Sowing and Transplanting Dates Affect Onion Yield and Quality

In southeastern Georgia, short-day onions generally are sown in September in high-density plantings and transplanted to their final spacing November–January. **Boyhan et al. (p. 66)** investigated the effects of different sowing and transplanting dates on onion yield and quality. Short-day onions transplanted in November and December consistently produced good yields, while yields decreased with late January or February transplanting. Some varieties with a propensity to form doubled bulbs can be sown later to reduce the occurrence of this phenomenon. However, later transplanting with these varieties only lowered doubled bulbs with earlier-sown seeds.

Transplant Size and Plant Population Affect Onion Production

In southeastern Georgia, onions are grown from on-farm-produced bareroot transplants that are transplanted in mid-winter (November–December). **Boyhan et al. (p. 145)** found that increasing the plant population by 75% (from 63,360 to 110,880 plants/acre) also increased yield per acre. Large transplants (260–280 g per 20 plants) produced the highest yields compared to medium (130–150 g per 20 plants) or small (40–60 g per 20 plants) transplants. A complete fertilization program that included either 133 or 183 lb/acre nitrogen did not affect yield regardless of population density.

Cold Hardiness of Containerized Christmas Trees after Time Indoors

Containerized conifers increasingly are used as live Christmas trees and transplanted into the landscape after the holiday season. In order to assess changes in cold hardiness following indoor exposure, **Gooch et al. (p. 72)** examined changes in bud mortality, needle damage, chlorophyll fluorescence, and plant survival of douglas fir, black hill spruce, and balsam fir. Cold hardiness was reduced by 5.5 to 10 °C, depending on the species, after 10 and 20 days of indoor exposure at 19 to 22 °C. Chlorophyll fluorescence followed similar patterns. The high tree mortality observed raises questions about the advisability of using dug and containerized trees as live Christmas trees.

Christmas Trees Protected from Weeds with Residual Herbicides

Young Christmas trees are very sensitive to weed competition. **Richardson and Zandstra (p. 181)** found that flumioxazin (either alone or in combination with pendimethalin) applied in fall or spring provided 80% or more control of many serious weeds, including common catsear, horseweed, virginia pepperweed, and common ragweed. Fraser fir and colorado blue spruce were very tolerant of flumioxazin. Flumioxazin appears to be a good alternative herbicide for Christmas tree production.

Flowering and Fecundity of Norway Maple Varieties

Norway maple is considered to be a potentially invasive species. **Conklin and Sellmer (p. 91)** evaluated mature trees of norway maple and six norway maple varieties to study flower and seed productivity and to determine the invasive potential (via seed propagation) of each variety. 'Columnare', 'Emerald Queen', and the species produced many seeds; thus, these trees may be problematic in landscapes that adjoin natural areas. 'Crimson King', 'Globosum', 'Faasen's Black', and 'Rubrum' produced the fewest seeds; thus, these varieties may be suitable alternatives for landscape use.

Suppression of Soilborne Plant Pathogens by Coir

Coir increasingly has been used as a substitute for peat in soilless container media because of its high water-holding capacity, excellent drainage, and physical resilience. Studies have shown that coir can suppress certain soilborne plant pathogens. **Hyder et al. (p. 96)** investigated the ability of coir to suppress pathogens in vitro. Agar amended with unsterilized coir or coir suspension strongly suppressed growth of *Fusarium solani* and *Phytophthora capsici*, respectively. This suppression was largely due to microorganisms associated with coir. *Aspergillus terreus* recovered from coir suppressed 12 soilborne pathogens by up to 75%.

Chestnut Attributes Important to Consumers in Missouri

Aguilar et al. (p. 216) studied preferences for chestnut attributes among current and potential consumers in Missouri. Quality, locally grown, and nutrition–diet–health were consistently perceived as the most important attributes influencing decisions to purchase chestnuts. Another study explored preferences for different characteristics, including nut size, production process, and geographic origin. Results suggest consumers strongly prefer locally and U.S.-grown chestnuts compared to imported chestnuts, with additional preferences for chestnuts that are medium-sized and organically certified. Growers that supply chestnuts meeting these characteristics are most likely to capture premium prices.

Lettuce Growth Increased by Microbubbles in Hydroponic Solution

Park and Kurata (p. 212) report the effects of applying microbubbles in hydroponic nutrient solution on lettuce growth during a 2-week period. Although the electrical conductivity, pH, oxidation-reduction potential, and dissolved oxygen concentration in nutrient solution were not much different between micro- and macrobubble treatments; fresh and dry weights of lettuce in the microbubble treatment were 2.1 and 1.7 times larger, respectively, than those of lettuce in the macrobubble treatment in a deep-flow technique culture system.

Risk-prediction System for European Corn Borer in Sweet Corn

Harvest infestations of sweet corn by european corn borer larvae were examined in central Pennsylvania**. Spangler et al. (p. 173)** found a strong relationship between degree-days from 1 Jan. and the proportion of infested ears. Based on this and the ability to predict sweet corn harvest dates and european corn borer life stages, a risk-prediction system is proposed that anticipates harvest infestation. The system will allow growers to anticipate the risk of ear infestations at planting time, thus providing on-farm and landscape (map) predictions that will help with management decisions.

Floral Consumption Values Differ for Genders and Geographic Regions

Knowing consumer consumption values is believed to have diagnostic value in the analysis of consumer choice behavior, and is helpful in improving the efficiency of the market. **Yeh and Huang (p. 101)** report that the consumption values attached to flowers were composed mainly of the values of sensory hedonics, emotion conditioning, curiosity fulfillment, monetary worth, and showing care to others. Consumers of different gender or geographic regions revealed different perception patterns for these values. The study findings provide florists an insight into value creation to increase the attractiveness of flowers to consumers.

Employers of Latino Workers Recommend Educational Programming

Horticultural managers hiring Spanish-speaking workers face many language and cultural challenges. Focus group research conducted by **Justen et al. (p. 224)** found that communication gaps, cultural differences, and safety knowledge are some of the major obstacles in managing Spanish-speaking employees. Participants of focus groups also recommended learning a few Spanish phrases, developing publications about horticultural practices in Spanish, and easy access to university extension materials as opportunities to overcome these challenges.

Production Costs on Two Pennsylvania Organic Vegetable Farms

Conner and Rangarajan (p. 193) studied two Pennsylvania organic vegetable farms and discuss six crop budgets that were vastly different in scale, management, and marketing strategies. On-farm cost allocations to labor, input and fixed expenses, and calculate prices at actual farm yields met all expenses (break-even) and contributed a hypothetical income of $40,000. These costs were compared to previous studies of organic production costs. The authors recommend research into budgets for long-term vegetable rotations in order to understand the tradeoffs made by diversified organic farmers.

Performance of Annual Bedding Plants Grown in Pine Tree Substrate

Due to their increasing costs, there is a need for alternative substrates to peat moss and pine bark for container plant production. A wide range of plants, including annual bedding plants, have been shown to grow well in a substrate produced from 100% ground pine trees. **Wright et al. (p. 78)** report that annuals produced in pine tree substrate, when transplanted to the landscape, grew as well as plants grown in pine bark regardless of landscape fertilizer rate.

Pecan Orchard Damage and Recovery from Ice Storms

Four damaging ice storms during an 8-year period allowed **Smith and Rohla (p. 83)** to make numerous observations of pecan tree damage, orchard clean-up, and subsequent tree recovery. The quantity of ice accumulation was the primary factor affecting damage severity. Variety and tree size also affected the amount of limb breakage. Damage was least on trees smaller than 15 ft tall. The greatest damage and most expensive clean-up costs were on trees 15 to 30 ft tall. In the most severely damaged orchards, clean-up costs were $419/acre, and recovery of full production potential was estimated to be 7 years.

Core Apple Temperature Affects Fresh-cut Slice Quality

It has been assumed that warm apples respond better to cutting than cold fruit. This assumption was tested on two standard varieties ('Gala' and 'Granny Smith') and two new varieties ('Ambrosia' and Aurora Golden Gala™). **Toivonen and Hampson (p. 108)** prepared slices from fruit conditioned at 1, 5, 13, and 20 °C. Fruit temperature did not influence quality of 'Granny Smith' slices. 'Ambrosia' and Aurora Golden Gala™ slices showed improved quality ratings when processed at 13 and 20 °C versus 1 and 5 °C. In contrast, 'Gala' had poorer quality ratings when processed at warmer temperatures.

Seed Germination and Viability of Norway Maple Varieties and Hybrids

Norway maple, 15 norway maple varieties, and 2 hybrids were evaluated annually for germination and viability over 3 years in an effort to understand their invasive potential. Among the varieties, **Conklin and Sellmer (p. 120)** found low to moderate germination in growth chambers, lower germination in the open landscape and forest, and inconsistent viability. Viability was higher than germination and results under two viability-testing prottocols with tetrazolium chloride indicated that different protocols may produce different results. To fully understand each variety's germination and viability potential and determine the plants' invasiveness, additional long-term studies will be needed.

Gibberellic Acid Increases Firmness and Size of '0900 Ziraat' Sweet Cherry

Attractive, large, firm sweet cherry fruit are desired by consumers, and preferred by growers. **Canli and Orhan (p. 127)** demonstrated that '0900 Ziraat' fruit treated with GA_3 were significantly larger and firmer than controls. Trees treated with 25 ppm GA_3 at the straw-yellow color stage in two different locations yielded fruit with 13.4% and 14.1% greater weight and 38% and 25% higher firmness. The firmer GA_3-treated fruit could be harvested at a later date than the controls.

Pine Bark Production System for Blueberry Requires More Fertilizer

Pine bark culture using beds approximately 1.0 m wide and 20 cm deep is the most common method for growing southern highbush blueberry in the southeastern U.S. **Williamson and Miller (p. 152)** found that fertilizer rates needed for acceptable growth and yield are higher in pine bark culture than rates previously reported for soil-based systems. The high fertilizer requirement is likely due to inefficient plant uptake of fertilizer as a result of the shallow roots and frequent irrigations characteristic of the pine bark system.

Rooting Winter Cuttings of 'Dwarf Burford' Holly without Auxin

'Dwarf Burford' holly is a popular evergreen shrub for multiple landscape uses in USDA hardiness zones 7 to 9. Commercial nurseries commonly propagate this variety using stem cuttings treated with a basal quick-dip in auxin to stimulate rooting. **Blythe and Sibley (p. 130)** found that winter stem cuttings of 'Dwarf Burford' holly could be rooted successfully without auxin treatment, thus eliminating one step in the propagation process and reducing chemical use. Rooting percentages of cuttings receiving no auxin treatment were comparable to cuttings treated with 2500 ppm IBA + 1250 ppm NAA in trials initiated in December and February.

Growing Degree Days Predict Sweetpotato Harvest Date in Louisiana

Villordon et al. (p. 133) identified a suitable method for calculating growing degree days (GDD) in Louisiana-grown sweetpotatoes by comparing minimum coefficient of variation (CV), linear regression, and data mining approaches. A suitable method with a base and ceiling temperature of 60 and 90 °F, respectively, was identified through a combination of lowered CV, increased adjusted r^2, and reduced mean square error. Using this method, test harvests are scheduled at 2600 GDD. A predictive model of US#1 yield that incorporates GDD and agroclimatic predictor variables can be used to further optimize harvest scheduling.

Landscape Industry Accounts for Largest Proportion of Native Plant Sales

The use of native plants by landscape architects and contractors in the southeastern U.S. has increased with increased clientele interest in native plants. Results of a southeastern U.S. green industry survey by **Brzuszek and Harkess (p. 168)** indicated that the landscape industry accounts for the largest proportion of native plant sales. Landscape architects and landscapers are specifying and using greater numbers of native plants in response to an increase in consumer interest. As a result, there is a need for increasing the number of nurseries carrying native plants and the quantities and species currently available.