



**2021 Alabama State Report  
NCCC212 Small Fruit and Viticulture Research Cooperative Project  
Dr. Elina Coneva**

**Grapes:** (*V. vinifera*, American and French-American hybrids, *Muscadania rotundifolia*)

1. Performance of UC Davis Developed Pierces Disease (PD) Resistant 87.5% *V. vinifera* Grapes in AL.

E. Coneva, Auburn University, Auburn, AL, and Andy Walker, UC Davis.

**Objective 1, Objective 4**

*Dissemination of results:* Result were disseminated to grape producers in Alabama and the southeast.

*Plans for next reporting period:* Repeat of field trials, developing a webinar and printed leaflets.

2. Evaluation of UC Davis Developed Pierces Disease (PD) Resistant 94% *V. vinifera* Grapes in AL and developing a technology for sustainable production.

E. Coneva, Auburn University, Auburn, AL, and Andy Walker, UC Davis.

**Objective 1, Objective 2, Objective 4**

*Dissemination of results:* Result were disseminated to grape producers in Alabama and the southeast.

*Plans for next reporting period:* Repeat of field trials, developing a webinar and printed leaflets.

3. Assessment of newly Developed Muscadine Grape Cultivars and Advanced Selections in Alabama.

E. Coneva, Auburn University, Auburn, AL, Patrick Conner, UGA, and Margaret Worthington, University of Arkansas.

**Objective 1, Objective 4**

*Dissemination of results:* The experimental vines are young, and no information has been disseminated to growers as of yet.

*Plans for next reporting period:* Repeat of field trials, developing a webinar and printed leaflets as well as a field day for growers.

- Evaluations of selected rootstock for sustainable hybrid bunch grape production in Alabama. E. Coneva, Auburn University, Auburn, AL.

**Objective 1, Objective 2, Objective 4**

*Dissemination of results:* Results were disseminated to grape producers in Alabama and the southeast.

*Plans for next reporting period:* Repeat of field trials, developing a webinar, printed leaflets, and a field day.

- Evaluation of Performance of Newly Bred Seedless Table Grape Selections from the University of Arkansas Breeding Lines.

E. Coneva, Auburn University and John Clark, University of Arkansas.

**Objective 1, Objective 4**

*Dissemination of results:* Young, re-planted site. Expect first crop data collection in 2022.

*Plans for next reporting period:* Repeat of field trials, develop a webinar, and printed leaflets.

**Blueberry:**

- Assessment of Performance of the UGA Blueberry Breeding Program New Releases, focusing on Rabbiteye Blueberry Cultivars.

E. Coneva, Auburn University, Auburn, AL, and Scott NeSmith (retired), University of Georgia, Griffin, GA.

**Objective 1, Objective 4**

*Dissemination of results:* Results were disseminated to interested producers in Alabama and the southeast, In-Service agent training was conducted.

*Plans for next reporting period:* Repeat of field trials, develop a webinar, printed leaflets, and a field day.

**Evaluation of UC Davis Developed Pierce's Disease (PD) Resistant 94% *V. vinifera* Grapes in AL and developing a technology for sustainable production.**

Studies continue to evaluate the Pierce's Disease (PD) resistant, predominantly European grape 'U0502-20' developed by the UC Davis breeding program in central Alabama. The major goal is to assess the vinegrape vegetative and cropping potential when vines are planted at three different planting distances and trained to a highly efficient 'Watson' trellis system. 'Watson' is a relatively new trellising structure that continues to gain popularity in the southeastern viticulture. It features divided canopy training for better air movement and reduced risk of foliar disease development, while providing ease in canopy management and crop harvest. Additionally, we aimed to determine the effect of planting distance on 'U0502-20' fruit quality characteristics. The 'U0502-20' vines produced the first commercial crop during the 2019 season. In 2021, the total yield per vine was

similar to previous season's level for vines planted at 6' X 12' and 7' X 12', but was significantly higher for vines planted at a distance of 8' X 12', which produced 12.6 kg/vine on average. Our results on cumulative yield per vine for the period of plant establishment are demonstrating the vines planted at a distance of 8' within the row were the most productive and produced 29.4 kg/vine. We estimated the average annual yield per acre based on the number of vines at each planting density and found out that the highest crop per acre (5 MT/acre) was produced at distance of 6' x 12', followed by vines planted at 8' X 12' (4.5 MT/acre), and 7' X 12' had 4.4 MT/acre. Mean cluster weight varied between 320.0 and 621.2 g between seasons, with vines planted at 7' X 12' consistently producing the largest clusters each season (Table 1). Planting distance had a significant effect on soluble solids content in 2021, when vines planted at 8' X 12' produced the sweetest berries.

### **Assessment of Performance of the UGA Blueberry Breeding Program New Releases, focusing on Rabbiteye Blueberry Cultivars.**

Alabama's blueberry farm gate value has increased considerably in the last decade. A new large-fruited rabbiteye blueberry cultivars named 'Titan' and 'Krewer' were recently released by the UGA. The USDA-ARS has also released a hybrid selection named 'Pink Lemonade' that has a potential appeal for landscape planting and for the novelty or specialty fruit market. Rooted plants from 'Alapaha', 'Climax', 'Krewer', 'Ochlockonee' 'Premier', 'Pink Lemonade', 'Powderblue', 'Tifblue', 'Titan', and 'Vernon', each represented by 4 bushes were planted in a RCBD. The preliminary results suggest 'Alapaha' berries ripened early in the season, on June 1, while 'Ochlockonee', 'Powderblue', and 'Tifblue' started to mature two weeks later, on June 16. 'Krewer' produced the largest mean berry size of 3 g, followed by 'Titan' with an average berry size of 2.9 g. 'Tifblue' fruit had the smallest berry size of 1.3 g. Fruit soluble solids varied between 12 % and 13.6 % with 'Climax' bushes producing the sweetest berries. Studies will continue to completely assess cultivar performance in multiple seasons.

### **Publications:**

#### **Abstracts:**

1. Coneva, E.D. 2021. Effect of Planting Density on Yield and Fruit Quality of Newly Introduced Pierce's Disease Resistant *Vitis vinifera* Hybrid Grape in Alabama. ASHS Annual Meeting. HortScience 56(9):S. (Abstr.)
2. Coneva, E.D., S. NeSmith, and A. Caylor 2021. Assessment of Rabbiteye Blueberry (*Vaccinium ashei*) Cultivars in Alabama. XII Vaccinium Symposium, NS, Canada.

3. Vinson, E.L., E.D. Coneva, R. Kessler, and C. Ray. 2021. Incidence of Spotted Wing Drosophila Infestation in Blueberries in Alabama. XII Vaccinium Symposium, NS, Canada.
4. Coneva, E.D. and M. Price. 2021. Evaluation of Rabbiteye Blueberry (*Vaccinium ashei*) Cultivars in Central Alabama. National association of County Agricultural Agents (NACAA) Professional Development Annual Meeting.
5. Coneva, E.D. 2021. Determining the Optimal Planting Distance for Pierce's Disease Resistant Predominantly *Vitis vinifera* Grape Selection in Alabama. American Society for Enology and Viticulture Eastern Section (ASEV-ES) Annual Conference.
6. Coneva, E.D. 2021. Evaluation of Rabbiteye Blueberry (*Vaccinium ashei*) Cultivars in Central Alabama. ASHS Annual Meeting. HortScience 56(9):S118. (Abstr.)
7. Coneva, E.D. 2021. Developing a Technology for *Vitis vinifera* Production in Alabama. Southeastern Professional Fruit Workers Conference, SC.
8. Coneva, E. D. and M. Price. 2021. Performance of Pierce's Disease Resistant Predominantly European Grapes in Alabama. Southeastern Regional Fruit and Vegetable Conference, Savannah, GA.

**Extension Publications:**

- Elina Coneva. Evaluation of Recently Released Rabbiteye Blueberry Cultivars with Improved Qualities. 2021. Alabama Cooperative Extension System, IPM Communicator Newsletter:  
<https://www.aces.edu/blog/topics/crop-production/evaluation-of-recently-released-rabbiteye-blueberry-cultivars-with-improved-qualities/>
- Elina Coneva, Kassie Conner, Charles Ray. 2021. Pest Alert: Latania Scale in Blueberry Orchards. Alabama Cooperative Extension System, IPM Communicator Newsletter:  
<https://www.aces.edu/blog/topics/crop-production/latania-scale-in-blueberry-orchards/>
- Elina Coneva. 2021. Blueberry rust. Alabama Cooperative Extension System, IPM Communicator Newsletter:  
<https://www.aces.edu/blog/topics/crop-production/pest-alert-blueberry-rust/>