

College of Agriculture,
Food and Environment
Cooperative Extension Service

TROPICALS FOR ZONE 6

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kyplants



Shouldn't we be happy with what we have?
Shouldn't we be happy with our natives?



Aren't you tired of this?





We see the same landscapes over and over and over.... Ad nauseum

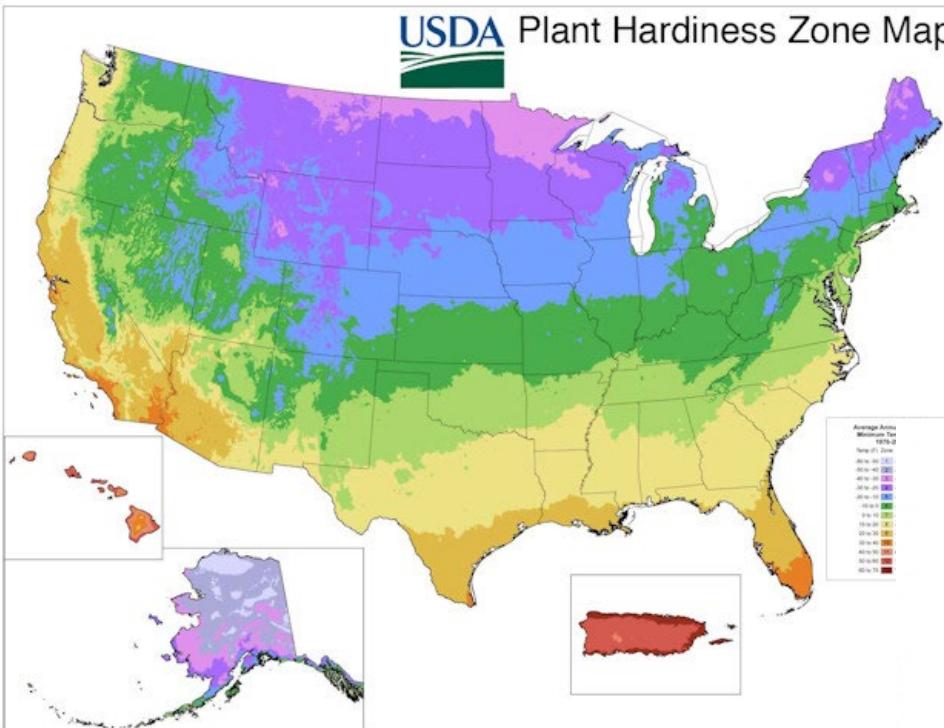


Adventurous landscaping



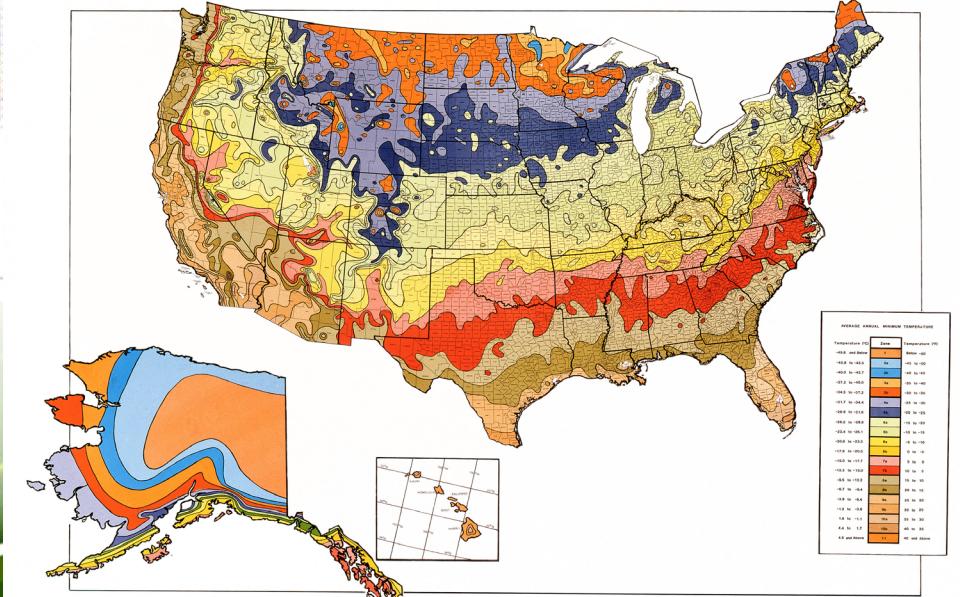
USDA Plant Hardiness Zone Map

New PHZM



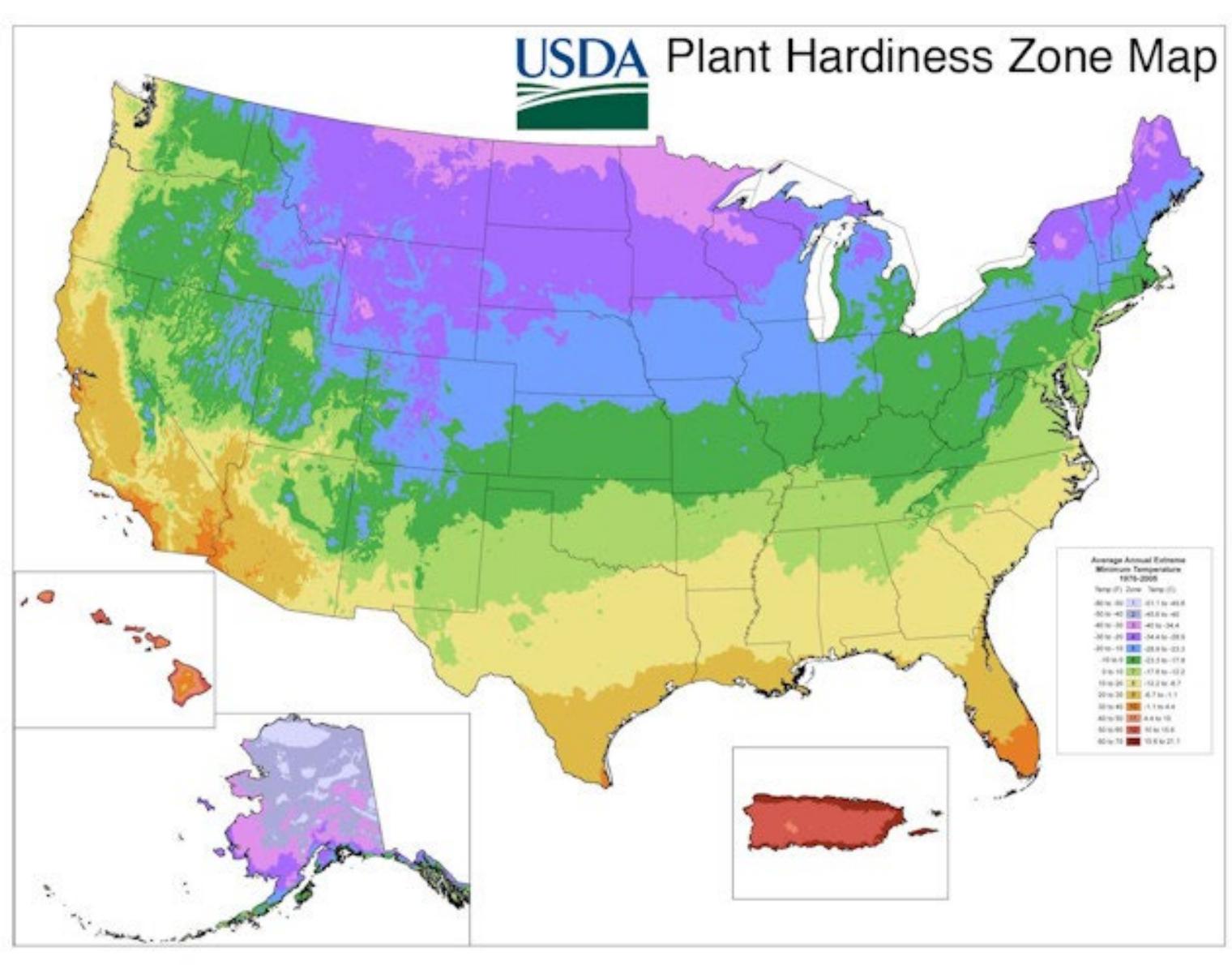
30 years of data 1976-2005

Previous PHZM

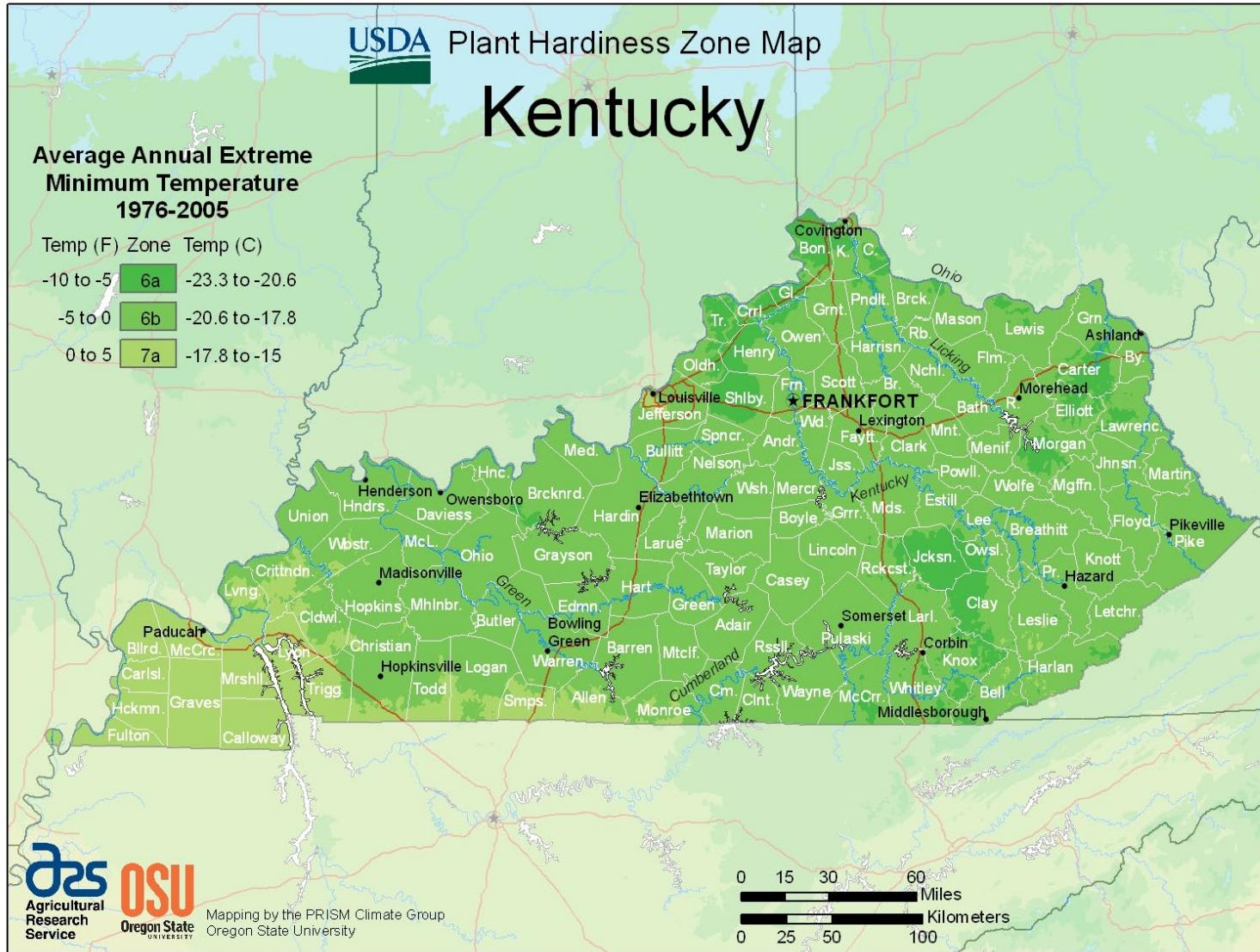


13 years of data 1974-1986

USDA Plant Hardiness Zone Map



USDA Plant Hardiness Zone Map



Plants are assigned to hardness zones



Talk to your plants. But if you really want results, bring in a motivational speaker.

- Many popular plants grown in the south are much more cold hardy than generally believed
- Some plant zone information is just wrong, not tested enough
- Informed gardeners can usually squeeze out an extra zone from microclimates

Cold Hardiness

- Distinction between above ground and below ground
 - Which is hardier, roots or shoots?
- Acclimation is important
- Enhancing hardiness
 - Cover / no cover
 - Planting to the north and west of rocks
- Most plants we'll talk about overwinter better with dry winters

Microclimates

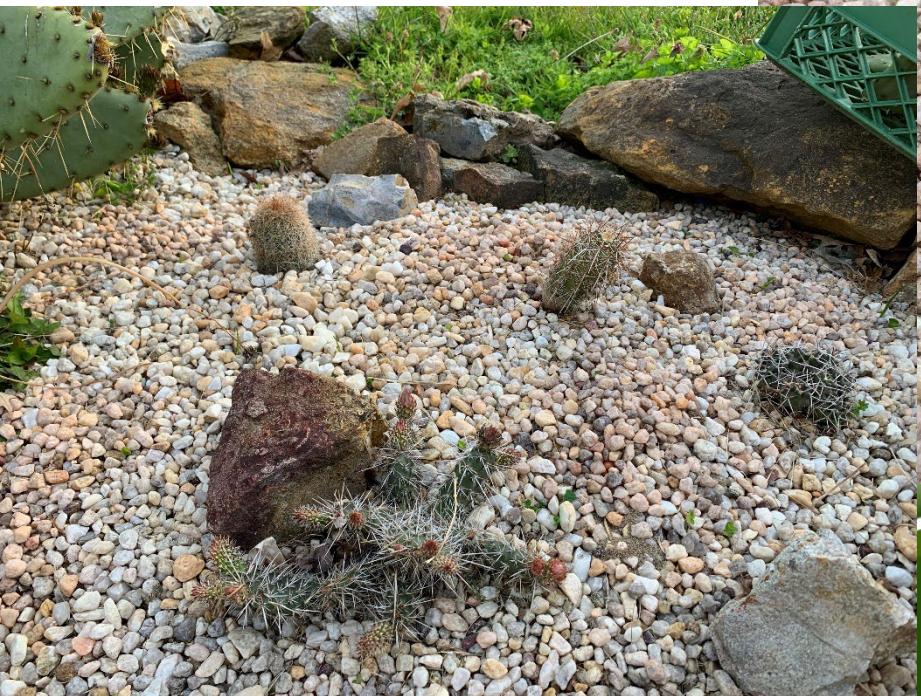
- Berms, buildings
 - Berm is a mound that 'creates microclimates by improving drainage and giving E, W, N, and S exposures'
- Create a microclimate/berm if you don't have one
- Soil may need to be amended
 - Gravel (pea gravel)
 - Pumice (sold as Dry Stall)
 - Perlite or vermiculite
 - Sand



Growing Cacti & Succulents in Winter-Wet Climates

- Full sun in both winter and summer
- Perfect drainage is essential
 - Amend clay/loam soils
- Incorporate rocks into planting area
- During hottest part of summer, water every 7-10 days if there is no rain
- Mulch with crushed rock/gravel
- In fall, cut off additional water to force dormancy





Cold-Hardy Palms and Palmettos



Needle Palm



Growing near Roanoke VA (Zone 6b/7a)

Needle palm
(*Rapidophyllum hystrix*)
– the toughest, cold-hardy palm known on Earth.

Forms large evergreen shrub over time

Needle Palm

Plant Delights website



Growing in Maryland



Growing US Arboretum, Washington DC

Windmill Palm



Windmill palm
(*Trachycarpus fortunei*) –
hardiest of the palm
species that form trunks.

Native to China with
similar climactic
conditions to here

Growing near Roanoke VA (Zone 6b/7a)

Dwarf Palmetto



Dwarf palmetto (*Sabal minor*) – provides blue-gray evergreen leaves for winter interest

Hardy to lower single digits

- Leaf-tip burn at around 10°F
- Major leaf damage about 0 to -5°F
- Completely defoliated about -15°F
- But it's not dead, will regrow

Palm Facts

- Palm fronds emerge from a single, central growing point
- Health of bud is critical
- Bud diseases can damage or destroy it (copper fungicides)
- Newest frond is called a spear, important indicator of bud health
- Inspect spear before purchase
- Gently tug spear if it shows signs of stress
- If spear detaches...
 - Could be sign of transplant shock
 - Could indicate bud rot
 - Improve air flow to bud, remove any other surrounding fronds that will yield
 - Apply fungicides



Care of Palms

SITE

- Choose well-drained site
- Protection from drying winter winds
- Full sun not necessary (but not full shade)

PLANT SELECTION

- Container-grown plant instead of field-dug
- Purchase early in the season as soon as conditions allow for planting

CARE

- Appreciate soils rich in magnesium and manganese
- Fertilize early, last should be before July 4
- Mulch is important
- Water if dry in the winter (do not get crown wet)
- Water as needed in summer (if lawn could benefit, so could palms)
- Drought-resistant once established

Cold-Hardy Bananas



Japanese Fiber Banana



Growing near Leesburg VA (Zone 6b/7a)

Hardy banana (*Musa basjoo*) – supposedly hardy to Zone 4b with protection

Suckles readily

May grow 7 to 14 feet in a single season

Oxford OH – root hardy to -14°F with mulching

Aug 2017



Nov 2021



May 2019

Musa basjoo



Sikkim Banana



Bengal Tiger (rated to 7b Plant Delights)



Growing in Raleigh

Sikkim (aka Darjeeling, Indian) banana (*Musa sikkimensis* or *M. hookeri*) – officially rated to zone 8 (too conservative)

Root hardy to zone 6

May grow 7 to 14 feet in a single season

Musa sikkimensis



Musa basjoo



**"It doesn't seem to be covered in our
invasive species management plan."**

Cacti

- *Echinocereus* – hedgehog cacti
- *Escobaria* – pincushion cacti
- *Gymnocalycium* – pincushion cacti
- *Opuntia* – prickly pear cacti

Echinocereus

baileyi



chloranthus



coccineus



trig



virid



- Stems have divided ribs that expand and shrink
- Flower buds break through skin of plant along upper edge or side of stem (not at top)
- Echinos = hedgehog in Greek
- *E. baileyi* (to Zone 4)
- *E. chloranthus* (marginal in Zone 5) – green flower pitaya, branches occasionally

- *E. coccineus* (some reliably hardy to Zone 4) – bunch ball claret plus other names, makes offsets prolifically
- *E. fendleri* (pinkflower hedgehog) – makes clusters
- *E. reichenbachii* (lace cactus) – range of sizes, large 4" flowers, short cylindrical, may be single or branched

- *E. triglochidiatus* (to Zone 4) – claret cup hedgehog), plants branch freely, very showy and dependable
- *E. viridiflorus* (green pitaya) – easily hardy to Zone 4, smaller flowers but abundant, insensitive to moisture

fendleri



reichenbachii



Escobaria

guadalupe



lee



missouriensis



vivipara



- Pincushion cacti
- *E. guadalupensis* (Guadalupe Mountain pincushion) – makes clusters of 3-4 cylindrical stems, small flowers, needs to be kept dry in winter
- *E. leei* (Lee's pincushion, hardy to Zone 4) – spines hide the plant, forms small clusters, best for troughs and containers, keep dry in winter
- *E. missouriensis* (Missouri foxtail cactus) – mature stems highly variable, flowers cream to yellow to pink, hardy to Zone 3, more tolerant of wet conditions
- *E. sneedii* (Sneed's pincushion) – hardy to Zone 4, makes clusters that are inconsistent in size, small flowers, white to pink, good in troughs or containers
- *E. vivipara* (beehive cactus) – largest natural range of this genus therefore much variability, large flowers light to dark pink or purplish pink

sneedii



Gymnocalycium

- Chin cacti
- South American
- Like protection from midday sun
- Need watering
- More dependable if covered through winter
- *G. bruchii* (Bruch's chin cactus) – top of stem barely rises above ground, big flowers white to deep pink
- *G. gibbosum* (fat chin cactus) – can grow to more than 5" across and 4" tall but much variability, subsp *nigrum* very well suited to our area, sunburn, cover during coldest months

bruchii

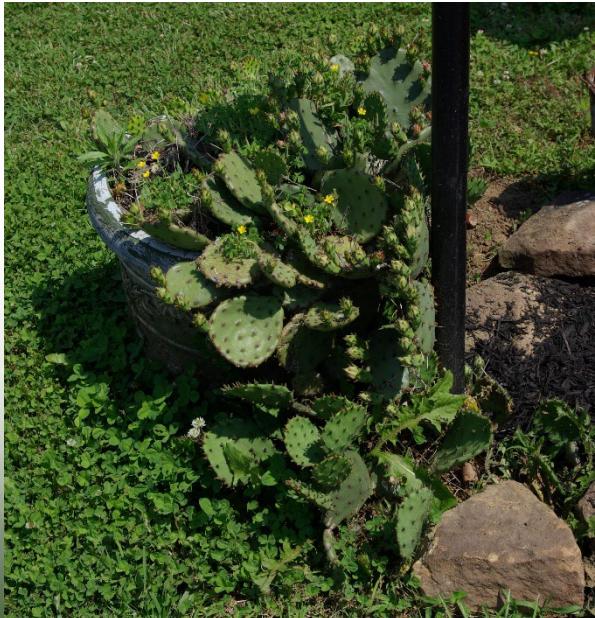


gibbosum



Opuntia – Prickly Pear cactus

- Many are hardy
- Spiny
- Native to NA
- Edible fruit and young leaf pads
- Somewhat tolerant of wet winters



O. humifusa
in fruit

Opuntia – Prickly Pear cactus



Crinums

- In the amaryllis family
- Over 180 species in genus
- Propagated by bulbs
- Some grow in deserts, some underwater
- Make underground bulbs that intertwine into clumps
- Produces a rosette of strap-like leaves
- A staple of southern gardens
- Long-lived, commonly seen in old-home site, old cemeteries, abandoned lots, and ditches
- Grow in many climate zones, NE into the Midwest and NW
- Species from the US, Africa, and Asia but most garden types are from South Africa
- Usually fragrant



Bamboos

- Two types: clumping and running
- Buy the biggest you can afford
- Root bound is OK
- Plenty of very hardy bamboos for KY
- Culm – bamboo shoots
 - Don't get any bigger in diameter
- Winter readiness: water well prior and mulch
- Clumpers make great screens – dense culms
- Evergreen
- Most are native to China

Fargesia sp. 'Dracocephala' – Hardy Dragon Bamboo



Hardy to -20°F

Weeping habit

Grows to 15'

0.5 to 0.75" culms

Fargesia murielae – Umbrella bamboo



Hardy to -20°F

Weeping habit

Grows 6-8' tall, up to 15'

0.5 to 0.75" culms

JC Raulston Arboretum

Fargesia nitida – Fountain Bamboo

‘Em’s River’
‘Great Wall’
‘Nymphenberg’
‘Jiuzhaigou’



Hardy to -20°F

Purplish culms

Grows to 6-8', up to 12'

0.5" culms

Can hedge it

Fargesia sp. ‘Rufa’ Green Panda™

In Louisville
Theodore
Klein Plant
Award winner



Hardy to -20°F, more
tolerant of heat

Arching stems

Grows 6-8' tall, 3-4'
wide

0.5" culms

Yuccas, Agaves, Etc



Yucca glauca – Adam's Needle

Y. gloriosa – Spanish dagger



Keep them dry in
winter



Variegata

Yucca rostrata – Beaked blue yucca



'most elegant...and one of the most hardy of the trunk-forming species'
PDN (zones 5a to 10b)

'have repeatedly withstood temperatures below -15'

Yucca schottii – Schott's yucca



More tolerant
of wet soils



Others a possibility:

- *Y. faxoniana* palma yucca (Zone 5 or 6)
- *Y. smalliana* Bear grass
- *Y. thompsoniana* Thompson's yucca (5-6)
- *Y. rigida* Rigid blue yucca (6b)
- *Y. recurvifolia* Curve leaf yucca (sometimes 6, other times 7)

Trunk-forming

Curve leaf



Thompson's

Hesperaloe parviflora – red flower yucca

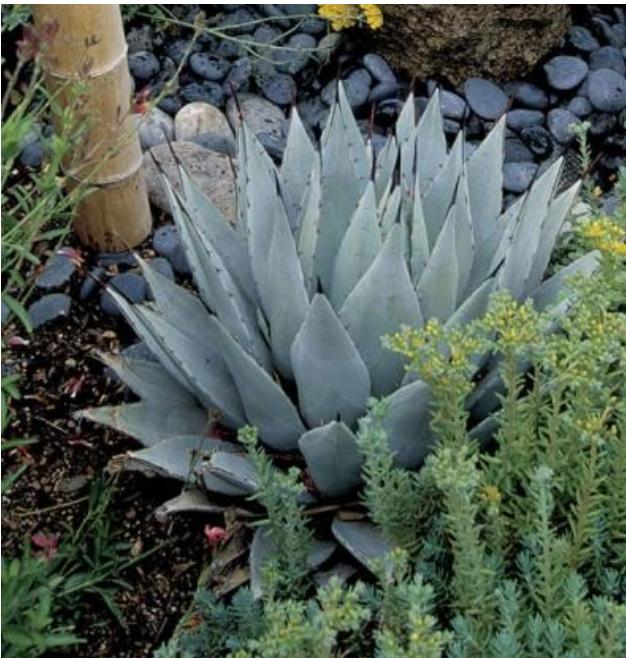


- By far the ‘most well-known and reliable species in the genus’
- Hardy to Zone 5
- Great hummingbird plant
- Needs full sun and decent drainage

Agave parryi – Mescal Agave



Will form a colony over time



Hardy to -20

Well-drained

Full sun (tolerates light shade)

Blue-gray evergreen leaves

Fine Gardening only rated this to zone 9

Others a possibility:

- *A. havardiana* Havard's agave (zone 5)
- *A. lechuguilla* Lechuguilla century plant (zone 5)
- *A. utahensis* v. *eborispinus* (zone 5)



Desert Spoon, Sotol



Desert spoon (*Dasylirion wheeleri*) – to zone 6,
with protection

Green to bluish leaves
depending on plant

3-4' tall

Narrow leaves

Container grow ?



Sotol



Desert spoon (*Dasylirion texanum*) – most cold-hardy of the two

Dark green leaves

Up to 5' tall

Other Perfectly Hardy Zone 6 Tropical-looking Plants



Asimina triloba – Pawpaw



Native to KY (zones 5-8)

Full sun to part shade

Leaves are big and droopy

Pyramidal growth in full sun

Suckers

Cross pollination for fruit



Darmera peltata– Umbrella Plant, Indian Rhubarb



Hardy in zones 5-7 (we may be too hot in KY)

Part to full shade

Needs moisture

Leaves to 18" across,
2-4' tall



Stupid Garden Plants.com



Stupid Garden Plants.com



Paulownia tomentosa – Princess tree



Not a desirable full-sized tree

Cut back to ground each year (stooled) to create tropical effect

Perfectly hardy here (zone 5)



How to Stool Princess tree

<http://www.cooltropicalplants.com/Paulownia-tomentosa.html>



After leaf drop



Buds emerging



Shoots elongating



Leaving 1 shoot = tallest stem with biggest leaves

2 shoots = never look that good

3 shoots = can produce more interesting stem shape over the years

4+ shoots = looks shrubby



Same stump after 3 seasons

Poncirus trifoliata – Hardy orange



Can hedge it

‘Flying Dragon’
contorted

Hardy to zone 5

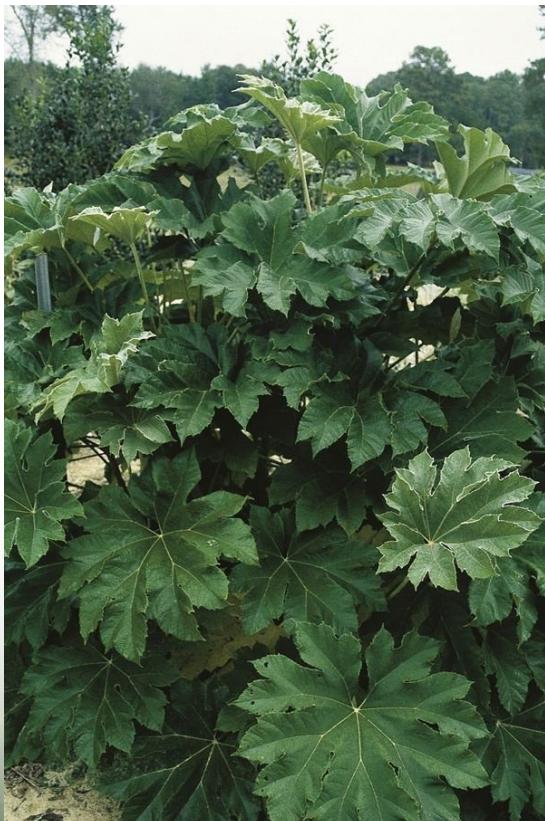
8 to 20 feet tall

Has naturalized here

Not great fresh-eating but
good for jams or
marmalades



Rice Paper Plant



Rice paper plant
(*Tetrapanax papyrifer*) –
in zone 6, an herbaceous
perennial

Spreads by stolons

Protect big leaves from
winds

Huge leaves

Covered with short fine
hairs that can cause
coughing fits and irritate
skin of some people

Arundo donax – Giant reed



‘Peppermint Stick’

Perennial (zones 6 to 10)

Spreads by rhizomes (but not very fast)

12 to 20' tall

Invasive in southern regions but not here



Alocasia & Colocasia spp. – Elephant Ear

Alocasia Kuching Mask PP



Leaves point upward

Both from tropical regions of Asia (Indonesia, Malaysia, Pacific Islands)
Heavy feeders
Like rich, moist soils

MANY hybrids

Like partial shade but darker varieties best grown in full sun



Colocasia 'Coal Miner'

Leaves held perpendicular to petiole

Eucomis spp. – Pineapple lily

‘Sparkling Burgundy’



Perennial bulb
Sunny site
No waterlogged soil
Good in containers
Strap-like foliage
Up to 2' tall
Flowers late summer



E. autumnalis

Other tropical-ly looking plants:

- Mimosa – weak wooded tree, invasive
- Canna lilies – not hardy here although some cultivars are considered 'more hardy' than others
- Sweetpotatoes
- Ferns
- Persian shield
- *Cyperus papyrus* 'King Tut'
- Hosta
- Catalpa – stooled like *Paulownia* or pollarded 'Aurea'
- Castor bean

Pollarded catalpa



Sources

- Coldhardycactus.com
- Highcountrygardens.com
- laporteavenuenursery.com (closed)
- Mesagarden.com (seed only)
- Miles2go.com
- Sunscapes.net
- Yuccado.com (closed)
- *Brian's Botanicals* (Louisville)
- And many, many more

Excellent Books

- *Palms Won't Grow Here and Other Myths*
by David A. Francko
- *Cacti and Succulents for Cold Climates*
by Leo J. Chance
- *Hot Plants for Cool Climates* by Susan A.
Roth and Dennis Schrader