

# White County Horticulture

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## Black Rot on Grapes

Grapes are not an easy crop to grow in Arkansas. Our high humidity and warm weather is favorable for fungal diseases. Black rot, caused by the fungus *Phyllosticta ampellicida*, formerly *Guignardia bidwellii*, is the most economically important disease of grapes. All new growth is susceptible throughout the growing season, including leaf laminates, petioles, shoots, tendrils, peduncles, and fruit. Symptoms on leaves are circular tan spots that eventually become reddish brown with a narrow dark brown border.



Black pimple-like fruiting bodies of the fungus form in the lesions. The fruiting bodies also appear in black lesions on the young shoots. Infection on the berries starts as a small white dot. In only

a few hours, the tiny dot is surrounded by a reddish-brown ring. Within a few days the berry

starts to dry, shrivel, and wrinkle to become a hard, blue-black mummy. The symptoms on Muscatine fruit are small, black, superficial, scabby lesions on infected berries. The lesions may coalesce to cover most of the berry. Infected berries may crack at the edges of the scabs.

Black rot can be effectively controlled by using Captain, Abound, Pristine, Aprovia, Revus Top, Adament, Topguard, Inspire Super, or Quadris Top, starting when shoots are 4-6 inches high, and continuing at 14-day intervals until August.



## Watermelon Cultivar Trial:

Data to Help You Decide Which Watermelon to Grow  
by Dr. Matt Bertucci - July 23, 2020

New Horticulture Assistant Professor Dr. Bertucci shares the results from a watermelon cultivar trial he conducted last summer and reveals the mysteries behind seedless watermelons!

Fruit breeding and the development of new cultivars provide growers new options for production: plants that ripen more rapidly, produce more fruit, or harbor resistance to pests or diseases in the field. New cultivars also offer benefits for consumers such as different fruit sizes or sweetness. As new cultivars are generated by public and private breeding programs, it is important to evaluate their relative performance and suitability to our region of the country. Thus, we conducted this trial to evaluate yield, fruit production, and relative sweetness of six watermelon varieties.



Figure 1: Overhead image of plots in Hope, AR.

In the summer of 2019, we planted six watermelon varieties at the Southwest Research and Extension Center in Hope, Arkansas and at the Vegetable Research Station in Alma, Arkansas. Cultivars in this trial included two seeded watermelon types: Jubilee and Charleston Gray, and four seedless watermelon varieties: Exclamation, Excursion, Fascination, and WDL4410. Watermelon seeds were started in the greenhouse and transplanted into the field when seedlings reached the 3- to 5-leaf stage. All

watermelon were grown under black plastic with drip irrigation (Figure 1-2).

One issue with seedless watermelon is that they cannot properly pollenate and set fruit on their own. They require dedicated pollenizer vines nearby to provide pollen to generate fruit. To ensure seedless varieties were properly pollinated, pollenizer vines SP-7 ('Super pollenizer 7') vines were transplanted within each seedless watermelon plot. One pollenizer vine was planted for every three seedless watermelon vines. Fortunately, seeded watermelon shed sufficient pollen and will set fruit without the aid of pollenizer vines. In fact, growers commonly use a regular seeded watermelon variety to serve as the pollenizer vine for their seedless watermelon vines. If you choose to do so, be sure to pick a distinct rind pattern, so you know which fruit is seedless!



Figure 2: Overhead image of plots in Alma, AR.

In this trial, fertility and pest management were maintained in accordance with state and regional recommendations, as outlined in the [2020 Southeastern US Vegetable Crop Handbook](#) and [Arkansas Common Cucurbit Problems](#). Our goal was to provide a



representative environment that accurately reflects the production conditions of commercial growers around the state and to hopefully generate some information to help growers determine if any of these watermelon varieties are suitable for their production.

We harvested all fruit as they ripened and recorded the weight for each melon. Fruit were graded into culls or marketable based on fruit weight, with a threshold of nine pounds as the cutoff for a marketable fruit, using the grading standard by [Schultheis and Stark \(2019\)](#). Anything weighing less than nine pounds was scored as a cull.

### Results:

Total fruit production of each watermelon cultivar differed between Hope and Alma. For total fruit in Hope, the seedless Exclamation produced the greatest number with over 3,700 fruit per acre. More interesting is the marketable fruit ( $\geq 9$  lb.) where Excursion and WDL4441 exhibited the highest number of marketable fruit. Marketable fruit production was similar in Hope and Alma, so the data are presented with sites averaged. Interestingly, Exclamation and Fascination had the *lowest* number of marketable fruit, despite producing the highest number of total fruit. This indicates that these cultivars produced many fruit which were too small to be considered marketable (i.e.  $<9$  lb.).



**Bamboo**

(*Arundinaria gigantea* is the only Arkansas native cane.) Most of the problem plants are introduced species.

Description: Bamboo is a woody member of the grass family. The joints of the main stem are hard and solid; the area between the joints is hollow.

### Chemical Control: In home landscapes

Glyphosate is the most practical treatment for bamboo. Like greenbrier, new, tender growth must be present to permit absorption of the herbicide. Cut the bamboo to the ground and spray when new shoots reach a height of 18 to 24 inches. Use a 5% solution of a glyphosate product containing at least 41% active ingredient. Repeat each time bamboo shoots appear. In areas where root uptake by nearby plants is not a concern, Arsenal® (imazapyr) is more effective than glyphosate for bamboo control. Drilling a small hole just below a joint and filling the hollow section below with undiluted glyphosate is somewhat effective for small stands.

## **Arkansas Beekeeping Calendar August**

### **Bees:**

Colony growth rate slows as the nectar flow dries up in hill areas; bees will still forage for clean water. During times of summer dearth, bees can often consume more honey than they are storing. There is little chance of swarming during this period. In the delta regions, nectar flow from agricultural crops may still be strong.

### **Beekeepers:**

Ensure that bees have access to clean water. Watch out for robbing activities, which may indicate a weak colony. In some locations, honey should be harvested before bitterweeds bloom and ruin the flavor of the entire crop. Bees may tend to be cranky and more prone to stinging during times of dearth, so be careful opening hives. Varroa mite levels will be reaching peak numbers. (See insert for additional information of Varroa mites).

### **Cheers! Groundwork laid for program to elevate Arkansas wine, encourage consumers**

*By Mary Hightower*

*U of A System Division of Agriculture*

A network of Arkansas research scientists, horticulture experts and others has laid the groundwork for a program that will set quality standards for Arkansas-made wine, provide professional development for growers and winemakers and entice consumers to taste the fruit of the state's vines and their unique flavors.

Renee Threlfall, a research scientist at the University of Arkansas System Division of Agriculture, will serve as director of the Arkansas Quality Wine program, or AQW. The program will be established as part of a project funded by a specialty crop block grant from the Arkansas Department of Agriculture. Other project team members include Amanda McWhirt, extension horticulture crops specialist for the Division of Agriculture and Amanda Fleming, a food science graduate student who is also the head winemaker at Post Winery.

"The program is inspired by other wine classification systems that ensure high standards and celebrate the unique characteristics each area brings to its wines," Threlfall said. "Arkansas has great wine and we want our consumers to be able to recognize the value of this industry."

The Arkansas winemaking industry began in the late 1800s with German-Swiss immigrants who made sacramental wine as well as table wines. In 2012, the latest year for which economic impact figures are available, Arkansas' 13 wineries reported \$20.3 million in retail sales and contributed \$173 million to the state economy. Arkansas currently has 30 grape growers and 16 wineries with the potential for industry growth.

"I think the Arkansas grape and wine industry has needed a program like this to help with the unification and expansion of this industry and we are thrilled with the support we are getting from the industry for this program," Threlfall said. "Although this project is only two years, we hope to ensure the continuation of the AQW by partnering with the Arkansas Wine Producers

Council and the Arkansas Grape Growers Association.”

Audrey House, owner of Chateaux aux Arc and chair of the Arkansas Wine Producers Council said she’s “excited to work with Dr. Threlfall on the AQW program for developing value-added marketing and quality assurance of Arkansas-grown wines. This is an essential element in recognizing our great state’s history of winegrowers and future presence in the global wine market.”

Doug Hausler, owner of Keels Creek Winery, said that “as an analytical chemist for over 40 years and a small winery and vineyard owner for 16 years, the implementation of a wine quality program in Arkansas is welcomed news and should enhance the quality wines produced in Arkansas.”

“Post is glad to be sharing winemaker Amanda Fleming’s talents statewide and hope that the industry can make good use of the University of Arkansas System Division of Agriculture’s efforts and the information that it generates,” Paul Post, president of Post Winery, said. “We hope the AWQ program will point out problem areas and bring new ideas to improve the overall quality and quantity of Arkansas wines.”

AQW will include extension outreach, helping grape growers increase crop production, improving techniques for home and commercial, as well as creating marketing materials to raise public awareness of Arkansas wines.

### **Quality standards**

Threlfall said the program will establish quality standards for commercial wines made mostly from Arkansas-grown grapes. The commercial wines will be submitted and evaluated during an annual wine competition. Not only will the appearance, aroma and tastes of the wines be evaluated by expert wine judges, but the wines will also have to meet chemical standards.

“The sensory evaluation and analysis of chemical attributes of the wines entered in the competition will be used as indicators of quality and provide wineries with clear, measurable metrics for progress through feedback from wine judges after sensory evaluation and reports on the chemical analysis,” Threlfall said.

Wines that earn AQW status can use the AQW seal on each bottle of wine produced as well as receive recognition on AQW marketing materials. She said she hopes that AQW wines will provide the industry an opportunity to consumers “to identify and try premier Arkansas wines.”

“The AQW will be a great benefit to Arkansas winemakers and winegrowers alike,” said Dennis Wiederkehr, president of Wiederkehr Wine Cellars, Inc. “Actually, a program like this can extend beyond the borders of Arkansas and benefit the region.”

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