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FRUIT TREES AND SEPTIC SYSTEMS -----

A recent caller brought up a concern that has surfaced in the past, so it might bear passing on for your use with clientele. It seems that he had a number of citrus and bananas plants growing in close proximity to a home septic system and its drain fields and wondered whether the root systems of these fruit plants were exploiting water and probably nutrients from the septic system drain fields. Moreover, if so, he questioned whether the fruit was safe for his family and grandchildren.

With a properly installed and operating septic tank, there is very little possibility that the roots can enter the septic tank per se, but they should certainly thrive along the drain field lines (simply because of the ready availability of soil moisture from the drain field). Too, any useful nutrients in the drain field area would be absorbed.

However, there would not be any absorption of possible biological organisms nor of organic or biologic solids (if any) by the root system, so there should be no question of fecal or other contamination of the fruit from the absorptive activities of the root system.

Julian W. Sauls
Professor & Extension Horticulturist

HORTICULTURE AND YOUR HEALTH -----

According to Jean Carper, a syndicated columnist and authority on health and nutrition, in her book entitled "Stop Aging Now" (Harper Collins), aging is a degenerative process that can be dramatically slowed by the regular consumption of several specific foods and supplements. The "Top Ten" fruits and vegetables include avocado, berries, broccoli, cabbage, carrots, citrus, grapes, onions, spinach and tomatoes. These foods provide the greatest amount and widest range of both known and unknown antioxidants that neutralize free radicals generated in the human body which attack cells and increase aging and disease incidence.

Further, Carper recommends three to five cups of tea (hot or iced) because of its antioxidants which can reduce the risk of heart disease, clogged arteries and cancer. Too, a daily clove of raw or cooked garlic (or equivalent supplement) rejuvenates and protects cells, reduces blood pressure and cholesterol levels and protects the body against heart disease and cancer.

She is very high on Vitamin C (broccoli, Brussels sprouts, cantaloupe, citrus, kiwifruit, papaya, peppers, strawberry and tomato), beta-carotene, which is a form of Vitamin A (apricot, carrot, spinach and sweet potato) and Vitamin E—which is not present in sufficient quantity in foods, for which she suggests use of Vitamin E supplements.

Julian W. Sauls
Professor & Extension Horticulturist

TEXAS CITRUS AVAILABILITY -----

Texas Rio Star and Ruby-Sweet grapefruit are still plentiful, as nearly half the estimated grapefruit crop is yet to be harvested as of the end of January—and probably won't be completed until near the end of April. F.o.b. prices have come down substantially, currently running about \$6.50 per 40-lb carton for Rio Star and \$5.50 for Ruby-Sweets.

Texas navels are finished, while about 12 to 15 percent of the Marris orange crop is still available—but even that should be finished in a couple of weeks. Prices are mostly in the range of \$6.50 per carton. Valencia orange harvest will commence in the next couple of weeks (as the Marris crop diminishes) to provide quality Texas oranges on through the end of the season.

Because citrus is so good for your heart, give Texas citrus for Valentine's Day.

Julian W. Sauls

Professor & Extension Horticulturist

PECAN GRAFTWOOD COLLECTION -----

February is an excellent time to collect pecan graftwood for spring use in topworking either orchards or yard trees. Collect only one-year-old wood, using more of the middle of the shoot than the tip. The cut ends can be dipped in wax or shellac (or not) and stored dry in a sealed plastic bag in the vegetable crisper drawer of the refrigerator. Avoid freezing.

Don't forget to label the graftwood and the storage bag(s) at the time of collection. Aside from the frustration of finding unlabeled graftwood during grafting, can you imagine harvesting nuts of unknown origin and variety several years from now from a tree you were sure had been topworked to a particular variety?

Julian W. Sauls
Professor & Extension Horticulturist

PLANTING BARE-ROOTS PECAN TREES ----

The single biggest reason for failure and/or consumer dissatisfaction with bare-root pecan trees occurs at planting, possibly because of lack of information from the nursery that sold the tree or because the customer simply cannot bring himself/herself to completely follow the advice.

Practically everybody knows how to plant the tree—those who don't usually ask the nursery or Extension for advice, so planting in and of itself is not the problem. The problem is that consumers are not advised (or do not heed the advice) to remove (cut off!) half of the top of the newly-planted, bare-root pecan tree.

By removing half of the top, some semblance of balance between the root and top is restored, thereby giving the root system a chance to develop fast enough to supply water and nutrients to the few shoots that will develop on the remaining lower half of the tree. Thus, the tree not only survives, it prospers. By contrast, a similarly planted but unpruned pecan tree makes very little growth and just seems to sit there for a year to two or more.

Julian W. Sauls
Professor & Extension Horticulturist

PLANTING CONTAINER-GROWN STOCK -----

Most fruit trees and landscape trees and shrubs are produced in containers filled with a medium that contains no real world soil, instead being comprised of several components such as sand, sawdust, pine bark, peat moss, perlite, vermiculite, styrofoam and others. Consumers and professionals usually do a fair-to-

good job of soil preparation for transplanting, then simply knock the plant from the container and stick it in the ground—thereby guaranteeing that the plant(s) will not grow very much, if at all, for a year or two.

The problem is that an interface develops between the soilless growing medium around the root ball and the real world soil of the planting site—an interface which resists the movement of air, water and roots from the root ball to the soil and vice versa. Often, such plants wilt from lack of water even though the soil around them is saturated.

To ensure rapid plant establishment and vigorous growth, use a stream of water from the garden hose to wash off about an inch of the medium from all around and the top of the root ball—thus exposing a mass of roots. Do this immediately before planting so the newly exposed roots don't dry out. When planted, these exposed roots will be in intimate contact with the soil of the planting site, thereby ensuring that they will continue to develop—out in the soil rather than in the original soilless medium.

Julian W. Sauls
Professor & Extension Horticulturist

SPECIAL NOTE TO CEA's -----

Both of the preceding topics make good result demonstrations to use with homeowner audiences—whether you do it or whether you have Master Gardeners looking for something to do. The latter project is easier because you don't often find a single homeowner setting out several pecan trees, but homeowners commonly plant hedges involving a number of plants of the same size and species.

To compare, just knock from the pots and plant half of them; treat the other half as I've described above. Provide the same care of fertilizer, water et cetera thereafter. If the plants are relatively fast-growing, you'll note visible differences in plant size and growth by mid-summer—and you may see a difference in survival between the two.

Call me if you are interested but need more information.

Julian W. Sauls
Professor & Extension Horticulturist

RED IMPORTED FIRE ANTS -----

TDA recently adopted rules which add Hidalgo and Willacy Counties to the list of quarantined areas under the Imported Fire Ant Quarantine. An additional amendment will remove hay and straw as a quarantined article except baled hay and baled straw stored in direct contact with the ground. These amendments are

effective Feb. 7, 1996.

Stormy Sparks
Associate Professor & Extension Entomologist

FLEA CONTROL ON CATS -----

Most everyone is aware that the new 'pill' product for flea control for dogs has been on the market (through vets only) since last summer. This same technology is now available for cats (that is control of fleas on cats, not control of cats). The product is a insect growth regulator that is feed to the animal and affects fleas which feed on the animal. This should (and does) work very well for confined animals but requires time to have full affect. Only adult fleas feed directly on their hosts; thus, this product has no effect on the eggs and larvae already present. For established problems, you would probably want to continue use of contact insecticides at least for a few weeks or a month to remove the fleas already present. In addition, if the animal is not confined, it is free to wander into infested areas and may pick up some adults. These new adults would become sterile with a blood meal, but may require additional control measures if heavy. Reintroduction into yards, etc. may also occur as other uninvited guest visit your yard. Bottom line - this is an excellent product (particularly in confined situations) which prevents cycling and build up of fleas on a host, but do not become alarmed if a few fleas are detected even with regular use.

Stormy Sparks
Associate Professor & Extension Entomologist

BOLL WEEVIL ERADICATION PROGRAM -----

As most or all of you know, the Rio Grande Valley Eradication Zone recently elected to terminate the eradication effort in our area; however, the Coastal Bend and Winter Garden zone has plans to start their program this fall. I caution both areas on making assumptions about possible pest problems associated with these acts. The elimination of the program does not eliminate the potential for secondary pests. In the southeast they indicate they can now trigger beet armyworm problems in individual fields with most any organophosphate spray; we spray OP's for most of our early season pests. Also, conducting an eradication program does not by any means guarantee a secondary pest problem and pulling the trigger on a potential secondary pest to quickly may cause more harm than good. Again in the southeast, they are suggesting that even under heavy aphid populations to avoid spraying because of the potential for triggering worm problems. Be cautious in discussing this issue; there is a lot of gray area but most everyone wants black or white (and they hear what you say as black or white, despite how you say it).

Stormy Sparks
Associate Professor & Extension Entomologist

JULIAN W. SAULS, Ph.D.
Professor & Extension Horticulturist
2401 East Highway 83
Weslaco TX 78596

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