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Nature Pansies "On Trial": Environmental Factors in Landscaping

Landscaping in Tough Climates: An Interview with Jimmy Turner of the Dallas Arboretum & Botanical Garden
The Dallas Arboretum in Dallas, Texas, ranks as one of the top five display gardens in the United States. Over its 66 acres, the facility offers several smaller, themed gardens, such as A Woman's Garden, the DeGolyer Garden, the Jonsson Color Garden with its Palmer Fern Dell, Lay Ornamental Garden, Boswell Family Garden, and Texastown, featuring a sod house, two cabins, a covered wagon, a tepee, and the plants that supported the area's early pioneers. Central to the arboretum is the Paseo de Flores, a grand promenade which showcases the wide range of plants and flowers, which can survive and thrive in the challenging environment of North Central Texas. During winter, this means pansies.

“We have one of the world's toughest climates for gardening,” says Jimmy L. Turner, director of Horticulture Research at the Dallas Arboretum. “It's Texas, so it can get hot, but the problem is we go through severe extremes of heat, low humidity and high humidity. When it does rain, we have floods. Then it doesn't rain for nine months. We were 100 degrees in February, and the week before it had been freezing.”

Open year-round, the Dallas Arboretum's mission is to provide Dallas homeowners, horticulturists, landscapers, and commercial growers with a model for what can be accomplished in this difficult climate. As part of this task, the arboretum includes a trial garden to find and/or develop plants and varieties that not only survive, but add beauty and color. The trial gardens are one of a few in the country open to the public. “We really do plant a lot of flowers,” Turner says. “We plant about a half-million bulbs every year as part of our bulb display, and more than half-million bedding plants twice a year, and probably more than 100,000 pansies. We plant them in September through November, and they bloom through our winter; they die in May and June. Our winters are mild enough that they'll flower through winter, and this way we get more color. I plant a hundred thousand of them every fall and our gardens are absolutely gorgeous in the winter.”

“There's not a garden here at the Dallas Arboretum that pansies are not planted in,” he continues. “They are the quintessential winter plant for Texas. We use them a lot for bedding plants, but they're in our containers, and they're planted in solid swathes. Of the 66 acres, almost one-third is actual flower bed space and there's probably not a single flower bed, pot, or hanging basket that doesn't have a pansy in it because they really do
Nature Mulberry Shades bloom. They really are the best plant for winter color in the lower south."

Turner came to the Dallas Arboretum about four years ago, after working with commercial growers. He holds a master's degree in Horticulture and says he's worked "omnivorously" in all areas of horticulture, including at the retail level. Though he's responsible for the design of all the arboretum's gardens, the Trial Beds are a pet project.

"In our testing program, we test about 3,000 plants per year," he says. "The way things work here, in order for something to get into the garden as a display item, it has to come through the test, and we're pretty tough on our tests. We want a plant that performs. It needs to be markedly better than the others."

The Dallas Arboretum uses only compost, shredded bark mulch, and expanded shale to amend the soil, and only what Turner describes as a standard granular high nitrogen fertilizer at the time of planting. The plants are watered only as needed—about twice per week in the dry months—and no pesticides are used. The idea is to display plants that will work well even for casual gardeners and not just professionals with expert knowledge, specialized tools and chemistries. The Nature Series Pansies from American Takii came through the arboretum's trials literally with flying colors.

"Nature Pansies are pretty much the number one planted variety at the Dallas Arboretum," he says.

Low maintenance color is easily achieved with Nature Pansies

"They're actually the backbone of my display, just because they are such a workhorse."

"Workhorse" may seem an unlikely term for the gentle pansy, but Turner means what he says.

"They're multiflora, or a medium size pansy. In the pansy world, the big thing retail-wise is that the consumer wants a pansy as big as your hand. But in the landscape world, those flowers don't perform as well, because if you get a heavy rain or a heavy wind, they tear up, or they fall on the ground," Turner explains. "I'd rather have 100 flowers the size of a..."

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half-dollar than 10 flowers the size of
my hand.”

American Takii describes the Nature
Pansy (pansy x wit-trock-kiana) as having
blossoms of 1” to 1.5” and “borne in great
profusion.” Turner’s experience bears
out the claim.

“What it boils down to for me, is if
you’re looking at a flower bed, you just want to see
color. You want to see it from 5’
away, or from 20’ away, or I’d even
like to see it from 50’ away while I’m doing 75 miles an hour,”
says. “Nature pansies put on a huge
crop of these medium-size flowers
that hold up through the humidity,
the rain, cold, wind, and disease, whatev-
er you can think of.”

“Literally, at times you can’t see the
foliage. I look at them and I see this
very nice, compact, mounding plant
that’s not leggy. No matter what the
temperature or the
light level is, when they flower, you
just see color,” he continues. “That’s
what I’m planting them for, it’s for
color. And not only do the pansies do
that, but they keep doing it for a very
long time. On the medium-size
flower, if it freezes off in a severe
cold snap, there are more buds
there. There are more flowers pro-
duced. They’re going to bloom back
quicker and start blooming sooner.”

“The Nature Series
Pansies from
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Pansies are one of the best-known garden flowers in the U.S., along with roses and daisies, and they’ve been a staple of the home and formal gardens for centuries. Also, American Takii and other breeders have been developing varieties in a wide range of colors. The Nature Series’ includes Mulberry Shades, which Turner claims as a favorite, as well as nearly 20 other colors, including an eye-catching yellow, a range of blues and pinks, rose, orange, white, red with a blotch, and rose with a blotch.

“Pansies have kicked into a renaissance over the last three to five years. There’s been a lot of breeding and improvement, not only for homeowners and landscapers, but also for growing conditions,” Turner notes.

“The great thing about Nature Pansies is not only do they do well in the ground, but they do well in the four-inch pot. They’re compact, they bloom quickly, they grow fast, and if I can get them in and get them out really fast, I can make more money. Nature Pansies do all of those things. It’s the whole pipeline. I’ve been very happy with them throughout the whole process.”
Any plant can do well in the controlled, protected confines of a greenhouse, but what happens when that same plant is purchased, brought home, lovingly tended, placed into the ground in the perfect location with just the right soil mix, fertilizer and moisture? Is it going to hold up to the harsh realities of Mother Nature; or fail at the first extreme fluctuation in temperature, torrential rains or heavy winds? The real test is out in the landscape where flowers were meant to live. University trials, where plants are tested in the landscape, are where the Nature Pansy from American Takii shows its mettle.

What are university trials you may ask? Many horticulture programs in major universities conduct independent studies on varieties of plants from commercial producers to see how they fare “in the real world” outside the controlled environment of a grower’s greenhouse. These trial gardens become a type of exterior classroom for students, creating on-site training covering new cultivars, plant care, disease and insect control. Environmental factors are also evaluated to see what contributes to optimal growth and development in the region where the trial is taking place.

Bedding plant growers generally choose cultivars based on how well they perform under “production conditions,” which doesn’t always indicate how well they will actually do in the landscape. The Dallas Arboretum (in conjunction with Texas A&M University) conducts plant trials and their literature states, “The main focus of the garden is to grow and test many different plants in the drastic climate of the Metroplex and

Pansy Nature Blue “Best of Class” for blue pansies in the University of Florida trials grown by Dr. Richard Kelly

North Central Texas. In addition, the Trial Garden enables us to research and develop new plant selections for use in displays at the Dallas Arboretum and provide evaluation information to educational institutions, commercial plant producers, and home gardeners.”

How will American Takii’s Nature Series Pansy perform in the landscape? To find out, we looked at independent pansy trials from the
Dallas Arboretum, Auburn University, University of Florida, University of Georgia and Ohio State University. Richard O. Kelly, Research Coordinator at the University of Florida talks about the performance of Nature Pansies in the tough Florida climate. “What happens once the plant is transferred to Florida soils and exposed to our climate and pests? This is the real world in Florida: the effect of our environment on a pansy. In this case, Nature has been one of the smaller-flowered series that has shown it has what it takes to do the job. After years of competition, they hang in there.”

Each university trial consisted of the following components: pansies were obtained as plugs or in 2" cell packs to guarantee a uniform start for all cultivars, common gardening additives of compost and fine/shredded bark mulch were added to native soil, with the exception of the Dallas Arboretum which because of their heavy black clay soil, also added expanded shale. Planting beds were in full sun and given a granular fertilizer at the beginning of the trial with no additional fertilizer the rest of the trial. A pre-emergent was applied in almost all cases and no insecticides or fungicides were used, however, the University of Florida did treat half the trial beds for comparison. Plantings were replicated in multiple beds to get readings from several locations. In all cases, rainfall was supplemented to produce 1“ of moisture per week. No special attention was given to plants other than some hand weeding and the watering already mentioned.

In evaluating the results, researchers rated the pansies based on floral display, length of bloom, vigor of plant, quality and color of flowers, shape, freedom from insect or disease blemishes and recovery after freezes or hard rain. The University of Florida used a rating system from 1 to 7 while the other trials used a five point grading system. Pansies are divided into classes based on color and each class has its best-of-class performers. Looking at the final results of trials from the last several years, Nature Pansies came out on top and smelling like a...well, pansy!

In the Auburn University trials, American Takii’s Nature Ocean and Nature Blue were at the top of the

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298 varieties of pansies tested in both winter and spring. Nature Rose and Nature Blue were two of the top three performers with Nature Pink Shades and Nature White also falling into the top 22 out of 298. Pretty impressive! It's no wonder Jimmy Turner, director of horticulture research at the Arboretum, says he prefers medium sized pansies for performance with the Nature series being his favorite.

Richard Kelly from University of Florida comments further on smaller flowered pansies: “Smaller flowered pansies appeared to have shown less gray mold (botrytis) symptoms on flowers than larger-flowered pansies did. As the season progressed, Nature varieties were among the smaller-flowered varieties that had more good quality flowers remaining. Nature plants are often fuller and more floriferous than others in the same class. Here, greater plant vigor could be an important factor.”

Dr. Allan Armitage, internationally known horticulturalist and professor at the University of Georgia, when asked about the Nature Series Pansy by American Takii, replied, “We have done many past trials on pansies and in fact will be back at it again this year. In general, smaller flowered pansies do better [in winter cold] than large-flowered kinds which
get beat up in bad weather and don’t recover quickly. The Nature Series by American Takii have held up well against the competition in our trials. They are terrific and I really like them!"

Now you have heard from the horticultural experts, backed by scientific proof: Nature Pansies not only have what it takes to add visual appeal to any landscape, they are rugged enough to keep performing season in and season out; even in the roughest climates the universities could throw at them. Go ahead and put them on trial in your landscape, you will be happy you did!  

Pansy Nature Frosty Rose

Pansy Nature Blue and Yellow from the Dallas Arboretum Spring Trials 2004