increase the sugar content of the fruit if it occurs before harvest and it can also help strengthen the tree long-term by forcing the roots downward to find water sources and provide a better anchor for the tree.

Fluctuations in weather can give a grower short-term stress but by the end of the season, as we look at our harvest, it is hard to not be thankful for the crop we received and the beauty that is agriculture.

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WE NEED TO BE READY TO ADAPT AND CHANGE *An Interview with Extension Agent, Bobby Clark*

Q: What are we likely to see with changing weather patterns?

A: If global temperatures continue to rise, in 20 years, we will see that certain things are no longer adapted to our area but other crops or species will emerge that are better suited to our region. For example, 40 years ago, I doubt anyone was growing bermudagrass in the Shenandoah Valley. When I moved here 20 years ago, you would only find a scattering of pastures with bermudagrass. Now, I know of at least one field in the valley planted in bermudagrass and I have heard there are a couple well-established stands north of us in Maryland and Pennsylvania of a specific more-cold tolerant variety. Perhaps in the future, bermudagrass will become a more prevalent and productive grass in our area.

Q: Any specific examples of some changes you have seen?

A: We have seen the growth and production rates of orchard grass, which is a typical hay and grazing material here, decrease. For the past 50 years, orchard grass has been a standard mid-Atlantic forage grass and a farmer would usually get 8-10 years out of a planting. We are no longer seeing that. There is some data to suggest that higher temperatures are contributing to the problems we are experiencing with orchardgrass but we also need to consider the impact changes in technology, equipment and seed varieties have on production.

Q: What are you telling local farmers?

A: We need to be ready to adapt and change. In reality, farmers are consistently ready to adapt to change. For example, there are several new pests including the brown marmorated stinkbug, the kudzu bug, and aphids in soybeans, that farmers have had to learn how to combat and manage that were either not present or not a problem 20 years ago. In terms of crops, 25 years ago,



"I also tell them to get good crop insurance to protect against any extreme weather conditions."

—Extension Agent, Bobby Clark

soybeans were not even grown in the Shenandoah Valley and now they are a common crop. The varieties of crops we grow and our cropping systems have changed dramatically in the past 20 years and lots of factors including pests, new or better plant varieties, production costs, and the market for crops are driving these changes. Changes in weather are only one of a host of factors which influence a farmer's production practices.



Joan Comanor
Shenandoah Forum Chair

A Message from the Chair

There is an old expression, “Everyone talks about the weather, but no one does anything about it!” We may not be able to do something about the weather next week, but some people are giving a lot of thought (and action) about addressing the long term. In this newsletter, you’ll find comments from community members about how long-term weather patterns are likely to impact them professionally or personally.

And in a county, whose economy and way of life is so reliant on natural forces, resiliency is the name of the game. As our Agriculture Extension Agent Bobby Clark points out “we need to be ready to adapt and change” to maintain our productive farms and forestlands.

You’ll also find profiles of some of the outstanding people who have recently joined the county to work on our behalf. We are fortunate to live in an area with so many dedicated, talented public employees.

Don’t forget to include in your summer food shopping locally produced farm products. We will be updating our online **Shenandoah Grown** website and encourage you to check out the many local products available. We will also feature a new section this summer that highlights some of the other products from Shenandoah County but don’t quite fit the locally grown criteria but are too good not to share.

Looking ahead, it is not too soon to mark your October calendar. October 14th will be the third annual “Taste of Shenandoah” festival at Cave Ridge Vineyard. (Keep checking our website or Facebook page for details in the months to come.) You’ll find a variety of **Shenandoah Grown** products to sample and have an opportunity to enjoy the beauty of fall in a beautiful agricultural setting. We will also be partnering again to host candidate forums for board of supervisor and school board seats in Districts 1, 4 and 5 on October 3-5. These forums provide county residents an important opportunity to be better informed voters in November.

As always, we welcome any comments or questions you may have about the Shenandoah Forum. We very much appreciate the donations you provided at the end of 2016 or early 2017. We encourage you to follow us through our website or on Facebook. We look forward to another year of supporting community development through retaining our agricultural-rural-historical character, supporting a healthy environment and sustainable economy, and promoting an informed citizenry as decisions are made about our local leaders.

— Joan Comanor, *Chair*



Jill Jefferson and Bradley Polk

NEW FACES IN THE COUNTY!

Staff Changes in County Community Development Office

Bradley Polk, a Shenandoah County native, graduated from James Madison University and later received a master’s degree in organizational leadership from Shenandoah University. Bradley was named Shenandoah County’s community development director in April 2016. Returning to Shenandoah County, after a short tenure here in 2002-03 as the zoning administrator, Bradley spent the past eight years working in Loudoun County as a planner and as the Round Hill Town manager and zoning administrator.

When the community development director position became available, Bradley said it was too good an opportunity to miss and he quickly jumped at the chance to return to the county. Anyone who meets with Bradley will see he is focused on ensuring the county’s long-term success by seeking new avenues and partners to further diversify the county’s tax base to secure a more vibrant local economy.

Bradley lives in Strasburg with his wife and three children.

Jill Jefferson joined the Community Development Office as county planner in October 2015. A valley resident for the past 25 years and resident of Edinburg for eight of those years, Jill has always considered Shenandoah County a special place. With a master’s degree in environmental science, she is especially passionate about managing and preserving the county’s vast natural resources. In 2015, Jill received a national certification in food hub management and has a strong interest in local foods and promoting agricultural entrepreneurship.

As county planner, Jill especially enjoys working and interacting with county residents who serve on the many county committees including the Agriculture and Forest District Advisory Committee, Citizens Advisory Committee to the Comprehensive Plan, Conservation Easement Authority and Water Resources Advisory Committee. Jill said, “It is truly inspiring to be able to work with so many citizens who are dedicated to seeing the county move forward.”

Budget Director Hits the Ground Running!

Harrison Nicholson joined the county as director of finance in early February 2017 - just in time to start the Fiscal Year 2018 budget process. Harrison grew up in Toms Brook and is a product of the Shenandoah County schools, having attended both elementary and middle school in Toms Brook before going to Strasburg High School.

He is also a graduate of James Madison University and has spent his career working in accounting. Having always viewed Shenandoah County as his “home.” Harrison has maintained property in Toms Brook and kept his eyes open for a chance to move back. He sees this opportunity to return to the county as director of finance as a blessing allowing him to achieve a major personal and career goals while working for the residents of the county.



Harrison Nicholson

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COUNTY FARMERS AND RESIDENTS ADAPT TO CHANGING WEATHER *Continued from page 1.*

FORESTS With more than 184,000 acres of forestland within the county, the health of our forests matters to Shenandoah County residents. Our woodlands provide us with clean air and water, recreation, wildlife habitat, carbon storage and climate regulation. These woodlands also add to the county's economic vitality, both in terms of revenue from the sale of forest products but indirectly in terms of tourism, generating more than \$18 million in revenue for the county.

“Changing weather patterns can greatly increase incidence of forest fires. Higher temperatures cause plants to think spring has arrived and they start to bud out early and then a cold spell kills back the new growth causing more dead vegetation susceptible to burning. Also, the warmer temperatures can pre-warm the ground vegetation drying out leaf litter under the trees which causes more intense burning of material during a wildfire.”

—*John Hisghman, Senior Area Forester, Virginia Department of Forestry, Central Region Shenandoah Work Area*

OUR WATERS With more than 1,338 miles of streams, including the North Fork of the Shenandoah River, flowing through the county, the health of our streams and river is a recurring topic of discussion and concern. Clean, reliable water runs our households and sustains our county's agriculture, businesses and recreation. County residents get drinking water from groundwater sources and changes in weather can put great stress on these water resources. Severe periods of drought can put extra stress on our underground aquifers and lead in some cases to dry wells. For surface water users, water infrastructure and treatment facilities can be overwhelmed by increased volumes of water following heavy rainfall. Heavy downpours can also increase runoff into rivers and streams, washing sediment, nutrients, pollutants, trash, animal waste, and other materials into water supplies.

PLANTS AND ANIMALS Important plant-animal relationships built on the timing of flower blooms will also be affected and cause strain on our wildlife, disrupting the usual cycles of feeding and growth. Just last year, early onset of warmer temperatures followed by a cold snap frosted the flowers of the Black Locust tree, a significant source of nectar for our area bees. Area beekeepers ended up with minimal to no honey yields.

“I was just speaking with a beekeeper who contracts his bees with several local apple orchards. His contract is to have the bees in the orchard within a certain window but this year when apple blooms came in two weeks before the contract date, his bees were still in transit from California where they had been pollinating almonds. This meant the apple grower had to scramble to find enough local bees to do the job --- costing him additional money on top of the original contract for bees he didn't end up using.”

—*Scott Currie, President of Shenandoah County Beekeepers*

OUR HEALTH National news covers the more extreme weather events like tornadoes, wildfires and flooding but what could we see here locally? Warmer temperatures mean longer pollen seasons and more serious allergic reactions to ragweed and tree pollen. Medical experts are preparing for spikes in other mosquito borne diseases such as West Nile. The mosquitoes that carry these viruses thrive on the hot and humid conditions becoming more characteristic of our summer months.

“I see the incidence of Lyme disease both in the human and animal populations continue to rise. I expect our exposure to these tick-borne diseases will become more frequent. At the animal hospital, we are consistently finding ticks on our patients throughout the year, even in the typically colder months of December, January and February.”

—*Dr. Sarah Connor, Veterinary, Seven Bends Animal Hospital, Woodstock VA*



An April 13, 2017 forest fire that burned more than 3,000 acres on the Goshen Pass Fire in Rockbridge. Photo was taken at about 11:00 pm when fires generally don't burn as intensely. The extreme fire behavior was partially due to the preceding weeks of warm weather.



On July 13, 2015, a torrential rain storm, bringing more than four inches of rain in four hours, left Woodstock under water. More than 30 roads were closed due to high water and residents were advised to stay in their homes and allow floodwaters to recede. Photo courtesy of Sara Strazzella.



“I love seeing a row of sunflowers in a garden. Bees do too! It's a great source of late summer nectar and pollen.”
—*Scott Currie, Toms Brook Busy Bee and President of Shenandoah County Beekeepers*

Shenandoah Forum
P.O. Box 654
Woodstock, VA 22664

Shenandoah
FORUM

SAVE THE DATE!



DETAILS FOR SHENANDOAH COUNTY CANDIDATE FORUMS *COMING SOON!*

Shenandoah County Chamber of Commerce, Shenandoah County Education Association, Shenandoah Forum, Friends of the North Fork of the Shenandoah River and Farm Bureau of Shenandoah County are working together to host candidate forums for Shenandoah County Board of Supervisor and School Board seats.

The forums are a great opportunity for Shenandoah County voters to meet the candidates and ask them questions and for the candidates to introduce themselves and let the voters know why they are running for office. They are intended to be civil discussions of the issues and an informative event for all county residents voting on Tues, November 7th. All officially announced candidates will be invited to participate.

**Details on locations
coming soon.**

***Forums will start at 7:00pm
on the following dates:***

- District 1 - Tues, Oct 10
- District 4 - Wed, Oct 11
- District 5 - Thurs, Oct 12

Look for additional information coming soon. Details will be posted on www.ShenandoahForum.org or Facebook. Or contact, Kim Woodwell, Shenandoah Forum, 540.984.7003 kwoodwell@shenandoahforum.org or Sharon Baroncelli, Shenandoah County Chamber of Commerce, 540.459.2542 or info@shenandoahcountychamber.com.