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Crop Conditions

Grapes are starting to ripen (veraison) in Lafayette. Marquette and Brianna are the earliest varieties and both are about 2 weeks from harvest. Floricane producing blackberry harvest continues. Primocane fruiting blackberries and raspberries are just getting started. Japanese beetles continue to be a major problem in addition to Spotted Wing Drosophila. Peach harvest is winding down in Lafayette. Japanese beetles were a major problem, but we only had a small amount of peach scab. Apples harvest is underway. Early varieties such as Pristine are still producing and a few others such as Gala are about ready.



Mars table grape at veraison



Marquette grapes at veraison



Marquette grapes netted for bird protection



Apples coloring nicely



GoldRush



Redhaven peaches final harvest



Primocane blackberries beginning to ripen



Blackberries attacked by Japanese beetles



Floricane blackberries still producing



Elderberries ripening

2017 Grape Harvest

Grape harvest is just about to get started in the southern part of the state. Early varieties will be harvested starting next week. Most varieties are slightly ahead of normal this year. In Lafayette, Marquette and Brianna are at full veraison and shold be ready to harvest in the next couple of weeks. We generally harvest Brianna the third week of August

and Marquette the first week of September. Depending the weather for the next couple of weeks, we might be a bit early this year. Fruit quality overall is very good.

With wine grapes, all fruit of a given cultivar is typically harvested from the vineyard or block at a single time to coordinate winery activity and to reduce costs. It is important to plan carefully so that the harvest date coincides with the optimum fruit quality.

Most vineyards have some degree of variability in soil type and drainage, sunlight exposure, wind, insect and disease pest, nutritional status, etc. Fruit from different parts of the block, from adjacent vines, as well as from different parts of the same vine can vary. Much of the variability can be reduced with proper vineyard management, e.g. cluster thinning, shoot thinning, canopy management, etc.

As harvest nears, it is very important to monitor grape chemistry. Growers should sample weekly leading up harvest with a protocol to collect a representative sample of fruit from the entire vineyard. This can be a sample of 200 berries per block collected from vines randomly, but with emphasis on collecting berries from top, middle and bottom of clusters, and from exposed and shaded clusters. Some growers prefer to collect a sample of 5 to 10 whole clusters per block rather than individual berries to capture the variability within clusters. Often sampling occurs from a few select "cardinal" vines in a block. Whatever approach is used, be sure to compare your sampling results to the actual final harvest juice parameters at the press to determine the accuracy of your sampling. Most of the time samples tend to over estimate the level of fruit maturity, but not always.

Fruit quality is comprised of several factors, the most important of which are sugars, organic acids, and pH. Other factors such as phenolics, anthocyanins, aroma and flavor compounds can be very important to wine quality as well. And of course, freedom from rots is an important consideration. Unlike some other fruits, grapes do not continue to ripen after harvest. Consequently, it

is important to harvest grapes at the peak of quality and with the desired parameters for the intended use.

Wine grape growers should have the ability of measure sugar content (with a refractometer), titratable acidity and pH (with a pH meter and burette). Equipment and supplies to measure these parameters can be purchased for about \$500. Each of these factors is important for determining proper harvest time, but none alone can accurately estimate overall fruit quality. It is the balance of sugars, acids and juice pH that is important to the wine maker. And of course, there are the subjective qualities of seed and skin maturity, tannins, anthocyanins, flavors, aromas, etc. The Berry Sensory Analysis method addresses evaluation of these more subjective factors such as skin, pulp and seed maturity. More needs to be done to adapt the method for use with our Midwest varieties, but as a descriptive tool, it can be an excellent way for growers to go beyond the basics of sugar, acid and pH.

Berry skin damage from rain cracking, bird pecks and bee damage can lead to sour rot by yeasts and vinegar spoilage bacteria. The vinegar (acetic acid) leads to high volatile acidity levels in the wine. We experienced major problems with sour rot last year. Growers need to closely monitor for development of sour rot, especially if rains occur near harvest, and take measures to reduce the spread by managing fruit flies and microbial organisms. Ultimately it may be necessary to develop a strategy to minimize harvest of rotted clusters. A pre-harvest walk through the vineyard block should identify any clusters with sour rot and those lagging in ripeness. In most cases, late clusters will never catch up to the rest, and will only reduce the overall quality of the crop at harvest. Now is a good time to drop any undesirable fruit. Don't expect your harvest crew to sort as they pick. Go through beforehand and eliminate the guesswork.

Fruit Bud Development in Strawberry

June bearing strawberries are "short day" plants that set flower buds in response to short days. As we get into late summer, days shorten and strawberry plants respond by setting the flower buds that will result in the crop next spring. It is important to maintain appropriate nutrition and soil water status during this time. General recommendations are to fertilize strawberry fields with 20 to 50 pounds of actual nitrogen per acre per during late summer. Nitrogen rates depend upon amount supplied at renovation and plant vigor. New fields with high vigor may not need additional nitrogen now, but older fields should benefit. Irrigation during this time is also extremely important if rainfall has not been sufficient in your area. We suggest about 1 inch per week. Continue to irrigate strawberries through fall to assure a good crop next year. Also maintain good leaf health by controlling leaf diseases.

Upcoming Events

Southwest Purdue Agricultural Center High/Low Tunnel Tour co-sponsored with Dept. of Recreation, Park, and Tourism Studies at Indiana University August 10, 2017

Vincennes, IN

Contact Wenjing Guan, guan40@purdue.edu, or Dan Egel at egel@purdue.edu

Registration: Call 812-886-0198

Pinney Purdue Vegetable and High Tunnel Field Day – co-sponsored with Dept. of Recreation, Park, and Tourism Studies at Indiana University

August 15, 2017

Pinney Purdue Ag Center Wanatah, IN Contact Kym Schwinkendorf at

kschwink@purdue.edu or 219-386-5232

Registration: http://tinyurl.com/yc5lqvez or call 219-386-5232

Organic Vegetable Seed Production & Varietal Selection Workshop
August 22, 2017

West Lafayette, IN Contact Lori Jolly-Brown Ijollybr@ purdue.edu Registration: http://tinyurl.com/y7da7dsh

Hydroponic Workshop II
September 8, 2017
Purdue University-HLA
Contact Lori Jolly-Brown Ijollybr@ purdue.edu
Register at http://tinyurl.com/yb4dnwrh
Purdue Wine Grape Team Fall Workshop

September 25, 2017
Purdue West Lafayette campus
Contact Jill Blume blume@purdue.edu
Indiana Horticultural Congress
February 13-15, 2018
Indianapolis Marriott East Indianapolis, IN
Contact Lori Jolly-Brown @ljollybr@purdue.edu
Visit www.inhortcongress.org for more details

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