Annuals and Perennials

Annuals

- Complete life cycle in one growing season
- Spring and fall annuals, AZ different than other climates
- Provide instant color, long season of bloom
- Labor intensive bed preparation
- Some have high maintenance requirements

Important winter annuals

- petunia
- pansy
- snapdragon
- alyssum
- geranium
- lobelia

Important summer annuals

- vinca
- pentas
- angelonia
- ipomoea
- celosia
- portulaca
- lantana, a perennial, is used as annual

Perennials

- Herbaceous annuals
  - summer and winter
- Herbaceous perennials
  - bulbs, grasses, flowering herbaceous plants
- Wildflowers
- Roses

Annuals

- Cool-weather plants (winter annuals)
  - Planted Sept. – Nov. at low elevations
  - Planted in spring at higher elevations
  - Bloom fall through spring

- Heat-tolerant plants (summer annuals)
  - Planted after last spring frost
  - Bloom through summer and fall

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Transition plants
Sometimes planted before or after summer annuals, don’t last an entire season

poppy  anemones
ranunculus  canna
chrysanthemum  heliotrope
marigold  coleus
kale  calla lilies
gerbera

Perennials

- Last several years depending on species
- Provide seasonal color
- May die back during their off season (winter or summer)
- Require maintenance
- Many perennials are used as annuals

Perennials

When planting perennials consider:
- Light requirement
- Good soil drainage
- Time of bloom
- Plant height
- Flower color
- Foliage color and persistence

Ornamental grasses

- Year-round interest
- Low maintenance
- Low water need

Soil preparation for annuals

- Select good location
  - desired light levels
  - free of debris, weeds
  - loose, fertile, well-drained soil

Work soil only if not too wet or too dry.

Soil preparation for annuals

- Irrigate a day before preparing bed if soil is dry
- Organic amendments
  Add 3-4 inches on top of soil to improve water-holding capacity, drainage, aeration
  Compost, peat moss
- Incorporate into the top 8-12” of soil
Soil preparation for annuals

• Soil test to determine if fertilizer is needed

• Fertilizers
  – Add N and S shortly before planting
  – 1-2 lb of ammonium phosphate (16-20-0)
  – 3 lb of sulfur per 100 square feet
  – Incorporate 6-8 inches deep

Selecting a good quality bedding plant

Good quality bedding plant:
Important to ensure successful transplanting, establishment, and good performance. Plants that are too small or overgrown establish very slowly or not at all.

Selecting a good quality bedding plant

• Good quality plants:
  • Large enough top for the size container they grow in
  • Healthy green or appropriate color foliage
  • Regular size leaves, and no damaged leaves, stems, or flowers
  • Good number of flower buds and a few open flowers
  • Roots visible throughout root ball with healthy white root tips
  • No mat of circling roots at the base or sides of the root ball

Planting

• Use a trowel to dig a planting hole about the size of the root ball
• Gently loosen root ball if necessary and set in planting hole
• Plant at crown level, not too high and not too deep, barely cover top of container media with soil
• Pinch off any damaged plant parts, spent flowers or yellow leaves
• Gently fill and tamp soil around plant, do not pack soil hard around the plant

Follow-up care

• Set irrigation to a schedule based on the local soil conditions and weather
• Fertilize every 3-6 weeks with a balanced fertilizer to stimulate growth and flowering
• Deadhead spent flowers down to a lower branch or leaf base
• Inspect plants for insects and disease, remove dying plants, and treat as appropriate
• Inspect bed for weeds and if present remove
• Inspect if mulch needs replacement

Planting

• Water by hand every half hour or every section
• Do not leave tags from nursery container in the planted bed
• Mulch to a depth of 1” to 2” as appropriate for plant species
• When finished planting, water again
• Water every other day until plants can go on a regular schedule depending on weather
Maintenance of perennials

- Cutting back
- Staking
- Deadheading
- Mulching
- Fertilizing
- Dividing after several years

Wildflowers

- Plant in full sun
- Plant in well drained soil
- Rake seed bed before seeding about 1 inch deep and remove weeds
- Follow directions on wildflower seed label for amount of seed to use (e.g. 0.5 lbs/1000 squ. ft.)
- Sow seed, rake in lightly and press into soil until barely covered

Wildflowers

- Water frequently until seedlings are well established, then reduce irrigation
- Control weeds and thin thick patches of seedlings
- Fertilizer is not necessary unless the area is depleted of nutrients, if needed, use low N product at very low rate
- Irrigation during bloom can extend flowering
- Once flowers dry up allow to set seeds, mow to 4-6 inches to disperse seeds

Roses

Rose grades of bare root plants:
- No. 1 – three or more canes pencil thick
- No. 1-1/2 – two canes pencil thick

Roses can be purchased:
- Bare root
- Packaged
- Containerized

Planting roses

- Select healthy plants, immerse roots in water for a few hours before planting
- Plant bare root roses in mid-December through January in Southern and Western Arizona, in March and April in Northern Arizona. Container plants can be planted during the growing season.
- Plant in fertile, well-drained soil
- Space hybrid teas 3’ to 5’ apart, others to accommodate final plant size

Maintaining roses

- Irrigate deeply.
- Fertilize every 4 weeks from February until October, except in summer.
- Prune out dead and diseased wood, weak and crossing canes. Major pruning in late winter, minor pruning as necessary.
- Moderate pruning involves leaving 5-12 canes about 18-24 inches tall.
- Dead head flowers down to the next leaf with 5 leaflets.
- Learn about how to prune individual types of roses.
Flower bed design examples

Design examples continued

Mass display

Themed

Height

Layered

Design continued

Annual beds

Perennial beds

**Centaurea gymnocarpa**
dusty miller
winter annual, full sun to partial shade

**Lobelia erinus**
blue lobelia
Winter, full sun annual
**Viola x wittrockiana**  
Pansy  
Full sun to partial shade, winter annual, many varieties available

**Dianthus spp.**  
Dianthus or Sweet William  
Full sun winter annual

**Salvia coccinea**  
Tropical sage  
Full sun to partial shade, transitional annual, may survive winter and summer depending on exposure

**Angelonia angustifolia**  
Summer snapdragon  
Summer annual, full sun but best with filtered shade

**Ipomoea batatas**  
Sweet potato vine  
Summer annual, full sun to full shade, may last through winter if no frost

**Antirrhinum majus**  
Snapdragon  
Winter full sun annual
Matthiola incana
stock
Fragrant winter annual

Catharanthus roseus
vinca
Summer annual, full sun, botanical name important so as not to confuse with Vinca major the shade ground cover

Coleus spp.
coleus
For shade, transitional season, summer and winter, depending on exposure

Lantana montevidensis
purple trailing lantana
Full sun, summer flowering perennial

Lantana camara
bush lantana
Full sun, summer flowering perennial

Lantana hybrid
lantana ground cover, full sun, summer flowering perennial
**Petunia hybrida**  
Petunia  
Full sun, winter annual, may last into early summer

**Lobularia maritima**  
Sweet alyssum  
Winter annual, available in shades of blue to white, full sun to partial shade

**Pelargonium spp.**  
Geranium  
Winter annual, full sun, available in many cultivars and colors

**Pentas lanceolata**  
Star flower/ star clusters  
Full sun, summer annual

**Portulaca spp.**  
Moss rose or purslane  
Full sun to partial shade, summer annual

**Celosia spp.**  
Cockscomb  
Full sun, summer annual, manageable variety is called ‘New Look’