Spotlight

High Tunnels Extended Harvest Season for Blackberries

In northwestern Arkansas, open-field and high tunnel primocane-fruiting blackberry production is concentrated at about 15 Aug. to 24 Oct., with peak production between 22 Aug. and 19 Sept. Overall, high tunnels protect and increase the expected yield late in the season. **Rodriguez et al. (p. 245)** report that greater open-field production (65%) occurred during this peak period compared to high tunnel production (45%). As a result, 55% of the high tunnel production could be sold when fruit is relatively scarce in the local market, allowing producers the potential opportunity to receive better prices.

Mobile Platform for Assessing Light Interception in Orchards

Lampinen et al. (p. 237) developed a mobile platform for measuring photosynthetically active radiation (*PAR*) interception by orchard systems. This technology allows spatial variability in orchard *PAR* interception to be mapped on a large scale. These data are useful for evaluating new varieties for their production potential relative to existing varieties. It can also be used to assess the production potential of an orchard relative to other orchards of the same variety and age, evaluating impacts of changes in management practices, or for assessing property value as related to production potential.

Improved Weed Control and Pumpkin Yield in No-tillage Systems

The use of no-tillage (NT) practices for pumpkin has been limited due to the lack of available herbicides to control problematic broadleaf weeds. Weeds often become the most important factor that limits the productivity of NT pumpkin. **Walters and Young (p. 201)** found that in addition to applying several limited preemergence and postemergence herbicides in NT pumpkin, the use of alternative weed management practices such as applying non-selective herbicides (e.g., paraquat) to the stale seedbed (before planting) and between rows during mid-season (before vining) can provide valuable weed control to maximize pumpkin productivity.

Benefits of Food Safety Compliance Cheaper than Foodborne Illness

Cost versus benefit in complying with food safety standards for fresh produce production is still not fully understood. This study looked at three large foodborne illness outbreaks to compare monetary losses of an outbreak against compliance costs of food safety. **Ribera et al. (p. 150)** found all three outbreaks caused significant losses to their industry that clearly outweighed the cost of compliance, given the data currently available.

Sugar-based Compounds Do Not Enhance the Efficacy of Insecticides

Many greenhouse growers believe that incorporating sugar or sugar-based compounds like soft drinks enhances the efficacy of insecticides in controlling western flower thrips. **Cloyd and Gillespie (p. 177)** conducted a series of laboratory and greenhouse experiments, which demonstrated that western flower thrips adults and nymphs are not attracted to sugar (white and brown) or sugar-based compounds (Mountain Dew and Diet Mountain Dew), and that adding any sugar-based compound did not enhance the efficacy of the insecticide treatments.

Organic Amendment Improves Efficacy of Creeping Bentgrass Fertilizer

Three liquid fertilizers with or without a naturally mined liquid organic amendment were foliar-applied in tank mix on 'Penncross' creeping bentgrass grown with root zones of 100% sand or 90% sand + 10% peat (by volume). **Gao and Li (p. 157)** report that organic amendment resulted in better or equivalent turfgrass visual quality and lower clipping yield as compared to foliar fertilization alone. Tank mixing organic amendment in liquid fertilizers resulted in an average increase of root/shoot biomass ratio from 0.62 to 0.65 grown in the 100% sand root zone. The effect of organic amendment was fertilizer specific.

Cover Crop an Economic Boon for Summer Squash Production

The costs associated with the planting and termination of cover crops sometimes are regarded as barriers to the adoption of this practice, due to the lack of appreciation for the benefits that can be realized from cover crops. **Cho et al. (p. 258)** appointed conservative economic values to weed suppression and nitrogen accumulation of five summer fallow treatments. Results showed that overall production costs for a cash crop of summer squash would be lower when preceded by a cover crop than with clean fallow accomplished by using tillage.

Grafted Transplants in Organic Heirloom Tomato Production

Barrett et al. (p. 252) report that the estimated cost of grafted organic heirloom tomato transplants was $0.78 per plant as compared with nongrafted organic transplants at

$0.17 per plant. These estimated costs and crop yield data from field trials, as well as price information for heirloom tomatoes, were used to determine potential net return per plant. Despite the higher cost of grafted transplants, grafting may be an economically feasible soil-borne pest control measure to help maintain a profitable production of organic heirloom tomato in fields with severe root-knot nematode infestations and a high risk of crop failure.

Flurprimidol Drenches Control Height of Easter Lilies

Easter lilies are a popular flowering potted plant; however, plant height must be controlled. It is common for substrate drenches containing uniconazole to be applied to easter lily to control stem elongation. Flurprimidol is a newer plant growth retardant with activity comparable to uniconazole when applied as a drench. **Currey et al. (p. 164)** report that flurprimidol effectively controlled height of 'Nellie White' easter lilies without reducing flower bud number or increasing time to flowering. Additionally, although flurprimidol and uniconazole provided similar height control, flurprimidol was a more economical option based on the price per unit active ingredient.

Cover Crops Can Improve Potato Tuber Yield and Quality

Essah et al. (p. 185) evaluated the potential of cover crops to improve yields and quality of potato under commercial field operations. In 2 of 3 years, cover crops contributed to significantly higher yields, greater tuber size, and improved tuber quality (fewer external defects). Positive results from a sorghum-sudangrass summer cover crop showed that under commercial operations, summer cover crops with limited irrigation could be harvested for hay and still increase the tuber yield and quality of the subsequent potato crop while saving water.

U.S.–Canadian Greenhouse Certification Program in Florida

The U.S.–Canadian Greenhouse Certification Program (USGCP) provides phytosanitary standards for ornamental nurseries that export plants to Canada. To evaluate the USGCP, **Merritt et al. (p. 169)** conducted a survey of nurseries in Florida that were participating in the program during Spring 2011. They found that the majority of nurseries were in compliance with most requirements, that growers were satisfied with the program, and that there was an economic benefit to participation in the program. The main reasons for lack of adherence were ambiguous terminology in some requirements, lack of awareness regarding what the requirements were, and financial constraints.

Determinants of Hoophouse Profitability for Vegetable Production

Waldman et al. (p. 215) examined the labor management strategies and profitability of 12 Michigan farmers utilizing hoophouses for production of various vegetable crops. Keys to profitability among these farmers included intensive use of the structures in the months from October to March, harvest efficiency, minimizing labor devoted to weeding and watering, and keeping the structures fully planted.

Pollenizers Increase Yield in Highly Pistillate Monoecious Cucumber

'NC-Sunshine' is a new monoecious slicing hybrid cucumber. Due to the high percentage of pistillate nodes in 'NC-Sunshine', a pollenizer may be useful to maximize pollination and obtain high total and early yield. **Wehner and Kumar (p. 191)** demonstrated that 'Poinsett 76' cucumber used as a pollenizer increased early and total yield in 'NC-Sunshine'. The percentage of early and marketable yield was higher with the pollenizer, and the use of a pollenizer decreased cull yield.

Sun Protectants Reduce Water Needed for Strawberry Establishment

Sprinkler irrigation is used for 10 to 14 days to cool down the crown of bare-root strawberry plants after they are transplanted in the field. This practice requires about 600,000 gal/acre of water. **Santos et al. (p. 224)** report that at least 20% of the water used for establishment could be saved in Florida by using sun protectants such as kaolin clay after 6 or 8 days of overhead irrigation. This method improved strawberry establishment and resulted in growth and yields similar to the control treatment.

Shaping Microenvironment Temperatures and Energy Use by Lettuce

Nearby temperatures affect crops dramatically and can be managed actively and passively. Each approach impacts root-shoot temperatures and the crop's use of energy differently. Aiming to optimize lettuce yield and quality at mid-latitudes in transitional seasons, **Bumgarner et al. (p. 228)** experimented with low tunnels and subsurface heating cables in an open field and high tunnel. They discovered that temperature profiles varied significantly with heating method, correlations between lettuce yield and temperature profiles differed by experimental setting, and the conversion of energy to lettuce leaf biomass was most efficient in a high tunnel.

Fertility and Sedum Species Choices for Green Roof Module Production

Barker and Lubell (p. 196) evaluated three starting proportions of cuttings and three fertility rates for six popular sedum green roof species. In only 8 weeks, 80% of modules were at least 95% vegetated and ready for sale using a moderate controlled-release fertilizer rate of 78 g/ft^2. Results indicate that green roof module producers will need to adjust the starting ratio of cuttings based on species growth pattern and vigor to achieve desired final species proportions and appearance of the finished module.