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Crop conditions: Apple season is progressing well, with Red and Golden Delicious currently being harvested. As with earlier season varieties, crops are extremely variable around the state. Grape harvest is winding down. We picked the last of our varieties at Lafayette this week. We're still picking a few fall bearing raspberries, but the hot, dry conditions have reduced the crop.

New Purdue Extension director announced:

Charles Hibberd has been named as the next director of the Purdue University Cooperative Extension Service and associate dean of Purdue Agriculture.

Hibberd, currently district director of the Panhandle Research and Extension Center and Panhandle Extension District for the University of Nebraska-Lincoln, will assume his Purdue post on Nov. 1. At Nebraska he has been responsible for research and Extension activities at four research locations and 12 county offices.

"Chuck's combination of leadership, Extension and research experience makes him ideally suited to lead one of the nation's pre-eminent Extension programs," said Randy Woodson, Glenn W. Sample Dean of Agriculture. "He

emerged as the favorite from a very strong pool of candidates, and we're very excited to have him join Purdue." Hibberd said that it was Purdue's reputation that attracted him to the position. "Purdue Extension's reputation is superb, it's known as one of the best in the country," Hibberd said. "I look forward to working with the people associated with the program, many of whom I've come to know personally over the years."

Hibberd said among his first duties in office will be connecting with people in the state and building relationships with stakeholders and prospective partners.

"I'll also start the process of putting together a strategic plan for the future that will continue our work to develop relevant and timely Extension programs that focus on the real issues of the people of Indiana."

Hibberd also will serve as associate vice provost for engagement, a position that reflects the importance of Purdue Extension to the university's overall outreach efforts.

"Extension is one of the foundations of engagement for Purdue in the state," said Jay Akridge, interim vice provost for engagement.

“Purdue Extension’s broad range of clientele and linkages to every Indiana county make it a vital partner in the university’s efforts to serve the Hoosier state.”

For 12 years Hibberd was a professor of animal sciences at Oklahoma State University prior to going to Nebraska in 1994. His research area was cow/calf nutrition and management. He has a bachelor’s degree from Nebraska, and master’s and doctoral degrees from Oklahoma State. He is a native of Lexington, Neb. Hibberd replaces David Petritz who retired as director in June.

Purdue Extension is part of a national network of colleges, universities and the U.S. Department of Agriculture, providing science-based research, information and education along with practical solutions to local concerns. The more than 500 Purdue educators and specialists work in offices on campus and in all 92 Indiana counties. Purdue Extension offers resources and information in areas such as economic development, family nutrition and health, youth, and agriculture. Through programs like 4-H and Master Gardeners, Purdue Extension also works with thousands of volunteers across Indiana to make available services, leadership and programming. (Purdue News service)

Purdue Agriculture alum new acting head of USDA: Purdue University agricultural alumnus Chuck Conner, who was named Thursday (Sept. 20) as acting head of the U.S. Department of Agriculture, is known by Purdue officials as a determined individual who has spent many years in Washington, D.C., serving the Midwest. President Bush selected Conner for the interim post after Mike Johanns resigned to run for the Senate. “Chuck has a long history of serving agriculture, and we at Purdue are proud that he will be leading the nation’s agricultural interests at a pivotal time for the industry,” said Randy Woodson, the Glenn W. Sample Dean of Agriculture.

Conner is a 1980 Purdue graduate of the Department of Agricultural Economics. He was later named a distinguished agricultural alumnus by Purdue in 1998. Conner is a native of Otterbein, Ind., and his brother, Mike Conner, is a Benton county farmer.

“Chuck knows agriculture, he knows bioenergy, he knows policy and all the things that make him right for this job,” said Wally Tyner, professor of agricultural economics and former head of the department. “He has continued to seek advice from Purdue experts and is a fantastic choice.” Otto Doering, agricultural economics professor and expert in federal agriculture policy, calls Conner “unusually effective.” “He’s low-key, bright and has never lost his sense of public service,” Doering said.

Conner has been deputy secretary of agriculture since 2005 and has been leading the administration’s negotiations with congress on the farm bill. He previously served as agricultural adviser to Bush and to U.S. Sen. Richard Lugar. (Purdue News Service)

New food safety bill: Senate Agriculture Committee Chairman Tom Harkin (D-Iowa) introduced his anticipated produce food safety bill yesterday. The legislation amends the Federal Food, Drug and Cosmetic Act, requires prescriptive food safety measures for minimally processed produce and mandates use of good agricultural practices by all growers producing fresh produce, including apples.

The legislation requires growers to have “a written plan detailing the controls utilized by the grower that limit the presence and growth of contaminants.” Additional requirements are as follows:

- Growers would be required to ensure that domestic animals are excluded from production areas to the extent reasonably practicable during the growing and harvesting season and growing areas should have wildlife deterrents.

- Growers are required to ensure that the water supply used for irrigation and for washing is suitable for its intended use and that ground water is regularly monitored for the presence of pathogens at a rate adequate to ensure that contaminated water is identified and diverted from use on food crops.
- Growers must assess their unique environmental conditions such as flooding, runoff and drought that might lead to contamination and develop safety plans to ensure contaminated crops are not distributed.
- The U.S. Department of Agriculture (USDA) and the Food and Drug Administration (FDA) will conduct risk assessments to classify farms, orchards and packing facilities as high, medium or low risk according to the risk assessments and by considering the type of produce being grown at a facility, the facility's history of compliance and food safety problems or other factors that FDA and USDA may determine to be appropriate.
- All growers would be required to develop a written plan, not later than two years after enactment of the legislation, detailing the controls utilized by the grower that limit the presence and growth of contaminants.
- Growers must keep records on the control measures, and FDA must be provided access to the records to monitor compliance.
- The legislation establishes a market-basket produce surveillance program to sample and analyze produce for data on the nature, frequency and amount of produce contamination "available to consumers."

- FDA in collaboration with USDA is required to establish procedures to require imported minimally processed produce and raw agricultural commodities to meet the same standards as domestic growers and processors.

USApple plans to work with its produce industry allies and with Congress to modify the legislation so it reflects food safety practices that are risk-based and reflect sound science. (US Apple Association)

New Farm Bill: The next few weeks are going to be very interesting in terms of where the Farm Bill is headed. The Senate Agriculture Committee, which began discussing the bill last week, is feeling strong pressure from the Specialty Crop Farm Bill Alliance, a national coalition of more than 120 specialty crop organizations. In fact, the Alliance reports that 36 Senators, many of whom are on the powerful Senate Finance Committee, are urging the Senate Ag Committee to double the \$1.6 billion allocation for the fruit and vegetable industry that was included in the version passed by the House of Representatives.

While growers ponder the prospects of this, there's also the news that USDA Secretary Mike Johanns has resigned to enter the race for the U.S. Senate seat in Nebraska, vacated by the retiring Chuck Hagel. Chuck Conner, USDA's Deputy Secretary of Agriculture, has stepped in as Acting Secretary. In a news conference on Monday, Conner referred to the upcoming Farm Bill several times. However, discussions regarding specialty crops were minimal, and seemingly skeptical. "[House of Representatives members] were very generous on specialty crops, but they paid for all of that with a tax increase," noted Conner. "I think that really puts the outcome of those priority changes in real jeopardy because there doesn't appear to be anyone in the Senate who's particularly enthusiastic about raising taxes in order to pay for a Farm Bill." (from The Fruit-growers news)

Managed Varieties - Are They in Our Future? You can hardly pick up a trade publication these days without finding an article either touting a new “managed” variety as the greatest thing to come along in years, or an editorial from someone decrying the concept of “club varieties” as un-American, anti-free market, and the end of fruit farming as we know it. What is a grower to do? Are managed varieties a potential boon, or a giant pitfall? As with so many things in life, I think the truth lies somewhere in between. And in the interest of getting to that truth, I thought it might be useful to take a few moments and clarify a few things about variety management: what it is, what it seeks to achieve, and what ultimately are the implications for the mid-Atlantic fruit industry.

What exactly is variety management anyhow? Variety management is a term that encompasses a wide range of concepts that are currently being used to control the release and distribution of some new tree fruit cultivars. These strategies run the full gamete from a cultivar simply being marketed under a trademarked (rather than cultivar) name, to very controlled situations involving proprietary plant material, exclusive marketing arrangements, franchise fees, and production based royalties.

From observing the many “club” varieties that currently exist, all of them utilize at least one of the following strategies to gain varying levels of control: a trademarked name, controlled production, and/or controlled marketing. The number of these strategies that a club employs would seem to indicate just how controlled a variety is. I try to think of managed varieties as occurring on a spectrum that runs from loose arrangements at one end, to very closely controlled (tight) arrangements at the other with medium or hybrid arrangements in between.

Loose managed varieties are those that are basically controlled through a trademarked name. Anyone can purchase plant material and plant as much as they’d like with royalties

typically being charged on a per tree basis. The subsequent fruit can be marketed however the grower would like (i.e. through any marketing channel) as long as trademark standards are upheld for all fruit that bears the trademark. A good example of this would be Pink Lady®. Pink Lady® is actually the trademark name for apples of the ‘Cripps Pink’ cultivar. If you’ve planted ‘Cripps Pink’, you should have received a trademark agreement spelling out the standards for Pink Lady® and how these apples can/should be marketed. Anyone can plant ‘Cripps Pink’, and there is no limit to the number of trees that can be planted. You can sell the apples yourself as Pink Lady® (an exemption exists for direct marketing) or take them to any packer/wholesaler that adheres to the Pink Lady® trademark agreement when marketing.

Conversely, tight managed varieties are those that employ not only a trademarked name, but controlled production and marketing as well. With these cultivars plant material is not openly available, and just because you want to plant a cultivar doesn’t mean you’ll be able to. Growers are usually selected to be a part of these “clubs” based on certain criteria such as geographic location, site appropriateness, management history, etc. Royalties are usually charged on a production rather than per tree basis, and growers typically pay a franchise fee for club membership or actually “lease” the trees from the proprietor of the cultivar. All production is obligated to a specific marketing channel and a grower cannot sell fruit outside of that channel. Cultural information is developed and shared only within the club; and if you chose to leave the club you lose your right to produce the cultivar. Jazz® is probably the best known example of a tight club. Jazz® is a trademarked name for a cultivar developed by HortResearch of New Zealand. Jazz® apples are currently grown in the USA by a small group of growers in Washington State that have contractual arrangements with ENZA Ltd., the owner of Jazz® and the Oppenheimer

Group, the exclusive marketer of Jazz® in North America. All of the Jazz® apples produced in Washington State are delivered to specific packing houses and marketed exclusively by the Oppenheimer Group.

Somewhere between these two extremes lay hybrid managed varieties. Such a cultivar might use a trademarked name for fruit sales, but won't have either the strict production or marketing arrangements that a tight club would employ. Any grower that wishes may grow a hybrid controlled cultivar, and usually a per tree royalty is assessed. Many times these cultivars are actually a selection of another openly available variety. Therefore growers are free to market the cultivar by its common name, or go through a designated marketing channel and have the fruit marketed under the club regime. Under the club regime, fruit that meets certain parameters will be marketed under the trademark (and often charged a per box royalty), while the rest can be marketed under the common variety name. An example of a hybrid scheme would be Kiku®, which is actually a highly colored sport of 'Fuji.' Growers may plant Kiku® trees and sell the apples themselves (as Fuji), or they can enter the managed marketing chain where the apples that meet the Kiku® standard will be sold as Kiku®, and the rest will simply be sold on as 'Fuji'.

Which type of variety management scheme is best?

Certainly I'm in no position to give a definitive answer on this one. Each managed variety scheme possesses its own level of risk, commitment, and potential reward. And to a certain extent risk is in the eye of the beholder when it comes to something like variety selection. Obviously a tightly managed variety involves a big commitment of effort and capital and there is no guarantee that the variety will take off in the marketplace. However, if it does and everything works as designed, the rewards could be substantial. By nature, a loosely managed variety likely has less potential for huge re-

turns over the long-term given the lack of strict controls on volume and marketing. Hybrid arrangements are certainly intriguing as they essentially seek to combine the best elements of loose and tight situations while managing risk all at the same time (i.e. you're likely planting a variety that already has an established market).

Why has variety management come into existence?

Frustration with the way that varieties are currently introduced and subsequently handled on the part of variety developers is certainly a driving force in variety management. Traditionally, new varieties were developed, trialed, and licensed to the nursery industry with the originator getting a per tree royalty. Although this royalty may seem costly to growers, often times a variety originator doesn't really make much money off of the variety. Fruit breeding in a long-term and expensive proposition, and simply developing varieties, charging a \$.50 a tree royalty and sitting back doesn't pay the bulldog, particularly at our Land Grant universities. Variety originators want, and need, to make more of an economic return from their efforts and variety management is a way to accomplish this. Additionally, in the past, the marketplace has taken sort of a wild-west approach to new varieties. Anyone can plant anything, anywhere, in whatever quantity they want and we'll sort it out later. If you think about it for a minute, we can all see that this might not be the best scenario. Rushing to market when prices are high, the tendency to constantly "improve" a variety, no standardization, inability to balance supply and demand...all of these factors and more make the idea of gaining (and sustaining) some sort of control in the marketplace very attractive.

What does variety management seek to achieve?

The thing that variety management really seeks to achieve is control and coordination in the marketplace. The theory goes that if you can

better manage production, and coordinate marketing, a higher quality, more consistent product will result. Variety management isn't about picking winners and losers or limiting what you can or can't do on your farm. Ultimately it is about trying to deliver a higher quality product to the end consumer while providing a better return on effort for everyone involved.

What will be the role of variety management in the Mid-Atlantic?

Currently, variety management hasn't really had a big impact on the mid-Atlantic fruit industry. We have some loosely managed varieties available, and I understand that some hybrid club varieties are heading our direction. As to tightly managed varieties, given the very strict nature of these arrangements, the considerable capital and coordination required, and in some cases the very specific cultural requirements, it makes sense that these varieties will gravitate to other growing districts (i.e. Washington State) first. But given time, I'd imagine we'll see tightly managed varieties around here as well. Certainly, our proximity to major metropolitan areas, ready access to consumers, and considerable direct marketing trade makes our region attractive for the introduction of tightly managed varieties. Perhaps, we'll even have our own proprietary tightly managed variety crop up some day.

In many ways, variety management is just the latest manifestation in the fruit industry of a long-term trend that is occurring all across agriculture. I'm speaking of the move away from traditional open market transactions and towards the development of "value chains" that link all the players in a marketing channel - from input suppliers to retailers - together in coordinated, trust based, relationships. But that is a whole other subject entirely...and the topic for another article. So are managed varieties just a fad, or an incredible new opportunity? Only time will tell. Ultimately the quality of the eating experience that end consumers have will be the dictator of success or failure

of these schemes. As my good friend Dr. Jim Schupp once said to me, "You know Matt, for any of these things to be successful they actually have to be good to eat and be better than what is already out there." (Matt Harsh, Penn. State Univ. Fruit Times)

Disease Management for 2008 begins Now!

Anyone that has stopped by my office may have noticed the high tech piece of equipment proudly displayed that allows me to predict (with almost no accuracy) what type of year we will have with respect to plant disease. It's called a Magic 8 Ball. According to its makers, the fine scientific research company Mattel, this piece of equipment has all the answers. I'm glad at least one of us does.

I didn't need a Magic 8 Ball to predict a difficult growing season this year. It's an unusual year when you are thankful for drought, but this year has been strange. The spring freeze predisposed much of the state for an epidemic of fire blight, as freeze injury, much like hail injury, resulted in damage to young and succulent shoots and leaves, providing a means for the fire blight bacterium to cause shoot blight. Additionally, the freeze resulted in numerous late season 'rat tail' blooms later in the season, serving as additional infection courts. However, high temperatures in the absence of rain greatly lessened, but did not eliminate, the risk of fire blight. Had this year been unusually warm and wet, fire blight could have been epidemic. To quote Paul Steiner, "even a single wetting event under the right conditions at bloom can increase the number of inoculum sources in an orchard from a few overwintering cankers to several hundred thousand blighted spurs very quickly." With this in mind, it is easy to see that there "is no such thing as a little bit of fire blight." In observing the landscape, our blocks of Gala and Fuji at Meig's, and area orchards, fire blight still made a serious impact.

At this point, I would argue against any pruning out of infected branches as the risk of winter injury and poor compartmentalization of wounds (thereby encouraging pathogen spread) is likely. Pruning of fire blight strikes during the growing season is a controversial issue. Removing sources of the pathogen is desirable, but pruning can actually make fire blight worse by increasing the amount of succulent tissue (that will be susceptible to winter injury) and by spreading the pathogen on tools. Even if fire blight strikes are numerous, wait until the dormant season to prune, but flag or paint infected areas NOW so they are readily observed when late winter pruning time arrives.

With this knowledge, growers with small trees and adequate labor can scout for infected branches right now, and prepare for whatever management is needed in the spring, and do so before symptoms become widespread next year. If, after scouting, you find that fire blight strikes are more severe than you once realized, pre-planning for the use of copper for dormant application in the late winter/early spring should be considered, along with application of Apogee (Prohexadione-Ca) as the growing season progresses. Apogee is a growth regulator that does not directly kill the fire blight bacterium, but reduces shoot growth, thereby increasing plant resistance by reducing host vigor. Apogee suppresses apple shoot growth when applied near petal fall as a single spray, or as several applications over time. Apple response to Apogee depends upon the cultivar, timing, rate of application, crop load, and even geographical location, so doing your research now will help you manage your crop come spring. For more information on Apogee, see Apogee® - A New Plant Bioregulator ■ For Apples at <http://www.omafra.gov.on.ca/english/crops/facts/06-045.htm>

Other canker-causing diseases, like Nectria canker, black rot and white rot, are often misdiagnosed as fire blight. Furthermore, black rot and white rot readily colonize fire blighted

branches. Walking the orchard while the weather is still pleasant, armed only with a can of bright (or even fluorescent spray paint) is a great way to tag suspicious twigs, branches, and limbs, that serve as reservoirs for other diseases. These branches will be readily found in the spring aiding in removal, and reduction of disease inoculum.

Last but not least, fall is a great time to control scab as well. Now is the time to begin applying 5% urea to foliage to encourage decomposition of fallen leaves, thereby reducing pseudothecia development, and ascospore release come spring. Care must be taken in the timing of urea application, being sure that it is applied just prior to leaf fall to avoid stimulating tree growth and predisposing the trees to winter injury.

Of course, with this year being what it was, you can't help but wonder about next year. I posed the question to the Magic 8 Ball. The answer was "Better not tell you now." (Beckerman)

Vintage 2007: This year's grape harvest is about over and it's been very good. Despite cold damage from the Easter freeze, most growers had reasonably good yields. Secondary buds were highly fruitful on most varieties, producing near normal yields. There were some exceptions, but overall, 2007 has been a good year. It has been hotter and drier than normal. Drought conditions were fairly severe, especially in the southeast part of the state. Fortunately grapes are deep rooted and tolerate low moisture conditions well. Harvest started about normal in terms of timing, with early varieties ripening in early August. But the season has been compressed, with mid and late season varieties coming in about 2 weeks early. Fruit quality has been excellent. The hot, dry conditions were a concern for vine health and fruit quality, but in most cases we got enough rain to carry the crop through. Berry size is smaller than normal, concentrating colors and tannins,

which is especially good for reds. Disease problems have been minimal due to the lack of moisture. The only problem noted has been powdery mildew, which has been significant in the southeast part of the state this year. So far, multicolored Asian lady beetle has not been a problem. But the cool temperatures recently may cause them to move into grapes. Growers are on the lookout, but for the most part, all but the latest varieties have been picked. Overall, 2007 should be an excellent vintage for Indiana wines. (Bordelon)

Fall Small Fruit Care:

Grapes-

Grapes should be encouraged to harden off for winter by avoiding nitrogen fertilizers at this time. Apply non-nitrogen fertilizers and lime as needed based on soil and tissue test results. It is especially important to maintain healthy leaves through fall to promote proper hardening. Downy and powdery mildews often build to epidemic levels on susceptible cultivars in fall. Both can cause defoliation and reduced winter hardiness so it's important to maintain protection against these diseases throughout the fall until leaves drop naturally.

Blueberries-

Blueberry plants should be encouraged to harden off for the winter. However, growers should continue to irrigate if dry weather persists. Fruit buds are developing now for next year's crop so it is important to avoid water stress on the plants during this time. Apply non-nitrogen fertilizers and materials for soil pH adjustment based on foliar analysis and soil tests. Apply these before fall rains begin and also before adding any supplemental mulch to plantings.

Strawberries-

Flower bud initiation occurs during late summer and fall, so maintaining good plant health into the fall is important for high yield potential next year. Dry conditions can significantly reduce fruitfulness next year. Irrigate

to provide at least 1 inch of water per week through October if rainfall is not adequate. We mentioned the importance of an application of nitrogen fertilizer in the last issue of this newsletter. If it hasn't been done yet, it's not too late. If tissue analysis shows deficiencies in magnesium or boron, early fall is a good time for foliar applications of Epsom salts (15 lb./100 gal./acre) for magnesium and Solubor (3 lb./100 gal./acre) for boron. Phytotoxicity can be a problem with these materials so read the labels. In addition to fertility, controlling leaf diseases improves the ability of the plant to carry on photosynthesis and store starch in the crowns. Check fields for infestations of leafhopper or aphids. Generally, plants can take a fair amount of feeding by these insects, but heavy infestations can be a problem.

Brambles-

Encourage hardening off of canes in summer bearing varieties of brambles by avoiding nitrogen fertilizers and supplemental watering at this time. Spent floricanes can be removed now, or later during fall, winter or early spring. Fall bearing raspberries can still benefit from irrigation in dry weather to help maintain fruit size. Apply non-nitrogen fertilizers and lime as needed based on soil and tissue test results. If Phytophthora root rot has been identified in a field, treat the affected area with Ridomil Gold EC, Alliette or phosphorous acid in September or early October. This timing is important to get the material in place in the root zone before the onset of cool wet weather in the fall. (Bordelon)

Coming meetings:

Jan. 28-30, 2008: Indiana Horticultural Congress, Adam's Mark Hotel, Indianapolis. For more information: www.inhortcongress.org

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