



Plant Growth Regulators Control Firespike Growth and Flowering

With its bright red flower spikes and dark green foliage, red firespike has potential to become a popular flowering potted plant. **Rezazadeh et al. (p. 6)** evaluated media drench and foliar spray applications of daminozide, uniconazole, paclobutrazol, and flurprimidol on growth and flowering of red firespike. Paclobutrazol and flurprimidol drenches effectively controlled plant height, but increased time to flowering 11 to 27 days and 10 to 26 days, respectively. Attractive, well-shaped plants were obtained using flurprimidol applied at 0.24 mg/pot or paclobutrazol at 0.35 mg/pot.

Automated Thinning Increases Plant Uniformity in Romaine Lettuce

As a faster and cheaper alternative to hand thinning, the effects of automated thinning on the uniformity of plant spacing and size need to be investigated. In three experiments conducted in commercial romaine heart lettuce fields in 2013 and 2014, **Chu et al. (p. 12)** found that automated thinning increased the uniformity of in-row spacing, plant and heart weight, and plant uniformity compared to hand thinning. Although yield benefits were not proven in all three experiments, automated thinning makes it possible for growers to increase plant population and crop yield by optimizing in-row spacing.

Paclobutrazol Increased Drought Tolerance in Red Firespike

Plant growth regulators are applied to improve plant compactness, and can increase resistance to abiotic and biotic stresses. **Rezazadeh et al. (p. 26)** evaluated the effects of paclobutrazol and flurprimidol on morphological and physiological characteristics of red firespike. Paclobutrazol at 0.24 mg/pot effectively controlled height and increased drought stress tolerance. Paclobutrazol helped regulate stomatal conductance efficiency and influenced net photosynthesis. Red firespike plants treated with paclobutrazol and subjected to drought had 51% greater net photosynthesis and 50% greater stomatal conductance than untreated, drought-stressed plants.

Ethephon Improves Breeder Seed Production in Chile Pepper

Although considered a self-pollinated crop, chile pepper can have out-crossing rates at sufficient levels to impede progress in breeding programs. Breeder seed production via exclusion of pollinators is time consuming and laborious. **Barchenger et al. (p. 30)** investigated early season ethephon applications to abscise possible cross-pollinated open flowers and fruit on ornamental chile peppers. Open flower number was reduced with 1000 and 2000 ppm ethephon treatment, while fruit number was reduced with 2000 ppm ethephon treatment. Ethephon sensitivity was variety specific and results varied by location; however, ethephon applications can reduce the labor needed for manual flower and fruit removal.

Cool-climate Grapevines Not Affected by Under-vine Cover Crops

In cool-climate vineyards, groundcover is typically maintained in the area between rows, but the under-vine area is kept vegetation-free to eliminate any possible competition for the grapevines. **Jordan et al. (p. 36)** demonstrated that annually established cover crops of annual rye grass, buckwheat, and resident vegetation in the under-vine rows in a mature 'Riesling' vineyard had no impact on vine growth, yield, or fruit composition over 3 years. However, the wines resulting from the fruit grown with different under-vine cover crops were found to be aromatically different.

Consumers Willing to Pay More for "Bee-friendly" Insect Control

In a national online consumer survey, respondents valued insect management practices that were labeled "bee-friendly" or "grown using best insect management to protect pollinators" over eco-practices such as "grown using recycled/recaptured water." **Getter et al. (p. 46)** report that plant species was the most important attribute to consumers when purchasing ornamental plants (31.6%), while eco-practices were relatively the least important (20.1%). Consumers were willing to pay the most for plants labeled with "grown using bee-friendly insect management practices." However, the terminology still generates substantial confusion, as greater than 30% of respondents reported that it referenced the plant's food source quality.

Propagation Techniques Modify Root Traits in Avocado

Efficient root systems increase the use of resources and improve productivity of cultivated plants. Propagation techniques can influence the root architecture of fruit crops. **Fassio et al. (p. 63)** investigated the effects of current nursery propagation techniques, which involve the grafting of 'Hass' avocado on seedling or clonal rootstocks, on the morphological root traits exhibited by young trees. Clonal

trees produced shallower main framework roots, and more fine roots, that increased their root length density when compared to seedlings. Clonal root systems, may improve the absorption efficiency of water and nutrients in avocado orchards.

Education Programs Offered by U.S. Public Children's Gardens

Kwon et al. (p. 70) surveyed the composition of the education programs offered by public children's gardens in the U.S. The primary target audience of public children's gardens were children, followed by adults, families, and youth. Public gardens with children's gardens offered more diversified education programs than those without a children's garden. The most popular topics were plants (39.1%), followed by animals (22.0%) and art (11.3%). The most common program activities were observation (17.1%) and visual art (14.4%). About 50% of the survey respondents expressed a desire to diversify the educational topics as a way to improve their programs.

Storage of Kapok Seeds with Different Maturity

Zheng et al. (p. 83) evaluated the effects of seed moisture content and storage temperatures on germination of dark-brown seeds collected from split kapok fruit and light-brown seeds collected approximately 10-15 days earlier than the time of fruit split. Dark-brown seeds showed orthodox storage behavior, and they can be stored at subzero temperatures with low moisture content for a long time. However, storing

fresh seeds at 4 °C was most favorable to keep seed viability and seed vigor of light-brown seeds.

Organic Land Care Extension Program for Landscapers

Bakacs et al. (p. 89) developed a certificate program to assist landscapers in transitioning properties to organic management. Surveys of the first 2-years' participants showed that 38% of the 1163 acres under their management were either in transition or had been completely converted to organic landscaping. Patience in transitioning and understanding there are no "one size fits all" organic programs have been important lessons learned by practitioners. Long-term research that takes a whole systems approach is needed in order to examine the overall impact of organic practices on soil and plant health.

Growth Parameters of Vegetable Pigeon Pea Varieties in Kenya

Pigeon pea is an important crop in the dry regions of eastern Kenya, due to its drought tolerance and high protein content; however, farmers' yield is limiting. **Ojwang et al. (p. 97)** evaluated 12 pigeon pea varieties for flowering, plant height, pod length, and yield, and found that increases in ambient temperatures at vegetative phase accelerated plant maturity. Varieties ICEAP 00911, ICEAP 00068, ICEAP 00554, and KAT 60/8 had maturity days <50% (from 180 to 90 days) of KIONZA (check variety). Deployment of varieties with optimum characteristics can improve yield and food security in the dry regions.