

What's New in the World of Perennials: Trends in Perennials®

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INTRODUCTION

In beginning a look at the trends in perennials, one should quickly review the history of perennials. Perennials have always been part of the green industry but their importance has been cyclic. Perennials, including ornamental grasses, were available in catalogs of the Victorian period. In the early part of the 20th century until the late 1970s, perennials were produced by classical perennial nurseries, i.e., those producing only perennials. These nurseries were fairly stable in their production but the value (sales) was not at a level that would entice other types of nurseries to produce perennials. Obviously, this situation has changed. Early nurseries included Martin Viette Nursery on Long Island, New York; Wayside Gardens, Mentor, Ohio; and Sunbeam Gardens, Westlake, Ohio, to name a few.

There are two other areas that help illustrate the history of perennials and present perennial trends. The first is in the area of publications or books about perennials. In 1973 when I took a perennials course at the University of Illinois there was no textbook for the course and no slides to illustrate the perennials. There was little visual stimulation. No wonder the interest in perennials was low. In 1979 when I published the first edition of my herbaceous textbook, it was still the only textbook available. A very good book, *Contemporary Perennials* by Cumming and Lee, was out of print. Since 1979 there have been hundreds of books written about perennials. Is there any perennial topic that has not been covered by any book? Obviously, the interest in perennials is high.

A second factor in the trend or increased interest in perennials is related to the Perennial Plant Association. In 1983 Elton Smith and I had a vision or feeling that there were many questions about the production and marketing of perennials that needed to be addressed. To that end the first Perennial Plant Symposium was initiated by The Ohio State University in 1983. That first program attracted 250 attendees. From that small beginning this program has grown to an attendance of 1000 to 1100 participants and membership in the Perennial Plant Association stands at 2000 members. Certainly this increase indicates that there has been an increase in the awareness of perennials, which has resulted in many trends, which I will discuss today.

To prepare this presentation I combined crystal ball gazing with that of numerous Perennial Plant Association members. The trends selected are divided into the important P's, which are plants, propagation, production, plant uses, and promotion. This presentation will indicate that trends can be good or bad but they will be presented as trends in perennials.

PLANTS

The first trend in plants is new, new, and more new plants. The introduction of new cultivars and new species of perennials is at an all-time high. In hosta and daylily

breeding and selection, new has always been a goal and we can count the introductions of these two genera in the thousands. Greater sophistication of the consumer who wants the newest introduction has driven some of this trend. However, an attempt by nurseries to provide separation from the crowd has promoted this spiraling trend. It is no longer sufficient to grow a high-quality plant. A unique plant is now often the goal of the nursery or individuals or companies that specialize in finding the next super perennial. Nearly all major nursery educational programs have a session or sessions dedicated to new plants. The Perennial Plant Association has a 2-h program of new plants and the 54th Eastern Region, North America I.P.P.S. program has 13 presentations on topics related to new woody and herbaceous plants. New perennials appear across many genera. Notable genera where new selections have occurred include *Heuchera*, *Tiarella*, *Coreopsis*, *Agastache*, *Nepeta*, and *Echinacea*.

Other plant trends include the following:

- Color is becoming very important and will remain a strong influence in the future.
- There is an increase in the selection of plants with interesting foliage including variegation and various leaf colors. In the quest for color in the garden, colored foliage can provide a season-long ornamental feature.
- Dwarf selections are an increasing trend. Smaller sizes are good for containers and the border front.
- Selection for rebloomers is increasing. This has especially occurred on reblooming daylilies for northern climates.
- The classification of perennial, annual, and tropical plants is blurring. Northern nurseries are now offering nonhardy plants as “temperennials”. Sunny Border Nurseries, Connecticut and Ohio, now offer “Bodacious Temperennials” and Bluebird Nursery, Nebraska, has a separate catalog listing Bluebird Temperennials. Sunny Border offers 400 temperennial selections.

There are several other trends noted about new plants, which are not as favorable as the above trends. In the quest of introducing new perennials the plants are sometimes not tested sufficiently. They are not given time to prove themselves. Consequently, plants are introduced which may not be cold- or heat-tolerant or which may show other undesirable characteristics. Another troubling trend is that good landscape plants are being overlooked in the ultimate search for new plants. The last trend is that breeding and selection criteria are directed toward a perennial that is pretty and unusual but the durability is overlooked. The industry still needs dependable perennials that will perform well for the ultimate consumer.

PROPAGATION AND PRODUCTION

There are three trends in propagation, which have changed and will probably continue to change the perennial industry. The first trend is plug production of perennials from seed and cutting propagation. The possibility of obtaining uniform and well-developed plugs has allowed the perennial grower to move from a nursery growing only perennials to nontraditional nurseries such as woody nurseries. Plug production has allowed nurseries to concentrate on growing a quality perennial without the need for a full-scale propagation department.

The expansion of tissue culture labs has allowed the rapid introduction of the new cultivars discussed above. New perennials produced by normal asexual propagation often limited the multiplication and, consequently, the number of plants available for distribution. Tissue culture labs are now found throughout the world and there is little limitation on obtaining a suitable source of material. There is a learning curve for the propagator in dealing with the various stages of tissue culture plants.

The newest trend is the use of unrooted cuttings from off-shore areas. These areas are typically tropical areas with long growing seasons. Cuttings are shipped air express to anywhere in the world. The handling of unrooted cuttings is a new propagation technique and propagators need to be educated in the care and handling for optimum results.

The globalization of perennials creates possible problems. Viruses, diseases, and some weed species have been introduced into North American nurseries. Although the market has expanded, the introduction of problems can occur.

The trend in production is toward larger containers. A classical perennial grower of the 1980s and 1990s produced product in 1-quart (round or square) containers. The trend is toward 1- and 2-gal containers. The 1-gal containers are being sent to garden centers while 2-gal containers are directed toward the landscape industry.

PLANT USES

There are several trends in the landscape use of perennials and temperennials. They include increased use of tropicals, expanded use of perennials in containers, and an emphasis on using perennials in the mixed border.

The production of tropicals by perennial nurseries is an increasing trend. Tropicals fit in the area of temperennials previously listed. Tropicals are used by advanced designers and landscapers to garnish or embellish their design works of art by adding texture, fragrance, and color to the landscape. Tropicals are used in decorative containers and are also planted in the landscape. Examples of tropicals (typically Zones 8-10) include *Musa* 'Dwarf Cavendish', *Hedychium coronarium*, *Plectranthus amboinicus* 'Giant Candles', and *Colocasia esculenta* 'Black Magic'.

Decorative containers have always been a stage to exhibit annuals. These are still important but the use of hardy and tender perennials is an increasing trend. Mixed containers of perennials, annuals, tropicals, and, sometimes, woody plants are becoming common. Consumers are asking for container plants that do not need to be replanted each year. Hardy perennials can provide this feature. Recipe books for container design are offered in garden centers. The gardener can select the container and the plants and follow the recipe just as they would for baking a cake. Education for container design is included on most nursery and florist educational programs. The Perennial Plant Association sponsored a day-long program on container design at the Perennial Plant Symposium. A "recipe book" of 100 designs for mixed containers was prepared for this program.

Research is still needed to determine the optimum method for overwintering a container with perennials in northern climates. Hardiness of perennials in containers has not been addressed. Which species will be hardy and how the container is handled in the winter are two very important questions. Research at The Ohio State University has studied various methods of winter storage of containers of perennial plants. Placing the container in an unheated space, such as a garage, was the optimum method of storage to ensure plant survival.

Designers are considering the mixed border more often as they work with the homeowner. Early uses of perennials followed the more classical perennial border with a goal of continuous bloom. The trend now seen is to use perennials in the mixed border along with annuals, biennials, hardy and tender bulbs, shrubs, and small trees.

At this time it is very fashionable to use ornamental grasses, water plants, al-pines, native perennials, and perennials used for green roofs. Several of these topics will be covered in the lectures presented during the 54th Eastern Region, North America I.P.P.S. meeting.

PROMOTION

While creation of new cultivars is clearly an important function in the perennial industry, an equally important trend is the development of various methods of promotion of these cultivars and related plants. Promotion includes branding, patenting, and trademarks, and the plants of the year on national, region, and state levels.

The Perennial Plant Association initiated a plant promotion program in 1990. The Perennial Plant of the Year program was started to bring greater awareness to perennials. This program is now in its 15th year and has been most successful and the announcement of the Perennial Plant of the Year is eagerly anticipated each year. Since 1990, numerous state, regional, and national organizations have followed suit and introduced various plants of note. Other examples of promotion programs include GreatPlants (Nebraska Nursery and Landscape Association and Nebraska Statewide Arboretum), Plant Select® (Denver Botanic Garden and Colorado State University), and Herb of the Year (International Herb Association). These promotion programs will continue with additional organizations and states adding plants of note.

Branding of perennials has increased rapidly over the last 5 years in an attempt to create a quality niche similar to developing new cultivars. Perennial programs such as Stepables®, Herb Herbert's, and Blooms of Bressingham are examples of national/international branding. Branding is an attempt to create a brand loyalty by presenting defined desirable characteristics. For example, the Stepables® branding promotes tough, easy-to-grow plants that endure light to heavy foot traffic. These branding programs provide point-of-purchase materials as well as pot tags. The effectiveness (increased sales) of branding is debated in the industry. Many of the annual and perennial purchases in the garden center are still impulse purchases where color and appearance are very important. Some industry members feel the customer simply wants a good-looking plant and does not care about the brand. Garden center managers must also determine how to balance their inventory of various branded items to receive the optimum effect. A garden center inventory could soon look like the cereal aisle at the grocery. How does the consumer choose?

The number of patents and trademarks has followed the same upward slope as new cultivars. Plant breeders and individuals selecting the new and unusual want to recoup the expense of their discoveries. To that end propagation and name protection is becoming the norm in the perennial industry. The acceptance of this practice is varied. Nurseries and companies protecting their plants obviously feel a patent or trademark is very important. Others feel the situation is very constraining. Patenting the cultivar name for propagation protection and trade marking a second name for marketing has created nomenclature confusion.

Another area of concern occurs when individuals attempt to trademark a species or cultivar already in the trade. This approach to protecting a plant is an inappropriate use of the trademark. The International Code of Binomial Nomenclature does not allow a trademark to be applied to a cultivar name. This has the potential of creating litigation in the industry.

There have always been perennial trends. This paper has listed and discussed several notable trends, some good and some bad. Some of the above trends will decrease in importance and others will replace them. However, in the view of this writer, the future of perennials is strong and we will see a perennial industry long into the future.

Perennial Seed Propagation and *Helleborus*®

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WHAT WE KNOW GENERALLY ABOUT PERENNIAL SEED GERMINATION

- Plant selection and breeding can produce seeds that germinate uniformly with normal greenhouse temperatures.
- Normal moist-cold treatments will not do any harm to hardy herbaceous perennial seeds. Fluctuating temperatures can be helpful both in the warm greenhouse and during the moist-cold period.
- Sowing seeds and immediately subjecting them to freezing temperatures below -7 °C (20 °F) will often kill the embryos. Seeds can be subjected to colder temperatures but need a slow acclimatization (Jelitto, 1996).

Dormancy Can Have Various Causes

- 1) Embryo unripe or physiologically inactive.
- 2) Seed coat may be mechanically difficult to penetrate: impermeable to water and gases (i.e., oxygen).
- 3) Presence of inhibitors (germination inhibiting substances) such as phytohormones — also known as growth regulators, e.g., abscissic acids.

These three types may occur alone or in combination, *Helleborus* seed germination involves a combination of numbers 1 and 3.

SEED PROPAGATION OF HELLEBORES

Introduction. Hellebores are propagated routinely by seeds. The process requires patience and a basic understanding of seed physiology. The seeds, accompanied by a trailing soft membrane called an elaisom (Latin = oil body) — rich in fat, sugar, and protein — are dispersed in late spring and early summer. In nature, ants are lured by this food source, and drag seed to a comfortable resting spot that will hopefully prevent dehydration and keep the embryo alive. At this point the seeds have only rudimentary or undeveloped embryos that require a warm-moist period of ripening followed by a moist-cold period before the initiation of germination.