Seed-root Density and Size for Best Sweetpotato Slip Production

Barkley et al. (p. 7) determined the effect of sweetpotato seed-root density (‘Covington’ and ‘Evangeline’ canner roots at 12, 24, 37, 49, 61, 73, and 85 bushels/1000 ft²) and size (canner, no.1, and jumbo ‘Covington’ roots at 49 bushels/1000 ft²) on slip production. As seed-root density increased, transplant production increased with no change in slip quality, including node counts and slip length. Seed-root size had no effect on marketable slip production. Growers should use a seed-root density from 49 to 85 bushels/1000 ft² depending upon variety, and any root size to obtain optimum marketable slip production.

Chemical Properties of Various Biochar Products

The use of biochar has been a major area of substrate research. Evans et al. (p. 16) reported that the feedstock used had a major impact of the chemical properties of biochar products, even when using a constant production procedure. While some biochar products had chemical properties that would have made them suitable as substrate components, others (poultry litter biochar) had high mineral element concentrations or high pH that made their use problematic. Conclusions regarding biochar suitability for use in substrates cannot be made without defining the feedstock used to make the biochar.

Bermudagrass Eradication for Golf Course Renovations

Bermudagrass is a perennial turfgrass that is difficult to eradicate prior to renovations, and may contaminate the subsequent stand. Jeffries et al. (p. 24) evaluated treatment regimens including dazomet soil fumigant and/or nonselective herbicide applications for bermudagrass eradication. The authors reported substantial time savings using one fluzifop + glyphosate application prior to tillage-incorporated dazomet treatment, compared to each control input alone. This is important information for golf course superintendents, as revenue losses during the renovation period may be reduced because of a substantially shortened overall establishment period for the new turfgrass stand.

Heat and Enzyme Make Great Juice from Frozen Blueberries

Year-round, not-from-concentrate blueberry juice can be produced using frozen berries with similar recoveries to fresh berries. Using a not-from-concentrate process, Stein-Chisholm et al. (p. 30) evaluated temperature and enzyme steps and their effects on juice recovery. By combining elevated temperatures and pectinase enzyme, total juice recovery was 87% from frozen berries using a steam-jacketed kettle and pilot-plant hydraulic press. Small-scale local juice producers can increase production and profits by offering consumers not-from-concentrate juice products year-round.

Variety Affects “Silvering” of Bell Pepper Fruit

Five bell pepper varieties with resistance, tolerance, or no resistance to the crown-rot phase of Phytophthora capsici were evaluated in four different production systems for the development silvering in fruit. Variety, production system, and year each had a significant effect on marketable yield and the percentage of total fruit with silvering. Wyenandt et al. (p. 37) determined that the percentage of fruit with silvering was higher in phytophthora-resistant varieties compared to phytophthora-susceptible varieties across all four production systems.

Bermudagrass Evaluation Using Spectral Reflectance

The practical application of spectral reflectance in turfgrass variety trials has not been well-developed. Sullivan et al. (p. 45) used spectral reflectance with reference plots to assess bermudagrass under different mowing heights and applications of plant growth regulators. Bermudagrass demonstrated different aesthetic (visual turfgrass quality and percent green cover) and functional performances (surface firmness) under the treatments. Incorporating quantitative measures of spectral reflectance could reduce time and improve precision of data collection when reference plots with adequate range of green cover are present.

Non-destructive Assessment of Apple Ripening

In a 2-year study, Cocetta et al. (p. 54) tested a handheld delta absorbance (DA) meter for determining ripening in apples. DA meter measurements were correlated to ethylene production during shelf life, and to quality parameters before and after commercial-scale storage at different conditions. Owing its accuracy, speed, and ease of use, the DA meter can be a promising tool to help predict the ripening stage and quality attributes in apples both at harvest and after storage, and to assist in sorting the fruit in uniform groups, allowing for better postharvest management.
Not All Succulents and Cacti Like It Hot!
Succulents originate from a wide variety of climates with periodic drought episodes. It’s often assumed that cacti and succulents prefer hot temperatures; however, this is not the case. Erwin et al. (p. 65) grew 17 succulents and one cactus species at temperatures ranging from 50-82 °F and found that optimal temperatures for leaf/tubercle unfolding rate ranged from 61-72 °F to ≥82 °F for different species/varieties. Optimal temperatures were associated with the indigenous habitat of a species. Greenhouse production environments and/or the geographic locations for succulent/cacti production should be tailored to the temperature preferences of each species.

Rooting Chromosome-doubled ‘Schipkaensis’ Cherrylaurel
Induction of polyploids is a common breeding technique in cherrylaurel; however, few studies have examined the rooting ability of chromosome-doubled plants. Schulze et al. (p. 69) compared rooting of wild-type (22x) ‘Schipkaensis’ cherrylaurel with a chromosome-doubled form (44x). They found that rooting percentage, average root length, and total root length per rooted cutting were not significantly different between ploidy types. However, the 22x plants had more roots per rooted cutting. The study confirmed feasibility of propagation and production of chromosome-doubled ‘Schipkaensis’ cherrylaurel.

Mowing Heights for Crabgrass Reduction in Tall Fescue
It is well known that increased mowing heights can reduce crabgrass populations, but the effect of seasonal height adjustments has not been documented. Cropper et al. (p. 73) conducted a study to examine ideal mowing height combinations during summer versus fall/spring for crabgrass reduction in tall fescue. They report that seasonal mowing height variations did not provide improved reduction in crabgrass populations over using only higher heights of cut consistently throughout the year. However, they did find that half-rate prodiamine successfully controlled crabgrass in all examined mowing heights, except the lowest height during summer months.

Disease Incidence in South Florida Related to Record Rainfall
El Niño-related weather conditions in south Florida were responsible for a high incidence of diseases affecting ornamental crops during an unusually wet “dry” season in 2016. Campoverde et al. (p. 78) examined data collected from 2012 to 2016. They found a positive correlation for the incidence of Pythium and Phytophthora and the amount of rainfall. Other weather parameters were not found to be significant factors for the increase of diseases caused by Pythium and Phytophthora.

Organic Strawberries Grown in High Tunnels
High tunnel production of organic strawberries for extended seasons has great economic potential for small farmers. However, limited information is available on varieties suitable for this production system. Gu et al. (p. 84) compared the performance of 10 strawberry varieties organically managed under high tunnel conditions at two locations in North Carolina. Significant variety differences in terms of yield, harvest duration, fruit quality, and vegetative growth were observed. Recommended varieties include Florida Radiance, Benicia, Camino Real, Albion, and San Andreas.

Retail Firms Market through the Internet and Social Media
The 2013 Trade Flows and Marketing Practices survey asked retail-only firms how they advertise/market their products. Barton and Behe (p. 99) found that respondents spent 3.6% of total sales on advertising. Internet was the most frequently listed medium (32.2%) with a mean expenditure of 42.5% of total advertising dollars. Social media were second (21.5%) with a mean expenditure of 29.6%. Facebook (60%) far exceeded any other platform. Of the firms that collect customer demographic information (53%), social media were cited most frequently (50.7%). Mobile-centric technologies delivering in-store promotional information were listed infrequently, but may provide opportunities for future growth.

Improved Media for Container Vegetable Production
Hobbyist gardeners often grow vegetables in containers, but vegetable growth often is not adequate, especially when irrigation water has a high pH. Everhart et al. (p. 108) grew lettuce, cabbage, and cauliflower in six different potting media to assess plant growth and yield. They found that optimum medium recipes should consist of 80% bark and 20% peat amended with 1.8 lb/yd³ nitrogen, 0.5 lb/yd³ phosphorus, and 1 lb/yd³ potassium plus 4 lb/yd³ each of dolomitic lime, calcium sulfate, and magnesium sulfate.

Summer Camp with Garden Flair Improves Student Test Scores
Improving elementary and middle school student science competence requires repetition of subject matter and innovative teaching methods. Gillett et al. (p. 114) developed and implemented a series of garden activities at a 4H summer camp to determine if garden participation improves students’ science-based knowledge. Garden participants improved scores from the beginning to end of the program and had higher scores than non-participating students. Gardens are innovative and effective tools for teaching science-related material. This study will help further develop activities for use in summer camps and school settings.
Google Maps as a Plant Identification Study Tool

Wilson et al. (p. 121) developed virtual plant walk maps for a plant ID course. Post-course surveys indicated 63% of the students used the maps as a study resource, 67% percent of students used the maps for online review, and 31% used the maps for online review and retracing the plant walk. The majority of the map users (68%) indicated that the tool was useful to very useful. As student map use increased, their perception of usefulness increased. No differences between plant ID quiz scores were associated with virtual plant walk map use, learning style, or use by learning style.

Ornamental Chile Pepper Varieties for Greenhouse Production

In the past, many chile pepper varieties used as potted ornamentals had to be pinched or sprayed with uniconazole to achieve compact plant habit. Coon et al. (p. 128) compared 12 currently available ornamental varieties considered to be compact and 13 new ornamental varieties with a compact habit. All of the varieties tested did not require pinching or uniconazole foliar spray to produce plants with dwarf or semi-dwarf habits. These varieties have the potential for increasing commercial container production of ornamental chile peppers in the greenhouse and nursery industries.