Significance to the Horticulture Industry

Compost Tea

An Investigation of the Impact of Compost Tea Applications on Turf Quality and Soil Microbial Activity. T.M. Waliczek and N.C. Wagner. *Journal of Environmental Horticulture 41(1):1–6*

As the fourth largest crop in the U.S. by acreage, the management of turfgrass is of environmental significance. Additionally, the turfgrass industry continues to grow along with interest in organically managing this crop. However, research regarding the use of compost tea as a management strategy for turfgrass is relatively recent and limited. Studies have suggested that compost soil amendments and teas can reduce reliance on pesticides by suppressing disease, and reduce reliance on fertilizers by increasing soil and plant health. Thus, this study investigated the effects of compost tea soil drench applications on turf quality and soil microbial activity. Results presented in this study provide evidence of the value of compost tea to overall turf quality. Specifically, compost tea improved turf quality ratings beyond that of irrigation applications. While this study illustrates turf quality can be positively impacted using compost tea drenches in turfgrass, more research is needed. Specifically, application timing, rate, and long-term effects of compost tea applications in terms of turf quality and soil biochemical attributes need to be further explored to develop best management practices.

Native Plants

Greater Appeal of Native Plants for Environmentally Conscious Consumers. Alicia Rihn, Bridget K. Behe, Susan Barton, and Ariana Torres. *Journal of Environmental Horticulture 41(1):7–13*

Native plants are one category that would benefit from improved marketing and communications to stimulate consumer demand. Marketers realize that not all markets are homogeneous and dividing a marketing into segments enables savvy marketers to capitalize on the attitudes, preferences, perceptions, and behaviors common within individual market segments. In the present study, researchers identified three consumer segments regarding their perceived importance of native plants: Native plant champions segment (50% of the market) believes native plants are very or extremely important; Pro-native plant segment (33% of the market) perceives them as moderately important; and Ambivalent segment (17% of the market) who believe native plants are not or only slightly important. While results showed that there were multiple differences regarding pro-environmental behavior, few differences were identified regarding demographic characteristics. Key behavioral differences in this study were the use of rain barrels, composting, and recycling gardening plastics. Marketers should consider adding native plant messages (e.g., benefits) near the areas where these products are merchandised to attract consumers to the available plants.

Property Values

An Update of the Literature Supporting the Economic Benefits of Plants: Part 2 – Increased Property Values. Macy Fetchel and Charles R. Hall. *Journal of Environmental Horticulture 41(1):14–26*

This article is the second of a series that provides a review of the substantial body of peer-reviewed research that has been conducted regarding the economic benefits of green industry products and services. A previous series documented the health and well-being benefits, including emotional and mental health benefits, physiological health benefits, the benefits that plants provide to society at large and the role they play in addressing critical societal issues, and an overview of resources available for green industry firms to find more detailed information on these plant-related health and well-being benefits. Industry firms should be armed with the economic benefits described in this new series to strategically incorporate these benefits into both industry-wide and firm-level marketing messages that highlight how local and regional economies are affected in order to enhance the perceived value and relevance of green industry products for municipal leaders and gardening and landscaping consumers in the future.

Salix "The Hague"

Notes on the Origin and Pedigree of Salix 'The Hague'. Alexander M. Marchenko and Yulia A. Kuzovkina. *Journal of Environmental Horticulture 41(1):27–32*

Clear and accurate records of cultivated plants are important to the horticultural industry. Salix is a genus of considerable taxonomic complexity, and accurate identification of its species and hybrids is not always possible. Therefore, there is a lot of confusion with cultivating willows. We analyzed the original references, herbarium specimens and used the number of the ovules in the ovary of the flower to verify the parentage of the popular hybrid cultivar Salix 'The Hague'. This study proposes to correct historical inaccuracies related to the origin of this taxon and lists it as a hybrid of S. ×erdingeri × S. gracilistyla.

Surfactant-coated Seed

Surfactant-coated Seed Emergence and Establishment Under Deficit Irrigation in Hydrophilic and Hydrophobic Soils. Mica McMillan, Samira Daroub, Kimberly Moore, John Erickson, Stanley Kostka, and Michael Fidanza. *Journal of Environmental Horticulture 41(1):33–39*

Soil surfactants are recognized as a valuable tool to treat hydrophobic or water repellent soils and also to maintain and improve turfgrass growth under deficit irrigation. Soil surfactants can achieve this through their influence on soil hydrological properties. Turfgrass seed treatment with a soil surfactant is novel and represents an opportunity to improve germination, emergence, and stand establishment, as well as improve rootzone soil-water dynamics in challenging environmental conditions of drought, limited precipitation or irrigation, and hydrophobic soils.

The Journal of Environmental Horticulture (ISSN 0738-2898) is published online quarterly in March, June, September, and December.