Spring Bulbs

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“Geophytes”

- **Bulbs**
  - short underground stem, fleshy scales store food; daffodils, tulips

- **Corms**
  - swollen underground stem, broader than high; crocus, gladiolus

- **Tubers**
  - thickened underground stem; dahlia
• Spring Bulb Types
  • Tulips
  • Daffodils
  • Hyacinth
  • Minor bulbs

• Design

• Planting and Care
• Bulb Types

• Tulips
  • 15 classes
  • generally annual unless noted as perennial (Darwin)
  • NOT deer/ mammal resistant

• Daffodils
• Hyacinths
• Minor bulbs
Pardon our 2005 Tulip Displays
Deer have eaten the Tulips

Niagara Parks, Ontario
origin of tulips in cultivation

Clusius

original tulip garden
botanic garden
Leiden, Holland
1. Single Early Tulip

- early to mid season
- 6-18”
- first tulips, date to late 1500’s

Christmas Marvel
2. Double Early Tulip

- early to mid season
- 12-18”
- date from mid 1700s

Electra
3. Triumph Tulip

- mid season
- 18-24”
- characteristic shape
- from earlier Mendel type

Attila
4. Darwin hybrid Tulip

- mid season
- 24-36”
- often cup or egg shape
- often perennial
- from Belgium monks, early 1800’s

Apeldoorn
Darwin tulips, Hortus Bulborum
historic bulb garden, Holland
5. Single Late Tulip

- late season
- 24-36”

Aristocrat
6. Lily-flowered Tulip

- mid to late season
- 18-24”
- from late 1800’s

West Point
7. Fringed Tulip

- late season
- 18-24”

Nippon
8. Viridiflora Tulip

- late season
- 18-24”
- \((\text{viridis}=\text{green})\)

Spring Green
9. Rembrandt Tulip

- late season
- 18-24”
- virus streaking, so true Rembrandts rare
- type painted by Rembrandt, 1600’s
- “tulipmania”

Union Jack—single late
10. Parrot Tulip

- mid to late season
- 22-28”

White Parrot
Parrot tulips

Texas Flame

Green Wave

Apricot Parrot
11. Double Late Tulip

- late season
- 24-30”
- “peony-flowered”

Carnaval de Nice
12. Kaufmanniana Tulip

- early season
- 6-12”
- straplike leaves

Johann Strauss
13. Fosteriana Tulip

very early season

6-18”

Concerto
14. Greigii Tulip

- early season
- 6-10”
- multicolored
- streaked foliage

Plaisir
15. Miscellaneous tulips

usually small species

*pulchella*
‘Persian Pearl’

*praestans*
‘Fusilier’

*tarda*
• Bulb Types
  • Tulips—15 classes
  • Daffodils
    • deer, mammal resistant
  • Hyacinths
  • Minor bulbs
1. Trumpet Daffodil

- corona (cup, trumpet) is equal to or longer than length of petals
- one flower per stem
- 14-18” tall

Dutch Master
2. Large cup Daffodil

- cup over third length of petals, but not as long as
- one flower per stem
- 14-18” tall

Ice Follies
3. Small cup Daffodil

• cup less than a third the length of petals
• one flower per stem
• 14-16” tall, early

Flower Record
4. Double Daffodil

- double petals or corona or both
- one or more flowers per stem
- 14-18” tall

Bridal Crown
5. Triandrus Daffodil

- petals reflexed
- 2 or more pendant flowers per stem
- 12-16”, late spring

Hawera
6. Cyclamineus Daffodil

- petals reflexed, flower at angle to stem with short stalk
- one flower per stem
- 6-12” tall

Surfside
7. Jonquilla Daffodil

• narrow leaves, petals not reflexed, fragrant
• 1-3 flowers per stem, rounded in xsection
• 12-16”, mid to late

Baby Moon
8. Tazetta Daffodil

- broad leaves, petals not reflexed, fragrant
- 3-20 flowers per stout stem
- 18” tall
9. Poeticus Daffodil

- petals white, cup disc-shaped, green or yellow with red rim
- one flower per stem, fragrant
- 16-18” tall

Actaea
10. Species Daffodils

• wild or hybrids, include doubles, often species shown

• cup large, petals quite small on species shown

*bulbocodium conspicuus*
11a. Split corona

(Butterfly) Daffodil

- cups split, not lobed, over half their length
- often 16-18”

**collar:** petals in two whorls of three

Palmares
11b. Split corona
(Butterfly) Daffodil

**papillon:** petals in a single whorl of six

Trepolo
12. Miscellaneous Daffodils

• other than above
• cultivar shown one of most popular low, 6”, similar to *cyclamineus*

Tête à Tête
• Bulb Types

• Tulips—15 classes

• Daffodils

• Hyacinths

• Minor bulbs
Hyacinth

- 8-12”, mid season
- generally perennial
- many colors
- fragrant
- force well

City of Haarlem
Snowdrops

- *Galanthus*
- 4-6”, early season

*nivalis*
Crocus

- 4-6”, early season
- various colors, striped, bicolors, purple most common

Pickwick

Golden Yellow
Glory of the Snow

- *Chionodoxa*
- 4-6”, early season
- blues, white

sardensis
Grape Hyacinths

- *Muscari*
- early to mid season
- 6-8”

Atlantic

Mt Hood

latifolium
Squill

- *Scilla*
- 6-8”, early to mid season
- underplant, naturalize

*sibirica*
Fritillary
several species, 8-30”

Crown Imperial, *imperialis*

*uva-vulpis*

Chequered Lily, *meleagris*
Summer Snowflake

• *Leucojum*

• 12-18”, late season

• ‘Gravetye Giant” 24”
Camassia

- Quamash
- 18-30”, late season
• Bulb Types
  • Tulips
  • Daffodils
  • Hyacinths
  • Minor bulbs

• Design

• Planting and Care
reflections in water, under deciduous trees

Keukenhof Gardens, Holland
color themes
Taco tulip, grape hyacinth

contrasting colors
color echos
shades (dark) or tints (light) of a color
massing
repetition (and line), creates visual rhythm
anemone

• **underplanting**
  – primrose, English daisy, anemone
  – especially if contrasting colors
  – no mulch or ground showing

coral bells
underplanting, under shrubs
planting in front of evergreens
islands
borders: consider effect rest of season
borders: might interplant among shrubs
borders: interplant among perennials
naturalized (daffodils, squill)
Niagara Parks, Ontario

formal (tulips, hyacinths)
raised beds

Royal Botanic Gardens, Hamilton, Ontario
• Bulb Types
  • Tulips
  • Daffodils
  • Hyacinth
  • Minor bulbs

• Design

• Planting and Care
“foot” Tools
“hand” Tools
additions

• Crushed shells or stones
  – in holes or beds on top of bulbs
  – deters mammals digging

planting layers:

soil—2-5 in.
shells/stones
bulb
soil—0.5-1 in.
fertilizer

bulb fertilizer
sharp stones, or...
crushed shells
Fertilizer/ bulb food

- phosphorus, eg X-20-X,
  - superphosphate (synthetic) or rock phosphate (organic)
  - not bone meal—attracts mammals
- or complete, eg N-P-K, “bulb food”
- new: under bulb when planting
  - not in direct contact, soil between
- established: top dress fall or spring, and after bloom
Bulb quality, size

crocus

new old
Bulb quality, size

daffodil single double
Planting--how

• single holes
  – daffodils: bulb planter
  – minor bulbs: trowel or similar

• trenches/beds
  – tulips, hyacinths: bulb planter or spade/shovel
Planting--depth

- minor bulbs, 2-3 in. deep
  - crocus, squill, grape hyacinth

- major bulbs, 5-6 in. deep
  - tulips, hyacinths, narcissus
  - deeper: Fritillary, cold climates, tulips if not perennial

rule of thumb: depth=2-3x diameter of bulb
Planting—spacing, layout

• spacing
  – large bulbs: 6-12 in.
  – small bulbs: 2-6 in.
  – varies with effect, budget

• layout
  – formal: tulips, hyacinths
    • symmetrical, even numbers
  – informal: daffodils, minor bulbs
    • random, odd numbers
planting in beds

expanded wire mesh

½ inch soil on top of fertilizer

fertilizer
planting in beds

7 in. deep

perennial tulips

new

old

tulips 6 in. apart
planting in beds--layering

soil on top of:
• fertilizer
• tulips (4” soil)
• crocus (2” soil)

crocus 2 in. deep
planting in beds

--wire mesh on top, remove in spring
--poultry wire less durable but cheaper
--hardware cloth good compromise
planting kits

dig hole, plant, cover with soil

sprinkle fertilizer on top

paper tray decomposes
Forcing

- plant bulbs in pot, tips at pot tops
- give cool (40°F, non-frozen) 12 weeks+ (old fridge, unheated inside)
- bring into warm, keep watered
- most spring bulbs, some tulips better
  - mix minor bulbs with large

6” pot:
4 tulips,
3 daffodils
potted bulbs in sawdust in wire cage
containers:
force in pots, spring place into containers
Perry’s Perennial Pages
(search on Google, or)
perrysperennials.info

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