

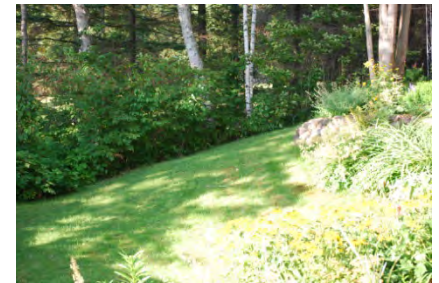


SUN GARDENS

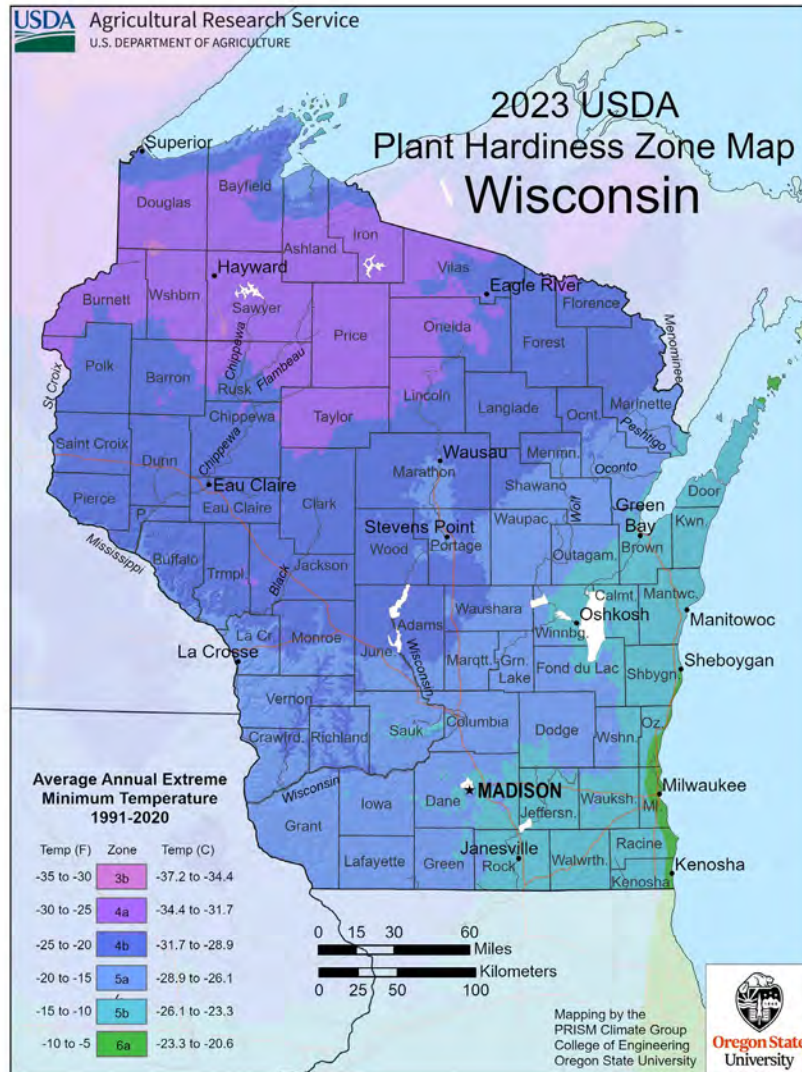
Sue Reinardy, UW Extension Master Gardener

TYPES OF SUN EXPOSURES

- Full Sun – sunshine from dawn to sunset
- Sun – more than 6 hours a day
- Part Sun – a few hours of strong sunshine usually at midday or afternoon
- Part Shade – usually provide sunshine in the morning when less intense
- Open Shade – weaker sunshine in morning or afternoon but not at midday
- Dappled – drifting pools of sunshine



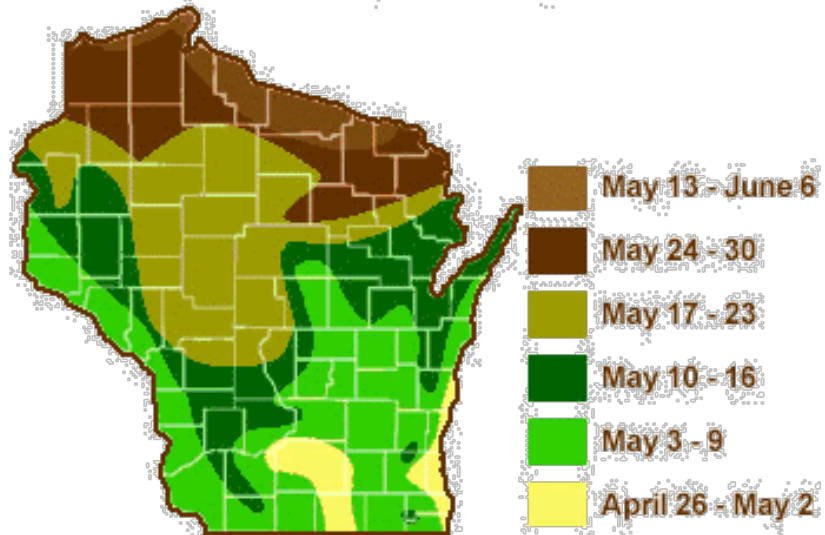
USDA HARDINESS AND AHS HEAT ZONES



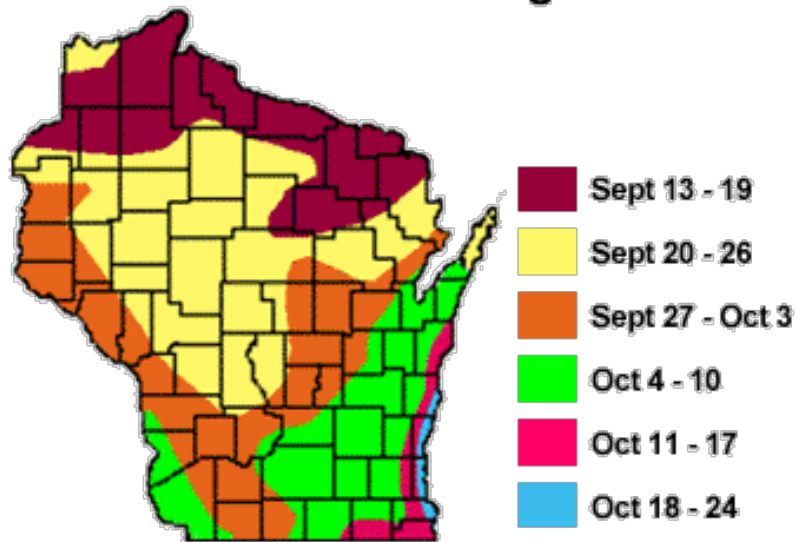
- Cold Hardiness Zone 4a – Average annual extreme minimum temperature is -30 to -25 degrees
- AHS Heat Zones 3-4 – average number of days each year above 86 degrees is zone 3 (7-14 days) and zone 4 (14-30)



Last Spring Killing Frost



First Fall Killing Frost



PRAIRIE PLANT COMMUNITY



- Full sun 8 to 12 hours a day
- Less than 20% canopy closure
- Grasses dominate
- 50% of flowers bloom between June and August, 25% in spring, 25% bloom in fall
- Broad leafed plants (other than grasses) dominate in terms of diversity



BOTANICAL LATIN 101



Hydrangea

paniculata

‘Grandiflora’



Genus

Specific
Epithet

Cultivar



Species



Botanical Name



NATIVE TREES BEST FOR LANDSCAPE USE



- *Acer* species (maples)
- *Betula* species (birch)
- *Carpinus caroliniana* (blue beech)
- *Celtis occidentalis* (hackberry)
- *Quercus* species (oaks)
- *Tilia americana* (basswood, linden)



CONIFERS



- Most require full to partial sun, slightly acidic soil, good air circulation
- Conifers do not stop growing:
 - Large – grow 12 inches or more per year
 - Intermediate – grow 6-12 inches per year
 - Dwarf – grow 3-6 inches per year
 - Miniature -- grow less than 3 inches per year



NATIVE CONIFERS

- Juniper
 - Prefers neutral to slightly acidic well-drained soil in full sun; tolerates drought and wind
- Balsam fir
 - Best in cool, damp places in partial shade to sun, keep away from hot, drying winds
- White Spruce
 - Best in well-drained, slightly acidic soils in full sun, keep away from winter winds and road salt
- White Pine
 - Best in fertile, acidic, well-drained soils in full sun. Does not need protection from winds but keep away from road salt
- White cedar-arborvitae
 - Moisture retentive soil in full sun or part shade, keep away from dry, windswept locations



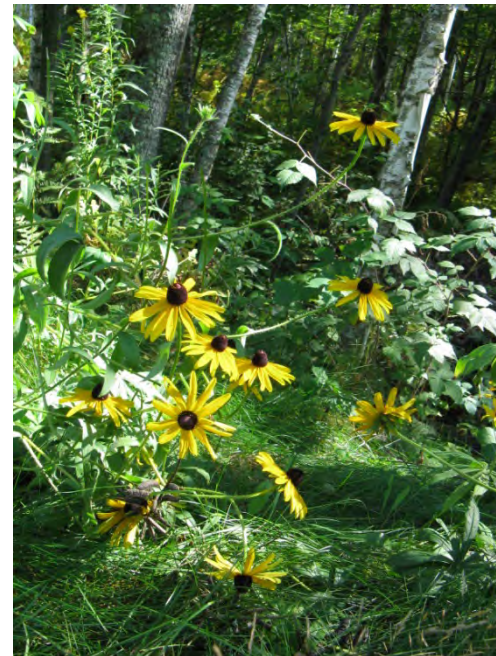
NATIVE LANDSCAPE SHRUBS

- *Amelanchier* species (serviceberries)
- *Ilex verticillata* (winterberry)
- *Physocarpus opulifolius* cultivars (ninebark)
- *Potentilla fruticosa* cultivars (shrubby cinquefoil)
- *Prunus nigra* 'Princess Kay' (Canada plum)
- *Viburnum* species (viburnums)



FULL SUN NATIVE PERENNIALS

- Generally, do not like heavy clay soils
- For success need sun between 9am and 3pm
- Appreciate organic matter



BEE BALM

MONARDA, WILD BERGAMOT

- 15-48 inches tall
- Flowers bloom early to mid-summer in red, pink, purple or white
- Sun to part shade in well-drained, moist soil
- Powdery mildew can be a problem
- Attracts hummingbirds, butterflies, and bees



CONEFLOWER

ECHINACEA SPP



- Natives and hybrids
- 2-3 ft tall and wide
- Bloom July to August
- Full sun, well-drained soil, drought tolerant
- Reseed and hybridize easily: to keep the plants you started with, deadhead spent flowers or pull seedlings.





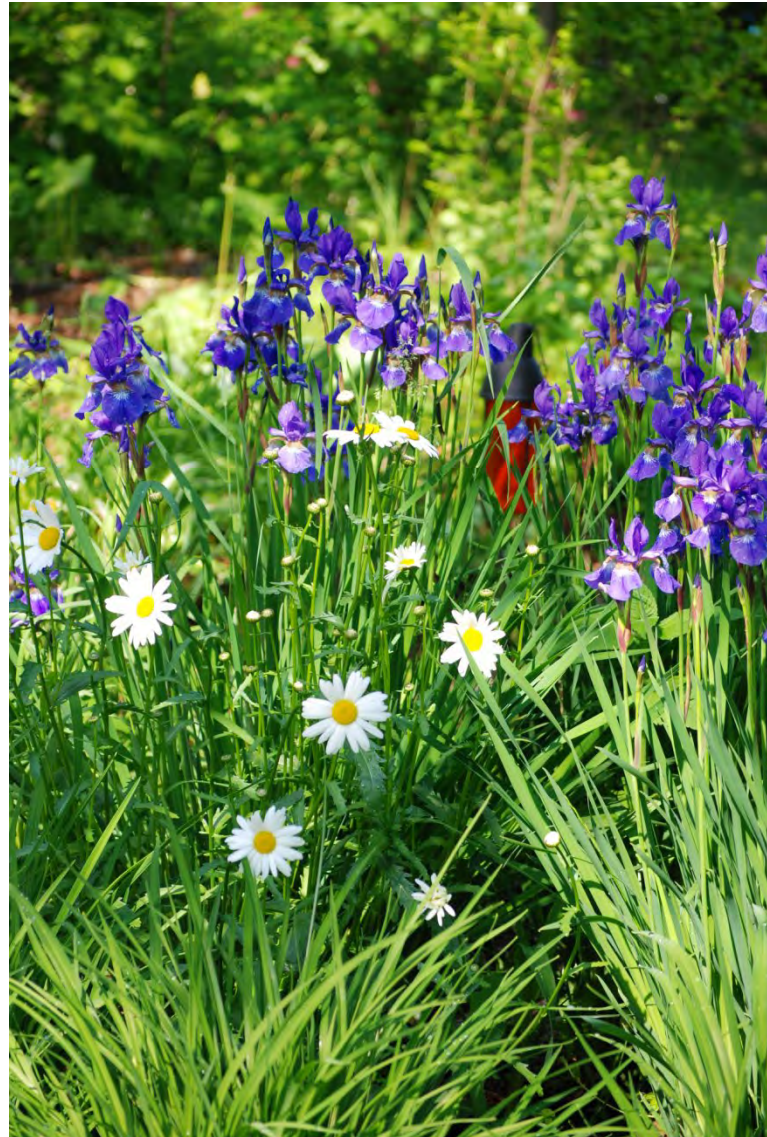
TICKSEED *COREOPSIS*

- Summer bloom
- Full sun to partial shade, well-drained soil
- Tough reseeder
- Mature plants tolerate summer drought
- Plants may flop if soil is too rich
- Deadheading will keep it blooming by cutting the whole plant back by 1/3 after flowers fade
- Can be short-lived, divide every couple of years



IRIS

- Native & Hybrids
- Full sun, well-drained
- Divide mid to late summer every 3-5 years for good blooms
- Iris borer – remove foliage in fall, if brown streaks on leaves – dig rhizomes and dip in solution of 1 part bleach to 4 parts water



COLUMBINE
AQUILEGIA



- Self-seeder, cross hybrids easily
- Hybrids tend to be short-lived
- Full to part sun; moist, well-drained soil
- Bloom in spring





BUTTERLY WEED

ASCLEPIAS TUBEROSA

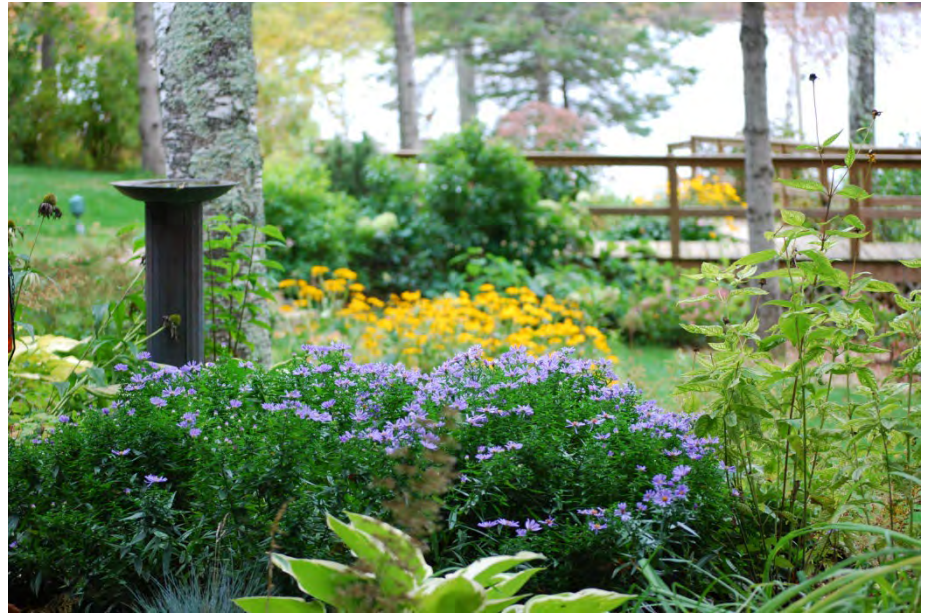
- Native to dry prairies
- Flowers from late spring to late summer
- Attracts butterflies
- Moist to dry soils in full sun to light shade
- Mature plants tolerate dry soil



ASTER

ASTER NOVAE-ANGLIAE

- Native, fall-bloomer
- Moist, average soil in full sun to part shade
- Likes consistent moisture
- Pinch back stems in late May for bushier plants
- Divide plants in spring every 3rd year
- Avoid too much nitrogen



TURTLEHEAD

CHELONE

- White turtlehead native to moist prairies
- Evenly moist to wet, rich soil in full sun to light shade
- Mature plants will tolerate dry spells
- Bloom late summer and early fall
- Plants spread by rhizomes but do not become invasive



JOE-PYE WEED

EUPATORIUM PURPUREUM



- Native to wet slopes, low prairies and woodlands
- Prefers moist, average to rich soil in full sun to light shade
- Tolerates drier conditions
- Easy to grow once established
- Divide in spring or fall
- Reseeds
- Plants too close may suffer from powdery mildew



OBEDIENT PLANT

PHYSOSTEGIA VIRGINIANA



- Full sun to part shade
- Moist, well-drained soil but will tolerate drier conditions and part shade
- Showy native, fall flowers
- Spreads aggressively by underground rhizomes
- Plant in shade for less aggressive or plant 'Miss Manners' (white), 'Variegata' (pale pink), or 'Vivid' (Rose)



BLAZING STAR OR GAYFEATHER

LIATRIS SPICATA



Photo: ©2010 Grow Native!

- Native to prairies, savannas
- Showing pink-purple flower spikes in summer
- Moist, fertile, well-drained soil in full sun
- Once established, somewhat drought resistant
- Plants can reseed
- Wisconsin's special concern list
- Attracts bees, hummingbirds, butterflies



BLACK-EYED SUSAN

RUDBECKIA HIRTA VAR. *PULCHERRIMA*

- Native
- Biennial or short-lived perennial
- Blooms attract bees and butterflies
- Winter interest
- Adapts well to container culture
- Sow seeds two years in a row for yearly blooming, once established plants will self-seed
- Rich soils tend to produce weak-stemmed plants



SPIDERWORT

TRADESCANTIA

- Native to dry, sandy grasslands and open woodlands
- Drought and heat tolerant
- Plants may go dormant after flowering, cut foliage to ground after flowering to keep plants neat and halt seed production
- Reseed and in fertile soil can become aggressive
- Lean, well-drained soil in full sun or light shade



MORE PLANTS FOR THE SUN



CATMINT

NEPETA

- Long bloom period late spring to fall
- Select sterile and less aggressive cultivars, try *nepeta x faassenii*
- Full to part sun with well-drained soils
- Drought tolerant
- Avoid high nitrogen fertilizers that can lead to floppy growth
- Remove spent flowers for tidier plants, cutback by 2/3's after first flush of blooms



CRANESBILL GERANIUM

GERANIUM SANGUINEUM



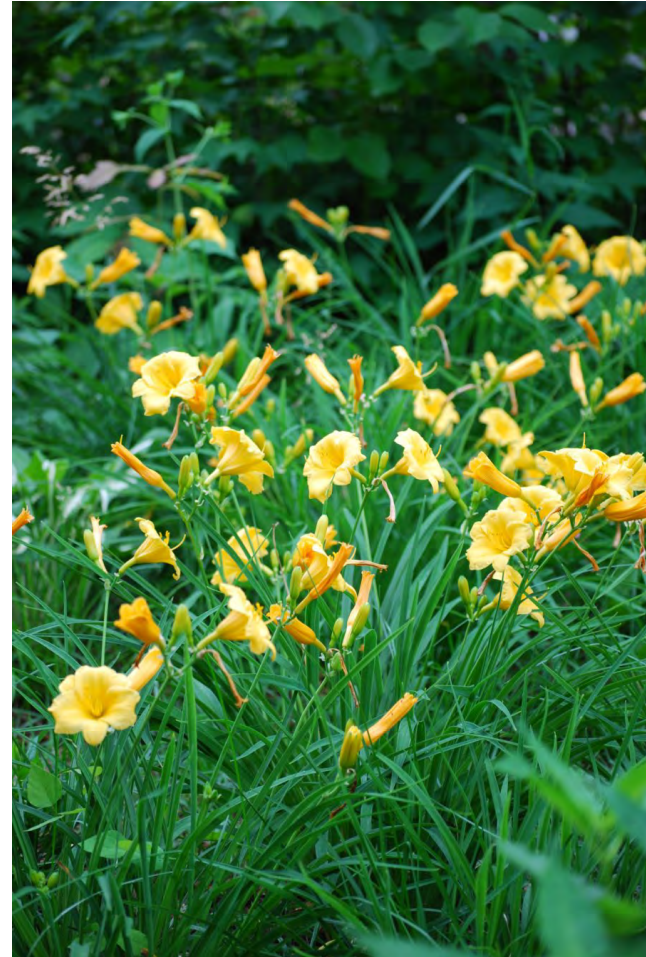
- Full sun to part shade with moist well-drained soils
- Established plants will tolerate drought
- Deadheading not needed – will bloom sporadically from late spring through summer
- Trim plants after main flower display for a new fresh look the remainder of the season
- Dig and divide when they outgrow their location
- Minimal fertilizer needed if organic material added



DAYLILY

HEMEROCALLIS, SPP. AND HYBRIDS

- Non-native, summer blooming
- Full sun to part shade
- Moist, well-drained soil
- Bigger blooms with regular watering
- Encourage more flowers on rebloomers by cutting dead stems



ORIENTAL POPPY

PAPAVER ORIENTALE



- Plant container-grown poppies any time during the growing season
- Sunny location, good drainage
- Do not respond well to transplanting, difficult to establish, but once established long-lived
- Winter mulch new plantings
- Deadheading not necessary, leave attractive seedheads for interest.
- Cultivation can damage poppy roots



PEONY

PAEONIA



- Non-native
- Plant several varieties for long bloom time
- Young plants can take up to 3 years to bloom
- Need at least 6 hours of sun daily
- Plant eyes no more than 2 inches below the surface of soil



PHLOX



- Full sun with moist, well-drained soil
- Creeping phlox prefer well-drained soils and are drought tolerant – cut them back half way after flowering to keep them attractive
- Deadhead garden phlox to extend the bloom time and keep them true to the cultivar
- Select mildew-resistant cultivars such as ‘David’
- Remove and discard leaves in fall
- Deer love Phlox!



SEDUM

- Non-native
- Low-maintenance
- Four seasons of interest
- Blooms summer to fall
- Full sun
- Lean soil, well-drained
- Reduce flopping on tall plants by cutting back by $\frac{1}{2}$ in spring when plant is 8 inches high



SHASTA DAISY

CHRYSANTHEMUM X SUPERBUM



- Keep soil moist, not wet throughout growing season
- Tend to be short lived, regular dividing (every 2-3 years) keeps plants vigorous
- Deadheading will prolong blooms, cut faded flowers back to side buds
- Prune plants to the new growth once flowering has finished
- Try 'Alaska' – tends to be longer lived and more hardy; 'Becky' are tall cultivars that do not need staking



VERONICA

- Most prefer full to part sun but will tolerate part shade
- Well-drained soils, especially for winter – keep moist in summer
- Avoid excess nitrogen that causes floppy growth and decreased bloom
- Deadhead to extend flower display, clip off faded flowers back to side buds or leaves
- Cut back by half after bloom, new growth will form compact mound
- Divide overgrown plants every 2-3 years



YARROW

ACHILLEA FILIPENDULINA

- Plant container plants anytime during growing season
- Full sun, well-drained soil
- Thrives in hot, dry locations
- Tend to flop if grown in shade or overfertilized gardens
- Deadhead to remove unattractive seedheads and to encourage longer blooming, also reduces reseeding of the more invasive species
- Prune plants back to fresh new growth after final bloom



LILACS

- Full sun, moist well-drained soils
- Remove old flower heads to encourage good flowering the next season
- Prune established plants after flowering so you won't interfere with next year's bloom, remove 1/3 of older canes to ground level
- Good air circulation (proper pruning allows air and light in) reduces mildew problems



MUGO PINE

PINUS MUGO



- Grow in sun, will tolerate light shade
- Prefer moist, well-drained soil
- Established plants are drought tolerant
- Wait a year before fertilizing new plantings, avoid excess fertilizer that can stimulate growth
- Prune in spring as the buds elongate, remove $\frac{1}{2}$ to $\frac{2}{3}$ of each candle to control size and growth



RHODODENDRON

- Prefer full sun, moist, acidic soil
- Avoid planting where leaves are subject to drying by winter wind and sun, east facing location works best
- Require little pruning, remove winter damage and thin out crowded branches in spring after flowering
- Benefit from winter protection
- Try those hardy to zone 4: 'Northern lights' or 'PJM'



SPIREA

- Tolerate a wide range of soils except wet sites
- Established plants are drought tolerant
- Fast growers and need minimal fertilizer when young and little if any once established
- Spring-blooming plants flower on last year's growth-prune just after flowering; summer-blooming plants flower on new growth-prune in late winter before growth begins. Remove 1/3 to 1/2 of older stems to ground
- Lightly shear summer-blooming spireas as the flowers fade to encourage a second flush of flowers



BULBS

- Most prefer moist, well-drained soil during growing season and a bit drier when dormant in summer
- Plant most in the fall when temperatures are consistently cool – usually early October
- Generally receive enough nutrients from perennial garden fertilizer program
- Hardy bulbs: Allium, crocus, daffodil, grape hyacinth, hyacinth, squill, tulip



HEAT AND DROUGHT



HEAT TOLERANT PLANTS

- Shrubs
 - Junipers, Yews
- Perennials
 - Artemisia, purple & yellow coneflowers, coreopsis, potentilla, sedum, yarrow
 - To help them conserve energy – deadhead spent blooms
- Grasses
 - Prairie dropseed, little bluestem, switchgrass, indiagrass
- Annuals
 - Sunflowers, globe amaranth, portulaca, zinna, marigold, salvias



DROUGHT TOLERANT PLANTS

- Achillea
- Alyssum
- Catmint
- Coreopsis
- Dianthus
- Bearded Iris
- Poppy
- Moss rose
- Salvias
- Verbena



VINES

- American Bittersweet (*Celastrus scandens*)
 - Thrives in full sun, well-drained soil
 - Need 1 male for every 5 female plants (should be labeled or many nurseries include both male and female plants in same pot)
 - Needs regular pruning in late winter before new growth; cut dead, damaged or out of place stems
- Clematis (*Clematis x jackmanii*)
 - Grow in moist, well-drained, alkaline soil in full to part sun, keep roots cool and moist
- Dropmore Scarlet Honeysuckle (*Lonicera x brownii* ‘Dropmore Scarlet’)
 - Best if planted in spring in moist, well-drained soil; full sun to full shade



CONTAINERS

Keep them looking good

- Pinch back: browallia, coleus, dichondra, licorice plant, persian shield, sweet potato vine
- Deadhead: marigold, dianthus, geranium
- Undercut: bocopa, calibrachoa, lobelia, petunia, ivy, twinspur
- Self-cleaning: Angelonia, dragon wing begonia, marguerite daisy, moss rose



PINCHING BACK PERENNIALS

- Pinch back plants that tend to flop up until a month before bloom: phlox, sedums, asters
- Add interest and stagger bloom time by pinching back a large group of identical plants
- Pinch off faded blossoms
- Do not deadhead to promote self-seeding or to provide winter interest and food for wildlife
- Good resource: *The Well-Tended Perennial Garden* by Tracy DiSabato-Aust



RESOURCES

- *Landscaping with Native Plants of Wisconsin*, Lynn M. Steiner
- *The Garden Book of Wisconsin*, Melinda Myers
- *The Well-Tended Perennial Garden*, Tracy DiSabato-Aust
- American Conifer Society www.conifersociety.org
- University of Wisconsin Extension Learning Store <https://learningstore.extension.wisc.edu/>



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