

Success with Mixed Containers Using Perennial and Woody Plants

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Dating back to the ancient Hanging Gardens of Babylon, the art and practice of container gardening has enabled gardeners to grow plants virtually anywhere. Increased development has pushed urban gardeners to maximize impact in limited spaces and with limited resources, making container gardening even more popular. Gardeners who practice container gardening have many options: growing vertically, on (as opposed to in) compacted industrial soils and even where there is no soil (Figure 1). This publication offers information on types of plants suitable for mixed containers, with an emphasis on perennial and woody species and cultivars, as well as aesthetic qualities, cultural conditions and placement within the container.

Why Container Garden?

Combining ornate pots with plant themes creates a living element of self-expression and personal design. Mixed containers are heavily used in retail plant nurseries and commercial properties as focal points to draw the attention of consumers and clients. Novice gardeners can enjoy ready-made containers (also called container gardens, or combos). For more adventurous and knowledgeable gardeners, there are myriad plants and containers to choose from. Mixed containers can combine annuals, perennials, woody shrubs and even small trees. As few as three different plants can be planted to achieve the desired effect. In general, small combo containers (including baskets) contain annual plants that are rotated with seasonal color (e.g., cool-season annuals followed by warm-season annuals). Larger containers are often planted with perennials, shrubs and/or small trees in addition to annuals. Regardless of the source or plants selected, container gardening can add visual interest to draw the eye, direct traffic and provide focal points that can either grab attention or screen unsightly landscape or architectural elements.



Figure 1. Container gardening allows homeowners and businesses to “grow vertically” in spaces not typically reserved for planting. A good example is this window planter in Charleston, S.C. – a city known for magnificent mixed planters and window planters.

DESIGN PRINCIPLES

Themes

The first and most important step in designing a successful mixed container is creating a theme. The opportunities for container creation are abundant and only limited by the gardener’s creativity and experience. Themed containers allow the designer to stay on track when selecting the plants and for that reason it is always best to begin container gardening by creating a unifying theme, be it a color, texture, use or size of plant material. In addition to the popular “Thriller, Spiller, Filler” mixed containers (Silk, 2004), more specific and daring themes are becoming popular. Some examples of themed containers include food-based containers, such as “spaghetti”

Terms

Annual: A plant that completes its life cycle in less than one year. Cool-season annuals are planted in fall (e.g., pansy, snapdragon, ornamental kale). Warm-season annuals are planted in late spring (e.g., petunia, zinnia, vinca). Annuals as a group are unable to withstand both summer heat and winter cold (Thomas, 2012).

Herbaceous Perennial: A plant, including many bulbs, that completes its life cycle in two or more years and can withstand both summer and winter conditions (e.g., daylily, hosta, canna) (Thomas et al., 2012). Herbaceous perennials typically lose their above-ground foliage in winter.

Tender Perennial: An annual that happens to survive the winter in Georgia; however this definition is very weather-dependent. Some tender perennials may be annuals seven out of 10 years! These species are of tropical origin (e.g., pigeon berry (duranta), sun coleus, elephant ears). Tender perennials may be species that grow to be shrubs and even small trees in their native habitat; however, when grown without winter protection, they typically lose their above-ground stems and behave as temperate zone perennials.

Shrub: A perennial plant with multiple woody stems that are retained during winter (e.g., pieris, loropetalum, cotoneaster).

Tree: A perennial plant with woody stems, typically larger than a shrub, and with a single or multiple trunks (e.g., Japanese maple, crape myrtle, dogwood).

Evergreen perennial, shrub or tree: A plant that retains its foliage year-round (e.g., hellebore (Christmas and Lenten Rose), Aspidistra (cast iron plant), broadleaf (camellia) and needled evergreens (juniper)).

Deciduous shrub or tree: A perennial plant that loses its foliage in winter (e.g., native azalea, crape myrtle).

containers that combine tomatoes with herbs or “pizza” containers that include tomatoes, eggplants, peppers and basil. Mixed containers featuring woody ornamentals are also becoming more prevalent, as they offer the combination of seasonal color with a strong foundation that can be used for structure or screening.

For commercial nursery producers, the benefit of producing mixed containers is the resulting value-added product (Figure 2). Themes in a pre-planted mixed container can be sold at a higher profit margin than if the plants are sold individually. Customers, particularly those without the time or inclination necessary to create a mixed container, also benefit by reaping the rewards of a pre-planted, themed container. The attraction for both provider and consumer is simple: “one pot, one price.”

Mixed containers that combine annuals, perennials and woody ornamentals will exponentially increase plant selection possibilities (Figure 3). Annuals are less expensive and can provide color year-round due to the ability to change out plants seasonally (Thomas, 2012). For these reasons, annuals have been more popular in mixed containers; however, perennials can add lasting foliage colors and textures not found with annuals and can be used to add height to a container. Perennial bulbs can also be used to add seasonal color similar to annuals (Thomas et al., 2012). Woody ornamentals can add height, screening ability, structure, and unique foliage and bark textures to a mixed container. Both perennial and woody plants also offer permanence to mixed containers that may appeal to those who want the long-term beauty associated with mixed container plantings without the work associated with seasonally changing out plant material.



Figure 2. Wholesale growers are using mixed containers to provide customers with an instant effect while increasing the value-added profit associated with mixed containers, such as this Monrovia® combination container.



Figure 3. This mixed container uses a combination of winter annual plants (parsley and pansies) with the evergreen shrub Gardenia 'Frostproof.' The winter annuals will be replaced in spring with summer annuals to provide continual color.



Figure 4. In this container, pansies (an annual plant) are used to fill space before the perennial variegated English ivy becomes established and fills the container.

Using perennials and woody ornamentals in mixed container plantings can provide year-round beauty if the plants are properly cared for. One major obstacle to using herbaceous perennials or woody ornamentals is price; these plants will initially cost more and will need extended time to grow and blossom to their full potential. If a mixed perennial and/or woody ornamental container is the goal, plan ahead to give plants the necessary space so that they can thrive at their mature size. This could be where using annuals comes into play. When there are spaces in a perennial and woody ornamental mixed container, annuals can be placed in the open spaces for fast color (Figure 4). Annuals can also be replaced seasonally and taken out completely once the perennials and woody ornamentals reach a mature size.

Texture

Plant texture is an important factor when deciding which plants to use in a mixed container. Plant texture refers to the size, shape *and* surface of plant foliage and flowers. Plant textures range from fine and delicate to harsh, coarse and bold. Additionally, plant texture is not just based on the physical feeling or visual appearance of a plant at one specific time. The texture of a plant constantly changes depending on the time of day, light, shadow, distance that the container will be viewed from and maturity of the plants. These factors will result in a constant flux in appearance that makes container gardening even more exciting, and yet challenging because balance must be achieved when combining plant textures. Too many fine-textured plants can be perceived as fuzzy or blurry, especially during twilight hours or from a distance. Plants that are too bold or coarse can appear overwhelming and abrasive, particularly when viewed closely. Contrast is needed between textures within containers or among closely spaced containers to create balance.

There are a few simple things to remember when choosing plants based on their texture. Broad-leafed plants create boldness and add weight to a container. On the other hand, fine-textured plants, such as grasses or conifers, are soft and often invite closer inspection and tactile exploration of the foliage or flower(s) (Figure 5). This concept of attracting or directing a viewer based on texture can dictate where the container is placed in relation to structures, entrances or other focal points. If the container is placed near a doorway where it will be seen up close, for example, then a ratio of two-thirds fine textured plants and one-third coarse textured plants is recommended to create a sense of welcoming. If the container is to be viewed from a distance, two-thirds of the plant materials should be broad and coarse, leaving one-third fine-textured.



Figure 5. Fine-textured *Liriope spicata*, violas and ferns are used in the shorter container. Coarse-textured *Aspidistra elatior* (right container) and *Fatsia japonica* and *Aucuba japonica* (top container) are used in the taller containers to provide a contrast in texture and height.



Figure 6. In addition to a textural contrast between the plants in this container, there is a striking color contrast between the *Agave americana* (upright green plant), *Loropetalum chinense* 'Purple Pixie' (weeping purple foliage plant) and *Spiraea japonica* 'Limemound' (lime green foliage plant). At the entrance of this building, such a striking color combination draws attention and invites inspection.

Color

The use of color, be it from foliage or flower, mirrors that of texture in that it can be used to direct movement or attract attention (Figure 6). Most individuals perceive colors as either "cool" or "warm." Cool colors, such as white, green and blue, are usually associated with water, sky and forest, and they evoke relaxed and

calm feelings. Warm colors, such as red, orange and yellow, are associated with heat, fire and the sun. Because of this, they demand attention and evoke excitement. Purple can be either a cool or warm color, depending on what other colors appear adjacent to it in a landscape. When purple appears near blue, it is perceived as a cool color. When it is placed near red, purple is seen as a warm color.

It may seem odd that colors can affect people's moods, but this has long been studied by psychologists and is used in many fields, from interior design to packaging to clothing. For example, reds increase heart rate and passionate responses. Blue, on the other hand, reduces heart rate and evokes a sense of tranquility. Green is associated with a relaxed and refreshed mood, and is linked to new beginnings. Yellow is associated with happiness and increased mental clarity. In small doses, greys can magnify the effects of other colors and "bind" other colors into a harmonious whole. In large quantities, though, it could lead to a drab and tired-looking container. For a more detailed discussion on the uses of color, see UGA Cooperative Extension Bulletin 1396 Landscape Basics: Color Theory (Chappell et. al., 2011).

PLANT GROWTH IN CONTAINERS

Plant Density and Growth Vigor

Using the correct plant density in mixed containers with perennials and woody plants is critical for success because these plants will remain in the container for extended periods. Also, because perennial plants (both herbaceous and woody) will take two or more seasons to reach mature size, it is recommended to include annual plants in the container to achieve a "full" look.

Similar to planting in a landscape, plants should always be evaluated by their mature size and growth vigor before being selected for use. Plants should always have the mature size indicated on the label, so this is something to look for unless you are already familiar with a particular plant. The field of ornamental horticulture is so dynamic that new cultivars of popular species may be introduced each year, with new growth habits that are different from related plants. An example is Mexican petunia 'Katie' (*Ruellia brittoniana* cultivar 'Katie'), which grows to a maximum height of 6 to 8 inches compared to the species Mexican petunia (*Ruellia brittoniana*), which grows to 3 feet in height with equal spread.

Customers may want to learn names of the plants in the mixed planting; nurserymen could provide a larger and more durable plaque with plant names as a value-added feature and as a way to advertise their business. It is a good idea to keep the label and/or pot (with printed signage) that the plant came in so you can refer to it later if the need arises. When unsure about a plant variety it is best to find out as much information about the plant as possible by asking retail center staff or paying close attention to online descriptions. Most reputable online retailers offer helpful advice about various uses of plants, including container culture. It is always better to be too conservative than to end up with a plant that will either outgrow or be outcompeted by the other plants. Overgrown or unbalanced plants can create a lot of frustration for a consumer who has invested so much time and money in a failed container. For the nursery owner, marketing unbalanced mixed containers can cause customer dissatisfaction that would need to be corrected or risk losing the customer altogether.

It is especially important to recognize that plants vary in their growth vigor. Some are slow growers; others are fast growers. If planted side by side the latter can outgrow the former and literally push it out. However, these growth habits can be used to one's advantage: fast growers should be combined with other fast growers to quickly fill out the pot and successfully compete with each other. Some species exhibit aggressive growth within the first season and can rapidly outcompete slower-growing species (e.g., canna); others may initially grow slowly but form a large clump called a colony (e.g., Mexican petunia) that eventually may outcompete slower-growing plants. One way to keep aggressively growing species in check is to plant them in their original container (or a slightly larger one) – in effect, double-potting.

Other benefits of fast-growing plants include quick establishment and relatively low maintenance (at least initially), which makes them more forgiving of less-than-optimal growing conditions. In fact, many of these plants are recommended for novice consumers due to the higher success rate.

As a customer selecting plants to build a mixed container, a good starting point is to use the **two-thirds principle**. In other words, select plants that fill the surface area of the container at two thirds their mature spacing. This would be particularly applicable for annual plants that have relatively short life spans with lots of growth. At two-thirds spacing, the plants will be slightly crowded at maturity, forming a very dense arrangement, but not so crowded as to cause detrimental competition. This concept can be accomplished in many ways, allowing the mixed container to take on a uniqueness limited only by the creativity of the gardener. As a general rule, plants with growing points closer together will have denser foliage, while plants with growing points more spaced out will be less dense.

Plant Height and Container Balance

Plant height is arguably the most important factor when creating a mixed container (Figure 7). A standard method of container gardening uses a system of placing tall plants (including woody ornamentals) in the back, medium-sized plants (including woody ornamentals and perennials) in the middle, and shorter annuals and perennials in the front. This method of arranging the tallest plants at the back and stepping down gradually to smaller plants is great for corner spaces or against a flat surface. There has also been a shift towards using the “spiller, thriller and filler” concept with one large central plant in the middle of the pot (thriller), several smaller plants around the base of the thriller plant (filler), and several small plants that flow over the rim of the pot (spiller). In instances where the container will be viewed from all sides, this technique can be simple and effective.



Figure 7. The use of height in mixed planters can effectively create a mature garden appearance.

The creative and adventurous home gardener should not be afraid of using a more random approach to adding unusual or unbalanced height, texture or symmetry to mixed containers. For example, an asymmetric container balance can bracket a doorway, inviting people into a designated area or business. Additionally, one could use various inanimate objects to add height and interest to mixed containers. Dried woody stems, driftwood, rocks and other various objects (e.g., garden art, statues, birdhouses, welcome signs, flags, etc.) can be used in place of plants to create both height and texture. Garden art can be replaced throughout the seasons and used to commemorate holidays and special celebrations.

The bottom line is that creative use of balance and objects in mixed container gardens can spice up an otherwise monotonous container planting, particularly in areas where container gardening is common (e.g., apartments, patios, commercial entrances).

CULTURAL AND MAINTENANCE REQUIREMENTS

Cultural Requirements and Growing Environment

Regardless of the type of plants selected, it is imperative to not only provide the optimal growing conditions for individual species but also to combine species with similar light and moisture requirements in the same container (Figure 8, Tables 1 and 2). Pay particular attention to sun exposure and moisture, as nothing will stress plants more than not having adequate light and water. Stressed plants will not only underperform in terms of growth and flowering but also become susceptible to pests and diseases. The all-important principle “right plant in the right place” should be practiced in mixed containers. As a rule of thumb, low-light plants (also referred to as



Figure 8. In these two mixed planters, the shrubs all have similar water and light requirements. (Left to right) The *Nandina domestica*, *Aucuba japonica* and *Camellia japonica* all grow best in partial to full shade environments with moderate soil moisture (but not wet soil). By grouping these plants together, watering and other maintenance is less confusing for the gardener.

ing periods (spring to fall) and once per week in dormant or slow-growing periods (winter). How much water is needed will be determined by the size of the container, but as a general rule, irrigate until water starts coming out of the bottom of the container. At that point watering more will only waste water and actually wash fertilizer out of the pot.

Fertilization is the next key to maintenance. Controlled-release fertilizers are recommended for mixed containers, particularly those containing shrubs and trees. Controlled-release fertilizers are designed to release fertilizers over a much longer period of time than water-soluble (liquid) fertilizers or conventional fertilizers such as granular 10-10-10. For example, by fertilizing in spring with a controlled-release fertilizer that lasts 12 months, only one application should be needed per year. If a six-month fertilizer is selected, you should use this product in April and June. Fertilization is not recommended after August because plant dormancy can be delayed, putting plants at risk for major cold damage during the winter.

Pruning. Pruning may be required in mixed containers. Pruning is used to shape plants and to remove leaves or branches that are competing for space. Unlike watering and fertilizing, pruning is a personal choice based on individual aesthetics and desires. However, several basic rules for pruning exist. First, only prune spent flowers (after the bloom) on spring-flowering shrubs AFTER they bloom. Pruning these plants before they bloom means you are removing that year's flowers. Second, prune summer- and fall-blooming shrubs and trees (that bloom in July or later) during the winter, as they will set blossoms on new growth the following year. On shrubs and trees that do not bloom, only prune in January and February. Last, use pruning to remove dead or diseased tissue, but disinfect your tools between plants to prevent the spread of disease from one plant to another. The last maintenance task is optional, which is to protect your container from cold weather during winter months.

When selecting plants for a mixed container, refer to the "USDA hardiness zone" for each species or variety (<http://planthardiness.ars.usda.gov/PHZMWeb/>). This is a number that ranges from five to nine for most plants marketed in Georgia, with lower numbers being more cold hardy and higher numbers being less cold hardy.

"shade-loving") should be combined with other low-light plants (e.g., impatiens, hosta and aucuba). Conversely, full-sun plants should be combined with other full-sun plants (e.g., petunia, whirling butterflies and Knock-Out® rose).

Location of the mixed container will also determine what type of plants to include. If it will be in full sun, one must adhere to the similar light requirements rule. On the other hand, if the container will be shaded at least part of the day, more flexibility is allowed in plant selection.

During the hot summer, the "kind" of sun also becomes a factor. As experienced gardeners well know, morning sun is cooler than afternoon sun. Hence, one can push the envelope by using a low-light plant in a mixed planting with a high-light plant if that plant would receive **only** morning sun **and** if the plant would receive optimum moisture. In effect, the shade-loving plant may be stressed but that stress can be minimized with more frequent irrigation.

Maintenance of Mixed Containers

Nutrition and Water. If the plants selected for a mixed container are planted at the correct density and selected for the proper exposure (i.e., sun versus shade), maintenance will be minimal. The most important task when caring for a container is irrigation. Newly planted containers typically only need watering every two to five days, depending on the weather, with more water required during hot days with low humidity. After a few months, when the plants have become established, containers will likely need watering on a daily basis during active growing

Plants grown in a container are exposed to colder root temperatures than those grown in-ground, so it may be necessary to protect containers that have plants with hardiness numbers of eight or higher. To protect containerized plants, they can be moved directly next to a home or other heated structure, mounded with leaves or other mulch to the top of the container or brought inside (e.g., an unheated garage) when temperatures drop below 20° Fahrenheit (-6.7° Celsius). However, do not bring plants into a heated structure for the entire winter as they need cold weather to properly grow and flower the following year.

In summary, gardening with mixed containers provides opportunities for all levels of gardeners to experience success with differing plant materials, container types and plant types and is an excellent method of adding visual interest to draw the eye, direct traffic or provide focal points for both landscapes and buildings.

References:

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Table 1. Selected perennials that lend themselves to container gardening.

Common Name	Height	Color ¹	Bloom ²	Exposure			Additional Notes
				Shade	Partial Shade	Sun	
Achillea	2-4'	W,P,Y,G	Su			*	aromatic foliage; drought-tolerant
Ajuga	2-3"	B,W,P	Sp	*	*	*	evergreen groundcover; tolerates more sun provided adequate moisture; cultivars available with variegated or bronze foliage
Alyssum	9-12"	Y	SP			*	suitable for container's edge
Artemisia	1-3'				*	*	aromatic foliage; 'Silver Mound' and 'Silver King' cultivars have silver-gray foliage, the color 'brings' all surrounding plants together; drought-tolerant
Asclepias	1-2'	O	Su			*	native; drought-tolerant; foliage is food for Monarch butterfly caterpillars
Aster	1-5'	all	Su+/F			*	many cultivars, some very vigorous
Astilbe	1-3'	W,P,R	SP	*	*	*	many colors available; attractive fern-like foliage; best grown in shade
Baptisia	3'	B	SP		*	*	<i>Baptisia tinctoria</i> (yellow baptisia) is smaller than <i>B. australis</i> (blue indigo); drought-tolerant
Candytuft	12"	W	SP		*	*	<i>Iberis sempervirens</i> is perennial species; suitable for container's edge
Caryopteris	3-4'	B	Su+			*	drought-tolerant; attracts butterflies
Centaurea	12"	B	-Su		*	*	<i>Centaurea montana</i> is perennial species
Cerastogma	2-3'	B	Su+			*	groundcover; the deepest blue-colored blooms; vigorous growth habit
Chrysanthemum	1-3'	-B	Su/F			*	not all varieties are cold-hardy; taller varieties require staking
Columbine	2-3'	W,P,B,Y	SP		*		Foliage declines in heat
Coreopsis	1-3'	Y,G	Su			*	<i>Coreopsis grandiflora</i> , <i>C. lanceolata</i> , and <i>C. verticillata</i> (threadleaf coreopsis); drought-tolerant and easy to grow; attractive to butterflies
Dianthus	12"	P,W,R,Y	SP/Su			*	gray foliage is attractive and evergreen
Dicentra	1-3'	W,P	SP+/Su	*	*	*	fine-textured foliage; <i>D. exima</i> (wild bleeding heart) is native to Georgia
Foxglove	2-6'	W,P,Y,L	SP+		*	*	<i>Digitalis X mertonensis</i> and <i>D. lutea</i> are perennials
Gaillardia	1-2½'	Y,R,O	Su/F			*	drought-tolerant; attractive to butterflies
Gaura	2-3'	W, P	Su-			*	wispy flower spikes; drought-tolerant
Goldenrod	1-3'	G	Su+/F			*	easy to grow; foliage sustains caterpillars of numerous butterfly species
Hardy Ageratum	1-2'	B,W	F		*	*	vigorous growth habit
Helleborus	12-15"	W,P,L	W/SP	*	*		<i>Hellebores niger</i> (Christmas rose) blooms November to early spring; coarse-textured foliage; <i>H. orientalis</i> (Lenten rose) flowers in mid- to late spring
Hemerocallis	1-4'	-B	Su		*	*	numerous cultivars available; 'Stella d'Oro' is the earliest-blooming one
Heuchera	6-12"	W,P,R	SP/-Su	*	*	*	numerous foliage colors available
Hosta	1-3'			*	*		Foliage colors range from yellow-green to dark green to blue-green; many variegated varieties are also available
Iris	2-4'	all	SP/-Su		*	*	<i>Iris hybrids</i> (bearded iris), <i>I. siberica</i> (siberian iris), and <i>I. kaempferi</i> (japanese iris), bloom in this order; <i>I. tectorum</i> (japanese roof iris) is a durable plant
Liatris	2-6'	L,P	Su/F		*	*	<i>Liatris scariosa</i> (tall gayfeather), <i>L. pycnostachya</i> (Kansas gayfeather), <i>L. spicata</i> ; heat-tolerant
Liriope	1-2'			*	*	*	<i>Liriope muscari</i> (bordergrass), <i>L. spicata</i> (creeping lilyturf); evergreen; variegated forms with attractive foliage; flowers spikes also attractive
Lobelia	2-3'	R,B	Su+		*	*	<i>Lobelia cardinalis</i> (cardinal flower) has striking scarlet blooms

Table 1. Selected perennials that lend themselves to container gardening.

Common Name	Height	Color ¹	Bloom ²	Exposure			Additional Notes
				Shade	Partial Shade	Sun	
Monarda	2-3'	W,R,P	SP+/Su			*	drought-tolerant; aromatic foliage; attractive to butterflies
Ophiopogon	1/2-2'			*	*	*	<i>Ophiopogon japonicus</i> (mondo grass), and <i>O. jaburan</i> (snakebeard); evergreen groundcovers; variegated snakebeard often confised with variegated liriope
Pachysandra	6-8"			*	*		groundcover with evergreen foliage; several variegated varieties are available
Phlox	1"-3'	all	SP/Su	*	*	*	<i>Phlox paniculata</i> (garden phlox) produces tall and showy flower stalks; <i>P. subulata</i> (moss phlox, thrift), groundcover and spring bloomer, heat- and drought-tolerant; <i>P. divaricata</i> (blue phlox) tolerates shade, and <i>P. carolina</i> 'Miss Lingard' is also available
Physostegia	1 1/2-7'	W,P,R	Su		*	*	Some varieties are very vigorous
Purple Coneflower	3-5'	L/P	Su		*	*	drought-tolerant and attractive to butterflies
Rudbeckia	2-3'	Y,O,G	Su/F			*	drought-tolerant and attractive to butterflies; easy to grow
Salvia	1/2-5'	W,B,R,L	Su/F		*	*	<i>Salvia farinacea</i> (blue salvia), <i>S. leucantha</i> (Mexican sage), a tall, bushy, late-blooming purple species is cold tender in North Georgia; <i>S. elegans</i> (pineapple sage) has aromatic foliage; all salvias attract butterflies
Santolina	1 1/2'					*	<i>Santolina chaemaecypariis</i> (lavender cotton) and <i>S. virens</i> (green lavender cotton); aromatic foliage
Sedum	1"-2'	W,P,R	SP/F			*	heat- and drought-tolerant; succulent foliage of many colors, chartreuse, purple, variegated, silver; flowers also attractive; most species are groundcovers
Shasta Daisy	1-3'	W	-Su/Su		*	*	excellent cut flower
St. John's Wort	6-12"	Y	Su		*	*	drought-tolerant; variegated form also available
Stokesia	12-15"	B	Su			*	easy to grow; heat- and drought-tolerant
Sweet William	1-2'	W,P,R,L	SP+/-Su			*	fragrant blooms; declines in heat
Thymus	3-6"	B,L	Su			*	groundcover with aromatic foliage; white or gold-variegated varieties are available
Verbena	6"	W,B,L	SP/F			*	<i>Verbena canadensis</i> , Rose verbena, and <i>V. tenuisecta</i> , Moss verbena; low-growing, spreading and floriferous; drought-tolerant and attractive to butterflies
Veronica	1"-2'	B,W	Su		*	*	<i>Veronica spicata</i> , Speedwell, has varieties with height between 1' and 2'; <i>V. repens</i> is a very low-growing mat-forming type with evergreen foliage
Vinca	3-6"	B,W	SP	*	*		<i>Vinca minor</i> (periwinkle), and <i>V. major</i> , evergreen groundcovers; <i>V. minor</i> is smaller, more compact

¹ Color: G = gold, W = white, P = pink, Y = yellow, R = red, B = blue, O = orange, L = lavender, all = all colors, - = indicates absence of a single color, all others represented.

² Bloom: SP = spring, Su = summer, F = fall, W = winter, - = early, + = late, / = range of bloom.

Table 2. Shrubs and small trees that lend themselves to container gardening; separated based on plant characteristics.

Categories / Species	Common Name	Flower Color	Fruit Color	Exposure	Plant Size (W x H)	Fall Color	Additional Notes
Deciduous Shrubs							
<i>Abelia grandiflora</i>	Abelia	White to Pink	n/a		3-6' x 3-6'	None to crimson	Many cultivars including variegated.
<i>Berberis thunbergii</i>	Barberry	Yellow	Red	Shade to Sun	3-6' x 3-6'	Crimson	Thorny. Variety of leaf colors exist.
<i>Buddleia davidii</i>	Butterfly Bush	White to Purple	n/a	Sun	3-12' x 4-12'	n/a	Cultivars vary widely in size.
<i>Callicarpa</i> spp.	Beautyberry	White	White or Purple	Shade to Part Sun	4-8' x 4-8'	n/a	Native. Wide variety of cultivars available.
<i>Edgeworthia papyrifera</i>	Paperbush	White	n/a		5' x 5'	None	Blooms in late winter - early spring.
<i>Hydrangea macrophylla</i>	Bigleaf Hydrangea	White to Blue	n/a	Shade	3-6' x 3-6'	n/a	Repeat blooming cultivars available.
<i>Hydrangea paniculata</i>	PeeGee Hydrangea	White	Tan	Shade to Part Sun	4-10' x 4-10'	n/a	Plant size varies by cultivar. Spent blooms attractive in winter.
<i>Hydrangea quercifolia</i>	Oakleaf Hydrangea	White	Tan	Shade to Part Sun	4-15' x 4-15'	Crimson	Great fall color. Dwarf cultivars available.
<i>Itea virginica</i>	Sweetspire	White	n/a	Shade to Sun	5' x 5'	Crimson	Native. Great fall color.
<i>Lagerstroemia x indica</i>	Crapemyrtle	White to Red	n/a		10-25' x 10-25'	Red	Smaller cultivars; some cultivars have purple leaves
<i>Spiraea</i> spp.	Spiraea	White to Dark Pink	n/a	Shade to Sun	3-6' x 3-6'	n/a	Cultivars vary in foliage and flower colors.
<i>Vaccinium arboreum</i>	Farkleberry	White	Purple-Black	Shade to Part Sun	6' x 6'	Crimson	Native. Great berries persist after leaf drop.
Deciduous Trees							
<i>Aesculus sylvatica</i>	Buckeye	Yellow	n/a		6-15' x 6-15'	Yellow	Native
<i>Baccharis halimifolia</i>	Groundsel	Ivory	n/a		12' x 5'	n/a	Native
<i>Cercis</i> spp.	Redbud	White to Lavendar	n/a	Shade to Part Sun	6-25' x 4-25'	n/a	Standard tree and weeping forms available.
<i>Chionanthus virginicus</i>	Fringetree	White	Dark Blue	Sun to Shade	20' x 20'	Red	Native. Excellent fall color.
<i>Cotinus</i> spp.	Smoketree	Ivory to Pink	n/a	Sun to Shade	6-15' x 6-15'	Yellow	Native. Purple leaf cultivars available.
<i>Lagerstroemia x indica</i>	Crapemyrtle	White to Red	n/a		10-25' x 10-25'	Red	Larger cultivars; some cultivars have purple leaves

Table 2. Shrubs and small trees that lend themselves to container gardening; separated based on plant characteristics.

Categories / Species	Common Name	Flower Color	Fruit Color	Exposure	Plant Size (W x H)	Fall Color	Additional Notes
Evergreen Broadleaf Shrubs							
<i>Aucuba japonica</i>	Aucuba	n/a	Red		6-10' x 6-10'	n/a	Many foliage color patterns exist.
<i>Camellia japonica</i> / <i>C. sasanqua</i>	Camellia	White to Red	n/a		6-10' x 6-10'	n/a	Cultivars vary in size and flower color.
<i>Fatsia japonica</i>	Fatsia	White	n/a		6' x 6'	n/a	Blooms late fall - October to November.
<i>Gardenia</i>	Gardenia	White	n/a		6' x 4'	n/a	Most cold-hardy cultivar.
<i>Ilex vomitoria</i> 'Will Fleming'	Yaupon Holly	White	Red		10' x 4'	n/a	Very upright habit. Good for framing.
<i>Jasminum nudiflorum</i>	Winter Jasmine	Yellow	n/a		1' x 4-6'	n/a	Blooms in late winter.
<i>Leucothoe axillaris</i>	Leucothoe	White	n/a	shade	4' x 5'	Red/Maroon	Some cultivars variegated.
<i>Loropetalum chinense</i>	Loropetalum	White to Red	n/a	Sun to Part Shade	2-25' x 4-25'	n/a	Cultivars vary in size and red leaf forms exist.
<i>Nandina domestica</i>	Nandina	White	Red	Sun to Shade	3'-6' x 3-4'	Red/Maroon	Wide variety of sizes exist.
<i>Rhododendron spp.</i>	Azalea	White to Red	n/a	Shade to Part Sun	2-8' x 3-8'	n/a	Repeat blooming cultivars available.
<i>Rosemarinus officinalis</i>	Rosemary	Pale to Dark Blue	n/a	Sun to Part Shade	3-6' x 3-6'	n/a	Very fragrant - great for entrances.
<i>Rubus pentalobus</i>	Creeping Raspberry	n/a	n/a	Shade to Sun	6" x 5'	Maroon	Great "spiller".
Evergreen Broadleaf Trees							
<i>Chipranthys retusus</i>	Chinese Fringetree	White	Dark Blue	Sun to Shade	20' x 20'	n/a	Excellent small tree. Great bark!
<i>Magnolia virginiana</i>	Sweetbay	White	n/a	Sun to Shade	12' x 6'	n/a	Can drop leaves in extreme cold.
<i>Osmanthus fragrans</i>	Tea Olive	Ivory	n/a	Sun to Shade	25' x 15'	n/a	Can heavily prune. Fragrant flowers.
<i>Trachycarpus fortunei</i>	Windmill Palm	Ivory	Brown-Purple	Sun	6-15' x 4-6'	n/a	Very cold-tolerant. Great texture.

Table 2. Shrubs and small trees that lend themselves to container gardening; separated based on plant characteristics.

Categories / Species	Common Name	Flower Color	Fruit Color	Exposure	Plant Size (W x H)	Fall Color	Additional Notes
Evergreen Conifers							
<i>Callistemon citrinus</i>	Lemon Bottlebrush	Red	n/a		10' x 15'	n/a	Very tolerant of dry soils.
<i>Chamaecyparis obtusa</i>	Falsecypress	n/a	n/a	Sun to Part Shade	3-20' x 3-20'	n/a	Size and foliage color varies by cultivar.
<i>Cupressus sempervirens</i>	Italian Cypress	n/a	n/a		20' x 5'	n/a	Very upright habit. Good for framing.
<i>Juniperus conferta</i>	Shore Juniper	n/a	n/a	Sun	1' x 5'	n/a	Great "spiller" plant.
<i>Juniperus horizontalis</i>	Creeping Juniper	n/a	n/a	Sun	1' x 5'	n/a	Great "spiller" plant.
<i>Juniperus scopulorum</i> 'Skyrocket'	Rocky Mountain Juniper	n/a	n/a	Sun	15' x 2'	n/a	Very upright habit. Good for framing.

