

Heat-Tolerant Perennials

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INTRODUCTION

Carolina Nurseries has been producing container-grown nursery stock since Sept. 1984. At that time, most of the plant materials we grew were woody ornamentals. This included cultivars of azaleas, camellias, holly, and junipers found at most Southern U.S. nurseries. The one perennial item that we listed in our first sales catalog was *Hemerocallis* 'Aztec Gold'.

As one looks through our Fall 1996 Sales Catalog, it is evident that our product mix has changed considerably—particularly in regard to perennials. Perennials now make up 13% of our annual sales. Our current catalog lists over 400 cultivars of perennials.

INITIATING A PERENNIAL PROGRAM

Our perennial program was instituted partly as a reaction to customer demand, and partly as an attempt to diversify our product mix. It seemed that blooming plants had become increasingly popular with home gardeners, and our customers were looking to fulfill these needs. We saw this as an opportunity to capitalize on this demand, and to distinguish our nursery plant products.

The expansion of our perennial line did not happen overnight. Over the years, we added more cultivars of *Hemerocallis*, added an extensive line of *Hosta* cultivars, and several *Iris* cultivars. These items have proven to be very popular, and remain the cornerstone of our perennial program as it exists today.

We went to work researching everything we could find on perennials, and contacted various plug producers in an attempt to find herbaceous perennials that would work for us.

THREE CRITERIA IN OUR SELECTION OF PERENNIALS

When we select perennials, we ask ourselves three important questions:

- **Will They Thrive in our Growing Conditions?** In addition to the high heat and humidity of the Charleston, South Carolina region, plants have to be able to withstand heavy afternoon showers that accompany the late summer hurricane season. We specifically chose types that would tolerate lots of water, and deliberately avoided those that preferred a drier environment. However, we did roll the dice on some cultivars that we thought had some outstanding attributes — even if they did not meet all of our criteria.
- **Are They Cold Hardy?** Cold hardiness affects the marketability of a plant. We try to ship throughout the United States, and prefer plants that will work in all areas of the country.
- **Are They Rebloomers?** A plant that reblooms throughout the growing season allows us to extend our sales beyond the typical spring shipping window.

It is interesting to note that as we started selecting cultivars of perennials, we tended to gravitate towards those that would work in a 3.8-liter (1-gal) containers. Through our research, we found cultivars with very desirable characteristics, but tended to be taller growers. This helped contribute to the implementation of an 11-liter (3-gal) perennial line. Consequently, we were able to offer a larger selection of color and growth habit to our customers.

SCHEDULING PERENNIAL PRODUCTION

We strive to have two main perennial shifts at the nursery. One in the spring, just past our frost free date of 15 April. The other is in the fall, so that the material has an opportunity to root out completely before it goes dormant. Our propagation and the ordering of plugs is targeted toward these two times of the year. This system works well for us, as we are able to supply our customer's needs for early spring color, and continue on throughout the growing season without interruption.

This has been a learning process for us, with many surprises along the way. Some plants that we regarded as long shots have proven themselves to be real winners. Also, some cultivars have not lived up to our expectations.

SUCCESSFUL PERENNIAL CULTIVARS

I will share some perennials that have proven themselves as valuable additions to our product mix. These selections have distinguished themselves as being able to handle our growing conditions and are popular with our customers.

Hostas are the world champions of our perennial program. Although they require 50% shade, they are well suited to our growing environment. Most are hardy to Zone 4, so we are able to ship them anywhere in the country. Although they do not rebloom, their appeal lies in their unique foliage. There are so many cultivars with different color combinations and textures available. They offer great diversity for shady landscapes. As urban areas are becoming more crowded with trees and buildings — plants that thrive in the shade are becoming increasingly popular.

Hemerocallis cultivars are tough perennials that fit the bill on all three of our selection criteria. They stand up well to the heat, and most are cold hardy — so their potential marketability is nearly nationwide. We still grow 'Aztec Gold', but in addition our catalog lists 18 other cultivars. We specifically select rebloomers from the wide pallet of color that is available to us.

Iris are very tough and can take the heat and all the rain you can give them. Most are cold hardy to Zone 4, and therefore marketable throughout the country. Although not a rebloomer, it offers versatility as a water gardening plant. Foliar effect can be sensational as in the case of 'Kaempfer Variegated'. This is a large genus, and we grow several species including *I. kaempferi*, *I. pseudacorus*, *I. sibirica*, and the Louisiana hybrids.

Gaura lindheimeri is a tough plant that is the king of the rebloomers. This plant will literally bloom spring through fall. Pruning will encourage it to bloom repeatedly. It is hardy to Zone 6, so it has a fairly good marketing range in the U.S. *Gaura* will tolerate all the heat and drought that the south can meter out. It also handles the heavy afternoon rains of later summer quite capably. Sometimes a reddish leaf spot will develop on this plant, but when its foliage is covered by blooms this minor distraction goes unnoticed.

Black eyed susan (*Rudbeckia fulgida* var. *sullivantii* 'Goldstrum') is very well adapted to the southern U.S. This compact free-flowering cultivar blooms from June through September. It is characterized by deep gold blooms over deep green foliage. This cultivar never goes completely dormant at the nursery, forming a thick clump that just explodes with color as the weather warms. 'Goldstrum' is probably the most popular cultivar of *Rudbeckia* used in the trade, but there are other forms that merit some attention. *Rudbeckia* 'Goldquelle' is a lovely double-flowered form that does not exceed 1 m (3.3 ft). For those wanting to make a dramatic statement, consider *R.* 'Herbstonne' (syn. *R.* 'Autumn Sun'). This tall perennial is produced in 11-liter (3-gal) containers, where it can be pruned to maintain a height of 1.2 m (4 ft). It is an outstanding specimen in full flower, and a valuable addition for the back of a perennial border.

Purple cone flower (*Echinacea purpurea*) handles the summer heat and drought well. It has a good market range, and is extremely popular as a dried flower. The one drawback to this plant is that it can be sensitive to a wet environment, particularly at a juvenile stage — before it gets established. In an attempt to deal with this, we will transplant our plugs into a 10-cm (4-in.) pot for overwintering before shifting to a larger container in the spring. This allows the plant to get established before bedding it outside. There is also a white-flowering form called *Echinacea* 'White Swan.'

Fern leaf yarrows (*Achillea* spp.) are trouble-free plants that have no insect problems. They are touted as being very drought tolerant, and most hold up well in the constant afternoon rains of later summer. *Achillea millefolium* 'Oertel's Rose' is a sturdy red that blooms all summer long. It was still blooming when I left Charleston, SC for the Southern Region International Plant Propagators' meetings. *Achillea* 'Terracotta' is an Ernst Pagel introduction that sports unique coloring for which it is named. *Achillea* 'Snowsport' is a beautiful white cultivar that can reach 46 cm (18 in.).

***Dianthus gratianopolitanus* (cheddar pinks common name)** was one of the first lines of perennials we offered for sale. In addition to a large marketing range, these plants are low growing and lend themselves well to our 3.8-liter (1-gal) container production system. The foliage is very attractive, but with the visual impact of blooms which can last throughout the season — it is easy to declare this a winner. Two of our favorites are *D.* 'Spotti' (syn. *D. plumarius* 'Spotti'), and *D. gratianopolitanus* 'Feuerhexe' (syn. 'Firewitch'). Both of these cultivars bloom all season long — rather than being limited to spring blooming.

Crocsmia is an interesting plant that we buy in as bulbs. The market range is good, and they hold up well in the heat. The blooms last about 3 weeks in early summer. The one production problem is that the spider mites seem to be particularly fond of these plants.

Gay feathers (*Liatrus spicata*) are purchased as bulbs during the winter months and are planted outside in pots for very early spring sales. These cold-hardy perennials are finished and ready for marketing in 8 to 10 weeks. They only bloom once, so there is a tight window to get them shipped while still in color. There is a white-flowering form, *L. spicata* 'Alba'. A unique form of this plant is *L. microcephala*, a native collected from the U.S. Southern Appalachians. It boasts a good marketing range, has shiny green leaves, and an attractive purple spiked inflorescence.

Mexican hat (*Ratibida columnifera*) is one of the biggest surprises of our program. We never expected this plant to survive for us, assuming that it would drown in our afternoon rains. Surprisingly, it has performed very well and has held up remarkably — even through the wettest South Carolina summer on record. The plant has a good marketing range and we are very happy to offer it as part of our product mix.

Stokesia 'Klaus Jelitto' is a very popular perennial with large pincushion-type blooms of lavender. It holds up well in the heat and has a good marketing range. A similar plant is *S. laevis* 'Omega Skyrocket', a native species that we propagate by seed. The blooms are similar to *S. klaus* 'Jelitto', but the stems are much taller. These elongated stems give a completely different architectural aspect to the plant. This cultivar shows promise with the cut flower market.

Belamcanda chinensis 'Hello Yellow' is a selection from Goodness Grows Inc., Lexington, Georgia, that is a great performer for us. It holds up well in the heat, has beautiful clear yellow blooms, and has a good marketing range. The attractive foliage does not require pruning or staking as long as adequate space is provided. All things considered, this is a relatively maintenance-free perennial.

Scabiosa 'Butterfly Blue' and **S. 'Pink Mist'** have proven to be tremendously popular cultivars. These low growers work well in 3.8-liter (1-gal) container production. They never need pruning, and are almost always full of blooms — so they usually move quickly to our customers. Both of these cultivars are cold hardy to Zone 5, with a high tolerance for heat. Soil mix should provide for adequate drainage.

Ten-petaled sunflower (*Helianthus decapitalus*) is a very attractive and relatively low-growing *Helianthus*. This cultivar behaved itself quite nicely to produce a wonderful 11-liter (3-gal) crop.

Anise hyssop (*Agastache 'Blue Fortune'*) is sometimes listed as an herb in seed catalogs. This is a wonderful perennial that puts on one of the most outstanding flower displays. It is a prolific rebloomer, and pruning stimulates flowering again and again. It performs well in the heat, and will take all the rain that mother nature can meter out. A very popular item, and deservedly so.

Veronicastrum virginicum is an elegant white bloomer for the shade garden. The plant is relatively trouble free, but can take a while to get established. It is certainly worth the wait, as it is an interesting and underused plant.

Nepeta siberica 'Souvenir d'Andre Chaudron' (catmint) is a very hardy cultivar. Catmint 'D'Andre Choudron' does well for us, particularly with the abundance of heat and rainfall we experienced this past summer. The bloom is very interesting.

Hibiscus moscheutos from the tough Disco Series was one of our first successful perennials. These sturdy plants can overwinter in the container and emerge even stronger the next season. We offer an assortment of colors, all of which thrive in our environment and allows us to ship throughout the U.S.

Hibiscus coccineus offers stunning cut-leaf foliage and is an absolute show stopper when in bloom. Not quite as cold hardy is *H. mutabilis*, which is a staple of the southern U.S. garden. We market it for its unique landscape value.

Common joe pye weed (*Eupatorium fistulosum* and *E. maculatum*). These great performers need a place in every garden. Rather tall growers, which can exceed 1.8 m (6 ft), they do well in our 11-liter (3-gal) container perennial line. We have found that plant heights can be limited by judicious pruning early in the season. The main attraction is that they are at their best when the rest of the landscape looks tired and dull — around mid-August. Insect and disease-free, they handle all the heat and the humidity that the southern U.S. can offer.

***Ageratina altissima* ‘Chocolate’** (syn. *Eupatorium rugosum* ‘Chocolate’) is an unusual cultivar recognizable by its chocolate brown foliage which is great in itself — but when it becomes covered with white blooms it is even more attractive!

***Perovskia* ‘Filagran’** is a former perennial of the year winner. It is a tough, durable plant that sustains heat and drought remarkably well.

Vernonia angustifolia is a cold-hardy native plant that also offers a flower display in mid-August as a companion plant to the eupatoriums. While relatively trouble free, it does tend to get a bit weedy-looking after bloom.

Turtleheads (*Chelone* spp.) are wonderful shade-loving plants with blooms that resemble snapdragons. We offer two species — *C. lyonii*, a pink-flowering form, and *C. glabra*, a white-flowering form. The pink form is particularly attractive, as it is complemented by shiny bronze foliage.

***Euryops pectinatus* ‘Viridis’** is an early founding member of our perennial program. This cultivar is not very cold hardy, but thrives in the heat. It propagates easily by cuttings.

Lantanas are generally grown as annuals. However, *Lantana camara* ‘Miss Huff’ is supposed to be fairly cold hardy. We have included this Goodness Grows introduction in our perennial program. Like other lantanas, it takes the heat well and blooms all summer long. We are anxious to see how this cultivar overwinters for us.

Cannas are relative newcomers for us. But they are old standards in the garden and are used frequently in highway plantings. Tough and durable, they can handle the heat, are cold hardy, and thrive in wet conditions. Cannas offer versatility as water gardening plants.

Stachys is another surprising survivor for us. When we first saw its pubescent silvery foliage we immediately discounted it as doomed by drowning. This plant is tougher than it appears, and has survived many a hot, wet summer in South Carolina.

***Artemisia* spp.** are another perennial that we thought would hate our growing conditions. Although very cold hardy, we suspected the afternoon showers would cause production problems with its delicate lacy foliage. Amazingly, this plant has endured and prospered.

Verbenas were grown at Carolina Nurseries before the days of a perennial program. Always a good performer in the heat, the main problem of this general is the lack of cold hardiness. Selections of *V.* ‘Homestead Purple’, and *V.* ‘Homestead Pink’ have improved cold hardiness.

Salvia uliginosa sports beautiful sky blue flowers and is well suited to southern U.S. growing conditions. *Salvia uliginosa* has a bad reputation as being very invasive, but works well in containers. Other salvias that work well for us are the coccineus hybrids, velvet sage (*S. leucantha*) and the *Salvia* ×*sylvestris* cultivars — particularly *S.* 'Mainacht' (syn. *S.* ×*superba* 'May Night') and the white-flowering form, 'Snow Hill'.

Veronicas are good tough summer flowering perennials. They are capable of enduring drought and hold up well in periods of heavy rain. There are many good cultivars available and *V.* 'Sunny Border Blue' is one of the best.

Rain lilies (*Zephyranthes* spp.) are very interesting perennials that we offer in a 10-cm (4-in.) pots as well as 3.8-liter (1-gal) containers. They are not very cold hardy (Zone 8), but they do have some outstanding characteristics. Their foliage is shiny, and fills the container well. Their delicate blooms are quite colorful. A special attribute is that once established, they will rebloom after a rain. Needless to say, we saw a lot of blooms this past year. *Zephyranthes candida* is a white-flowering form, *Z. rosea* is pink, and *Z. citrina* is the yellow-flowering form.

Asters were among the first incorporated into our perennials program in an attempt to include fall-blooming plants. One of the first cultivars we grew was *Aster* 'Purple Dome', a compact grower with lovely dark purple flowers. *Aster* 'Nesthäkchen' is a pink-flowering compact grower. We have also incorporated taller growing asters to compliment our mix.

Boltonia is a taller growing fall bloomer in the Aster family. It is heat and drought tolerant and make a stunning display when in flower. We grow a white cultivar, *B. asteroides* 'Snowbank', and a pink flowering cultivar, *B. asteroides* 'Pink Beauty'. Another unique cultivar is the dwarf-growing form, *B. asteroides* 'Nana'.

Solidagos or goldenrods round out our line of fall bloomers. Though some would discount these as nuisance weeds, improved selections are often spectacular in full flower. *Solidago rugosa* 'Fireworks' is a 1-m (3.3-ft) grower whose blooms are reminiscent of exploding fireworks. A dwarf selection is *S.* 'Golden Fleece', can be used as a groundcover. These plants are rugged and holdup well in the heat and through periods of heavy rainfall.