MISSISSIPPI STATE UNIVERSITY EXTENSION

Mississippi *Vaccinium* Journal

Volume 9, Issue 3 July-September 2020

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- Jonathan Oliver
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Inside this issue:

Better, but…

The outlook at the beginning of the season was really good. Crop looked great, weather was cooperating, and everything was good to go. But, our environment is unpredictable and excessive rainfall caused a myriad of problems in late May that we were never able to fully recover from. Couple that with the continuing coronavirus pandemic and our world feels shaky. There is an end to this tunnel but not without some hardship. The pandemic is causing disruptions for a lot of us. I work from home a lot and much of my research and Extension work has shifted or been put on hold. The USDA-ARS building in Poplarville is essentially closed and we don't know for how long. So, if you need to reach me the best way is email for now. Let's keep our chins up though and I hope to see you in person very soon at the Blueberry Education Workshop or other event. However, until we see a better trend in cases, we may adjust and go online. I will keep you apprised. Check out the rest of the information in this issue and I hope it is useful in some way.

Harvest Tally for 2020

The final harvest estimate for this year was up from last year, but still low. With all the information I was able to gather from growers who were willing to share their harvest numbers I came up with this total:

2 million pounds

Most of the harvest this year went to the fresh market (estimated 90%) and the final 10% going to the process market. Frost damage to early southern highbush varieties was a slight problem for some, but the biggest issue was rain at the wrong time — and a lot of it. Tropical Storm Cristobal hit some areas hard. I think we need to get used to the idea that high intensity rainfall events are going to become more prevalent as time goes on. The thing is what to do about it? These are the challenges going forward for our blueberry industry here in Mississippi.

New Blueberry Podcast Series

Are Machine Harvesters Ready to Replace Hand Harvesting?

In the latest episode of the "The Business of Blueberries," hosts Kasey Cronquist (president of the U.S. Highbush Blueberry Council and the North American Blueberry Council) and Rod Cook (industry veteran and the chair of the USHBC Innovation and Technology Committee) dig into the timely subject of machine harvesting for blueberries with Brian Foote, product representative for Oxbo International Corp., and Noel Sakuma, director of field operations for Oregon Berry Packing.

With labor and food safety issues on the rise, there's a demand among blueberry growers for more advanced mechanical harvesting technology. As veterans in the industry, Brian and Noel discuss their experience and efforts to develop a machine harvest technology that picks as well as, if not better, than hand picking.

Topics covered in the podcast include:

- The history of the machine harvester
- Importance of fruit quality
- Consistency in the field when implementing machinery
- Results of field trials
- Future of blueberry harvesting technology

Access this and all previous podcasts here: https://ushbc.org/the-business-of-blueberries-podcast/

Economic study of Blueberry Industry on U.S. Economy

New Study Reveals Blueberry Growers Strengthen U.S. Economy by Infusing Billions of Dollars Each Year, Generating Thousands of Jobs

Growers of U.S. highbush blueberries generate more than $4.7 billion in annual economic impact, translating to more than $12.7 million flowing into the U.S. economy every day of the year.

"The U.S. highbush blueberry industry – including 12,739 blueberry farms – is a powerful financial force," said Kasey Cronquist, president of the U.S. Highbush Blueberry Council (USHBC). "Behind every farm are growers who not only tend a truly remarkable superfruit, but also stimulate business activity, create thousands of jobs and contribute mightily to the economy."

In addition to the $4.7 billion in total economic impact, which includes several factors related to increased business activity as a result of growing blueberries, a new economic impact study commissioned by the USHBC further reveals:

Jobs: U.S. highbush blueberry growers alone create and sustain more than 44,535 full-time equivalent jobs each year. These jobs are a result of the business activities of growers and the multiplier effect their purchases generate in a variety of farming and nonfarming sectors. It is important to note that this substantial job number does not include the jobs supported by blueberry processors or handlers. We would see even higher numbers if the full blueberry supply chain was considered, but for the purposes of this study, we focused exclusively on the economic impact of highbush blueberry growers, said Cronquist.

Labor Income: Nearly $1.8 billion in labor income is generated by the business activities of growers – equating to more than $4.9 million each day. These are dollars going to wages and salaries for new employment, as well as expanded incomes to those already in the labor force for activities such as overtime pay. These dollars are then diffused throughout the U.S. economy as the funds are spent on crucial goods and services such as food, housing, transportation and health care, Cronquist added.

Indirect Business Taxes: Each year, more than $145 million in indirect business taxes, not including income taxes, are generated by U.S. highbush blueberry growers. These collective indirect business taxes translate to nearly $400,000 per day. To put this in context, the annual tax revenue generated from U.S. highbush blueberry growers is more than the 2019 U.S. Department of Homeland Security's Operations and Support budget ($129 million) or the 2019 U.S. Department of Energy's Cyber Security, Energy Security and Emergency Resources budget ($96 million).

Economic Impact Study, cont.

"It is clear that blueberry growers play a significant role in strengthening the economic climate of the United States," said Cronquist. "Their activities are diffused throughout the economy, touching nearly every aspect of life throughout the country."

U.S. Highbush Blueberry Growers Stimulate Major Economic Impact in Key Growing States
In addition to the dramatic national economic influence of highbush blueberry growers, contributions are also significant at the state level in terms of financial influx and jobs created. A breakout of the grower impact in the top eight highbush blueberry states is included here:

State	Economic Impact (Millions/Annual)	Jobs Created (Full-time Equivalent/Annual)
Michigan	$530.4	6,600
Georgia	$521.8	4,140
California	$458.6	4,240
Washington	$464.4	4,450
Oregon	$353.5	3,505
Florida	$295.3	2,540
New Jersey	$149.3	1,885
North Carolina	$125.9	990

The economic impact study – commissioned by the USHBC – was conducted in April 2020 by Dennis Tootelian, Ph.D., emeritus professor of marketing and the former director of the Center for Small Business in the College of Business Administration at California State University, Sacramento. The analysis is based on both U.S. highbush blueberry acres in production and in development. It is important to note that these projections are based on annual average expenditures, which means that this impact is expected to occur each year that such spending occurs. National acreage statistics were secured from the United States Department of Agriculture. The full economic impact study and analysis are available at https://ushbc.org/economic-impact-report/.

Fruit Splits and Yeast Rot in Blueberries

Jonathan Oliver — Extension Plant Pathologist, University of Georgia

As a follow-up on Dr. Sial's post from last week, I have also received several calls from Extension Agents about the prevalence of soft fruit and fruit splits. Furthermore, in addition to reports of berry splits, we've received reports that yeast rot has been found affecting some of this fruit. Since yeast rot is an uncommon issue on blueberry, I have received several questions about it in recent days.

Yeast rot is caused by the fungus *Aureobasidium pullulans*. This rot is a sporadic post-harvest rot of blueberries that is rarely reported. It can cause fruit to rapidly collapse and take on a wet, slimy appearance (images can be found in the Michigan State Fruit Rot ID Guide). Fruit heavily affected by yeast rot may have a distinct fermented odor. There is very little information about the environmental conditions that can lead to yeast rot, but it is likely that warm, wet, humid conditions would favor the growth of this fungus. This fungus is known for its ability to colonize fruit surfaces, especially within wounds. Overripe, split, or hail-damaged fruit can be a contributing factor to issues with yeast rot. Unfortunately, management options for this post-harvest issue are not known.

It is likely that the recently reported issues with split fruit and fly infestations are contributing to the yeast rot issues that we are seeing. The splits on the fruit (and the holes/punctures caused by flies like SWD) are wounds that can promote the growth of the fungus that causes yeast rot. It is likely also that the fermented odor of fruit with yeast rot attracts even more flies which further spreads and exacerbates the problem.

We have experienced unusual weather patterns this year including a warm winter, low night-time temperatures lingering late into the season, and excessive rain events over the past few weeks. These may have caused the issues with fruit splits that we are seeing right now. The most common causes of blueberry splits are rainfall or excessive/irregular irrigation and freeze scars. Rain splitting occurs when water is imbibed through the skin of ripe berries (usually after the surface of the berry is wet for 24-48 hrs). Scar tissue left over from freezes can also reduce the elasticity of berry skins and result in splits when berries expand. Regardless of whether scar tissue or rain splitting is to blame for the berry splits, the yeast rot that we are seeing now is more likely to be a result of the splits rather than a cause.

Originally posted on the UGA blueberry blog. Visit the original post here: https://site.caes.uga.edu/blueberry/2020/06/fruit-splits-and-yeast-rot-in-blueberries/

Coronavirus Food Assistance Program (CFAP)

USDA Announces Additional Specialty Crops Eligible for Coronavirus Food Assistance Program

The U.S. Department of Agriculture (USDA) has released an initial list of additional commodities that have been added to the Coronavirus Food Assistance Program (CFAP) and announced other adjustments to the program based on comments received from agricultural producers and organizations and review of market data.

Producers will be able to submit applications that include the new commodities on Monday, July 13, 2020. USDA's Farm Service Agency (FSA) is accepting applications for CFAP through Aug. 28, 2020. USDA expects additional eligible commodities to be announced in the coming weeks.

Changes to CFAP include:

- Adding the following commodities: alfalfa sprouts, anise, arugula, basil, bean sprouts, beets, blackberries, Brussels sprouts, celeriac (celery root), chives, cilantro, coconuts, collard greens, dandelion greens, greens (others not listed separately), guava, kale greens, lettuce – including Boston, green leaf, Lolla Rossa, oak leaf green, oak leaf red and red leaf – marjoram, mint, mustard, okra, oregano, parsnips, passion fruit, peas (green), pineapple, pistachios, radicchio, rosemary, sage, savory, sorrel, fresh sugarcane, Swiss chard, thyme and turnip top greens.

- Expanding for seven currently eligible commodities – apples, **blueberries**, garlic, potatoes, raspberries, tangerines and taro – CARES Act funding for sales losses because USDA found these commodities had a 5 percent or greater price decline between mid-January and mid-April as a result of the COVID-19 pandemic. Originally, these commodities were only eligible for marketing adjustments.

- Determining that peaches and rhubarb no longer qualify for payment under the CARES Act sales loss category.

- Correcting payment rates for apples, artichokes, asparagus, **blueberries**, cantaloupes, cucumbers, garlic, kiwifruit, mushrooms, papaya, peaches, potatoes, raspberries, rhubarb, tangerines and taro.

Additional details can be found in the Federal Register in the Notice of Funding Availability (NOFA) and Final Rule Correction and at www.farmers.gov/cfap.

Coronavirus Food Assistance Program (CFAP) , cont.

Producers have several options for applying to the CFAP program:

Using an online portal, accessible at farmers.gov/cfap, allows producers with secure USDA login credentials—known as eAuthentication—to certify eligible commodities online, digitally sign applications and submit directly to the local USDA Service Center. New commodities will be available in the system on July 13, 2020.

Completing the application form using our CFAP Application Generator and Payment Calculator found at farmers.gov/cfap. This Excel workbook allows customers to input information specific to their operation to determine estimated payments and populate the application form, which can be printed, then signed and submitted to their local USDA Service Center. An updated version with the new commodities will be available on the website on July 13, 2020.

Downloading the AD-3114 application form from farmers.gov/cfap and manually completing the form to submit to the local USDA Service Center by mail, electronically or by hand delivery to an office drop box. In some limited cases, the office may be open for in-person business by appointment. Visit farmers.gov/coronavirus/service-center-status to check the status of your local office.

USDA Service Centers can also work with producers to complete and securely transmit digitally signed applications through two commercially available tools: Box and OneSpan. Producers who are interested in digitally signing their applications should notify their local service centers when calling to discuss the CFAP application process. You can learn more about these solutions at farmers.gov/mydocs.

Getting Help from FSA

New customers seeking one-on-one support with the CFAP application process can call 877-508-8364 to speak directly with a USDA employee ready to offer general assistance. This is a recommended first step before a producer engages the team at the FSA county office at their local USDA Service Center.

All other eligibility forms, such as those related to adjusted gross income and payment information, can be downloaded from farmers.gov/cfap. For existing FSA customers, these documents are likely already on file.

All USDA Service Centers are open for business, including some that are open to visitors to conduct business in person by appointment only. All Service Center visitors wishing to conduct business with FSA, Natural Resources Conservation Service or any other Service Center agency should call ahead and schedule an appointment. Service Centers that are open for appointments will pre-screen visitors based on health concerns or recent travel, and visitors must adhere to social distancing guidelines. Visitors may also be required to wear a face covering during their appointment. Field work will continue with appropriate social distancing. Our program delivery staff will be in the office, and they will be working with our producers in office, by phone and using online tools. More information can be found at farmers.gov/coronavirus.

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The Mississippi *Vaccinium* Journal is a quarterly, digital publication of Mississippi State University Extension Service. Subscriptions may be obtained by sending an email address to eric.stafne@msstate.edu.

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Best Practices for U-Pick Farms

Eric Stafne, MSU-ES

A webinar entitled "Best Practices for U-Pick Blueberries in 2020" was held in June. This year was especially challenging due to the COVID-19 pandemic. However, there was strong demand for locally grown produce across the country and blueberries play a significant role in satisfying that demand. As we go forward into next year we do not know how this virus will affect us, so it is best to be prepared. This webinar provides some good insights into U-Pick and online sales from folks who did it. If you are doing U-Pick or are considering it for next year this is a good place to start. Below is a great document from Cornell University about best practices for U-Pick during this pandemic, but it also has application for other times as well. You can find it at the link below:

https://smallfarms.cornell.edu/resources/farm-resilience/best-%20management-practices-for-u-pick-farms-during-the-covid-19-pandemic/

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