

To ease city stress, but make sure it's

TROPICAL FOLIAGE PLANTS are growing tall, especially in commercial working environments. Our urban world seems cold and impersonal in its stone, steel and glass. Perhaps the development of our technological prowess has already exceeded our biological evolution—and a psychological gulf has alienated us.

The conflict between the human animal and contemporary settings concerns the environmentalists and psychologists. How might we bridge this widening gap and shorten the psychological distance between humans and environments of steel, asphalt and stone?

Living green foliage plants are no longer luxuries. They are being used more and more in designed interiors to ease anxiety and tension. Plants help to create relaxing environments, relieving and preventing urban stress.

Our goal in the Interior Plantscapes Association (IPA) is to help foster, guide and monitor this trend by working closely with our professional members to insure that they have all the tools they need to provide tasteful and inexpensive plant installations. Ongoing maintenance is necessary for plantings to stay healthy year after year. Good plant health is important for successful interior plantscaping.

MAINTENANCE begins before the plants are installed in a client's place of business; it begins with the growers. The best maintenance technician in the industry will be helpless to save a plant that has not been correctly acclimatized or hardened down. An IPA committee has studied plant acclimatizing at the grower level. The committee, with input from US growers, has come up with the following standards and specifications.

- Minimum 60 percent to maximum 80 percent shade (5200 to 2600 foot-candles). Growers and interior plantscapers must be sensitive to plants' needs for enough light for healthy physical development while starting to change the physical structure of the plant toward adapting to low light.

(Some plants such as scheffleras do better in 64 percent shade; others at 70 or 80 percent shade.)

- Watering by drip system for minimum humidity near the leaves.
- Fertilizing through the drip system instead of time-released or foliar feeding.
- Soil: 1/3 bark, 1/3 peat, 1/3 sand; 1/3 pumice, 1/3 fir bark, 1/3 peat; 20 percent sterilized soil, 20 percent peat, 60 percent sand
- pH: 6.5
- Watch soluble salts level
- Root systems well established and showing some root development through the drain holes at the bottom of the grow can.
- Drench for fungi and bacteria.
- Clean plants to be certain there is no insect infestation.
- Sell according to height and breadth specifications outlined in IPA's "Standards and Specifications."

EVALUATION of the environmental conditions of a job site is as important as good maintenance. When studying the interior's growth conditions, look

care at the job site. Your research will help you to select the right plants for each space. Match the lighting with appropriate hardy plants. Two more considerations are:

- Growth habits of the plants should allow easy pruning. For example, don't put a 6-foot Norfolk Island pine into a room with 8-foot ceilings—within two years it will touch the ceiling and pruning would ruin its shape.
- Design with plants to complement the spaces and reinforce design themes, but keep maintenance easy. Don't place plants in hard-to-reach or dangerous spots. Don't place plants where the maintenance staff might bother employees.

CARE AND HANDLING of plants during pre-shipping and transporting from the grower to the interior plantscaping involves careful coordination and timing between grower, trucker and interior plantscaping. Plants must be sleeved, boxed or wrapped appropriately without excessive waiting in the loading area. Reliable truckers and growers should pack carefully so the truck is full without damaging the pro-

Acclimatization and cleaning are vital for plants' health

for the following.

- Light, measured in footcandles. Be particularly sensitive to areas that will not receive a normal 8 to 12 hours of light during a minimum of five days each week. Discuss new lighting concepts (such as ambient/task lighting) with the architect and designer if they are used. Plantscapers must thoroughly understand the lighting systems.
- Heating, ventilation and air conditioning (HVAC) must be considered. Thermostat controls and the cubic volume capacity of the ventilation system may determine what plants are selected for the space.
- Make sure plants are handled with

ducts. The trucker should check the truck's cooling or heating system before and during the trip. Large jobs involving a full truckload or more probably will be shipped directly to the job site. But smaller loads are usually shipped to the plantscaping's greenhouse or warehouse.

Pre-installation acclimatization and plant cleaning are important. Typical installations of 20 to 50 plants in portable containers allows plantscapers to continue acclimatization.

Following are acclimatization guidelines.

- Reduce light to 150 to 250 foot-

BELIN 180

Belin 80

plant foliage— maintained

candles at 6 feet from the ground. Natural or artificial light (or a combination) can be used.

- Drench the plants immediately with benomyl and Banrot to combat fungi and root rot.
- Mist ficus heavily during the first week, intermittently second week. Remove all time-release fertilizer from the rootball and grow can.
- Check soil level to be sure the rootball is at the right height in the grow can.
- Clean all dead wood and dead plant material from the soil surface.
- Use insecticide at least once each week for preventative maintenance. The Environmental Protection Agency (EPA) encourages sanitary preventative maintenance. Remember to use a spreader/sticker.
- Watering frequency and humidity should be reduced from what the plant received at the grower's.
- Clean the leaves on all plants with an air compressor and trigger nozzle or by hand. Several cleaning mixes are currently used, such as 30 percent leaf shine / 70 percent water.

Clients see good maintenance as 60 percent public relations, 30 percent horticulture and 10 percent general cleaning. Interior plantscapers' training is 60 percent horticulture, 20 percent public relations and 20 percent general cleaning. But too often a few impertinent remarks from a maintenance technician will overshadow horticultural expertise in the eyes of the client. Blending the criteria makes maintenance a challenging job.

IN INTERIOR environments, where Mother Nature is not available to assist, watering is critical to the success of foliage plants. Over- or under-watering is responsible for 90 percent of the loss rate. All of us are familiar with that situation where a new maintenance technician who takes over a job often goes through a three-week period of adapting. New maintenance technicians should consider using a soil moisture meter. Good drainage is always important.

Recognizing insects, fungi and bacteria is also critical. The EPA should provide us with the safe chemicals and application procedures to keep these problems controlled.

Use liquid fertilizer and adjust the frequency according to the light conditions and time of year.

Shoot-pruning is good for plants and maintains their shapes to fit the original design ideas. And weekly plant cleaning should never lapse. Dirty leaves are the first warning signs that clients are not getting their money's worth—or that the plant is sick.

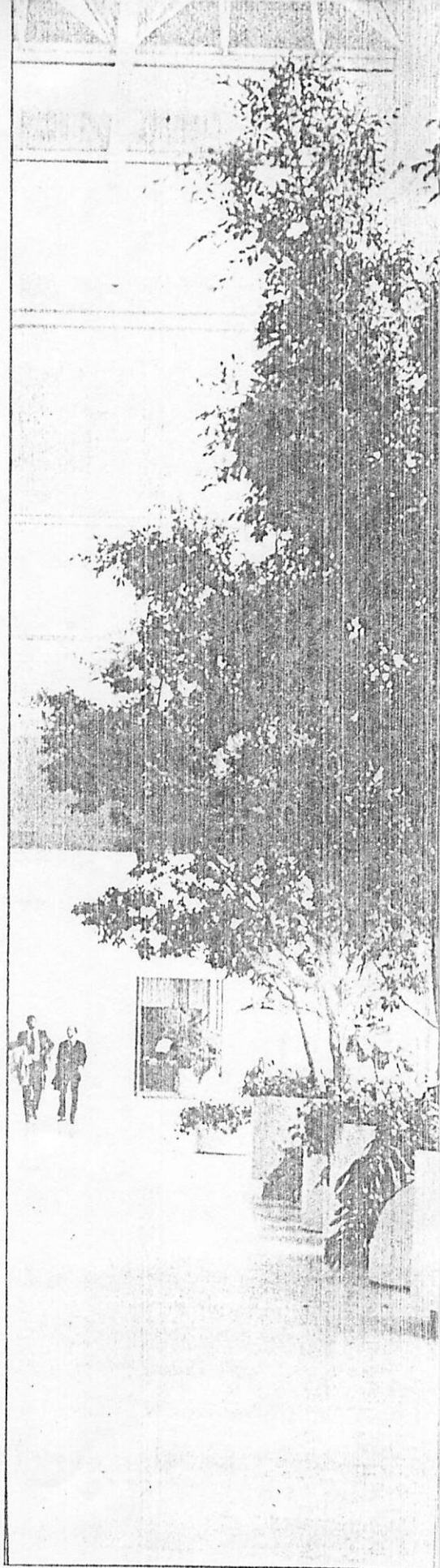
BE HONEST with clients about plant problems, and explain solutions clearly. Most clients have been working with plants for a long time and won't be taken in by fabrications.

Maintenance technicians should never interrupt board meetings or closed-door conferences. The good intentions of an eager maintenance technician feather-dusting or watering during a critical budget discussion will not be appreciated. But plants don't appreciate two or three weeks of neglect. Give written maintenance instructions to a secretary to cover for such situations. Clients' wastebaskets should not be used as compost dumps. Many resent the use of their wastebaskets as leaf and stem receptacles. Carry your own leaf bag.

Watering by the client and questions about plants may be handled diplomatically with a memo.

Healthy and clean interior plantings require thoughtful maintenance technicians who know how to walk that fine line between growing a plant and maintaining a plant. A 5-foot plant may be surviving, with 1 or 2 leaves at its terminal point, but maintenance technicians must strive to maintain beautiful, lush and healthy plants.

EDITOR'S NOTE: This article was adapted from a speech by Harry Belin, president of the Interior Plantscapes Association, Reston VA, given at the Tropical Plant Industry Exhibition, January 16.



Understand light requirements before installing plants.