Baptisia

For the Mid-Atlantic Region

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Introduction

There are few perennials that can compare to the jaw-dropping beauty of a false indigo (*Baptisia* spp.) in full flower. Yet, this low-maintenance, deer-resistant native is not widely grown in American gardens. Since young plants are slow growing, what most people encounter at the garden center are a few wispy stems in an otherwise empty pot. However, those gardeners who are brave enough to take a leap of faith are soon rewarded with year after year of carefree beauty. This undeserved obscurity, along with a multitude of new cultivar releases, prompted Mt. Cuba Center to take a closer look at false indigo.

From 2012-2015, Mt. Cuba Center evaluated 46 selections, including representatives of 11 different species, in order to determine which *Baptisia* selections perform best in the mid-Atlantic region as well as to showcase the breathtaking floral display.

False indigo, also known as wild indigo, belongs to the genus *Baptisia* which includes 15 species and several naturally occurring hybrids, all of which are found growing east of the Rocky Mountains.

Historically, *Baptisia* species were valued for more than just their beauty. Native Americans and early settlers had several uses for these plants, including the creation of colorful dyes. In fact, the name *Baptisia* comes from the Greek word *bapto*, which means "to dip*. *B. australis* and several other species in the genus can be used to create yellow, brown, and green dyes depending on the chemical process used to extract the pigments. However, indigo, a desirable and rare color among natural dyes, is the color most often mentioned with *Baptisia*. A close inspection of historical documents reveals the indigo dye actually comes from the yellow-flowered species, *B. tinctoria* and is made from chemical compounds found in the leaves and stems - not the flowers. Conversations with present-day practitioners further reveal that a vast amount of foliage is required to extract a very small amount of dye from *B. tinctoria*, making it a very impractical dyestuff.

The garden use of false indigo is a more recent development. Although still underappreciated by the general public, interest among avid gardeners has been slowly building since the late 1990s and early 2000s when the first hybrid cultivars of false indigo were released. *Baptisia* ‘Purple Smoke’, released in 1996, was the first such hybrid. It was discovered as a chance seedling at the North Carolina Botanic Garden among a field of *Baptisia australis* var. *aberrans*. Then in 2002 a pale yellow flowered hybrid called ‘Carolina Moonlight’ was also discovered at NCBG. Just a few years later, the Chicago Botanic Garden released the first two cultivars from its *Baptisia* breeding program - ‘Twilite’ (2006) and ‘Starlite’ (2007). The excitement surrounding these early cultivars brought some much needed attention to false indigo, and today there is an ever-increasing array of colors and sizes available to gardeners thanks to the continued efforts of the Chicago Botanic Garden, Walters Gardens, and Plant Delights Nursery.
False indigo is an herbaceous perennial that produces a new flush of growth each year. The stems and foliage emerge from the soil each spring and die back to the ground every fall. False indigo is a particularly long-lived perennial and will continue this cycle for many years.

When new stems begin to emerge through the soil in late April, they actually resemble young asparagus shoots, though the two plants are unrelated. As the spring days get warmer, the stems grow taller and by the time they start to bloom (mid to late May) the foliage has fully expanded. The typical *Baptisia* grows as tall as three or four feet and often just as wide. False indigo has green or bluish-green, compound trifoliate leaves, though a few species have simple leaves. (A trifoliate leaf is a single leaf made up of three smaller leaflets.) Most selections have green stems, but some species and cultivars have gray stems which greatly add to their ornamental appeal even before flowering begins. The gray color often extends to the calyx, providing an added color complement to the flower.

*Baptisia* stems emerge from the soil with their flower buds already formed at the top. As the foliage starts to expand, the flower buds begin to elongate to form a tall, stalk-like inflorescence with numerous individual flowers rising up along its central axis. This towering inflorescence is similar to the flower structures of delphinium and lupine.

The individual, pea-like flowers first begin to open at the base of the inflorescence and new buds open sequentially up the inflorescence over the course of two to three weeks. The length of bloom time can vary somewhat from year to year depending on the weather. Warm spring days cause the flowers to open and fade sooner than they would during cooler weather. In fact, temperature is capable of causing shifts in blooming of a week or more.

After the flowers begin to fade, small fruit develop wherever an individual flower was successfully pollinated. The fruit continue to swell throughout the summer months and are very attractive in their own right. Each fruit, or pod, is filled with several seeds that produce a rattle-like sound if shaken. When mature, the pod splits open and the small, kidney-shaped seeds fall to the ground. Once the seed germinates, it can take three to four years to flower.
Top Performers

Over the course of four years, 46 selections were evaluated for their overall garden performance which included both floral display and habit quality. While most of the false indigo selections performed very well, there were a few that rose to the top with truly impressive floral displays and lush, sturdy foliage. The following plants are the best-performing, moderately sized selections of Baptisia for the mid-Atlantic region. Excellent large selections were not included in this list because their habits are likely too wide for the average home garden, and in each case there is a similar, more appropriately sized alternative among the top performers.

‘Screamin’ Yellow’ ★★★★★

*Baptisia sphaerocarpa* ‘Screamin’ Yellow’ is one of the most floriferous cultivars in our trial. Although it’s difficult to get an accurate count, we estimate ‘Screamin’ Yellow’ produces as many as 350 inflorescences on a single plant. This overwhelming quantity makes up for its slightly shorter-than-average inflorescences. In addition to the floral display, ‘Screamin’ Yellow’ has beautiful, bluish foliage that creates a rounded, medium-sized habit (34”h x 56”w) and remains dense and sturdy all season long.

‘Lemon Meringue’ ★★★★★

*Baptisia* ‘Lemon Meringue’ is a vigorous cultivar that demonstrated significant increases in the number of stems and inflorescences year after year. This ability to produce a mature plant faster than other selections is a valuable attribute among a generally slow-growing genus. ‘Lemon Meringue’ has an impressive floral display that lasts for three weeks, with gray stems and flower buds that help accentuate the sunshine-yellow flowers. The flower color of ‘Lemon Meringue’ is lighter than ‘Screamin’ Yellow’, ‘Sunny Morning’, and ‘Anne’ but darker than ‘Carolina Moonlight’. ‘Lemon Meringue’ is a medium-sized cultivar that measures 38”h x 56”w at flowering and maintains a lush, broadly vase-shaped habit all season.
’Ivory Towers’ ★★★★★

*Baptisia* ‘Ivory Towers’ has consistently been one of the standout cultivars throughout our trial, and is easily the best white-flowered selection. The stems emerge with a purplish tinge that slowly fades as they elongate. When in bloom, ‘Ivory Towers’ produces tall inflorescences of pure white flowers that last for three weeks. The flowers give way to large, blocky fruit that persist above the foliage throughout the summer and into early fall. Even though ‘Ivory Towers’ is a large plant (46”h x 54”w), its habit is more upright and vase-shaped, so it doesn’t occupy the same amount of space in terms of width as some of the other large cultivars. The leafless lower portions of the stems also give ‘Ivory Towers’ a very graceful looking silhouette. *Baptisia alba* var. *alba* ‘Wayne’s World’ is a larger (56”h x 62”w), but otherwise very similar cultivar that also excelled in our trial.

’Blue Towers’ ★★★★★

*Baptisia* ‘Blue Towers’ is a large, yet relatively narrow, blue-flowered cultivar. There are numerous tall, violet-blue inflorescences, and the individual flowers are held so close together on the inflorescence that they almost look like an incredibly tall hyacinth flower. ‘Blue Towers’ is very similar to ‘Ivory Towers’ in habit (58”h x 56”w) with a slender, vase-shaped silhouette and leafless lower stems. The emerging stems are also an attractive dark gray that fades to a lighter gray as they elongate.
‘Cherries Jubilee’ ★★★★☆

*Baptisia* ‘Cherries Jubilee’ is the closest there is to a red-flowered false indigo. Vivid maroon buds become a muted rust color as the flowers age. When viewed up close, the color is very striking, but when viewed from a distance the floral display takes on a slightly duller orange tone due the yellow keel (inner portion of the flower) blending with the reddish outer petals. In peak bloom ‘Cherries Jubilee’ has an impressive 280 inflorescences over its medium-sized habit (36”h x 48”w), creating a truly spectacular display.

‘Purple Smoke’ ★★★★★

*Baptisia* ‘Purple Smoke’ is one of the oldest hybrid cultivars of false indigo, and it still remains one of the best for the home garden. Its charcoal-gray stems are beautiful when emerging from the soil and the gray color persists through flowering, creating a fine complement to the pale lavender flowers. A unique feature of ‘Purple Smoke’ is its miniaturized leaves that give the foliage a fine-textured look. These small leaves are inherited from one of its parents, the dwarf-sized *Baptisia australis* var. *aberrans*. However, the habit of ‘Purple Smoke’ is slightly larger, yet still compact, at 36”h x 48”w.
‘Sunny Morning’ ★★★★☆

*Baptisia* ‘Sunny Morning’ is a phenomenal cultivar with excellent vigor and a stunning floral display. Around the third week of May, ‘Sunny Morning’ erupts with a multitude of bright-yellow flowers. With an estimated 250 inflorescences on a single plant, it ranks as one of the most floriferous cultivars in our trial. ‘Sunny Morning’ is very similar to another highly rated cultivar called *Baptisia* ‘Anne’. However, ‘Sunny Morning’ is given preference due to its smaller habit (40”h x 58”w compared to ‘Anne’ at 42”h x 70”w). While there is a slight difference between their overall scores, this can be attributed to the fact that ‘Anne’ was a larger plant at the start of the trial and therefore developed a denser habit earlier than ‘Sunny Morning’. Had they both started as the same size, there likely would have been little difference in their ratings.

‘Blueberry Sundae’ ★★★★☆

*Baptisia* ‘Blueberry Sundae’ is undoubtedly the best compact, blue-flowered cultivar in our trial. While we evaluated several similar selections such as ‘Blue Pearls’, ‘Blue Mound’, and even the dwarf varieties of *B. australis* (var. *aberrans* and var. *minor*), ‘Blueberry Sundae’ consistently produced the most inflorescences while also maintaining a dense habit after flowering. A compact (32”h x 38”w) cultivar like ‘Blueberry Sundae’ is the perfect size false indigo for most home gardens.
‘Dutch Chocolate’ ★★★★★

*Baptisia* ‘Dutch Chocolate’ is a compact cultivar with purplish maroon flowers very similar to the larger cultivars ‘Chocolate Chip’ and ‘Twilite’. Out of these three, ‘Dutch Chocolate’ is the easiest to recommend because of its smaller habit (34”h x 54”w) and impressive floral display. Although ‘Twilite’ was an excellent performer, its enormous size (55”h x 68”w) makes it very difficult to recommend for the home garden. ‘Chocolate Chip’ is smaller than ‘Twilite’, but its habit is not as dense and sturdy as ‘Dutch Chocolate’.

‘Crème de Menthe’ ★★★★★

*Baptisia* ‘Crème de Menthe’ is one of the most striking cultivars in our trial thanks to its incredibly dark-gray, almost purple, stems. Even when the stems are just emerging from the ground, this cultivar has a true presence in the garden that can’t be missed. ‘Crème de Menthe’ also maintains its dark stem color much longer than other selections, which serves as a striking complement to its pale yellow flowers. ‘Crème de Menthe’ is a compact cultivar whose habit is approximately 36”h x 46”w when in peak flower.
Additional Great Selections

These plants are all excellent selections that were not highlighted among the top-performers because either their habit was deemed too large for the average garden or they received slightly lower ratings.

Large Habits

B. 'Mojito'
B. 'Carolina Moonlight'
B. 'Creamsicle'
B. 'Anne'
B. 'Wayne's World'
B. 'Twilite'

Medium and Compact Habits with Slightly Lower Ratings

B. 'Mojito'
B. 'Carolina Moonlight'
B. 'Creamsicle'
More Than Flowers

Attractive Stems
False indigo is usually grown for its amazing floral display. However, it can bring excitement to the garden in several other ways. One of the first things gardeners may notice in the spring is the color of the emerging stems. Some selections have gray or even dark purple stems which add interest to the early spring garden. The stem color usually fades to green but can persist through flowering. The stems of ‘Crème de Menthe’ are the darkest of any cultivar in our trial and the gray color helps accentuate its pale yellow flowers. See the chart on page 14 for a listing of cultivars with attractive gray stems.

Ornamental Fruit
Once the flowers have been pollinated, gardeners can look forward to the large and showy fruit that develop in their place. Although most selections in our trial did set fruit, the quantity varied from cultivar to cultivar. When selecting cultivars specifically for fruit display it is important to choose ones with foliage that does not engulf the fruit. Some cultivars with a consistent, sturdy fruit set held high above the foliage include: ‘Lunar Eclipse’, ‘Ivory Towers’, ‘Midnight’, and ‘Wayne’s World’. These attractive seed pods make dramatic accents in floral arrangements.

Great Foliage
With or without fruit, most Baptisia have beautiful, clean foliage that remains attractive throughout the entire summer. Many selections develop a bluish cast which provides a perfect backdrop for other summer-blooming perennials. Cultivars with attractive bluish foliage include: ‘Anne’, ‘Blue Towers’, ‘Blueberry Sundaes’, ‘Lemon Meringue’, ‘Screamin’ Yellow’, and ‘Twilite’. Some selections with attractive green foliage include: B. alba, ‘Cherries Jubilee’, ‘Purple Smoke’, ‘Sunny Morning’ and ‘Wayne’s World’. Baptisia foliage is also a great filler for floral arrangements.
Wildlife Value

*Baptisia* helps support a variety of wildlife throughout the year. The flowers provide an excellent food source for newly emerging queen bumble bees in the spring. These large and heavy bees are uniquely suited for the hard work required to push open the petals of the keel that guard access to the pollen and nectar.

Although the flowers are not pollinated by butterflies, several species such as the wild indigo duskywing, frosted elfin, eastern tailed-blue, hoary edge, silver spotted skipper, and sulphurs use false indigo as their host plant. Adult butterflies lay their eggs on the foliage so that when the young caterpillars hatch they can feed on the foliage.

Garden Culture

**Selecting a Site:** *Baptisia* is best planted in full sun which is defined as six or more hours of direct sunlight daily. This helps plants to remain as compact and sturdy as possible while also achieving the best floral display.

False indigos tolerate a variety of soil types. They often do best in average to rich, well-drained soil, but are capable of thriving in dry, nutrient-poor soils too. In fact, they are often found naturally in dry, poor soils because this is where they are best able to compete.

*Baptisia* is slow to form mature clumps of foliage because it puts so much of its energy into deep, extensive root systems. This helps with its adaptability in challenging conditions, but it also makes it difficult to transplant. Moving a mature false indigo is possible, but it is incredibly difficult and the root ball will likely be too large for one person to move alone. Therefore, it is highly recommended to select your site carefully as it is best to plant false indigo in its permanent home.

Because young false indigo puts most of its energy into its roots, the top growth is often very sparse. In fact, two to three year-old plants, the age usually found at a garden center, have only a handful of stems. However, at this age they begin to increase in size exponentially, and will reach their mature dimensions in just three to four years.

**Maintenance:** *Baptisia* is the quintessential low-maintenance native perennial. Its deep root system enables it to be quite drought-tolerant, and the symbiotic bacteria living in the roots (see pg. 12) helps to supply it with fertilizer. In fact, removing the dead stems in late winter is the only work required. This task is very easy as the hollow stems simply snap off with a good tug.
Species Profile

There are 15 species in the genus *Baptisia*, all of which are native to the eastern United States. Five of these species are most often used in horticulture: *B. alba*, *B. australis*, *B. bracteata*, *B. sphaerocarpa*, and *B. tinctoria*.

*B. alba* is a widespread species found throughout the Midwest and Southeast. It has white flowers, often accompanied by gray stems. A closer look at this species reveals two varieties which actually look and behave very differently from a horticultural perspective. *B. alba* var. *alba* is found east of the Appalachian Mountains in the southeastern United States. It has a relatively compact habit and blooms in mid-May along with most other false indigos. *B. alba* var. *macrophylla* is only found in the Midwest, has a tall, open habit, and blooms almost a month later than *B. alba* var. *alba*. Due to these differences, some taxonomists refer to this variety as its own species, *B. leucantha*. Mt. Cuba Center uses this species name rather than including it as a variety of *B. alba*.

*B. australis* also has a few varieties, and these are easily distinguished by their size. *B. australis* var. *australis* is the typical blue false indigo commonly used in horticulture; however, it only occurs naturally in a few counties scattered across 11 states in the eastern United States. *Baptisia australis* var. *minor* is a more compact plant and relatively common throughout its range in the central Midwest. The smallest variety is *B. australis* var. *aberrans* and appears almost dwarf-sized compared to var. *australis*. *B. australis* var. *aberrans* is only found in a few counties ranging from southern Virginia to Alabama.

*B. bracteata* is rarely used in gardens, but is a frequent parent of many of the latest hybrid cultivars. This species is quite common throughout much of the Midwest. Interestingly, its creamy yellow inflorescences are held horizontally, rather than vertically.

The bright yellow blooms of *B. sphaerocarpa* can be seen in the southern Midwest and Gulf States. It is an excellent species for the garden and is well represented by ‘Screamin’ Yellow’ which was selected for its dark yellow flower color. *B. sphaerocarpa* is regularly used in breeding programs because it produces incredible numbers of inflorescences. The bluish-green foliage of *B. sphaerocarpa* is also very attractive.

*B. tinctoria* is less commonly used in horticulture compared to the previous four species. However, *B. tinctoria* is the most abundant false indigo in the mid-Atlantic. Its range encompasses almost every county in this region and extends as far north as Maine and as far south as Georgia. *B. tinctoria* has a unique habit, forming a loose mound of wiry stems. The inflorescences are borne on the tips of each stem, but they are positioned all around the perimeter of the plant, rather than just at the top, giving it a very informal look.

There are ten other species of *Baptisia* native throughout the United States that are less frequently seen in gardens, and rarely used in hybridization. Some, though not all of these, were evaluated in our trial:

- *Baptisia albescens*
- *Baptisia arachnifera*
- *Baptisia calycosa*
- *Baptisia cinerea*
- *Baptisia lanceolata*
- *Baptisia lecontei*
- *Baptisia megacarpa*
- *Baptisia nuttalliana*
- *Baptisia perfoliata*
- *Baptisia simplicifolia*
Nitrogen Fixation

In addition to sunlight, water, and carbon dioxide, all plants require nutrients to grow. One of the most important nutrients for plant growth is the chemical element nitrogen. Nitrogen is necessary for the formation of many of the most basic components of life such as amino acids and DNA. Typically, plants absorb nitrogen from the soil through their roots. However, false indigo employs an additional method for obtaining nitrogen from the air.

*Baptisia* species belong to a group of plants called legumes (botanically known as the *Fabaceae* family) which includes beans, peas, alfalfa, peanuts, clover, wisteria, and many more. Legumes have evolved a partnership with specialized root-colonizing bacteria to harvest nitrogen from the atmosphere through a process called nitrogen fixation. Interestingly, nitrogen gas makes up almost 80% of earth’s atmosphere but plants are unable to use it in this form. The specialized bacteria that live in small nodules on the roots of legumes are able to take nitrogen gas (N₂) from the atmosphere and turn it into ammonia (NH₃) and then ammonium (NH₄⁺), a form plants can readily use. In fact, many commercial fertilizers supply nitrogen in the form of ammonium. In exchange for this service, the plant provides the bacteria with sugars created through photosynthesis. This type of mutually beneficial exchange is called a symbiotic relationship.

Even though nitrogen-fixing bacteria are able to provide much of the nitrogen required by their host plant, legumes are still able to absorb nitrogen from the soil just like other plants. However, this symbiotic relationship does enable legumes to thrive in nutrient-poor soils where other plants would struggle to survive. While nitrogen-fixing bacteria supply nitrogen for the host plant, they do not release any into the nearby soil. The only way to turn this atmospheric-derived nitrogen into fertilizer other plants can use is to incorporate the legume’s plant tissues into the soil, where the decaying organic matter will release the accumulated nitrogen back into the environment.

Not all legumes and their corresponding bacteria partners fix nitrogen in the same quantities. The amount of fixed nitrogen can range from almost 0 to 200 lbs. per acre depending on the species. According to the USDA, *Baptisia tinctoria*, the only *Baptisia* species they have tested, is categorized as a low nitrogen fixer (0-85 lbs. N/acre). These categories are based on the concept of using legumes as an agricultural cover crop and do not have much bearing on their use in the landscape. Even though false indigo may not be the most efficient nitrogen-fixing legume, it is well-adapted to thrive in nutrient-poor soils, making it an especially tough and resilient plant for the home garden.
Color Breakthrough

A sensational new breakthrough in *Baptisia* breeding is flowers that change color as they age. This is especially exciting because a false indigo inflorescence has flowers that open first at the base and last at the tip, thus making it possible for the young flowers at the top to be one color while the older flowers at the bottom have aged to a new color. This phenomenon can be found in the cultivars ‘Solar Flare’ and ‘Lunar Eclipse’. The effect is very subtle in ‘Solar Flare’ where the flowers age from yellow to brownish-red. However, it is much more prominent in ‘Lunar Eclipse’ where the flowers age from white to dark lavender. ‘Lunar Eclipse’ showcases this feature very well thanks to its exceptionally tall inflorescences, allowing for a greater color gradient to be visible at one time while also rising above the growing foliage that would otherwise hide the darkest flowers at the base of the inflorescence. Unfortunately, ‘Lunar Eclipse’, although a 4-star plant, barely missed ranking among the top performers due to some mild floppiness throughout the trial.

About the Trial

The evaluation took place at Mt. Cuba Center, located near Wilmington, DE (USDA Hardiness Zone 7a/6b). Forty-six taxa were trialed over a four-year period (2012-2015). Two plants of each taxon were evaluated; however, the final rating for some taxa is based on just one plant due to losses. In all cases, plant loss was attributed to poor establishment due to small plant size and was not considered a reflection of garden performance. It is normally our policy to replace plants if they die during the first year. However, many of these cultivars were so new in the trade that we were unable to obtain replacements. Each year, habit and floral display were rated weekly during the months of May and June followed by monthly ratings for habit quality in July, August, and September. Ratings are based on a scale of 1-5 (1 being very poor and 5 being excellent). Because *Baptisia* are slow to mature, only the ratings assigned in 2014 and 2015 were used to calculate the final score as they best represent a mature garden plant. Environmental stresses were rarely observed to impact the plants, and it is important to note that the plants were given no care outside of supplemental water during the first year.
### False Indigo Characteristics and Performance Summary Ratings

<table>
<thead>
<tr>
<th>Baptisia</th>
<th>Rating</th>
<th>Size Class</th>
<th>Size at Flowering H x W x Flwr H</th>
<th>Flower Color</th>
<th>Bloom Time</th>
<th>Stem Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. <em>alba</em></td>
<td>3.7</td>
<td>compact</td>
<td>36&quot; x 42&quot; x 46&quot;</td>
<td>white</td>
<td>late May</td>
<td>green</td>
</tr>
<tr>
<td>B. <em>alba</em> &quot;light pink&quot;</td>
<td>3.9</td>
<td>compact</td>
<td>30&quot; x 30&quot; x 38&quot;</td>
<td>white w/ pink blush</td>
<td>late May</td>
<td>gray</td>
</tr>
<tr>
<td>B. <em>alba</em> var. <em>alba</em> 'Wayne's World'</td>
<td>4.8</td>
<td>large</td>
<td>56&quot; x 62&quot; x 62&quot;</td>
<td>white</td>
<td>late May</td>
<td>gray</td>
</tr>
<tr>
<td>B. <em>Anne</em></td>
<td>4.9</td>
<td>large</td>
<td>42&quot; x 70&quot; x 52&quot;</td>
<td>bright yellow</td>
<td>late May</td>
<td>lt. gray</td>
</tr>
<tr>
<td>B. <em>arachnifera</em></td>
<td>1.6</td>
<td>dwarf</td>
<td>16&quot; x 16&quot; x na</td>
<td>yellow</td>
<td>did not flower</td>
<td>green</td>
</tr>
<tr>
<td>B. <em>australis</em></td>
<td>3.7</td>
<td>medium</td>
<td>40&quot; x 42&quot; x 48&quot;</td>
<td>blue-violet</td>
<td>late May</td>
<td>green</td>
</tr>
<tr>
<td>B. <em>bina</em></td>
<td>3.1</td>
<td>medium</td>
<td>36&quot; x 42&quot; x 40&quot;</td>
<td>white w/ blue blush</td>
<td>late May</td>
<td>green</td>
</tr>
<tr>
<td>B. <em>bina</em> 'Big Ben'</td>
<td>3.9</td>
<td>medium</td>
<td>50&quot; x 72&quot; x 56&quot;</td>
<td>blue-violet</td>
<td>late May</td>
<td>green</td>
</tr>
<tr>
<td>B. <em>bina</em> 'Blue Pearls'</td>
<td>3.8</td>
<td>dwarf</td>
<td>22&quot; x 24&quot; x 30&quot;</td>
<td>blue-violet</td>
<td>mid-May</td>
<td>green</td>
</tr>
<tr>
<td>B. <em>bina</em> var. <em>aberrans</em></td>
<td>3.6</td>
<td>large</td>
<td>24&quot; x 32&quot; x 34&quot;</td>
<td>blue-violet</td>
<td>late May</td>
<td>green</td>
</tr>
<tr>
<td>B. <em>bina</em> var. <em>minor</em></td>
<td>4.0</td>
<td>compact</td>
<td>28&quot; x 28&quot; x 40&quot;</td>
<td>blue-violet</td>
<td>late May</td>
<td>green</td>
</tr>
<tr>
<td>B. <em>bina</em> x B. <em>minor</em></td>
<td>4.2</td>
<td>compact</td>
<td>30&quot; x 42&quot; x 40&quot;</td>
<td>blue-violet</td>
<td>late May</td>
<td>green</td>
</tr>
<tr>
<td>B. <em>bina</em> 'Blue Mound'</td>
<td>3.7</td>
<td>compact</td>
<td>28&quot; x 42&quot; x 40&quot;</td>
<td>blue-violet</td>
<td>late May</td>
<td>green</td>
</tr>
<tr>
<td>B. <em>Blue Towers</em></td>
<td>4.7</td>
<td>large</td>
<td>58&quot; x 56&quot; x 63&quot;</td>
<td>blue-violet</td>
<td>late May</td>
<td>gray</td>
</tr>
<tr>
<td>B. 'Blueberry Sundae'</td>
<td>4.6</td>
<td>compact</td>
<td>32&quot; x 38&quot; x 38&quot;</td>
<td>blue-violet</td>
<td>late May</td>
<td>green</td>
</tr>
<tr>
<td>B. <em>bracteata</em></td>
<td>3.0</td>
<td>dwarf</td>
<td>22&quot; x 30&quot; x 30&quot;</td>
<td>creamy white w/ yellow blush</td>
<td>late May</td>
<td>lt. gray</td>
</tr>
<tr>
<td>B. 'Carolina Moonlight'</td>
<td>4.3</td>
<td>medium</td>
<td>40&quot; x 48&quot; x 48&quot;</td>
<td>light yellow</td>
<td>late May</td>
<td>lt. gray</td>
</tr>
<tr>
<td>B. <em>Cherries Jubilee</em></td>
<td>4.7</td>
<td>medium</td>
<td>36&quot; x 48&quot; x 46&quot;</td>
<td>maroon fading to bronze</td>
<td>late May</td>
<td>lt. gray</td>
</tr>
<tr>
<td>B. 'Chocolate Chip'</td>
<td>4.3</td>
<td>medium</td>
<td>46&quot; x 58&quot; x 58&quot;</td>
<td>brownish purple w/ yellow keel</td>
<td>late May</td>
<td>green</td>
</tr>
<tr>
<td>B. <em>cinerea</em></td>
<td>2.1</td>
<td>dwarf</td>
<td>12&quot; x 46&quot; x 12&quot;</td>
<td>tan w/ yellow keel</td>
<td>late May</td>
<td>green</td>
</tr>
<tr>
<td>B. 'Cinnamon Cindy'</td>
<td>4.2</td>
<td>large</td>
<td>40&quot; x 72&quot; x 48&quot;</td>
<td>creamy white</td>
<td>late May</td>
<td>lt. gray</td>
</tr>
<tr>
<td>B. 'Creamsicle'</td>
<td>4.5</td>
<td>compact</td>
<td>36&quot; x 44&quot; x 48&quot;</td>
<td>creamy white</td>
<td>late May</td>
<td>lt. gray</td>
</tr>
<tr>
<td>B. 'Crème de Menthe'</td>
<td>4.5</td>
<td>compact</td>
<td>36&quot; x 46&quot; x 44&quot;</td>
<td>pale yellow</td>
<td>late May</td>
<td>gray</td>
</tr>
<tr>
<td>B. 'Dutch Chocolate'</td>
<td>4.6</td>
<td>compact</td>
<td>34&quot; x 54&quot; x 40&quot;</td>
<td>brownish purple w/ yellow keel</td>
<td>late May</td>
<td>green</td>
</tr>
<tr>
<td>B. 'Ivory Towers'</td>
<td>4.8</td>
<td>medium</td>
<td>46&quot; x 54&quot; x 64&quot;</td>
<td>white</td>
<td>late May</td>
<td>gray</td>
</tr>
<tr>
<td>B. lanceolata</td>
<td>1.1</td>
<td>compact</td>
<td>20&quot; x 15&quot; x na</td>
<td>yellow</td>
<td>did not flower</td>
<td>gray</td>
</tr>
<tr>
<td>B. 'Lavender Rose'</td>
<td>4.2</td>
<td>compact</td>
<td>32&quot; x 34&quot; x 36&quot;</td>
<td>rosy lavender</td>
<td>late May</td>
<td>green</td>
</tr>
<tr>
<td>B. 'Lemon Meringue'</td>
<td>4.8</td>
<td>medium</td>
<td>38&quot; x 56&quot; x 46&quot;</td>
<td>yellow</td>
<td>late May</td>
<td>gray</td>
</tr>
<tr>
<td>B. <em>leucantha</em></td>
<td>2.8</td>
<td>medium</td>
<td>36&quot; x 30&quot; x 63&quot;</td>
<td>white</td>
<td>early June</td>
<td>green</td>
</tr>
<tr>
<td>B. 'Lunar Eclipse'</td>
<td>4.1</td>
<td>medium</td>
<td>44&quot; x 48&quot; x 59&quot;</td>
<td>white aging to blue-violet</td>
<td>late May</td>
<td>green</td>
</tr>
<tr>
<td>B. <em>megacarpa</em></td>
<td>3.2</td>
<td>medium</td>
<td>50&quot; x 40&quot; x 56&quot;</td>
<td>very pale yellow</td>
<td>late May</td>
<td>gray</td>
</tr>
<tr>
<td>B. 'Midnight'</td>
<td>3.8</td>
<td>large</td>
<td>46&quot; x 60&quot; x 68&quot;</td>
<td>dark blue-violet</td>
<td>late May</td>
<td>green</td>
</tr>
<tr>
<td>B. 'Mojit'o</td>
<td>4.5</td>
<td>compact</td>
<td>28&quot; x 36&quot; x 39&quot;</td>
<td>pale yellow</td>
<td>mid-May</td>
<td>green</td>
</tr>
<tr>
<td>B. 'Nell'</td>
<td>3.3</td>
<td>dwarf</td>
<td>20&quot; x 30&quot; x 24&quot;</td>
<td>blue-violet w/ cream keel</td>
<td>mid-May</td>
<td>green</td>
</tr>
<tr>
<td>B. 'Purple Smoke'</td>
<td>4.7</td>
<td>compact</td>
<td>36&quot; x 48&quot; x 46&quot;</td>
<td>light lavender</td>
<td>late May</td>
<td>gray</td>
</tr>
<tr>
<td>B. 'Royal Purple'</td>
<td>4.0</td>
<td>medium</td>
<td>36&quot; x 48&quot; x 50&quot;</td>
<td>dark purple</td>
<td>late May</td>
<td>green</td>
</tr>
<tr>
<td>B. 'Sandstorm'</td>
<td>3.9</td>
<td>medium</td>
<td>43&quot; x 48&quot; x 48&quot;</td>
<td>tan w/ yellow keel</td>
<td>late May</td>
<td>green</td>
</tr>
<tr>
<td>B. <em>simplicifolia</em></td>
<td>1.7</td>
<td>dwarf</td>
<td>24&quot; x 36&quot; x na</td>
<td>yellow</td>
<td>did not flower</td>
<td>gray</td>
</tr>
<tr>
<td>B. 'Solar Flare'</td>
<td>3.9</td>
<td>large</td>
<td>42&quot; x 60&quot; x 55&quot;</td>
<td>yellow aging to bronze</td>
<td>late May</td>
<td>green</td>
</tr>
<tr>
<td>B. <em>sphaeroarpa</em> &quot;dark yellow&quot;</td>
<td>3.6</td>
<td>compact</td>
<td>32&quot; x 33&quot; x 36&quot;</td>
<td>bright yellow</td>
<td>late May</td>
<td>green</td>
</tr>
<tr>
<td>B. <em>sphaeroarpa</em> 'Screamin' Yellow</td>
<td>5.0</td>
<td>medium</td>
<td>34&quot; x 56&quot; x 38&quot;</td>
<td>bright yellow</td>
<td>late May</td>
<td>green</td>
</tr>
<tr>
<td>B. 'Spilled Buttermilk'</td>
<td>3.4</td>
<td>medium</td>
<td>24&quot; x 46&quot; x 30&quot;</td>
<td>creamy white</td>
<td>mid-May</td>
<td>green</td>
</tr>
<tr>
<td>B. 'Sunny Morning'</td>
<td>4.6</td>
<td>medium</td>
<td>40&quot; x 58&quot; x 50&quot;</td>
<td>bright yellow</td>
<td>late May</td>
<td>green</td>
</tr>
<tr>
<td>B. <em>tectoria</em></td>
<td>3.0</td>
<td>medium</td>
<td>41&quot; x 48&quot; x 41&quot;</td>
<td>yellow</td>
<td>early July</td>
<td>green</td>
</tr>
<tr>
<td>B. <em>x bicolor</em> 'Starlite'</td>
<td>3.7</td>
<td>compact</td>
<td>32&quot; x 42&quot; x 46&quot;</td>
<td>pale lavender w/ cream keel</td>
<td>late May</td>
<td>green</td>
</tr>
<tr>
<td>B. <em>x variicolor</em> 'Twilite'</td>
<td>4.6</td>
<td>large</td>
<td>55&quot; x 68&quot; x 58&quot;</td>
<td>brownish purple w/ yellow keel</td>
<td>late May</td>
<td>green</td>
</tr>
</tbody>
</table>

Rating Key: 5=excellent, 4=good, 3=fair, 2=poor, 1=very poor  
Plants in bold are the top-performing selections.

Visit the Trial Garden Research section of our website for more detailed information about each plant.
Conclusion

Mt. Cuba Center evaluated 46 different selections of *Baptisia*, commonly called false indigo, and found that most are great garden plants. In fact, over 60% of the plants tested received 4 or 5 stars. Among those, ten superior cultivars outperformed the rest: ‘Screamin’ Yellow’, ‘Lemon Meringue’, ‘Ivory Towers’, ‘Blue Towers’, ‘Purple Smoke’, ‘Cherries Jubilee’, ‘Sunny Morning’, ‘Blueberry Sundae’, ‘Dutch Chocolate’, and ‘Crème de Menthe’. These excellent selections have gorgeous flowers, attractive and sturdy foliage, as well as moderately sized habits that make them the perfect choice for the home garden. In addition to its unparalleled beauty, false indigo is also incredibly adaptable and long-lived, making it an ideal plant for difficult sites. *Baptisia* also plays an important part in the local ecosystem as a food source for bumble bees, a host plant for numerous butterfly species, and through its ability to create its own fertilizer from nitrogen in the atmosphere. While a young false indigo may not have the most impressive presentation at the garden center, knowing how beautiful, easy-to-care-for, and ecologically valuable it is makes purchasing *Baptisia* a very simple decision.

About Mt. Cuba Center

Mt. Cuba Center is a botanical garden that inspires an appreciation for the beauty and value of native plants and a commitment to protect the habitats that sustain them. Over the past 70 years the landscape at Mt. Cuba Center has been transformed from fallow cornfields into thriving, ecologically functional gardens, thanks to the initiative of the late Mr. and Mrs. Lammot du Pont Copeland.

The gardens at Mt. Cuba Center now represent a variety of habitats, from upland forests and meadows to lowland ponds. With its support of biodiverse communities, Mt. Cuba Center serves as a model for environmentally beneficial gardening. Mt. Cuba Center also conducts original research on native plants in the Trial Garden and manages over 500 acres of natural lands. Mt. Cuba Center is open for visitation April-October and classes are offered year-round.

About Trial Garden Research

Mt. Cuba Center’s Trial Garden, managed by George Coombs, evaluates native plants and their related cultivars for their horticultural and ecological value. The goal of this research is to provide gardeners and the horticulture industry with information about superior plants for the mid-Atlantic region as well as highlight the important ecosystem services native plants provide. Mt. Cuba Center has conducted trial garden research since 2002, including previously completed evaluations of coreopsis, heuchera, coneflowers, and asters.

References


Ault, Jim. “Baptisia australis and Other False Indigos.” Perennial Plants. (Fall 2009).


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