Warm Season Annuals

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Assigned Readings for Plant List 9

Read the pages in your textbook associated with the family descriptions and individual taxa covered on Plant List 9 that was distributed in lab. These plant lists are also available on the course website.

http://aggie-horticulture.tamu.edu/syllabi/308/home/frameset.htm

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Assigned Readings for Plant List 9

Timing sowing / transplant for fall displays

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Warm Season Annuals

- Adapted to the peak of summer’s heat
- Many languish or stunt in cool weather
- Not necessarily drought or sun tolerant
- Some tropical perennials or woody plants are used as summer annuals in cooler regions
  - Old-fashioned practice enjoying a resurgence of popularity
Capsicum annuum
Ornamental Pepper

- Native S. Texas woody subshrub used as an annual in cooler climates
- Source of most commercial edible pepper cultivars
- Tolerates sun or partial shade, more fruit in sun
- Tolerant of variable soil pH

Caution can easily be confused with poisonous relatives.

Capsicum annuum var. glabriusculum

- Heat, but not particularly drought tolerant
- Fruit are primary asset, variegated foliage on some cultivars
- Sap from fruit and foliage can be an irritant

Summer Annuals For Foliage

- Major economic crop
- Great for design element for edible landscapes
**Caladium bicolor**

- Tropical perennial used as summer annual
- Valued for large variegated heart-shaped leaves
  - Smaller version of elephant ear with variegation
  - Green, red, pink, white leaves, flower insignificant
- Upright 1’ - 2’ leaf stalks from tuber

**Caladium bicolor**

- Needs rich moist organic soil, fertility, and shade
- Fade and / or foliar burn in sun; slugs can be a problem
- Shade massing & borders, tropical groundcover, patio pots / containers, interiorscaping (high light only)
- Buy established plants, very slow to grow from tubers

**Solenostemon scutellarioides**  
*(Coleus × hybridus)*

- Tropical USDA z. 10-13 perennial treated as a summer annual
- Excellent shade color plants, 1’- 3’
- Grown for variegated foliage
  - Green, red, yellow, pink, bronze, white, ruffled, multi-tone

Harmonious color combinations, nice blending of textural contrasts, and interesting use of forms
**Solenostemon scutellarioides**
**Coleus**
- Flowers are usually a detraction
- Majority of cultivars in shade, a few for sun in Texas
  - Ex. ‘Burgundy Sun’ & ‘Plum Parfait’
- Heat but not drought tolerant, some insect problems
- Massing, containers, baskets, interiorscapes

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**Senecio cineraria**
**Dusty Miller**
- Perennial, USDA z.9 (8) - 13, subshrub grown as a spring / transition / cool or warm season annual
- Grown for silver-gray to silver-white foliage
- Subshrub to 3’ tall, mostly 6” to 12” rosette
- Blooms signal end of useful life as an annual

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**Senecio cineraria**
**Dusty Miller**
- Survives drought, but best in moist well drained soil
- Root rots in wet soil and high humidity, scraggly in summer of second year, shrub-like in USDA z. 9-13

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**Summer Annuals For Bedding/Massing in Shade**
**Begonia semperflorens-cultorum**

**Waxleaf Begonia**

- USDA z. 9b-13 perennial used as summer annual
- Mostly squat 6” to 12” tight mounds of foliage
  - Foliage thick & waxy, glossy, green to bronze-red
  - White, pink, or red single or double flowers
  - Flowers tend to be partly hidden by foliage

**Begonia spp. Other Begonias**

Mostly useful in interiorscapes or shaded containers/hanging baskets

**Impatiens wallerana**

**Impatiens**

- Tropical USDA zone 10-13 perennial treated as summer annual
- Good annuals for summer flower color in shaded locations, mounding 6” to 2’ tall plants; colorful pillow of singles/doubles

**Begonia semperflorens-cultorum**

**Waxleaf Begonia**

- Full sun to medium shade, cultivar dependent
- Reduce soil splashing to avoid bacterial rots; do not shear
- Bedding, edging, hanging baskets, containers, interiorscaping
**Impatiens wallerana**  
- Melt in Texas sun, sun acceptable in north  
- Require constant moist but well drained soils  
- Can be used as indicator plants for drought  
- Recent problems with viruses  

**Impatiens × ‘New Guinea Hybrids’**  
- Good substitutes for *I. wallerana* in regions with milder summers  
- Usually poor performer in Texas summer  
- Darker glossier leaf & variegated forms  
- Wider flower color range than *I. wallerana*  

**Summer Annuals For Bedding/Massing in Sun**  

**Catharanthus roseus** (Vinca or Periwinkle)  
- Subtropical used as summer annual  
- 1’ to 2’ mound of dark glossy green foliage  
- Season long 1” diameter white, pink, lavender, purple flowers
**Catharanthus roseus**
*Vinca or Periwinkle*
- Best in moist well drained organic matter soils, full sun to part shade, **DO NOT PLANT EARLY** (after June 1)
- Aerial *Phytophthora* is a major limitation; can be weedy
- Bedding, massing, annual groundcover, patio containers, window boxes, hanging baskets

**Evolvulus glomeratus subsp. grandiflorus**
*Blue Daze*
- Tropical used as summer annual
- Flat mound, 2’ - 3’ wide x 4”- 8” tall
- Frosted green - blue-green foliage
- Sky blue to purple-blue 1” flowers
  - Spring to frost, profuse in summer heat, reduced in shade
- Very heat tolerant, moderate salt, & high pH tolerance, but not overly drought tolerant
- Survives full sun, but best with light afternoon shade
- Edging, bedding, tropical or summer groundcover, containers, hanging baskets

**Gazania rigens**
*Gazania*
- Clump-forming evergreen perennial [USDA z.9 (8b) - 13] or season-long annual in cooler zones
- Dark lustrous green leaves above, silver beneath or allover, basal rosette with flower stalks above foliage to 6” to 8” tall
- Striking nearly iridescent 2” to 3” diameter composite heads
  - Rays pinwheel-like; single, bi-, or tri-colored
  - Wide color range; nearly year-round bloom

**Aerial Phytophthora on Catharanthus roseus**
*Courtesy of Dr. Larry Barnes, formerly Texas A&M AgriLife Extension*
**Gazania rigens**

Gazania

- Plant on close spacings for full effect; full sun to partial shade in nearly any well-drained soil
- Heat, drought, sun, and wind tolerant
- Edging, bedding, containers, high light conservatories; rock gardens; xeriscapes
- *Gazania rigens* var. *uniflora*, Trailing Gazania, is vine-like groundcover form with silver foliage & yellow flowers; less cold hardy; USDA z. 9a (9b) - 13

**Do We Really Want A Focal Point Here?**

**Helenium amarum**

Bitterweed

- Native wildflower to Eastern & Central U.S., including Texas
- Light airy filamentous foliage with small yellow daisies from spring to fall
- Form variable; wild types more upright and open at base, especially in competition
  - ‘Dakota Gold’ is a short spreader developed from TAMU genotypes
- Tolerates heat, drought, wind, some salt exposure, and poor fertility soils
- Can be sheared or mown; low maintenance bedding and naturalizing
- Needs a well-drained soil, but clay is acceptable
- Root and crown rots in wet soils
- Agromyzid flies bore into stems in late summer

Agromyzid fly damage

'Dakota Gold'
**Gomphrena globosa**

Globe Amaranth

- Summer annual
  - 1’ to 2’ (3’) tall rounded to sprawling mound
- Globe shaped flower elongating to tubular
  - White, purple, or pink
  - Very long bloom time, good cut or dried flower
  - Peak in late summer heat

**Gomphrena haageana**

Red Gomphrena

- Very similar to *G. globosa*, but lankier, sprawling & open in habit
- Flowers red to orange, elongating cone-shape
- Similar tough mid- to late-season bloom

**Gomphrena ‘Fireworks’**

Fireworks Amaranth

- Sun, pH adaptable, heat & drought tolerant
- Bedding, massing, containers, lankier cultivars sprawling over wall or in baskets
- Flowers red to orange, elongating cone-shape
- Similar tough mid- to late-season bloom

Too well adapted?
**Pentas lanceolata**  
**Pentas**
- Evergreen subtropical / tropical shrub (USDA zones 9b-13) most often used as a summer annual
- Variable in habit; older cultivars upright and leggy to 3’ or more; newer dwarf cultivars compact & 8”-18”
- Dark green leaves contrast with terminal corymbs of star-shaped flowers
- Bright lip-stick red, pink, lilac, or white

**Pentas lanceolata**  
**Pentas**
- Aphids, white flies, spider mites, root rots
- Cultivar performance is highly variable even within a series
- Good fertile well drained soil and mostly sunny site; bit temperamental

**Rose Moss or Moss Rose**  
**Portulaca grandiflora**
- Reseeding summer annual, 6” - 10” tall
- Succulent-like foliage, adds xeric flavor
- Rainbow of solid, bicolors, single, & double flowers, most close in afternoon
- One of our best summer annuals; any well drained soil, tolerant of salt, heat, drought, high pH soils, full sun
- Bedding, rock gardens, containers, edging, hanging baskets, seasonal groundcover

**Portulaca oleracea**  
**Purslane**
- Similar usage and growth requirements to *Portulaca grandiflora*, but less refined
- Flowers can be more striking than *P. grandiflora*, but tends to be weedier and coarser; tropical groundcover
- 8” mat, denser than *P. grandiflora*
- Widely used in tropics, good for summer color
**Zinnia angustifolia**
Mexican Zinnia

- Single orange to white daisy-like flowers, 8” - 12” tall
- Very heat and mildly drought tolerant, better if grown in less humid climates

**Helianthus annuus**
Common Sunflower

- Classic old-fashioned summer annual
- Grown for landscape, floral ornament or commercial seed production, edible seeds, wildlife food
- Tend to bloom themselves to death & very coarse
- New varieties from 2’ to 10’ tall, flowers with more & showier ray flowers in yellow, orange, red, & maroon are available
- Plant in succession

Hybrids of Z. angustifolia x Z. elegans (Zinnia x marylandica) are variable in performance

Initially marketed as Profusion Series names, now others like Zahara series are available.
**Tithonia rotundifolia**  
**Mexican Sunflower**

- Coarse textured annual with yellow, yellow-orange, to red-orange composite flowers
- Species type and older selections 4’ to 6’ tall, newer compact dwarf forms only about 2’ tall
- Seldom last all summer in our area, tending to bloom themselves out by mid-summer
- Successive sowings are possible

**Rudbeckia hirta var. pulcherrima**  
**Black-Eyed Susan**

- A short-lived herbaceous perennials, USDA zones 5 (4) - 9, often grown regionally as annuals
- Winter or early season rosettes becoming mounds of erect stems with terminal daisy-like flowers
- Typically yellow ray flowers surrounding dark brown disk flowers; newer selections & hybrids may have yellow disks

**Rudbeckia hirta var. pulcherrima**  
**Black-Eyed Susan**

- Gets powdery mildew in heat & humidity
- Most any moderately well drained soil; full sun to part shade; irrigation and deadheading will prolong bloom
- Texas native; perennial & annual borders; massing; naturalizing, wildflower mixes, cut flowers
**Ricinus communis**  
**Castor Bean**  
- Handsomely coarse textured tropical shrub / small tree used as an old-fashioned summer annual elsewhere  
- Green to bronze foliage; lushly tropical appearance & rapid growth  
- Spikes of pink to red flowers

**Senna alata**  
(formerly Cassia alata)  
**Candlestick Tree**  
- Small tropical tree, USDA z. 10(9) - 13, often used as a summer annual  
- Boldness is key: size, flowers, foliage  
- Dark rich dense rounded canopy  
- Rapid growth to 6’ or 8’ tall from seed  
- Off-season late summer/early fall bloom  
- Spectacular golden yellow candles  
- Grows in almost any sunny location

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