The passing of the pen and the trowel: changing times in commercial horticulture.

As most of you know, Dr. Charles Yurgalevitch has left the Extension Service for other pursuits. A search for a replacement is under way. Until someone is hired and trained, I'll be handling both the nursery and the commercial urban programs.

As a result of the vacancy, we have had to "prune" our seminar offerings just a bit. To help everyone keep things straight, I have prepared a revised "Nursery curriculum," and a new "Commercial Urban curriculum."

Both are available at the office. We have also changed a couple of seminars to include "maintenance" along with "production."

EDUCATIONAL AND CEU OPPORTUNITIES:

Pruning for hurricane season.

Thursday, May 29, is geared toward the needs of landscape maintenance personnel and the homeowners who hire them. (In other words, pruning trees on private property.) Friday, May 30, is for public employees (i.e., those who prune trees on public property–county, municipal, state maintenance people). These will run from 8:30 a.m. - 3:00 p.m. At the Extension Service Auditorium, Homestead. Cost for this seminar is $12.50, which includes coffee, pastelitos, and lunch.

Obviously this seminar is for landscape personnel, but it's also for nursery personnel who do maintenance work. CEUs approved: FDACS (3); FNGA (4); MG (3).
8-hr training for limited-certification in commercial landscape maintenance, in Spanish.

Friday, June 6, 7 am - 7 pm. At the Extension Service Auditorium, Homestead. Cost for this seminar is $12.50, which includes coffee, pastelitos, and lunch. A flier with a registration form is available at the CES office.

8-hr training for limited-certification in commercial landscape maintenance, in English.

Saturday, June 14, 7 am - 7 pm. At the Extension Service Auditorium, Homestead. Cost for this seminar is $12.50, which includes coffee, pastelitos, and lunch. A flier with a registration form is available at the CES office.

Grades and standards workshop.

In two sessions: Tuesday, June 3, and July 1, 2003, 7:30 p.m. - 8:30 p.m., at the Extension Service Auditorium, Homestead. Free, at the monthly meeting of the ULA.

This training is specifically designed for landscapers who purchase trees and palms for landscape use. We all can use more training in grades and standards. We'll hear about the program of pre-grading trees in the nursery so landscapers know the grade of every tree they select, and have a tag to prove it. This new way of doing things is going to solve a lot of problems for all of us who work with trees. I hope everyone will make it to this two-part seminar. No registration required, just a sign-in sheet.

ISA arborist certification exam review.

Many of you have asked about this. Well, we have one on the schedule, but it's for November. The classes will be one day each, from 8 am to 5 pm: Thur., Nov. 20 in English, and Fri., Nov. 21 in Spanish. The exam will be on Sat., Nov. 22. At the Extension Service Auditorium in Homestead. Topics covered will include tree identification and selection, fertilization, installation, diagnosis and treatment of problems, cabling, bracing, pruning, climbing and more. The ISA Arborist Certification Manual will be covered.

As the date approaches I’ll list costs, how to register, etc. By holding the classes in our auditorium, and not having to pay the Community College to coordinate it, we are saving you many dollars, but ISA certification is not cheap.

Other pesticide training for April - June:

Call 248-3311 x 242 for info. on pesticide training.

General standards / core review & exam.

Wednesday, May 21, 2003, 8:00 a.m. - 5 p.m.. At the Extension Service Auditorium, Homestead. Cost for this seminar is $15.00, which includes coffee, donuts, and lunch. A flier with a registration form is available at the Extension office.

Good for 5.5 CEUs in General Standards/Core.

Private applicator review in Spanish, exam in English.

Friday, May 23, 8 am - 5 pm, at Miami-Dade Extension Service Auditorium, Homestead. Cost for this seminar is $12.50, which includes coffee, pastelitos, and lunch. A flier with a registration form is available at the Extension office.

The category Private Applicator is for nursery, fruit, and vegetable personnel. The class will be taught by Dr. Carlos Balerdi and Ruben Regalado from our office, and Cézar Asuaje from the Belle Glade Extension office, who teaches pesticide classes in Spanish in several South Florida counties. The instruction will be in Spanish, but remember that the exam is in English.


Ornamental & turf review & exam.

Wednesday, June 18, 8 am - 5 pm, at the Extension Service Auditorium, Homestead. Cost for this seminar is $12.50, which includes coffee, donuts, and lunch. A flier with a registration form is available at the CES office.

Good for 1.0 CEU in General Standards/Core, and 5 in Private Applicator Ag and O&T.

Worker Protection Standard in Spanish.

Friday, June 20, 8:30 - 10:30 am. At the Extension Service Auditorium, Homestead. Cost for this seminar is $5.00, which includes coffee and pastelitos. This training is for nursery, fruit, and vegetable personnel. A flier with a registration form is available at the CES office.

Good for 1.0 CEU in General Standards/Core. Call 248-3311 x 242 for information.
Several new fact-sheets are available:

These fact-sheets have been completed or nearly completed since the last newsletter. We call them “In Writing” because so many of you have requested information “in writing” on the various topics. They are also available in electronic form at our website:


1. In Writing fact-sheet no. 79. Landscape maintenance curriculum, 2003, Jan - Dec. This curriculum is available again after several years absence.

2. In Writing fact sheet no. 76. Safety/pesticide curriculum, 2003, Jan - June. This is a revision covering only those seminars offered through June.


4. In Writing fact-sheet no. 80. Asiatic lily ... pot-plant production in South Florida. This fact-sheet is available as a draft document, as presented at the recent “New ornamentals with potential, plus marketing” seminar. The final document will be available by June.

5. In Writing fact-sheet no. 81. Cycads resistant to Aulacaspis scale. This list can help nursery and landscape people to re-grow and re-plant cycads in our area.

6. In Writing fact-sheet no. 82. Mussaendas for South Florida. This also is a draft document planned for the seminar. Dr. John McLaughlin did a good job gathering information for this fact-sheet, which will become popular, useful to production, maintenance, and lay clientele. The finished publication will be available in June.

Timely topics:

Diagnosing diseases of palms.

It should come as no surprise that as we move into the rainy season here in South Florida, we also move into the season when diseases of palms (and everything else) are on the increase. The frequent rains, higher humidity, and lush growth are perfect conditions for fungi, bacteria, and other disease-causing organisms.

In many cases the diseases have simply been in an inactive state during the cooler, drier Winter. As conditions begin to favor the pathogens, we see the diseases expressed, often moving very quickly to seriously damage or kill the host palms.

To help landscapers make preliminary diagnoses of diseases they encounter on palms in their care, we prepared a publication a few years back. It’s “Field diagnosis of diseases in landscape palms.” It contains a table of symptoms you can use to identify many diseases in the field. It has proven to be useful about 70-80% of the time. Even if you can’t decide which disease you are looking at, the table will usually allow you to eliminate some possibilities. This can help you decide what tissue you need to submit to the Plant Disease Diagnostic Lab at TREC.

The diseases covered are those which cause death of the palm, and include Phytophthora bud-rot, Thielaviopsis bud-rot, Ganoderma butt-rot, Fusarium wilt, and Lethal Yellowing. Copies of the fact-sheet are available on line and at the office in Homestead. jg.

Nutrition in palms during & after cold weather.

Another phenomenon is often observed this time of year–nutrient deficiencies may simply disappear with the cool weather. Take, for example, manganese deficiency of coconuts.

Low temperatures can cause a temporary manganese deficiency by reducing root activity. The roots are less active when it’s cool, so nutrient uptake is reduced, especially micronutrients, and especially manganese. We see this during Winter and early Spring, even on palms like coconut which normally do not suffer manganese deficiency. In coconuts, rather severe symptoms may follow a cold spell, then disappear without any treatment as the season progresses and temperatures rise.

You will sometimes see several cycles of this during a given winter, resulting in some of the strangest symptoms. A single leaf may have normal leaflets at the base, with progressively shorter leaflets toward the tip of the leaf—a triangle shape. You could be forgiven for believing that someone had taken pruning shears to the leaflets. This may be seen two or three times on the same leaf.

The explanation is that the weather is becoming cooler and cooler at the same time the leaf is being formed in the bud, making manganese less and less available, resulting in reduced leaflet length. (Actually, the tips become frizzled and fall off quickly, causing the shortened appearance.) If a warmer spell follows, the leaflets emerge full length again. Another cool spell will cause the leaflets to become shortened again. jg.
Do trees and palms in the landscape need to be watered?

In the August, 2000, issue of MowerMan magazine there was an article entitled “When supplemental water is required for trees & palms.” A great deal of space in the article is used for determining how much applied water trees and palms need, and the placement of emitters to provide that volume.

Well, I may be off track here, but I recall being taught that once they are established, trees and palms need exactly zero supplemental water under usual conditions: water them to supplement rain during the first year only, and be down to zero before that year is over. The article even covers the need to move permanent emitters as the tree or palm grows larger.

The article even discusses adjusting upward the amount of water applied depending on what is planted around the tree or palm. Well, I don’t think that anything should be planted around trees and palms, except for turf or another groundcover, and even these should be kept out of a substantial mulched area near the trunk.

People are sensitive about what they believe plants need, and I don’t want to get into any arguments. I’m sure that the author is conscientious, and that he is giving what he considers good advice. I just happen to disagree with him.

This, then, is what I honestly believe trees and palms need, and it is what I consider good advice on the topic:

--first, plant nothing around or under trees/palms;
--second, mulch most of the area under a tree/palm, preferably with an organic mulch;
--third, use only temporary irrigation systems around them;
--fourth, remove or cap the temporary irrigation system and stop supplying extra water to the tree or palm within one year of planting. (Perhaps water it a little longer than that if it was a big transplant.)
--a fifth item must be added: should there be an extended period of severe drought, supply extra water infrequently (every three or four weeks should be OK), and water well enough to soak the ground to a depth of one foot or more. This water may be supplied by temporary sprinklers, or by reactivating a system that was capped. jg.

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A tip for the rainy season ... watch for leaf-spots.

(My friend Ray Zerba, Horticulture Agent way up in Green Cove Springs, Clay County, sent me a copy of his newsletter for the landscape industry, called “Commercial Clippings.” He does it jointly with several other agents in the Jacksonville area, but the articles that caught my attention are Ray’s. Here’s one that I think we can use in Miami-Dade. Edited, of course, and expanded. jg.)

With all those Summer afternoon showers comes an increase in the number of leaf-spotting diseases on your customers’ ornamentals. Most of the time, you can just ignore the problem because it’s not too bad. A good scout, however, will watch for any problems getting out of hand.

The following suggestions may be useful in reducing the incidence of these leaf-spotters in the landscape, and in keeping them from becoming leaf-blighters:

1. Be sure the irrigation system doesn’t come on if we’ve just had a good rain. As a guide, try this: if you’ve had ½ inch of rain or more, don’t water again for three days.
2. Always water only in the morning, between midnight and eight a.m.. This will minimize new infection and spread by keeping the leaves wet for the minimum length of time.
3. If spotted leaves fall, rake them up and remove them from the landscape. They are a source of infection.
4. If a plant has a history of serious leaf-spot disease, consider replacing it with something less likely to spot.
5. Sometimes a little careful pruning can allow more sunlight and air to reach the plant, and this may reduce the problem.
6. If you have to spray, remember that we spray to prevent infection, not to cure it, so spray new leaves before they become spotted.
7. Also remember to identify the leaf-spot (use the Plant Disease Diagnostic Clinic at TREC), then use only pesticides which are effective against that particular disease.
8. Spray well—cover all susceptible tissue, on all sides.

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How low can you mow?
T. L. Watschke, Penn State. ed. by j.g.

A traditional method of grouping turfgrass species (sp) has been according to their recommended height (ht) of cut. However, as new cultivars (cvs) of almost every species enter the marketplace, it has become virtually impossible to make general recommendations concerning mowing ht. (Remember, he’s talking about Pennsylvania. jg.)

Cvs within species can now be separated into groups with regard to mowing ht, which was unheard-of not too long ago. Breeders have developed and released creeping bentgrasses (for Pennsylvania. jg.) specifically for their capacity to tolerate close mowing; Kentucky bluegrasses for their ability to persist under closely mowed golf-course-fairway conditions; and dwarf or tall fescues tolerant of closer mowing than KY-31, the ancestor of contemporary cvs. Cv development within other spp has and is undergoing similar change.

What does this mean to turfgrass managers as they make adjustments to their cultural programs? Do we really have
the same need to manipulate cutting ht in response to environment conditions as we did in the past? The answers to these questions may not be as simple as we would like. It is, therefore, important to review the classical responses that turfgrass plants have to ht of cut. So, read on ...

Mowing height affects turfgrass health.
Every turfgrass sp (and often cvs within spp) has a range of cutting hts within which it remains most competitive. This competitiveness is due to the ability of the turf to occupy available space, access water and nutrients, intercept light, resist disease and insect attacks and maintain vigor.

Lower ht of cut within the tolerance range minimize apical dominance, so the plant increases its basal-tillering rate. Increased basal tillering results in increased density, which improves the ability of the turfgrass plant to occupy space. However, with lowered ht of cut, the amount of leaf-blade available for photosynthesis is lower, and the root mass usually decreases.

These negative responses can limit the ability of the plant to tolerate mechanical and environmental stresses like wear, heat and drought. Reduced root mass also limits the available nutrients that the grass can exploit. The reduction in photosynthetic area also creates problems for the plant with regard to carbohydrate metabolism. Because the leaf area available for photosynthesis is lower, the plant must rely on stored food reserves for regrowth. As it depletes stored food reserves, growth, vigor and competitiveness decrease.

Consequently, turf managers must increase maintenance intensity to provide an "assist" to the plant: more frequent irrigation, some foliar nutrition and more emphasis on disease management. When ht of cut becomes so low that the maintenance intensity no longer can sustain the turf, the resulting appearance and playability tend to drop.

The only wise course of action is to raise the ht of cut. This should be obvious, but we just don’t think of it. Even a small increase in ht can provide significant benefits. Considering the total number of leaf blades in a given area, even a mm more of length for each blade significantly increases total leaf area & photosynthetic capacity.

By increasing photosynthesis, the plant produces more carbohydrates (food), allowing it to better support growth needs without using stored food. More leaf tissue also results in denser shading of the soil, thus reducing heating of the root zone, and may reduce weed pressure. Reduced soil heating reduces root sloughing and the severity of root diseases. Increased leaf area also improves resistance to the stress of mowing & foot-traffic.

You’ll often notice the first evidence of problems related to low mowing ht on putting greens during the cleanup pass on the perimeter. This area of stressed, closely mowed turf has a much more difficult time maintaining high quality in contrast to the adjacent higher-cut turf in the collar (which often is the same sp). I cannot think of a more “clear-cut” example of the benefits of a higher ht of cut. Such an example is useful to superintendents when they are asked to explain the benefits of a higher ht of cut.

Make your bedding plants last longer.
This is a condensed form an In Writing fact-sheet.

Bedding plants (annuals, plus biennials and perennials used as annuals) are an important part of landscapes in South Florida. They provide changing color & texture through the yr, and are an easy & inexpensive way to perk up a dull landscape. Flowering annuals, however, also can be a drain on the landscape budget if they’re badly managed. Poorly maintained, weedy flower beds make everyone get the most for the time & money invested. The following discussion is divided into two parts: design features, which should be kept in mind before anything is planted, & maintenance operations, which begin after everything is planted.

DESIGN FEATURES. The following are design suggestion which can help you to get the most for your money & effort, using annuals to color up the landscape and provide seasonal changes. 1. THE RIGHT PLANT IN THE RIGHT PLACE. Rather than trying to change the site to suit the plant, choose plants that work well in the environment you have. Plant sun-lovers in the sun & shade-lovers in the shade. Some plants can adapt to various conditions, while others are particular in their requirements. Remember pH, fertilizer, & water requirements. Only use flowers that you know will grow well in your site. Keep in mind shade, sun, soil, salt spray, temperature, & other factors.

2. GIVE THEM HEAD- ROOM. Select bedding plants based on the desired ht at maturity. Pruning back tall plants adds costs, & delays or eliminates the desired effect. Trying to keep a 4-ft Cosmos or 5-ft Sunflower growing beneath a three-foot window frustrates the plant & the gardener. That applies to shrubs & trees, too. 3. GIVE THEM ELBOW-ROOM. Do not crowd plant beds with too many individuals in a limited space. This increases problems & the need for pruning. Know how big they will get & give them room to roam. Plants that are set too close (i.e., for instantly mature beds) soon become overcrowded. Overcrowding increases disease potential, reduces flower production, & can result in decline. Those customers who insist on instantly mature beds should be warned that plants will need to be thinned later.

4. TIME & TEMPERATURE. We lose a lot of annuals locally because of temperature. Many gardeners do not seem to understand that there are some annuals that can’t take our Summers, & others that can’t take our Winters.
We have complete control over this. Snapdragons & pansies, for instance, are fine Winter annuals for us, but perform poorly in Summer, & will simply die out as the weather warms up. On the other hand, vinca (Catharanthus) & marigolds love the heat & do their best if planted in the warm season. 5. Pick annuals that drop spent petals or flowers easily to reduce maintenance. Such annuals are said to be "SELF-CLEANING" in the flower breeding business. Begonias, impatiens, & vinca are good examples of self-cleaning plants. Avoid or keep to a minimum those annuals like geranium, most marigolds, salvia, & snapdragons, which have to be dead-headed to keep them looking clean. 6. CONSIDER plants with interesting foliage. Try dusty miller, coleus, caladiums, & other colorful plants, combined with flowering plants. Or try them alone. They are nice, neat plants in their own right, & they require less maintenance. 7. PREPARE THE BEDS WELL by working in organic matter, & by deep tilling (unless, of course, you’re on rock). Organic matter improves root penetration, reduces compaction, holds water, & provides a slow release source of some nutrients.

8. MULCH, but avoid over-mulching. Three in. of mulch is about right for trees & shrubs, but a bit heavy for bedding plants. Use about one in. of mulch to cover the soil, control weeds, & conserve water. Once the bedding plants grow together most weeds are eliminated. Organic mulches add organic matter to the soil as they decompose. Mulching is possibly the most important single thing you can do to reduce landscape maintenance. It is both a design feature & a maintenance operation because the mulch must be replenished during the season to maintain the desired depth. 9. USE THOSE “OLD RELIABLES.” Select the toughest plants for the site, not those with the brightest flowers. Picking the best plant for the site keeps work & problems to a minimum. Look at what the neighbors grow. Find out what does well around the neighborhood by visiting nurseries, botanical gardens, & trial gardens. Remember that old reliables earned that name by doing well over the yrs. under various conditions.

10. AVOID TREES. Locating beds around trees is bad for both bedding plants & trees. Every time you turn the soil or dig a hole you disturb the tree. Plus, bedding plants don’t have a chance competing with a tree for water & nutrients. Then there is the dilemma of watering. If you water often enough to keep the bedding plants from wilting, you’re over-watering the tree. In the case of palms in particular, the combination is deadly for the palm. Always locate beds, which need frequent watering, away from trees, which do not. 11. KEEP IT SIMPLE. The greater the variety of plants used in a landscape, the greater the amount of work & expertise required. It’s easy to forget or overlook things that are required for particular plants when there are too many kinds. Simplicity is usually better, both for appearance & for maintenance.

MAINTENANCE OPERATIONS. The following practices can help keep your work to a minimum, & benefits to the maximum. 1. WATER is essential, but not too much, & not too little. Encourage deep, infrequent watering rather than short daily sprinklings. Watch for indicator plants. Impatiens will wilt before most other bedding plants; waiting to irrigate until the impatiens start to wilt is one way to supply water based on plant needs. More bedding plants die or perform poorly in South Florida because of over-watering (watering too frequently) than because of any other factor which we can control. 2. KEEP LEAVES DRY longer by watering between midnight & dawn, when there is usually a dew on them anyway. If you water in the afternoon or evening, you lengthen the period during which the leaves are wet, & this contributes to disease development. Providing space among the plants for air circulation will also help them dry more quickly.

3. WEED beds manually, but also look at some of the herbicides available. Most of the time, if you mulch well, few weeds will come up; & those which are blown in as seeds are easy to pull, because they’re not deep-rooted. Weeds also can harbor insect pests & disease-causing organisms. 4. AVOID FREQUENT CULTIVATION because it brings up new weed seeds, & damages roots. There are a number of post-emergence herbicides that can be used over many annuals to control grassy weeds. 5. REGULARLY DEAD-HEAD bedding plants that are not self-cleaning. Regular removal of the old flowers & fruit promotes continuous flowering & produces a stronger plant.

6. Some bedding plants, like petunias, vinca, & impatiens, can be REJUVENATED once or twice if you head them back & fertilize. Remember that bedding plants are called annuals (or treated as annuals) because they complete their life cycle in one season. They all will eventually wear out & die. Don't spend too much time & money trying to keep from replacing some 78c plants. When it’s time for change, just do it. 7. Do not try to KEEP bedding plants TOO LONG. They grow for a long period in South Florida since they are not usually bothered by frost. Quality & flowering, however, decline as the plants pass maturity. Don't keep a bed of declining plants because a few plants are still blooming. When it’s time for change, just do it.

8. KEEP plants GROWING VIGOROUSLY by following regular fertilization & watering schedules, modified as needed by observation. Vigorous plants last longer & look better. 9. BE REALISTIC. No landscape is perfect. There may be a few insect-eaten leaves, a couple of small weeds, & maybe a few dead flower heads. Don’t let the leaves pile up, or let the weeds grow higher than the flowers, or leave the irrigation broken. Be realistic: aim for what can be achieved on the budget allowed. Perfectionism is expensive, & contributes to environmental problems.

(Based in part on an article by D. Hensley. 1998. Words of wisdom for low-maintenance landscaping, Univ. of Hawaii Coop. Ext. Ser.)