Part 2: Perennials

For Georgia Gardens

Paul A. Thomas and Bodie V. Pennisi
The University of Georgia
College Of Agricultural and Environmental Sciences
Department of Horticulture

Terms To Review

Perennial:	A plant which completes its life cycle in two or more years and can withstand both summer and winter conditions.
Tender Perennial:	Tender perennials are annuals which happens to over-winter. This definition is very weather dependent. Some tender perennials are annuals 7 out of 10 years!
Annual:	A plant which completes its life cycle in less than one year. Annuals are unable to withstand both summer's heat and winter's cold.

Terms To Review

Pinch at Transplant:	Removal of top ¼ inch (+flowers) of the terminal growth. This promotes early branching and yields a very nice looking perennial.
Inconspicuous Bloom:	Blooms not seen, are very small or are unimportant. Usually these plants are selected for their foliage or form.
Drought-Tolerant:	Plant recovers and continues to grow and blooms after prolonged drought.

Terms To Review

Biennial: A plant which completes its life cycle in two years, etc. Usually requires one winter season.

Deer Resistant: A plant not preferred by deer. However, in drought, there are no guarantees. Desperate deer will eat almost any plant.

Bloom Period: An average time for the appearance of blooms. This is strongly affected by weather, light levels and soil conditions.

Terms To Review

Dead-heading: Removal of spent flowers before seed develops. Usually allows additional flowers to form and bloom.

Random Seeding: Seeds randomly broadcast on an open, prepared seed bed in fall or spring,

Light Requirement: Sun, partial shade, shade: Light requirements are fairly stringent for perennials. For best performance and flowering, choose the brightest light acceptable for that species.

Fertility Terms To Review

Low One application of 1 lb of 10-10-10/100 sq. ft. at transplant or before spring regrowth. Best for early spring flowering perennials or aggressive species.

Moderate Two applications of 1 lb of 10-10-10/100 sq. ft. per season. Once at transplant or in early spring, and once mid-season followed by significant irrigation.

Heavy Three /four applications of 1 lb of 10-10-10/100 sq. ft. per season. At transplant or early spring, then 3 - 4 week intervals. Best for late blooming perennials, and vines that grow all summer, or groundcover-like perennials that you intend to have spread quickly. Water in thoroughly!

Pre-Planning An Installation Is Essential For Perennials

Perennials Are Complex

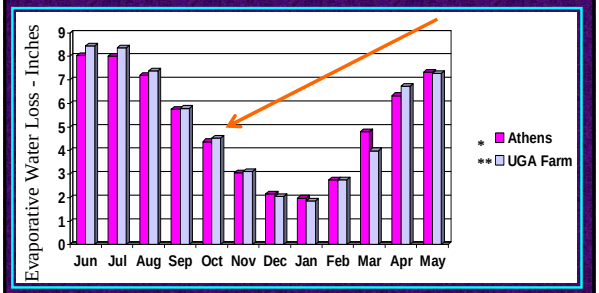
- Know the size of the plant!
- Know the plant's pH preference
- Know the pests and diseases
- Know the life-span of the plant
- Know the bloom period

Fall Is For Planting!

Evaporation Rates For Athens

*Average from 1953 to 1992
**Average from 1971 to 1992

Start Here!

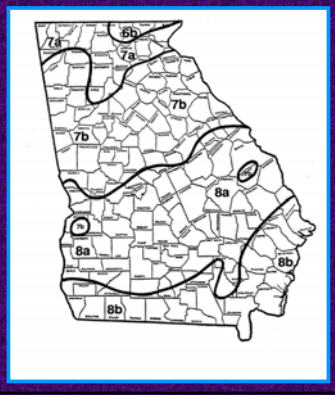


Heat Zone Map For Georgia

Days above 90 ^{o} F.

Zone	Ave. No. Days
5	30 – 45
6	45 – 60
7	69 – 90
8	90 – 120
9	120 – 150
10	150 – 175

Cold Hardiness Zones



Range of Average Annual Minimum Temperatures for Each Zone

Zone	Range in Degrees F
6b	0 to –5
7a	5 to 0
7b	10 to 5
8a	15 to 10
8b	20 to 15

Soil Testing

Most perennials prefer a soil pH between 5.2 and 6.7 and a well drained soil. Organic matter is often added to accomplish both objectives.

Select Plants Carefully When You Buy

Overall Condition

Check Roots/ Buds/Flowers

Scout For Insects/Disease

Just as with annuals, bed preparation is essential !

How Much Mulch To Apply?

3 to 5 inches is sufficient in gardens!

One bale of pine straw covers 50 – 80 sq. ft., depending on the bale size

Nine, 3 cu. ft. bags of pine bark mulch will cover 100 sq. ft. to a 3-inch depth

Weed Control - Landscape

Pre & Post Emergent Herbicides

Pre-Emergent:
- Betasan
- Pendulum
- Pennant
- Surflan
- XL

Post-Emergent:
- Envoy
- Vantage

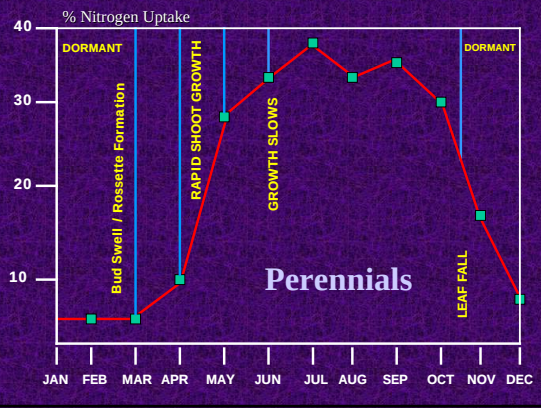
Mulches & Covers:
- Pine Straw
- Pine Bark
- Peanut Hulls
- Compost

Non-Selective Herbicides:
- Round-Up Pro
- Reward
- Scythe

Fertilization

- Fertilizers only last so long!
- Plants growing in shade require more fertilizer than those growing in sun, due to competition from tree roots
- Plants growing in sandy soils require more frequent fertilization than those growing in clay soil
- Rainfall dramatically affects fertility levels in long-term gardens !
- Some plants like low fertility!

Nitrogen Uptake Throughout the Year



Types of Fertilizer

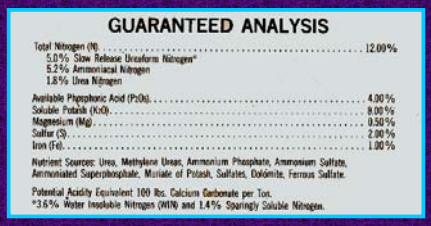
Granular - General-purpose (10-10-10, 16-4-8)

Slow-release

Organic

Liquid

Get the most nutrients you can for your dollar!



GUARANTEED ANALYSIS

Total Nitrogen (N) 12.00%
5.0% Slow Release Ureaform Nitrogen*
5.2% Ammoniacal Nitrogen
1.8% Urea Nitrogen

Available Phosphoric Acid (P_2O_5) 4.00%
Soluble Potash (K_2O) 8.00%
Magnesium (Mg) 0.50%
Sulfur (S) 2.00%
Iron (Fe) 1.00%

Nutrient Sources: Urea, Methylene Ureas, Ammonium Phosphate, Ammonium Sulfate, Ammoniated Superphosphate, Muriate of Potash, Sulfates, Dolomite, Ferrous Sulfate.

Potential Acidity Equivalent 100 lbs. Calcium Carbonate per Ton.
*3.6% Water Insoluble Nitrogen (WIN) and 1.4% Sparingly Soluble Nitrogen.

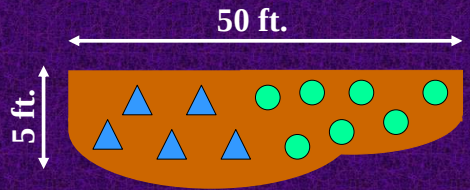
16-4- 8

10/16 = 0.6 lbs. per 100 sq. ft.

12-4-8

10/12 = 0.8 lbs. per 100 sq. ft.

2 cups = 1 lb.



5 ft. x 50 ft. = 250 sq. ft.

16 - 4 - 8 = 0.6 lbs./100 sq. ft.

250 sq ft x 0.6 / 100 sq ft. = Amt Apply

Amt to Apply = 1.5 lbs. (3 cups)

Nutrient Deficiencies

Purpling of lower leaves - phosphorus deficiency

- Can be caused by cold, keeping plants too wet.
- Use a general fertilizer, do not direct supplement!

Chlorosis or yellowing upper leaves - iron deficiency,

- pH is too high!
- Iron sulfate can be added in increments to reduce pH.

Overall yellowing of lower leaves – magnesium deficiency

- Magnesium deficiency is very common in Georgia!
- Use magnesium sulfate to increase Mg!

Planning Maintenance Is The Key!

Deadheading

Echinaceae

Verbascum

Removing Spent Flowers Is Essential For Some Perennials

Renovating Perennial Beds

Perennial beds need to be renovated about every three years in Georgia:

- Soil compaction (from rain/people)
- Loss of organic material
- Dense growth of the perennial
- Overall performance decline

Most perennial beds are renovated by complete removal of established plants, division, soil amending, and replanting

Methods For Division

Fibrous Root Perennials

Dig up colony

Divide section of colony with new growth or runners.

Dividing Hostas

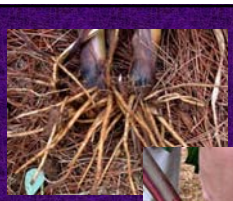
Dig colony

Wash Roots

Divide Plantlets

Separated plants

Dividing Rhizomatous Perennials

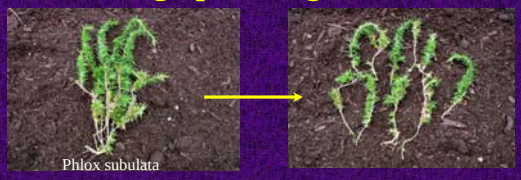


Dug roots are separated into small clusters

Divide growing points

Separated sections

Dividing Spreading Perennials



Phlox subulata

Dianthus 'Bath's Pink'

Multiplying Spreading Perennials

Furrow w/fertilizer

Space divisions

Cuttings Planted

Many perennials may require a rooting powder to be applied to the base of the cutting to promote faster rooting.

The End Result!

Selecting Perennials

Selection Considerations

Most perennials do not live forever. In Georgia, most perennials live two to five years before perishing by disease, adverse weather or old age.

Plants such as Hosta, Lantana 'Miss Huff', Ruellia, Tritoma, Iris, Thrift, Daylillies and Soapwort are examples of very long-lived perennials. Coreopsis, Rudbeckia, Echinacea, Scabiosa, some Salvias and some Phlox are good examples of short-lived perennials.

Selection Considerations

Perennials are not low maintenance, in fact, they are second only to roses in terms of yearly maintenance efforts.

Perennials require watering, fertilizing, shaping, deadheading, fall mulching, spring cleaning, dividing, replacing, and insect, disease, and weed control.

Some perennials grow best when divided every few years. Perennial bed renovation should be considered every 3 to 5 years for optimal growth.

Selection Considerations

Many perennials start small and get large, or form big colonies. Planning for growth is essential.

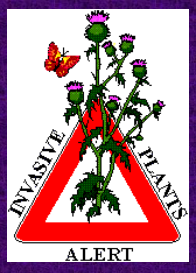
Long-lived, vigorous species tend to "grow-over" less vigorous or short-lived species.

Within two or three years your garden can appear completely different due to this competition. Always leave room for new growth when placing perennials.

Selection Considerations

Some perennials are vigorous, aggressive, or even invasive. Containers and in-ground barriers can contain "running" or aggressive species.

Reseeding is a major problem with only a few perennials. Removing spent flowers before they set seed prevents reseeding problems.



Avoid Invasive Plants!

Use Native Plants Whenever Possible!

Perennials For Sunny Locations

Pincushion Flower

Characteristics:
Nectar source
Mounding
15 - 18 inches tall

Location:
Full sun

Plant Spacing:
8 inch centers

Care and Feeding:
Moderate fertility
No drought

Bloom Period:
April – June

Culture Concerns:
Mites
Well-drained soils

Scabiosa caucasica

Russian Sage

Characteristics:
Nectar source
26 - 40 inches tall

Location:
Full sun

Plant Spacing:
10 - 15 inch centers

Care and Feeding:
Moderate fertility

Bloom Period:
June - September

Culture Concerns:
Do not crowd with other plants

Perovskia atriplicifolia

Perennial Chrysanthemum

Characteristics:
Mounding
Fall blooming
24 - 36 inches tall

Location:
Full sun

Plant Spacing:
15 inch centers

Care and Feeding:
Heavy fertility
Drought tolerant
Deer tolerant

Bloom Period:
August-September

Culture Concerns:
Stalls in drought

Dendranthemum x *morifolium* 'Ryan's Daisy'

Whirling Butterflies

Characteristics:
Nectar source
Drought tolerant
24 - 36 inches tall

Location:
Full sun

Plant Spacing:
8 inch centers

Care and Feeding:
Moderate fertility
Deer tolerant

Bloom Period:
June – August

Culture Concerns:
Trim no more than the top ½ of spent flower stalk.

Gaura lindheimeri

Speedwell

Characteristics:
Nectar source
18 - 30 inches tall

Location:
Full sun

Plant Spacing:
8 inch centers

Care and Feeding:
Moderate fertility
No drought

Bloom Period:
June – September

Culture Concerns:
Deadheading is required

Veronica alpina

Summer Phlox

Characteristics:
- Nectar source
- Fragrant flowers
- 22 - 40 inches tall

Location:
- Full sun
- Part shade

Plant Spacing:
- 8 inch centers

Care and Feeding:
- Moderate fertility
- No drought

Bloom Period:
- May – July

Culture Concerns:
- Mildew
- Deer

Phlox paniculata 'The King'

Stoke's Aster

Characteristics;
- Nectar source
- 20 - 25 inches tall

Location:
- Full sun
- Partial shade

Plant Spacing:
- 12 inch centers

Care and Feeding:
- Moderate fertility
- No drought

Bloom Period:
- May - June

Culture Concerns:
- Well-drained soils

Stokesia laevis 'Blue Danube'

Gay Feather

Characteristics:
- Nectar source
- Drought tolerant
- 24 - 36 inches tall

Location:
- Full sun

Plant Spacing:
- 6 inch centers

Care and Feeding:
- Moderate fertility
- Well-drained soils

Bloom Period:
- May– June

Culture Concerns:
- Scout for bulb rot
- Divide @ 3 years

Liatris spicata

Silver King

Characteristics:
- High contrast
- Drought tolerant
- Silver foliage
- 20 - 40 inches tall

Location:
- Full sun

Plant Spacing:
- 8 inch centers

Care and Feeding:
- Moderate fertility
- Deer tolerant

Bloom Period:
- Inconspicuous

Culture Concerns:
- Spreads rapidly

Artemesia 'Silver King'

Soapwort

Characteristics:
- Nectar source
- Fragrant flowers
- Drought tolerant
- 12 - 18 inches tall

Location:
- Full sun

Plant Spacing:
- 12 inch centers

Care and Feeding:
- Moderate fertility
- Deer tolerant

Bloom Period:
- June – August

Culture Concerns
- Requires trimming to look neat

Saponaria ocymoides

Showy Evening Primrose

Characteristics:
- Spring color
- 10 - 14 inches tall
- Drought tolerant

Location:
- Full sun

Plant Spacing:
- 6 inch centers

Care and Feeding:
- Moderate fertility
- Deer tolerant

Bloom Period:
- April-May

Culture Concerns:
- Spreads rapidly

Oenathera speciosa

Peony

Characteristics:
Fragrant flowers
24 - 30 inches tall

Location:
Full sun
Part shade

Plant Spacing:
18 inch centers

Care and Feeding:
Moderate fertility
No drought
High organic soils

Bloom Period:
June – August

Culture Concerns:
Keep moist in hot weather. Do not plant deep in clay.

Paeonia spp.

Shasta Daisy

Characteristics:
Spring color
18 - 24 inches tall

Location:
Full sun

Plant Spacing:
8 inch centers

Care and Feeding:
Low fertility
No drought
Deer tolerant

Bloom Period:
June – August

Culture Concerns:
Gets leggy if over fertilized

Chrysanthemum superbum

Garden Asters

Characteristics:
Nectar source
Late summer bloom
20 - 36 inches tall

Location:
Full sun

Plant Spacing:
36 inch centers

Care and Feeding:
Heavy fertility
No drought
Deer tolerant

Bloom Period:
August-September

Culture Concerns:
Do not crowd

Aster 'Country Gardens'

New York Aster

Characteristics:
- Nectar source
- Fall blooming
- 40 - 54 inches tall

Location:
- Full sun

Plant Spacing:
- 24 inch centers

Care and Feeding:
- Heavy fertility
- No drought
- Deer tolerant

Bloom Period:
- August-September

Culture Concerns:
- Do not crowd young plants

Aster Novi-belgii

Daylily

Characteristics:
- Drought tolerant
- 15 - 20 inches tall

Location:
- Full / part shade
- Full sun if moist

Plant Spacing:
- 12 inch centers

Care and Feeding:
- Heavy fertility
- Deer tolerant

Bloom Period:
- June – July

Culture Concerns:
- Declines in heat

Hemerocallis spp.

Mexican Sage

Characteristics:
- Nectar source
- 30 - 54 inches tall
- Drought tolerant

Location:
- Full sun

Plant Spacing:
- 8 - 12 inch centers

Care and Feeding:
- Heavy fertility
- Deer tolerant

Bloom Period:
- August-September

Culture Concerns:
- Do not crowd young plants

Salvia leucantha

Mexican Petunia

Characteristics:
Drought tolerant
36 - 54 inches tall

Location:
Full sun

Plant Spacing:
12 inch centers

Care and Feeding:
Moderate fertility
Deer tolerant

Bloom Period:
August- October

Culture Concerns:
Spreads slowly

Ruellia brittoniana

Garden Lilies

Characteristics:
28 - 60 inches tall
Fragrant flowers

Location:
Full sun

Plant Spacing:
8 inch centers

Care and Feeding:
Moderate fertility
No drought

Bloom Period:
June – August

Culture Concerns:
Well-drained soils

Lilium speciosum 'Rubrum'

Ornamental Onions & Garlic

Characteristics:
Nectar source
Drought tolerant
10 - 48 inches tall

Location:
Full sun

Plant Spacing:
2-3 bulbs in small groups works best

Care and Feeding:
Moderate fertility
Deer tolerant

Bloom Period:
June – August

Culture Concerns:
Some species may reseed

Allium schoenoprasum

Perennials For Dry Sunny Places

False Indigo

Characteristics:
Drought tolerant
28 to 56 inches tall

Location:
Full sun

Plant Spacing:
12 inch centers

Care and Feeding:
Low fertility
Deer tolerant

Bloom Period:
June – July

Culture Concerns:
Comes up late in spring. Mark the site!

Baptisia australis

Yellow Baptisia

Characteristics:
Drought tolerant
26 - 45 inches tall

Location:
Full sun

Plant Spacing:
8 - 10 inch centers

Care and Feeding:
Moderate fertility
Deer tolerant

Bloom Period:
June – July

Culture Concerns:
Comes up late – mark the site!

Baptisia tinctoria

Tickseed

Characteristics:
18 - 28 inches tall

Location:
Full sun

Plant Spacing:
8 - 12 inch centers

Care and Feeding:
Moderate fertility
No drought
Deer tolerant

Bloom Period:
May – June

Culture Concerns:
Mites
Deadheading required

Coreopsis grandiflora

Swamp Sunflower

Characteristics:
Nectar source
Drought tolerant
72 - 96 inches tall

Location:
Full sun

Plant Spacing:
24 inch centers

Care and Feeding:
Moderate fertility
Deer tolerant

Bloom Period:
August-October

Culture Concerns:
Huge!
Spreads

Helianthus angustifolius

Red Hot Poker Plant

Characteristics
Nectar source
Drought tolerant
36 - 48 inches tall

Location:
Full sun

Plant Spacing:
12 inch centers

Care and Feeding:
Moderate fertility
Deer tolerant

Bloom Period:
June – July

Culture Concerns:
Seedling color varies. Colonizes

Kniphofia uvaria

Blue Sage

Characteristics:
Nectar source
Drought tolerant
24 - 54 inches tall

Location:
Full sun

Plant Spacing:
12 - 15 inch centers

Care and Feeding:
Heavy fertility
Deer tolerant

Bloom Period:
June – October

Culture Concerns:
Mid-summer and late summer trimmings help

Salvia guaranitica

Hardy Lantana

Characteristics:
Nectar source
Drought resistant
48 - 70 inches tall

Location:
Full Sun

Plant Spacing:
36 - 54 inch centers

Care and Feeding:
Heavy fertility
Deer tolerant

Bloom Period:
June – August

Culture Concerns:
Do not cut frosted branches until late spring, mound with leaves until April

Lantana camara 'Miss Huff'

Autumn Joy Sedum

Characteristics:
Nectar source
Drought tolerant
18 - 30 inches tall

Location:
Full sun

Plant Spacing:
8 - 10 inches

Care and Feeding:
Moderate fertility
Deer tolerant

Bloom Period:
July - August

Culture Concerns:
Well-drained soils

Sedum 'Autumn Joy'

Goldenrod

Characteristics:
Nectar source
Drought tolerant
24 - 56 inches tall

Location:
Full sun

Plant Spacing:
6 inch centers

Care and Feeding:
Low fertility
Deer tolerant

Bloom Period:
July – September

Culture Concerns:
Can be invasive

Solidago 'Peter Pan'

Bearded Iris

Characteristics:
Drought tolerant
28 - 40 inches tall

Location:
Full sun

Plant Spacing:
6 inch centers

Care and Feeding:
Moderate fertility
Deer tolerant
Well drained soils

Bloom Period:
June – August

Culture Concerns:
Rhizome rot
Rhizome borers

Iris ssp.

Butterfly Weed

Characteristics:
Nectar source
Drought tolerant
18 - 30 inches tall

Location:
Full sun

Plant Spacing:
10 inch centers

Care and Feeding:
Moderate fertility
Deer tolerant

Bloom Period:
June – August

Culture Concerns:
Comes up late – mark location.
Well-drained soils

Asclepias tuberosa

South American Verbena

Characteristics:
- Nectar source
- Drought tolerant
- 36 - 48 inches tall

Location:
- Full sun

Plant Spacing:
- 8 - 12 inch centers

Care and Feeding:
- Moderate fertility
- Deer tolerant

Bloom Period:
- June – October

Culture Concerns:
- Mites
- May reseed

Verbena bonariensis

Rigid Verbena

Characteristics:
- Nectar source
- Drought resistant
- 12 - 15 inches tall

Location:
- Full sun

Plant Spacing:
- 6 inch centers

Care and Feeding:
- Low fertility
- Deer tolerant

Bloom Period:
- June – August

Culture Concerns:
- Can be invasive

Verbena rigida

Purple Cone Flower

Characteristics:
- Nectar source
- Drought tolerant
- 24 - 36 inches tall

Location:
- Full sun

Plant Spacing:
- 8 - 10 inch centers

Care and Feeding:
- Heavy fertility
- Deer tolerant

Bloom Period:
- May – August

Culture Concerns:
- Deadheading is essential

Echinacea purpurea

Three Lobed Coneflower

Characteristics:
Nectar source
Drought tolerant

Location:
Full sun

Plant Size:
36-50 inches tall

Care and Feeding:
Moderate fertility
Deer tolerant

Bloom Period:
July – September

Culture Concerns:
Mildew
Dies out in wet, warm weather

Rudbeckia triloba

Hardy Ice Plant

Characteristics:
Nectar source
Groundcover
Drought tolerant
4 - 6 inches tall

Location:
Full sun

Plant Spacing:
6 inch centers

Care and Feeding:
Moderate fertility
Deer tolerant

Bloom Period:
May– October

Culture Concerns:
Do not cover with mulch in winter

Delosperma cooperi

Perennials For Shady Places

False Spirea

Characteristics:
Nectar source
24 - 30 inches tall

Location:
Partial shade

Plant Spacing:
12 - 18 inch centers

Care and Feeding:
Moderate fertility
No drought
High organic soils

Bloom Period:
May – June

Culture Concerns:
Mulch heavily
Keep moist

Astilbe x *ardensii*

Blackberry Lily

Characteristics:
Nectar source
Drought tolerant
18 - 28 inches tall

Location:
Partial shade

Plant Spacing:
8 inch centers

Care and Feeding:
Moderate. fertility
Deer tolerant

Bloom Period:
July– August

Culture Concerns:
Reseeds

Bellamcanda chinensis hybrid

Bee Balm

Characteristics:
Nectar source
Drought tolerant
18 - 36 inches tall

Location:
Partial shade
Full sun if moist

Plant Spacing:
10 - 12 inch centers

Care and Feeding:
Moderate fertility
Deer tolerant

Bloom Period:
June – August

Culture Concerns:
Spreads quickly
Mildew

Monarda didyma

Fragrant Solomon's Seals

Characteristics:
Nectar source
20 - 24 inches tall

Location:
Full shade

Plant Spacing:
12 inch centers

Care and Feeding:
Moderate fertility
Deer tolerant

Bloom Period:
June – August

Culture Concerns:
Scalds in full sun

Polygonatum odoratum variegata

Coral Bells

Characteristics:
Purple foliage
15 - 20 inches tall

Location:
Full / partial shade

Plant Spacing:
12 inch centers

Care and Feeding:
Moderate fertility
No drought

Bloom Period:
June

Culture Concerns:
Bleaches in sun when dry

Heuchera americana 'Purple Palace'

Silver Coral Bells

Characteristics:
Silver foliage
14 - 18 inches tall

Location:
Full shade

Plant Spacing:
12 inch centers

Care and Feeding:
Moderate fertility
No drought
High organic soil

Bloom Period:
June

Culture Concerns:
Keep moist

Heuchera x *brizoides* 'Jack Frost'

Woodland Phlox

Characteristics:
- Nectar source
- Spring color
- 12 - 18 inches tall

Location:
- Full shade to Full sun

Plant Spacing:
- 12 inch centers

Care and Feeding:
- Moderate fertility

Bloom Period:
- May - June

Culture Concerns:
- Mites
- Keep moist

Phlox stolonifera

Hosta

Characteristics:
- Foliage effect
- 15 - 32 inches tall

Location:
- Full shade

Plant Spacing:
- 15 - 18 inch centers

Care and Feeding:
- Moderate fertility,
- High organic soils

Bloom Period:
- June – August

Culture Concerns:
- Deer food!
- Divide @ 5 years

Hosta 'Patriot'

Bleeding Hearts

Characteristics:
- Spring flower
- Unusual flowers
- 18 to 30 inches tall

Location:
- Full shade

Plant Size:
- 12 inch centers

Care and Feeding:
- Moderate fertility
- No drought

Bloom Period:
- June – August

Culture Concerns:
- High organic soil
- Keep moist

Dicentra spectabilis

Lenten Rose

Characteristics:
Spring blooms
15 - 24 inches tall

Location:
Full to partial shade

Plant Spacing:
12 inch centers

Care and Feeding:
Moderate fertility
High organic soils

Bloom Period:
February-April

Culture Concerns:
Reseeds

Helleborus orientalis

Virginia Blue Bells

Characteristics:
Nectar source
Spring bloom
12 - 14 inches tall

Location:
Full /part shade

Plant Spacing:
8 inch centers

Care and Feeding:
Low fertility
No drought

Bloom Period:
June – August

Culture Concerns:
High organic soils

Mertensia virginica

Native Columbine

Characteristics:
Nectar source
15 - 24 inches tall

Location:
Partial shade

Plant Spacing:
4 inch center or random seeding

Care and Feeding:
Moderate fertility
No drought
Deer tolerant

Bloom Period:
April-May

Culture Concerns:
High organic soil
Leaf miners

Aquilegia canadensis

Lily-Of-The-Valley

Characteristics:
Nectar source
Fragrant
8 – 12 inches tall

Location:
Full shade

Plant Spacing:
6 inch centers

Care and Feeding:
Moderate fertility
No drought
Deer tolerant

Bloom Period:
May - June

Culture Concerns:
High organic soil

Convallaria majalis

Blue Stars

Characteristics:
Nectar source
24 - 40 inches tall
Drought tolerant

Location:
Full to partial shade

Plant Spacing:
12 inch centers

Care and Feeding:
Low fertility
Deer tolerant

Bloom Period:
April-June

Culture Concerns:
Stake young plants
Divide @ 5 years

Amsonia tabernaemontana

Spiderwort

Characteristics:
15 - 25 inches tall

Location:
Full to partial shade. Full sun if moist.

Plant Spacing:
10 inch centers

Care and Feeding:
Heavy fertility
No drought
Deer tolerant

Bloom Period:
May– June

Culture Concerns:
Declines in heat

Tradescantia virginiana

Purple Oxalis

Characteristics:
Purple foliage
4 - 9 inches tall

Location:
Full sun

Plant Spacing:
Corm clumps on
4 inch centers

Care and Feeding:
Heavy fertility
Organic soils
Deer tolerant

Bloom Period:
April – December

Culture Concerns:
Keep moist
Mites

Oxalis regnellii

Rooftop Iris

Characteristics:
15 - 18 inches tall

Location:
Full shade

Plant Spacing:
12 inch centers

Care and Feeding:
Moderate fertility
No drought
Deer tolerant

Bloom Period:
May-June

Culture Concerns:
High organic soils

Iris tectorum

Perennial Vines

Silver Fleece Vine

Characteristics:
Trellis vine
5 - 8 feet / season
Drought tolerant

Location:
Full sun
Partial shade

Plant Spacing:
24 inch centers

Care and Feeding:
Low fertility
Deer tolerant

Bloom Period:
June – August

Culture Concerns:
Spreads rapidly

Polygonum aubretii

Clematis

Characteristics:
Trellis vine
4 - 6 feet / season

Location:
Full sun
Partial shade

Plant Spacing:
12 inch centers

Care and Feeding:
Heavy fertility
No drought

Bloom Period:
May - June

Culture Concerns:
Declines in heat

Clematis ssp.

Summer Sweet

Characteristics:
Nectar source
Drought resistant
10 - 12 feet/season

Location:
Full sun to
full shade

Plant Spacing:
24 inch centers

Care and Feeding:
Low fertility
Deer tolerant

Bloom Period:
August-September

Culture Concerns:
Cut back to thumb
wood each winter

Clematis paniculata

Summer Jasmine

Characteristics:
Nectar source
Trellis vine
Hedge mound
6 - 8 feet/ season

Location:
Full sun

Plant Spacing:
8 inch centers

Care and Feeding:
Heavy fertility
Deer tolerant

Bloom Period:
June – July

Culture Concerns:
Zone 6 or higher

Trachelospermum asiaticum

Hummingbird Honeysuckle

Characteristics:
Nectar source
Trellis vine
Drought tolerant
4 - 6 feet/season

Location:
Full sun
Partial shade

Plant Spacing:
10 inch centers

Care and Feeding:
Moderate fertility
Deer tolerant

Bloom Period:
May- June

Culture Concerns:
Trim @ 3 years to keep shape/vigor

Lonicera sempervirens

Trumpet Vine

Characteristics:
Nectar source
Drought tolerant
8 - 10 feet/season

Location:
Full sun

Plant Spacing:
24”-36” inch centers

Care and Feeding:
Moderate fertility
Deer tolerant

Bloom Period:
July- August

Culture Concerns:
Trim to thumb wood @ 3 years & every year after

Campsis radicans

Cross Vine

Characteristics:
Trellis vine

Location:
Full sun

Plant Spacing:
8 inch centers

Care and Feeding:
Heavy fertility
Deer tolerant

Bloom Period:
May-June

Culture Concerns:
Prune @ 3 years and every other year there after

Anisostichus capreolata

Perennial Ground Covers

Verbena canadensis

Characteristics:
Nectar source
5 - 8 inches tall

Location:
Full sun

Plant Spacing:
8-12 inch centers

Care and Feeding:
Heavy fertility
Deer tolerant

Bloom Period:
March – October

Culture Concerns:
Water and fertilize in summer heat.
Trim when leggy.

Verbena canadensis 'Homestead Purple'

Bugle Weed

Characteristics:
Nectar source
Spring flowers

Location:
Full sun to
Full shade

Plant Spacing:
4-6 inch centers

Care and Feeding:
Low fertility
No drought
Deer tolerant

Bloom Period:
April-May

Culture Concerns:
May melt out in summer heat

Ajuga repens

Variegated Bugle Weed

Characteristics:
Nectar source
Spring flowers

Location:
Full sun
partial shade

Plant Spacing:
4 - 6 inch centers

Care and Feeding:
Low fertility
No drought
Deer tolerant

Bloom Period:
April-May

Culture Concerns:
Melts out in summer heat

Ajuga repens 'Gaiety'

Pigsqueak

Characteristics:
8 - 10 inches tall

Location:
Full shade

Plant Spacing:
6 - 8 inch centers

Care and Feeding:
Moderate fertility
No drought
Well drained soils

Bloom Period:
April-May

Culture Concerns:
Declines in heat

Bergenia cordifolia

Kamtschatka Stonecrop

Characteristics:
- Nectar source
- Drought tolerant
- 6 - 8 inches tall

Location:
- Full sun

Plant Spacing:
- 4 - 6 inch centers

Care and Feeding:
- Low fertility
- Deer tolerant

Bloom Period:
- June

Culture Concerns:
- Well-drained soils

Sedum kamtschaticum

Monkey Grass

Characteristics:
- Nectar source
- Border planting
- Drought tolerant
- 12 - 15 inches tall

Location:
- Full sun
- partial shade

Plant Spacing:
- 5 - 8 inch centers

Care and Feeding:
- Moderate fertility
- Deer tolerant

Bloom Period:
- July- August

Culture Concerns:
- Slow growing, but the species can become invasive over time

Liriope muscari

Perennial Plumbago

Characteristics:
- Drought tolerant
- 12 - 14 inches tall

Location:
- Full sun

Plant Spacing:
- 6 inch centers

Care and Feeding:
- Moderate fertility
- Deer tolerant

Bloom Period:
- June – August

Culture Concerns:
- Spreads rapidly

Ceratostigma plumbaginoides

English Daisies

Characteristics:
Nectar source
4 - 6 inches tall

Location:
Full sun

Plant Spacing:
6 inch centers

Care and Feeding:
Heavy fertility
Deer tolerant

Bloom Period:
June

Culture Concerns:
Spreads rapidly

Bellis perennis

Candytuft

Characteristics:
Spring flower
Drought tolerant
8 - 12 inches tall

Location:
Full sun

Plant Spacing:
6 inch centers

Care and Feeding:
Moderate fertility
Deer tolerant

Bloom Period:
March-April

Culture Concerns:
Trim flat before mid summer growth flush for even blooms

Iberis sempervirens

Chameleon Plant

Characteristics:
Groundcover
6 - 8 inches tall

Location:
Full/partial shade

Plant Spacing:
8 inch centers

Care and Feeding:
Low fertility
No drought
Deer tolerant

Bloom Period:
Inconspicuous

Culture Concerns:
Can be invasive in moist sites

Houttuynia cordata 'Chameleon'

Thrift

Characteristics:
- Nectar source
- Drought tolerant
- 3 - 6 inches tall

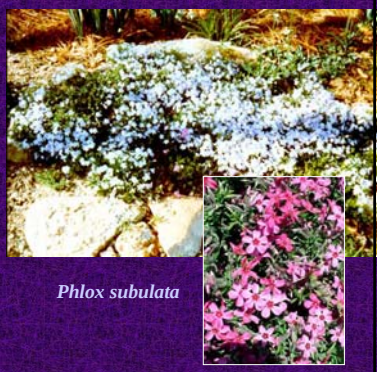
Location:
- Full sun

Plant Spacing:
- 4 inch pots on
- 8 - 10 inch centers

Care and Feeding:
- Heavy fertility
- Well-drained soils

Bloom Period:
- March-April

Culture Concerns:
- Mites



Phlox subulata

Cheddar Pinks

Characteristics:
- Nectar source
- Drought tolerant
- Good winter foliage
- 8 - 12 inches tall

Location:
- Full sun

Plant Spacing:
- 4 inch pots on
- 8 - 10 inch centers

Care and Feeding:
- Moderate fertility
- Deer tolerant
- Well-drained soils

Bloom Period:
- May-June

Culture Concerns:
- Root rots in summer

Dianthuis gratianopolitanus

Obedient Plant

Characteristics:
- Drought tolerant
- 36 - 54 inches tall
- Cut flower

Location:
- Full sun

Plant Spacing:
- 8 - 12 inch centers

Care and Feeding:
- Low fertility
- Deer tolerant

Bloom Period:
- July - August

Culture Concerns:
- Aggressive growth

Physostegia virginiana

Golden Yarrow

Characteristics:
- Nectar source
- Drought tolerant
- 15 - 20 inches tall

Location:
- Full sun

Plant Spacing:
- 6 - 8 inch centers

Care and Feeding:
- Low fertility
- Deer tolerant

Bloom Period:
- June - July

Culture Concerns:
- Aggressive, gets leggy if fertilized

Achillea filipendula

Unusual Perennials

Crinum Lily

Characteristics:
- Nectar source
- Drought tolerant
- 36 - 50 inches tall

Location:
- Full sun

Plant Spacing:
- Bulbs on 8" centers

Care and Feeding:
- Heavy fertility
- Well drained soils
- Deer tolerant

Bloom Period:
- June – July

Culture Concerns:
- Clean debris away in winter – requires well-drained sites

Crinum ssp.

Joe Pye Weed

Characteristics:
Nectar source
Drought tolerant
24 - 54 inches tall

Location:
Partial shade
Full sun

Plant Spacing:
12 - 18 inch centers

Care and Feeding:
Moderate fertility
No drought
Deer tolerant

Bloom Period:
July - August

Culture Concerns:
Young plants may need staking

Eupatorium purpureum

Tibouchinia Athens Blue

Characteristics:
Hardy to zone 7
48 - 60 inches tall

Location:
Full sun
Requires irrigation

Plant Spacing:
12 inch centers

Care and Feeding:
Heavy fertility
Deer tolerant

Bloom Period:
August - October

Culture Concerns:
Mulch heavily in winter.

Tibouchina grandiflora 'Athens Blue'

Bethlehem Sage

Characteristics:
Great foliage
12 - 15 inches tall

Location:
Part-full shade

Plant Spacing:
14 inch centers

Care and Feeding:
Moderate fertility
No drought
Organic soils
Well-drained soils

Bloom Period:
June

Culture Concerns:
Do not mulch heavily

Pulmonaria saccharata

Japanese Aster

Characteristics:
Very floriferous
15 - 30 inches tall

Location:
Full sun

Plant Spacing:
10 inch centers

Care and Feeding:
Moderate fertility
Well-drained soils

Bloom Period:
June – August

Culture Concerns:
Do not mulch heavily

Kalimeris pinnatifida

Blue Nile Lily

Characteristics:
Great flowers
20 - 25 inches tall

Location:
Part - full sun
Near foundations

Plant Spacing:
14 inch centers

Care and Feeding:
Moderate fertility
No drought
Organic soils
Well-drained soils

Bloom Period:
May-June

Culture Concerns:
Mulch heavily

Agapanthus praecox

Garden Dahlia

Characteristics:
Large flowers
12 - 25 inches tall

Location:
Full sun

Plant Spacing:
12 inch centers

Care and Feeding:
Moderate fertility
No drought
Organic soils
Well-drained soils

Bloom Period:
June - September

Culture Concerns:
Mulch heavily or lift tubers in North Georgia

Dahlia ssp.

Coral Vine

Characteristics:
Decorative foliage
3 - 5 feet / season

Location:
Part - full sun

Plant Spacing:
14 inch centers

Care and Feeding:
Moderate fertility
No drought
Organic soils
Well drained soils

Bloom Period:
July - August

Culture Concerns:
Spindly in low light

Antigonon leptopus

Harlequin Glory Bower

Characteristics:
Drought tolerant
60 - 120 inches tall!

Location:
Full sun - part shade

Plant Spacing:
4 foot centers

Care and Feeding:
Moderate fertility
Well-drained soils

Bloom Period:
July – August

Culture Concerns:
Spreads by runners. Can get tree-like when mature

Clerodendrum trichotomum

Cuphea 'Georgia Scarlet'

Happy Gardening!