Spotlight

Creeping Bellflower Control with Glyphosate and Synthetic Auxins

Creeping bellflower is difficult to manage and is commonly found in turfgrass and residential areas. There is a dearth of information on the efficacy of herbicides for creeping bellflower control. In two greenhouse studies, **Coburn et al. (p. 6)** found that although dicamba suppressed creeping bellflower growth, repeated applications may be necessary for good control. Glyphosate and clopyralid provided good control of creeping bellflower, and the estimated herbicide rate required for 90% mortality was within the recommended rates for perennial weed control. Clopyralid could be an effective herbicide for managing creeping bellflower where it is labeled for use.

Blueberry Producers Surveyed about Mechanized Harvest

Gallardo et al. (p. 10) surveyed blueberry producers from seven U.S. states and one Canadian province regarding mechanical harvesting for fresh market blueberry. Thirty-three percent of producers reported they have tried machine harvesting fruit for fresh markets, and 80% indicated reduced fruit quality limits mechanical harvesting for fresh markets. Harvest labor is a leading concern among producers and new technologies that allow mechanical harvesting of quality fresh-market blueberries is a shared interest.

Foliar Auxin Application Improves Root Growth of Cuttings

Auxin is commonly used in plant propagation to improve the root growth of cuttings. Foliar application of liquid auxin has been proposed as a safer, more-efficient alternative to more-common basal application of talc-diluted auxin, but has undergone only limited testing. **Taylor and Hoover (p. 17)** found that foliar application of 1000 or 3000 ppm liquid indole-3-butyric acid (IBA) to wall germander cuttings resulted in equal or greater root growth compared to basal application of 1000 or 3000 ppm talc-diluted IBA. Both auxin treatments yielded greater root growth than the controls.

Soil Carbon Reduces Toxicity of Topramezone to St. Augustinegrass

Topramezone was registered for submersed aquatic weed control in 2013, and is used in whole-lake treatments at 20 to 40 ppb. **Della Torre et al. (p. 22)** grew st. augustinegrass in sand mixed with 0% to 4% carbon, and irrigated with topramezone-treated water eight times over 36 days. Plant growth in pure sand was reduced by 10% at 3.7 ppb topramezone, but a 10% reduction in growth required 26 ppb topramezone when plants were cultured with 4% carbon. These results support the irrigation restrictions on the topramezone label since Florida soils typically contain < 4% carbon.

Metamitron Alters Citrus Leaf Carbohydrates and Fruitlet Thinning

Metamitron is a chemical fruit-thinning agent for apple and pear. It inhibits photosynthesis for short periods. **Stander et al. (p. 28)** evaluated metamitron for its effects on leaf carbohydrates and its ability to thin citrus fruitlets. A 300 mg·L-1 metamitron foliar spray treatment during or directly after physiological fruit drop reduced leaf sugars and total carbohydrates, and reduced the total number of fruit per tree in two seasons in 'Nadorcott' mandarin. Metamitron treatment did not increase fruit size and had no effects on other fruit quality attributes.

Sensory Evaluation of Cider from Machine-harvested Apples

Alexander et al. (p. 35) found sensory differences in 1 of 2 years of the study, including darker color, more astringency, and sourer taste for cider produced from machine-harvested fruit versus hand-harvested fruit, as evaluated by both trained panelists and an electronic tongue. Variation in cider quality due to year of harvest was most likely the result of differences in hand-harvest technique, demonstrating the importance of harvesting fully mature fruit with a standard protocol so as to supply a consistent raw material. A consumer tasting panel could provide for an indication of market response to the differing sensory profiles.

Fruit Ripening Important to 'Castellana' Virgin Olive Oil Quality

Mena et al. (p. 48) analysed 'Castellana' virgin olive oil produced at four harvest times during three crop seasons. This variety yielded extra virgin olive oil at all ripening stages studied, but fruit maturation had a major effect in various quality parameters. A loss of antioxidants and decrease of sensory quality was observed during olive ripening. The production of high-quality extra virgin olive oil required that 'Castellana' olives be harvested from the middle of November to the middle of December, coinciding with a ripening index between 3.1 and 4.1

Polyehtylene Mulch Reduces Inputs in Containerized Ornamentals

Container production of ornamental plants is resource intensive, using large amounts of water and labor to produce quality plant material. **Steed et al. (p. 58)** applied 1.25-mil polyethylene black or white plastic mulch over the surface of non-spaced (pot-to-pot), #1 containers. Japanese privet was planted through punched holes and grown for 22 weeks with standard overhead irrigation. Black and white plastic mulch reduced irrigation by 82% and 91%, respectively, reduced weed biomass seven-fold and weeding labor 10-fold compared to the untreated control. Plant growth in mulched beds was delayed about 2 to 3 weeks.

Economic Impact of Drought/ Shade-tolerant Bermudagrass Varieties

Chung et al. (p. 66) estimated potential economic impacts of developing drought- and shade-tolerant bermudagrass varieties for turf in U.S. central and eastern regions. They report that two new varieties with improved drought and shade tolerance would generate $142.4 million of total output, $91.3 million of value added, and 1258 new jobs under the assumption of full adoption. When a lower adoption rate is assumed at 20%, the expected economic impacts would generate $28.5 million of output, $18.3 million of value added, and 252 jobs in the region.

Early Spring Production of Seedless Cucumbers in High Tunnels

Low soil temperatures in early spring suppress seedless cucumber production in high tunnels, even when the air temperature would be adequate for cucumber production. **Guan et al. (p. 74)** evaluated the effect of grafting using squash rootstocks on plant growth and yield of seedless cucumbers grown in high tunnels during spring seasons in Indiana. The grafted plants had higher transplant survival rates. Vine growth rate was higher for grafted plants in April. Yields of grafted plants were increased in April and May, but not in summer months.

Consumer Survey Highlights the Importance Water Sources

As water becomes increasingly scarce, its allocation becomes more important. **Knuth et al. (p. 85)** conducted an online survey of 1543 U.S. consumers to assess their perceptions about plant water sources in production and water needs in the landscape. Consumers placed greater importance on water sources used in production over water used in the landscape for both herbaceous and woody perennials. The consumer group that did not perceive a drought, but actually experienced one, placed a higher value on ornamental plants grown with fresh water compared to another consumer group who were not in drought and did not perceive one.