

Home Grounds Horticulture



"THE BEST AND THE WORST." PLANTS for PRAIRIE SOILS.

When it comes to plants, horticulturists can be very prejudiced. When we studied the history of science in college, I remember how shocked I was to learn that the most academic community can also be the most prejudiced. The objectivity of the scientific method is NO guarantee against prejudice!

Admitting this unavoidable flaw, and trying to compensate for it as best I can, I would like to assemble a list of the best and the worst plants for this area. In a recent homeowner survey conducted by this office, more than one third of the respondents stated that this was their most important need.

Unfortunately, for around here, that's not a simple task because we have two drastically different soil groups running right through the city.

Our Prairie soil is not uniform. There are really two types. One is acid type Prairie clay that water does percolate out of, to a degree. These areas usually have large old pine trees growing on them. The other type of Prairie soil is alkaline clay. It does not percolate well at all and the pH can be 7.5 or higher, which is really bad for plants. This stuff is rough to try to have a conventional landscape in. It is by far easier to throw both of these soils away and build raised beds of good top soil. See fact sheet "Dealing with Prairie Clays".

Underneath both of these types is a really alkaline sub-soil. In some neighborhoods, the subsoil is deep enough so as not to cause major problems. In others, it is almost on the surface, and causes the internal physiology of most plants to go into a tail-spin! The only problem is that you can't tell how far down it really is until it is too late! As a rule of thumb - if you don't see any nice looking, old pine trees on your lot, assume you can never have them, and that you have the alkaline clay type of Prairie soil. Of course, a soil test will tell the tale for certain.

Of course, any listing is personal. Don't take it personally. This list is based on my 13 years experience here in Montgomery. Other horticulturists would have different experiences and their lists would not be identical to mine!

THE BEST for PRAIRIE CLAYS:

TREES: (from big to small)

Live Oak - Quercus nigra - Best oak for Prairie. Not all that slow growing when fertilized regularly. Tends to be a thicket tree so keep the lower branches clipped off to force it to grow more upright.

White and Green Ash - Fraxinus sp.- Fast growing shade tree for Prairie soils. Further North it is not used a street tree because of too many insect problems. They don't seem to be here. Some spring aphids can deform leaves, but spraying with Cygon seems to take care of the problem.

Sugarberry Tree - Celtis laevigata - This proves I'm not prejudiced. Fast growing shade tree well suited for Prairie soils. Never offered for sale because it volunteers everywhere. The wood is weak and so it should not be planted close to the house (which is exactly where the birds put the seeds!). Rarely lives past 75 years.

Crepemyrtle - Lagerstromia indica - Great plant for growing as a shrub or tree. For summer color it can't be beat. Tolerates everything Southern. It excels in so many categories that it's about time for some exotic insect or disease to get started. Nothing can be THAT good for this long!

Eastern Redbud - Cercis canadensis - A flowering tree well suited for Prairie. Doesn't live forever in this climate but lives longer than many other flowering trees. Can live 15 to 20 years.

Crabapples - Malus sp. - A flowering tree better suited for Prairie soils than other flowering trees. Looks a bit "witchy" with all the secondary growth wet weather brings. Keep all these water sprouts clipped out of the heart of the tree for a better appearance.

FRUIT TREES:

Figs - These do seem to do quite well. Sometimes we don't have a long enough growing season for the fruit to mature. Celeste is the most cold tolerant around here. Next comes Brown Turkey. The others can be a gamble.

SHRUBS:

Wintergreen Japanese Boxwood - Buxusjaponica

'Wintergreen' - Tolerates our heat much better than "American" and "Dwarf English." Tolerates Prairie soil conditions. This named variety maintains a rich green throughout the year. You'll like this plant ever so much better than regular boxwood! As with all boxwoods, it does better in part shade.

Chinese Hollies - Ilex cornuta

Nellie R. Stevens Holly - I must be in love with Nellie R. because I haven't seen any faults..yet! Great size, great shape, great color, great for privacy hedges. Seems to tolerate Prairie soils well. Closest we can come to English holly - which doesn't like our climate.

Dwarf Burford Holly - good corner plant for our squatty houses. Doesn't seem to get scale insects as badly as regular burford. Seems to tolerate alkaline soils better, but not always. Seems to tolerate sporadic wet feet.

Needle-point or Willow-leaf Holly - seems to be a type of dwarf burford but with a great green color and texture. Same good scale for corner plantings. Seems to tolerate Prairie soils. Doesn't seem to mind wet feet but it won't grow all that well. At least it won't die!

Dwarf Carissa Holly - In great scale with our squatty houses. Really nice dark green color. Seems to tolerate Prairie soils. Will try to sport back to chinese holly. Keep those twigs cut off. I really like the looks of this plant!

Dwarf Rotunda Holly - has been around a while. Still can't be beat. Does get scale insects. Can be pruned with a chain saw, and it comes right back. Because of all the thorns and leaves that never seem to rot, use it away from foot traffic areas.

Yaupon Hollies - Ilex vomitoria - natives to the South.

Regular, Dwarf and Weeping forms to choose from. I love the grey-green color. Will tolerate most conditions, including Prairie soils. In very wet situations, a soil fungus can knock them out. A little looper can eat the leaves off during winter. They are hard to see, but easy to control with Dipel.

Nandinas - Nandina domestica - very old, rugged plants. New dwarf forms add color and variety to the landscape. Tolerates almost everything - so much so, that it can be planted around air conditioner compressors. That's saying a lot! BUT it doesn't like wet feet. Standing in water will kill them.

Winter Honeysuckle - Lonicera fragrantissima - a good, old fashioned. ten to twelve feet tall. Best used out away from the house. Very early spring blooming with a wonderful scent!

Eleagnus - Eleagnus pungens - A good, old fashioned standby. Ten to twelve feet high but twenty feet through. Will tolerate clay and shade. Blooms in October with small, honey scented flowers. Grapes form during winter that can be used for jelly. Best used out away from the house.

Lilac-Chaste tree - Vitex agnus-castus - On alkaline clay this is more a shrub, rather than a small tree. Blooms in summertime when few things do. Very old and very nice.

Buddleia - Buddleia davidii - Very similar to Lilac chaste, but with much bigger flowers that attract butterflies and humming birds. On alkaline soils above a pH of 7.5, the green color may wash out yellowish.

Euonymus - Euonymus japonica and hybrids - These plants tolerate a wide variety of situations. Scale insects are a big problem but not if they are regularly sprayed, either with Cygon or Safers soap. Boxleaf euonymus seems to do very well in partial shade situations. Maximum height is about 3 feet.

Florida Anisetree - Illicium floridanum - A very good hedge plant. Evergreen, about 10 to 12 feet high. Broken leaves smell like rootbeer. Tends to be light yellow-green color anyway, so pHs above 7.5 are not that noticeable.

Privet - Ligustrum sinense, several different types - Sure, it does well, but most folks don't want it around the yard. Can become a real pest.

Pampus grass - Cortaderia and other grasses in general - One thing can be said for Prairie soil. It will grow all the grasses with little trouble....and this includes the ornamental ones also!

Southern Waxmyrtle - Myrica cerifera - A plant well suited for heavy soil, but not a situation that is swampy. There is a true dwarf from over at Myrtle Beach, SC that is really super for use up against the house. Otherwise, we are talking about a plant 10 to 12 feet high and 15 feet through.....not something you'd put up against the house!

Oleander - Nerium oleander - This plants does seem to tolerate heavy clay very well. It even seems to withstand occasional wet feet. Seems to be cold tolerant most years. If not, pruning back to the ground is all that is required to bring the plant back. On high alkaline soils, may not as rich a green but still ok.

Old fashioned Roses - Rosa hybrids - Old roses will do well in Prairie soils, with the added benefit of not needing to be sprayed for black spot diseases. The Tea roses, the Noisette roses, and many shrub roses work best. Modern roses...forget them...unless you improve the soil and spray every week!

GROUNDCOVERS: (Not many like soggy conditions.)

Asian Jasmine - Trachelospermum asiaticum - good groundcover. Variegated varieties are not as cold tolerant, so don't use them on northern exposures.

Euonymus coloratus - as a drought tolerant groundcover. It's been around and it can't be beat. I don't remember ever seeing scale insects on it like its shrub cousins. Will tolerate full sun, but prefers some shade. Will tolerate sporadic wet feet. Purplish winter color. Best used in raised beds.

Vinca minor - another underused groundcover. Same comments as Euonymus, but the soil fungus problems in soggy sites will kill it out. Use in raised beds.

Thrift - Phlox subulata - As long as it is elevated so it doesn't stand in water, it is an overlooked groundcover. Tolerates heat and drought very well, but not wet feet.

PERENNIALS: Coreopsis, Shasta Daisy, Blue Salvia, Verbena, Coneflowers, Rudbeckias, Thrift, Butterfly Weed.

BULBS: Tall Bearded Iris, Siberian Iris, Louisiana Iris, Spuria Iris, Dutch Daffodils of all sorts, Dutch Hyacinths, French Roman Hyacinths, Crinums, Lycoris radiata and squamigera, Leucojum, Wild anemones, Cannas.

THE WORST for PRAIRIE CLAYS:

(Some gardeners have some success with these plants, when conditions are just right. As with many things, it just depends on how much trouble your willing to put up with!)

Silver Maple - Acer saccharinum - A great tree up North...a miserable excuse for one here. Not worth growing at any price. Too many diseases here. Rarely lives 12 years, and looks miserable while doing so!

Pine trees - Pinus sp. - Just can NOT tolerate the lime in Prairie soils. Goes off-color, gets thin, sickly, until you finally cut it down. South Montgomery is not uniformly alkaline, nor is the lime subsoil the same distance under the ground. You can always choose to gamble and plant pines. But when they begin their dying routine, you have LOST and NOTHING can correct the situation.

Dogwoods - Cornus florida - It is almost always death to plant a dogwood in Prairie soils. During wet springs they drown! Also, they are not good trees for full sun situations. They really need partial shade. At present, dogwood anthracnose "Blight" seems to affect dogwoods growing at higher altitudes than Montgomery, which is on the Lower Coastal Plain.

Lombardy Poplar - Populus nigra italica - Same can be said for this tree also. Most true poplars don't do all that well here (Tulip-Poplar, Liriodendron, is not a poplar at all and does very well here.) Only one, Cottonwood, is native here, and it creates so much litter that most people regret having one in their yards. Poplars are usually mail order items offered to the general public. Beware!

Sycamore - Platanus occidentalis - A uniquely beautiful tree. Does very well here, BUT... to plant one is a gamble. Two diseases common here usually make them very unsightly and/or take them out at some point in time. The Lower Coastal Plain (us) just has too many insect and disease problems for trees to be grown really well over long periods of time.

Pin Oak - Quercus palustris - Absolutely does not like Prairie soils. Disease problems everywhere make this a poor selection... period! It seems to be growing just too far south of its Southern limit...which is Tenn.

Bradford Pear - Pyrus Calleryana 'Bradford' - This really could be in the Good list.....except for two reasons. I am told that if we ever have an ice storm (we've had 2 in my lifetime), we can kiss them all goodbye. They will be torn completely apart..and are not used further up North for this reason. This tree is like the little girl with a curl, in the old nursery rhyme. "When she was good, she was very, very good; and when she was bad, she was HORRID!" In some Prairie situations - apparently related to high pH - the color can go all out of whack and the leaves get golden yellow and /or dead places develop in them. Aside from using Epson Salts to lower the pH and make the tree greener, little can be done to correct the problems.

Pecantree - Carya illinoensis - Forget them on Prairie soils! What with the scab fungus, and our lack of rainfall, you can essentially forget the crop. What with the insect honeydew and black sooty mold getting all over

everything underneath, forget it as a good shade tree also. If your really dead set, then go ahead a buy an \$800 power sprayer and a couple of bags of fungicides and insecticides...cause your really going to need them!

Willow trees - All types of them - Why bother with something that is not going to live more than ten years! We just have too many diseases for them to reach maturity.

Japanese Hollies - Ilex crenata - all of them!

Roundleaf, Convexleaf, and Hellerii. Particularly Heller's! Short lived in the landscape. Rarely lives beyond 7 years. A universal soil fungus disease jumps on them and you loose them, one branch at a time. Heller's is so finicky that 20% will die of shock within two weeks of planting. Don't tolerate drought well and wet feet only hasten the inevitable. Don't get me wrong, I really love the way these plants look, BUT.. I am very realistic about their limitations!

Cotoneasters - most all of them (except dammeri)! Same comments as above, except fireblight seems to take them out rather quickly. Again, I love the way these plants look... BUT, etc. etc. Their use in the landscape is always temporary.

Gumpo Azalea - Rhododendron satsuki 'Gumpo' - same as above...."When it is good it is very, very, good; and when it is bad, it's HORRID!" Very unforgiving. Must have perfect growing situation and excellent soil mix. Otherwise, it will be a horrid disappointment. But, I REALLY like this plant, otherwise!

Arborvitae - This is a beautiful plant... both the Oriental and American types. They love our climate, and do exceptionally well, BUT....Bagworms can eat them slap up. Be prepared to spray. They fit the true Southern Rebel stereotype.....completely unmanageable! They grow in such an atypical way that pruning is usually out of the question, and generally unsuccessful. Plant them, give them plenty of room, enjoy them, and when they get too big, cut them down!

Red-Tip Photinia - Photinia fraseri - The leaf spot problem is so extensive, and so pervasive, that I don't mention them anymore. Who wants to spray every month just to keep a hedge up? It was a truly beautiful shrub, and still is.....but!

All Lawn grasses - We live in climate zone 8. This is called a transition zone, when it comes to grasses. Northern grasses have trouble living through hot summers, and Southern grasses go brown every winter. We have no GOOD lawngrass...good in all categories. St. Augustine has too many fungus and insect problems and isn't all that winter hardy. Zoysia

gets thicker each year until, at some point, de-thatching is necessary for the grass to continue to live (the more fertilizer used, the sooner that day arrives). Centipede has spittle bugs, doesn't do that well most Prairie soils, and when growing in the shade, will die out with strange new diseases. Hybrid bermudas look great only when the ground is as smooth as a pool table and mowed - preferably twice to three times a week - with a reel-type, real expensive lawnmower. IF YOU HAVE FULL SUN, my all around choice is for common bermuda. It comes from seeds, doesn't need that much fertilizer, chemical weed-killer tolerant and looks ok when mowed 2+ inches high, with a cheap lawnmower.

All Fruit Trees - Believe me; it is far easier and cheaper to pick your own fruit at Winn-Dixie, than to try to grow them in Dixie! Growing nice looking fruit you will be proud of is really an uphill battle with our climate and diseases. The Auburn fruit culture specialists will tell you right off that they must be grown on well-drained soil. Needless to say, that excludes the southern part of the city. Most of our newly planted fruit trees drown their first Spring in the ground. They really must be planted up on raised mounds so that the crown is never standing in water. Two brochures are an absolute must. Our "Fruit Culture in Alabama" and "Spraying the Home Orchard." Read these BEFORE you buy any varieties!

As my old philosophy professor used to say...." You pays your money and takes your choice!" I never cease to amaze at how often that is true.... about a lot of things!

Created by George Stritikus, Retired County Agent, Montgomery County & Jefferson County (Deceased)—Reprinted by the Montgomery County Extension Office (April 2011)



Alabama A&M and Auburn Universities

Published by the Alabama Cooperative Extension System (Alabama A&M University and Auburn University), an equal opportunity educator and employer.