



## Colored Plastic Mulches/Row Covers Affect Growth/Yield of Okra

Okra was grown in Shorter, AL, under red, blue, black, silver, and white plastic mulch and bare soil with and without row covers. **Gordon et al. (224)** report that the use of row covers contributed to taller and more robust plants with more marketable yield than plants grown without row covers. All plastic mulch treatments increased okra yield compared to bare soil. Generally, early yield was greatest with dark (red, blue, black) mulch colors. Early and total yields were greatest with blue and black plastic mulch.

## Time Invested in Teaching Practices for Three Instructional Methods

With the burgeoning number of university courses offered via distance education, concerns regarding the time required to conduct these classes abound. **McKenney et al. (p. 245)** found there was significantly less time invested by the instructor for actual class preparation, grading, and teaching in the online mode when compared to face-to-face instruction. These estimates did not reflect the time invested in the development of the course content itself, as any modality would require greater time investment initially.

## Interactive Online Database of Potato Variety Evaluations

Online databases provide useful content for a wide range of crops globally. **Clough et al. (p. 250)** developed an online database for potato varieties evaluated by the regional potato variety development project in the eastern United States and Canada (NE1031) from 1998 to present. The database includes a wide variety of traits of interest to researchers, commercial growers, and home gardeners. Two formats were developed to present the data. The main page allows the user to select varieties by years and locations to generate a summary of all trials. The variety summary page generates a one-page variety summary.

## Early Spring Ethephon Application Reduces First Fig Crop

Most fig varieties have two crops. Fruit from the first crop are called brebas. Second-crop fruit are called figs. In some varieties the first crop is undesirable because of low production and quality. Also, unharvested brebas may serve as sites of infection for fungal pathogens and may attract insects. **Crisosto et al. (p. 173)** demonstrated that application of 250–500 ppm ethephon prior to full leaf expansion when the biggest fruit are about 1.5–2 cm in diameter reduced the breba crop load by about 92% without other adverse effects.

## Disease Vectored by Exotic Insect Threatens Florida Avocados

**Evans et al. (p. 234)** describe and provide preliminary estimates of the potential economic losses from the introduction of an exotic pathogen (laurel wilt) and its insect vector (redbay ambrosia beetle) into the commercial avocado industry of Florida. Total economic impact in terms of lost sales, property damage, and increased management ranges from \$183 to \$356 million. The decrease in economic activity, ignoring increased management costs and decreased property values, ranges from \$27 to \$54 million annually. This analysis highlights the need to implement policies that prevent the introduction and spread of exotic pests into agricultural production areas.

## Economics of Polyphenolics Extracted from Muscadine Grape Pomace

Profitability of two drying technologies was assessed as means to extract and concentrate polyphenolics from muscadine grape pomace. **Cardona et al. (p. 160)** conducted an economic analysis based on break-even point, sensitivity, and return on investment analyses of these drying procedures. They report that these processing operations can provide a secondary income for muscadine grape processors. The study also illustrated various assumptions that could be changed to calculate and adjust the investment and costs of a processor. Additionally, this process could be implemented for by-products from diverse fruit and vegetable sources to estimate return on investment from those industries.

## Germination and Establishment of Turfgrasses from Coated Seed

Warm- and cool-season grasses were established at recommended and reduced seeding rates with coated and uncoated seeds under two irrigation regimes. **Leinauer et al. (p. 179)** observed that polymer coating on seeds improved germination of only one (creeping bentgrass) of the turfgrasses tested. However, the seed coating improved establishment in several of the tested grasses at both recommended and reduced seeding rates, indicating that

seed coating could compensate for less favorable conditions such as reduced irrigation and seeding rates, or a combination of both.

## Cover Technology Affects Warm-season Grass Establishment

There are reports of various effects of seed cover technology on the germination and establishment of warm-season turf. A study was conducted to determine how diverse cover technologies influence the establishment of bermudagrass, buffalograss, centipedegrass, seashore paspalum, and zoysiagrass from seeds. **Patton et al. (p. 153)** found that establishment was reduced in straw- or polyethylene-covered plots due to decreased light penetration or excessive temperature build-up, respectively. Overall, Deluxe, Futerra products, jute, and Poly Jute allowed for the highest establishment of these warm-season grasses.

## Reproductive Bud Thinning in Cactus Pear

Cladode fruit load is a thinning criterion widely used in cactus pear to increase export fruit size. However, this thinning protocol reduces fruit yield in Mexican commercial cactus pear types, and makes it uneconomical for growers. **Zegbe and Mena-Covarrubias (p. 202)** propose an alternative thinning protocol to enhance export fruit size without depressing the yield of Cristalina and Rojo Liso cactus pear types. Thinning every other bud along the cladode did not reduce fruit yields, and tended to improve marketable fruit in both types.

## Hawaiian Consumer Preferences for Potted Orchids

**Palma et al. (p. 239)** found that price is the primary factor that influences consumers in Hawaii to purchase potted orchids (30.90%), followed very closely by size (26.28%), and species (25.58%). Color (17.23%) was the least important attribute. They suggest that orchid growers in the state of Hawaii would benefit by growing in larger pots (5 and 6 inches), with less expensive species that can be sold at lower prices. About two-thirds of the respondents preferred multi-colored orchid pots without any arrangements. The top three preferred colors were red, purple, and white.

## Graduate Student Use of Campus Green Spaces Examined

**McFarland et al. (p. 186)** observed that graduate students do not use campus green spaces to their greatest capacity. Even with low green-use, graduate students ranked their quality of life as high, indicating that graduate students were happy overall and had positive perceptions of their quality of life. Probing graduate students' attitudes about nature and their motivations for, and barriers to, using campus green spaces could help campus planners more adequately

provide facilities for this population to improve educational experiences further.

## Nitrogen Fertilizer Rate/Form Affects Bud Failure of Green Ash

The influence of tree nitrogen (N) status in autumn on bud necrosis the following spring was evaluated using green ash trees grown with N from either urea formaldehyde (UF) or a controlled release fertilizer (CRF). **Scagel et al. (p. 206)** report that bud necrosis was more prevalent on lower N content trees and trees grown with CRF had more bud failure than trees grown with a similar N rate from UF. A combination of tree N status and the balance between N and C in certain tissues plays a role in the occurrence of bud failure of green ash trees.

## Carbon Dioxide Enrichment of Raspberry Grown in High Tunnels

Captured industrial carbon dioxide (CO<sub>2</sub>), a major greenhouse gas, could be supplied to plants for sequestration as an alternative to underground storage. **Mochizuki et al. (p. 213)** developed a CO<sub>2</sub> delivery system that increased CO<sub>2</sub> levels 20% to 25% above ambient for 8 hours daily during 4 months for tunnel-grown raspberry. Yield was 20% greater and berry size 0.1% greater in tunnels with CO<sub>2</sub> compared to untreated; however, no effects of CO<sub>2</sub> on cane size or number were observed.

## Nitrogen Availability from Liquid Organic Fertilizers

Expanding organic production, and the increased use of drip irrigation, has created a demand for liquid organic fertilizers that can be applied through irrigation. **Hartz et al. (p. 169)** evaluated the rate of nitrogen (N) availability of three commercial liquid organic fertilizers. One fertilizer containing fishery waste and guano had approximately 80% N availability after 1 week of incubation in organically managed soils. Two fertilizers made from plant materials had significantly lower N availability, averaging 41% and 68% across soils and incubation temperatures. Across fertilizers, N availability increased approximately 10% over an additional 3 weeks of incubation.

## Application of Paraquat Can Injure Field-grown Narcissus

Paraquat is used to control weeds and desiccate foliage of field-grown narcissus prior to bed reshaping in the autumn. **Miller and Libbey (p. 220)** found that if paraquat was applied at too high a rate or when narcissus foliage was still mostly green, new foliage the following year could be chlorotic and flower number, stem length, and average bulb weight could decrease. To avoid this injury, daffodil producers are advised to use paraquat at a maximum rate of 0.47 lb/acre and to delay application until narcissus

foliage is about 75% dry and most of the flower stems have fallen.

## **Growth Retardants Reduce Shoot Length in Citrus Nursery Trees**

Shoot length of 'Eureka' lemon nursery trees was reduced following the repeated (x4) foliar application of gibberellin-

biosynthesis inhibitors (**LeRoux and Barry, p. 197**). Uniconazole at 1000 ppm resulted in the most growth retardation, with shoot length 34% shorter than the control. Reduced shoot length was due to shorter internode length rather than fewer nodes. Prohexadione-calcium at 400 and 800 ppm and uniconazole at 1000 ppm significantly reduced internode length relative to the control by 31%, 56%, and 50%, respectively.