Annuals and Perennials

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http://ag.arizona.edu/extension/ornamentalhort
Annuals and Perennials

* Herbaceous annuals
  summer and winter

* Herbaceous perennials
  bulbs, grasses, flowering herbaceous plants

* Wildflowers

* Roses
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
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
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
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
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
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
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 seedling
- 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. 11/2 – 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, not 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

Height

Mass display
Design examples continued

Layered

Themed
Design continued

Perennial beds

Annual beds
Resources

University of Arizona Cooperative Extension Publications:
+ Flower Planting Guide for the Low Desert (1999)
  http://ag.arizona.edu/pubs/garden/az1100.pdf
+ Rose Selection and Planting in the Low Desert (2002)
  http://ag.arizona.edu/pubs/garden/az1304.pdf
+ Diagnosing Problems of Roses in the Landscape (2010)
  http://cals.arizona.edu/pubs/garden/az1528.pdf
+ Damping – Off (2011)
  http://ag.arizona.edu/pubs/crops/az1029.pdf
+ Diseases of Urban Plants in Arizona (1999)
  http://ag.arizona.edu/pubs/diseases/az1124.pdf
+ Annuals for Northern Arizona above 6,000 feet (2002)
  http://ag.arizona.edu/pubs/garden/az1255.pdf
+ Perennials for Northern Arizona above 6,000 feet (2002)
  http://cals.arizona.edu/pubs/garden/az1256.pdf
+ Javelina Resistant Plants (2010)
  http://ag.arizona.edu/pubs/garden/az1238.pdf
  http://cals.arizona.edu/pubs/garden/az1415.pdf