



Zoysiagrass for Beginners

Selecting Grass for KY: What Causes Growth?



Light, Temperature, Water, Nutrients

Aren't we the “Bluegrass State”?



- Selecting what species of grass to grow is the most important decision you can make for an ideal lawn

Turf-Type Tall Fescue Still Excellent Choice



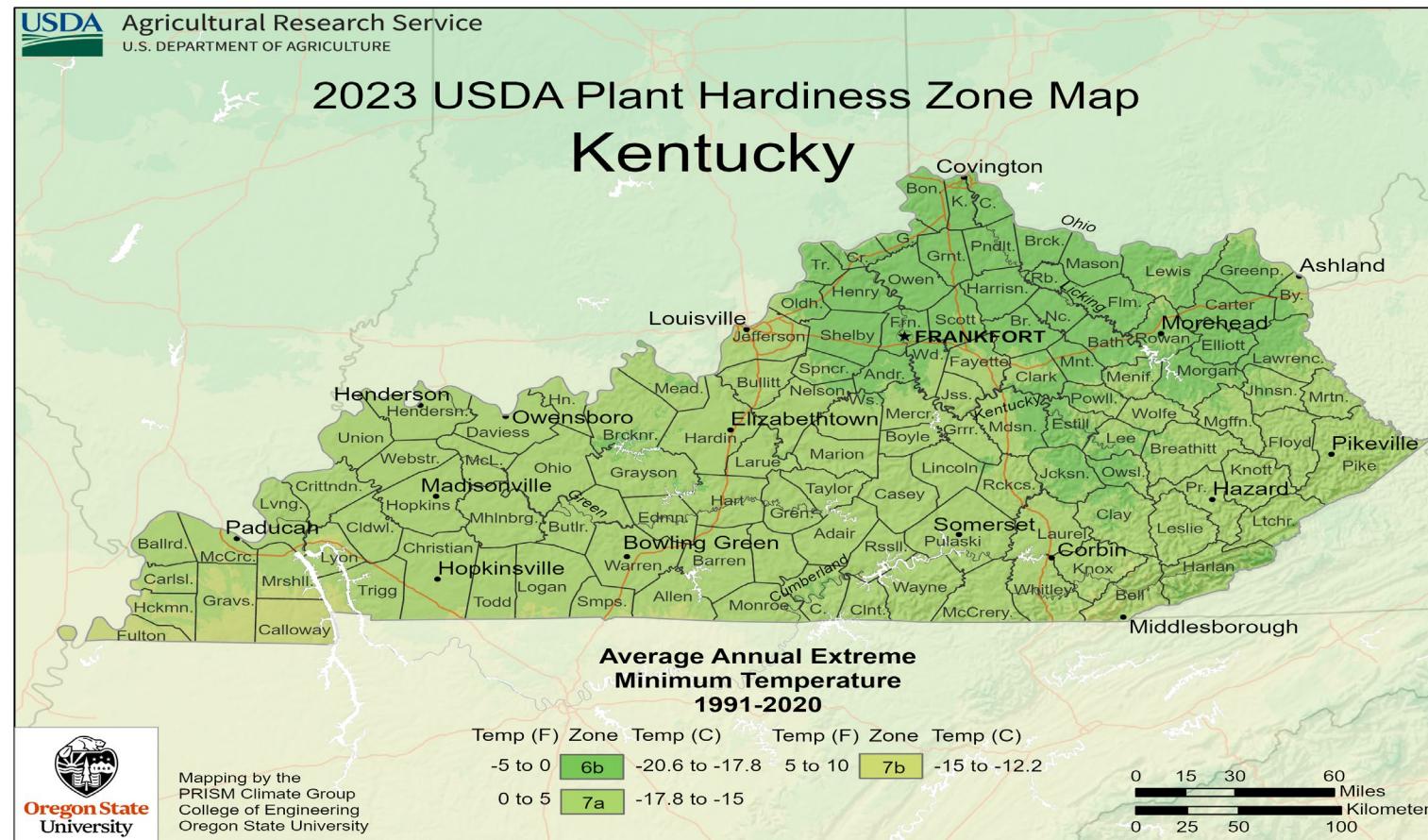
But it is not a silver bullet

Heat and Drought Tolerant



- Common occurrence on cool season lawns in Kentucky

Should You Consider a Warm Season Grass?



- Lexington & Louisville: 2012 6b – 2023 7a
- Do Warm Season Grasses have a better fit now?

Why it Might be a Good Fit



- Rowan County Golf Course no fertilizer for 5 years and minimal irrigation

Zoysiagrass Fairway One Year Without Mowing

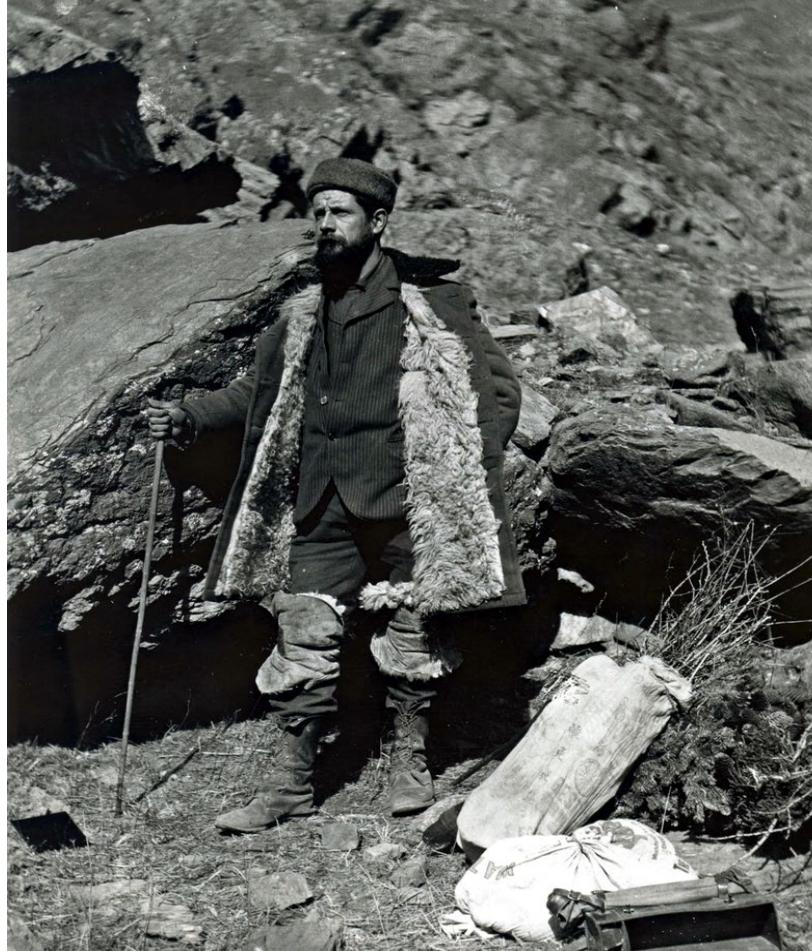


4 Years Latered: Mowed vs Unmowed



- Mowed with a zeroturn mower and no other treatments for 4 years

History of Zoysiagrass



- Zoysia has been actively cultivated in Asia for around 1000 years. These royal burial mounds in South Korea date from around 200AD and provided a “golden” color in dormancy though to honor the dead.
- Zoysiagrass species came to the USA from several Asian countries. Frank N. Meyer was an early plant explorer who brought zoysia from Japan in 1906.

11 Species 2 in KY

- *Zoysia × forbesiana* Traub
- *Zoysia × hondana* Ohwi
- *Zoysia japonica* Steud.
- *Zoysia macrantha* Desv.
- *Zoysia macrostachya* Franch. & Sav.
- *Zoysia matrella* (L.) Merr.
- *Zoysia minima* (Colenso) Zotov
- *Zoysia pauciflora* Mez
- *Zoysia seslerioides* (Balansa) Clayton & F.R.Richardson
- *Zoysia sinica* Hance
- *Zoysia tenuifolia* Thiele or *Zoysia pacifica* (Goudsw.) M. Hotta & S. Kuroki

Zoysiagrass is a Warm Season Grass Similar to Bermudagrass



Zoysia stems and leaves rising at 90°angle vs Cynodon stems rising at 45° angle

Zoysia Vs. Bermuda

Zoysiagrass	Bermudagrass
Drought tolerant	Drought tolerant
Heat tolerant	Heat tolerant
Slow growth rate	Aggressive growth rate
Cold tolerant	Less cold tolerant
Greater Shade tolerance	Less shade tolerance

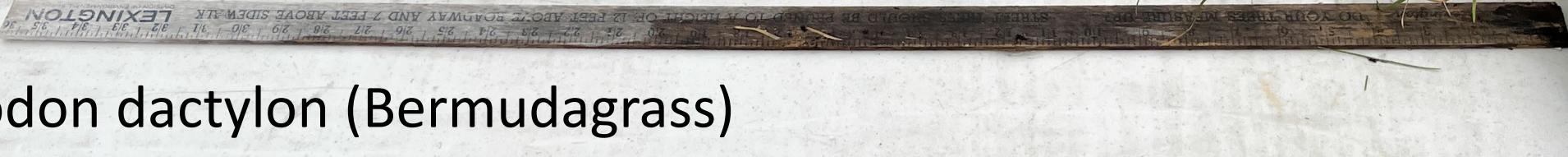
Slow Establishment



Zoysia japonica (Zoysiagrass)

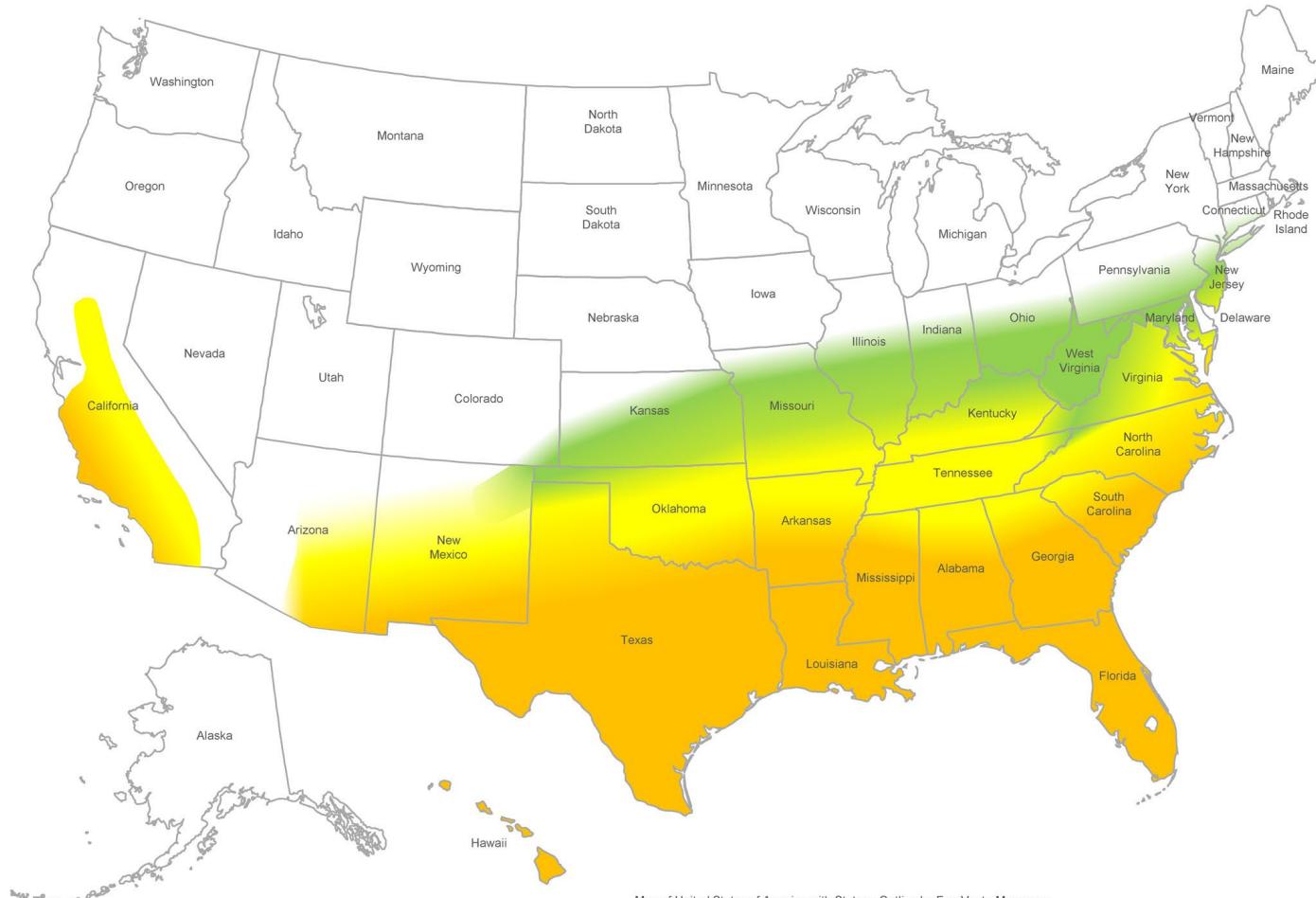


Cynodon dactylon (Bermudagrass)



Adaptation

- North of transition zone. Chisholm, KSUZ 0802, Meyer, or Zenith zoysiagrass should be used.
- Transition zone. Cavalier, Chisholm, KSUZ 0802, Emerald, El Toro, Meyer, Zenith, Zeon, or Zorro zoysiagrass should be used.
- Southern climatic zone. Aloyzia, BA-189, Cashmere, Cavalier, Crowne, Cutlass, DeAnza, Diamond, El Toro, Emerald, Empire, GN-Z, Geo, Icon, Innovation, JaMur, L1F, LTZ, M60, M85, Palisades, Shadow Turf, Tococa Green, Zeon, Zorro, or ZoyBoy zoysiagrass should be used.



- Zoysia grass will grow well across the entire state of Kentucky

Zoysia species in KY



Zoysia Japonica (Meyer and Zenith), Zoysia Matrella (Zeon), Hybrid Japonica x Matrella (Innovation),



What about Cold Hardiness?

Zoysia Japonica in Cincinnati since 1981

Japonica > Matrella



Current Use in the Transition Zone

HOW OTHERS DO IT

6. Applying sodium arsenite by the dry method with a Gandy spreader. . . . 7. A three-gang spiker which can be used for preparing a seedbed on weed treated tees. . . . 8. A simple method of introducing bent stolons into tees at Canterbury CC, Cleveland. Workman is planting stolons in spot where a small piece of soil was removed with the trowel. Soil will be replaced and firmed by pressing underfoot. . . . 9. Turf on the tees has been abandoned at this heavily played municipal course in Spokane, Wash. Rubber door mats, made from old tires, are used instead. The openings are filled with a clayey sand containing just enough calcium chloride to keep it damp. . . . 10. A zoysia matrella tee at Audubon CC, Louisville. The turf is outstanding and resists crab grass invasion. The club never had good turf on tees until zoysia was used.

Photos by O. J. Noer



Valhalla Golf Club undergoing renovations



- From 1946 - Present Golf Courses have been adopting zoysiagrass in the transition zone
- Older homes around Lexington can be seen with zoysia lawns still.

Species	Leaf width	Shade tolerance	Cold hardiness	Mowing Height	Establishment
Zoysia Japonica	>0.1"	Good to fair	Moderate	0.5"-2.5"	Seed,sprigs, plugs, sod
Zoysia Matrella	0.06" – 0.1"	Good	Poor	0.25"- 2"	Springs, plugs, sod



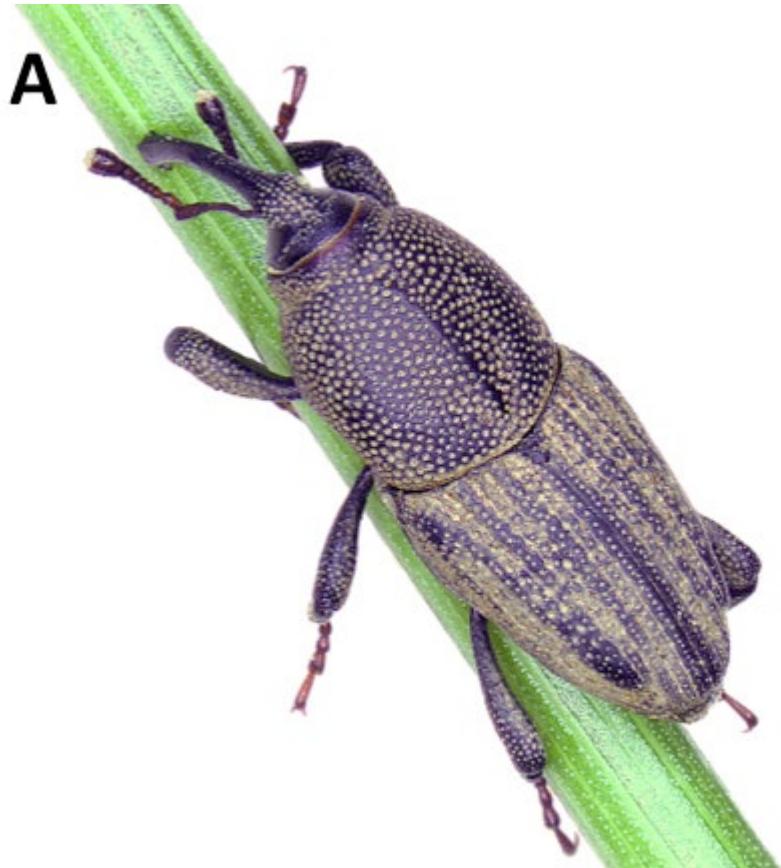
Positives of Zoysiagrass

Shade tolerance



- Tall Fescue > Zoysia > Bermudagrass
- Zoysia Matrella > Zoysia Japonica

Very Few Pest of Zoysia



Billbugs are an occasional pest problem on zoysiagrass

Low Nutrient Requirements



- Zoysiagrass will do very well with low fertilization (remember the Rowan Co. golf course)
- Over fertilization may lead to excessive thatch
- No more than 2lbs of Nitrogen per 1000sqft per year

Few Disease Problems



Zoysia is relatively free of most diseases. Large Patch (Zoysia Patch) can occasionally be a concern.

Weed Tolerance



- Zoysia almost always has less weeds than bermudagrass or cool season lawns
- Relatively inexpensive non selective herbicides can be used on dormant zoysia to remove any weeds

Slow Growing Zoysia is one of its features



It will not take over your landscape beds like bermudagrass, but it does produce stolons and rhizomes and will repair itself when damaged.

Unique Lawns: Virginia Spring Beauty and Zoyisa



Portsmouth, OH early April 2022

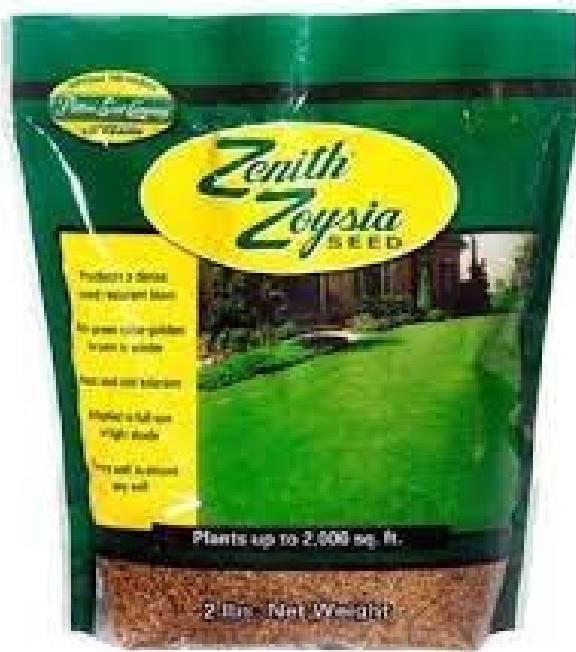
Downsides of Zoysia

Warm Season Grasses Go Dormant in the Winter



- The golden brown color may be considered undesirable (but reduces mowing)
- Allows for unique herbicide option
- It will outperform cool season when we use our lawns the most

Seeded Varieties Limited



- Germination is inconsistent and slow and make weed competition difficult, but it is possible to succeed.
- Vegetative propagation more expensive, but gives better options

Establishment: Be Patient



Sprigs

- Seed: Zenith, compadre
- Vegetative (Sprigs, Plugs, or Sod): Innovation, meyer, zeon
- Plant May/June



Plugs

Maintenance

- Do not manage like other grasses: Less is More
- Maintain Sharp Mower Blades
- Fertilize when growing in the late spring and summer
- Use herbicides labeled for zoysiagrass, don't use the same chemicals on cool season grasses without checking the label first
- Irrigate to maintain green color if desired (zoysia will recover from drought periods just fine if you want to save)
- Fill in bad spots with plugs
- Detatch the lawn as needed

Questions?

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