

DESIGN

Tips for lighting up Christmas landscapes

Christmas lights can add color and holiday spirit to the landscape—if they're done right. Frank LaGuisa, senior specialist of decorative lighting for General Electric, has designed the National Christmas Tree display for 12 years. He says landscapers should follow these steps in preparing a Christmas display:

- *Determine the objective:* the message to be expressed, viewing angles, sight lines of viewers, natural features, architectural features and structures. Analyze the site, using natural attributes. Find the best location for decorations and features to be highlighted.

- *Select a theme appropriate to the desired image,* such as traditional, modern or religious. Take into consideration local customs, traditions, characteristic decor, ethnic traits and religious customs.

- *Translate the theme into a unified composition.* Establish a focal point and color scheme to maximize effect. Set a unifying format, but play variations against the theme: color, proportions, sizes or treatments. Do not vary everything.

- *Establish the type of construction.* Determine where devices will be mounted; how they can be reached with the electrical power supply. Consider weight and size limitations. Check out visual conflict with lighted windows, street lights and identification signs. Use skills within your organization and familiar construction methods.

- *Choose lighting equipment.* Select fixtures and lamps with the appropriate wattage, size, type, and color. Plan for the quantity of lamps



Norway spruce and Eastern red oaks "dressed up" for Christmas

necessary to provide the planned pattern and brightness.

To figure exactly how many lights are needed, LaGuisa suggests this formula: for the number of string set lights needed to give a tree a "full" effect, multiply the height of the tree by the width of the tree (in feet) by three. Trees larger than 50 feet may require medium-base lamps, while trees less than 10 feet can use "midget" lamps. When using plug-based midget lamps, modify the formula by multiplying by six or eight, rather than three.

Create color impact by using solid or limited color combinations. Ironically, the more multi-colored lights on one display, the less vivid is the perceived color. Multi-colored sets

with equal numbers of gold, red, green and blue lamps will produce a yellowish-white light, since the primary colors produce white light.

The color impact hierarchy is: gold lamps are the brightest, followed by red, then green, while blue has about one-fifth the visual impact of white lights. For best results, use brighter colors on focal points or foreground elements, and dimmer colors on background elements.

Outlining structures is a simple and effective way to decorate for the holidays. Add liveliness to the display by installing a twinkle lamp in every sixth socket. Heavier use of twinkle lamps will produce a busy effect.

For colorful examples of Christmas lighting, see "On Design."



A portion of Highway 90-A's median

RIGHTS-OF-WAY

Government, business cooperate on highway

The largest matching fund program in Texas' highway beautification program has been announced by Lexington Development Company. The unique partnership of state government and private business has produced a 500-foot wide, 2½-mile long belt of blazing color.

The \$500,000 project lies along Highway 90-A between Sugar Land and Richmond, southwest of Houston. It fronts Lexington Development's 3,100-acre master planned community, New Territory, which will contain 8,500 homes, office, commercial and retail buildings. The program includes a mix of wildflowers, grasses, shrubbery and trees planted along the median and both sides of the property.

INDUSTRY

Twenty-five years of service to industry

"The green industry is larger than we ever thought it would be," comments Jim FitzGibbon, celebrating the 25th anniversary of his company, Lesco, Inc. "Lawn care was barely thought of at that time (1962). It then was the creampuff. I believe we were the first people to recognize lawn care as a market. And golf course budgets have increased dramatically in that time, too."

Lesco, under the guidance of FitzGibbon and co-founder Bob Burkhardt, has grown from sales of \$75,000 in 1962 to almost \$95 million in 1987.



Jim FitzGibbon

What's the secret to the company's success, which has come from sales through a fleet of vans, drive-through turf supply stores and inside telephone sales?

"It's all people that make a business successful," FitzGibbon says. "We also take a total market approach."

FitzGibbon, forever looking to the future, concludes: "It's been difficult, but it's been fulfilling for all of us. It's been exciting, and it's more exciting now than ever before. I think I'll stick around for the fun."

LEGISLATION

California laws flawed, claim UCR researchers

California laws which seek to limit pesticide use and protect the environment have had the opposite effect in many cases, say researchers at the University of California at Riverside.

Current California law has resulted in increased pesticide applications on ornamentals because it delays the registration of newer, more effective pesticides in the state. Provisions of the law can also contribute to the development of pesticide resistance in many insects, a news release from the College of Natural and Agricultural Sciences notes.

"Time delays between national registration and the registration of pesticides in California should be reduced," says UCR entomologist Michael P. Parrella. "The current lag-time of three to five years puts Califor-

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PESTICIDE POISONINGS...In 1988, all Hawaii physicians will be required to report any pesticide-related injuries or poisonings. Dr. Bruce Anderson, deputy director of environmental programs for the Hawaii Department of Health, says the state will follow in California's footsteps in requiring the reports. "We now have a good diagnostic test for organophosphate poisonings," Anderson says. Despite the test, Anderson told the Pan Pacific Turfgrass Conference that it may take several years to get physicians to recognize the symptoms.

FOR JOB-HUNTERS ONLY...ACRT Inc. is in the business of training green industry workers; they've trained more than 2,600 in the last two years. They've now established a toll-free number to help their graduates find job openings in tree, landscape, line clearing, lawn care companies and nurseries. The number is (800) 622-2562—for ACRT grads only.

A NEW WEAPON...Riverdale Chemical Co. has received EPA registration for Weedestroy Triamine II, a three-way post-emergence selective broadleaf herbicide. Weedestroy Triamine III contains amines of MCPA, mecoprop and dichlorprop to kill dandelions, chickweed, plantain, oxalis, spurge and many other weeds. The amine formulation was developed as an alternative to 2,4-D.

BREATHING EASIER...3M Corporation will release a revolutionary respirator in early 1988, according to 3M account representative Bill Fink. Fink told the Pan Pacific Turfgrass Conference that the respirator will be known as the Powered Air Purifier Respirator (PAPR). PAPR will fit on a worker's belt and be rechargeable overnight for more than 10,000 hours. The respirator is being test marketed in Hawaii because of the state's high temperatures. Kathy Kramer, marketing/communications administrator at 3M's headquarters in St. Paul, Minn., would not release any further information on the new product.

PEOPLE NEEDED...Landscape Horticulture Center for Personnel Development is concerned with the lack of a viable work force in the landscape industry. So what's it doing? Developing an Apprenticeship Training Program for Landscape Technician and Landscape Management Technician. L.H.C.P.D. is a non-profit green industry support group structured to work with regional and national green industry organizations in areas of common interest. For more information, write or call: 2509 Thousand Oaks Blvd., Suite 109, Westlake Village, CA 91362; (805) 498-6916.

KINDRED SOULS...Landscape managers in Maryland have united to form the Maryland Seeding Association for people who seed lawns, provide erosion control and do other contract seeding. They are looking for other such organizations in the United States to "compare notes." If you know of such an association, give Maryland president Jim Patton a call at (301) 924-4445. Or you can call executive secretary Diane Patton at (301) 384-6300.

HONORARY HONORS...C. Reed Funk, Ph.D., became the American Sod Producers Association's newest honorary member at the group's convention last summer. The world-renown turfgrass breeder and researcher joins only 10 others who have been chosen by the ASPA Board of Trustees for this honor in the organization's 20-year history.

nia growers as a competitive disadvantage because they have higher costs of production."

California, for instance, leads the nation in chrysanthemum production, but 23 percent of the crop is lost each year to leafminer damage. Parrella claims that several insecticides not yet registered in California would provide adequate leafminer protection with lower levels of insecticide actually being used.

Parrella and fellow researcher John T. Trumble have suggested the formation of a Scientific Advisory Panel to provide in-depth information on the potential of registering new chemicals. The registration of a chemical for use against one pest can disrupt the resistance management strategy for another, they note.

PESTICIDES

Endangered species laws on the horizon

Beginning Sept. 20, 1988, the use of all high-leachability pesticides will be restricted to areas not populated by endangered species of wildlife, says Carlton Lane of the U.S. Environmental Protection Agency.

"Endangered species labelling has the potential to affect you more than anything the EPA has done since 1972," Lane told landscape managers at the National Roadside Vegetation Management Association's annual meeting.

The U.S. EPA is mapping out endangered species ranges nationwide for certain pesticides. The ranges are designated by county.

"County maps are being distributed starting in December to county agents," Lane notes.

The Endangered Species Act will take precedence over the Federal Insecticide, Fungicide and Rodenticide Act, which governs the use of pesticides.

Warnings called "groundwater advisory statements" will be placed on the pesticides. Users will then have to call local fish and wildlife service offices if they want permission to use these products in restricted areas.

The first pesticide "cluster" to be affected by the new labelling will be mosquito larvicides and forest pesticides. Rangeland pesticides, major crop pesticides, aquatic pesticides

and non-cropland pesticides will follow, Lane says.

Each state will have fish and wildlife enforcement agents to consult with pesticide users. (The Fish and Wildlife Service will be the first federal agency besides the EPA to regulate pesticide use.)

"Right now, we have really no feel for how many lawn and ornamental pesticides will get drawn into this," says Bob Wulfhorst of the Ohio EPA.



Carlton Lane

CONFERENCES

GCSAA doing things Texas-style: big

The 59th International Golf Course Conference and Show in Houston is expected to eclipse last year's record attendance of nearly 13,000.

The show, conducted by the Golf Course Superintendents Association of America (GCSAA), is expected to clear the 13,000 mark during the show, February 1-8 in the George R. Brown Convention Center.

The GCSAA reports that trade show exhibit space reservations are ahead of last year's pace, when more than 300 commercial exhibitors displayed their supplies and equipment.

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Besides the huge trade show and extensive educational seminars, the conference provides the association the opportunity to present scholarship awards, recognize distinguished service and also present the association's highest honor, the Old Tom Morris Award.

The GCSAA reports that hotel space is dwindling as reservations come in. For more information on the conference, contact the GCSAA at 1617 St. Andrews Dr., Lawrence, KS 66046; (913) 841-2240.

CONFERENCES

Short Course opens registration to Jan. 4

The 1988 Short Course in Horticulture, Jan. 12 to Feb. 11, 1988 is now accepting registrants.

The five-session course will be held in Los Angeles County, Orange County and San Bernardino County, Calif. Topics include "Water Management of Ornamental Plants" by Randal Ismay and Janet Hartin; "Environmental Problems in the Nursery and Landscape" by Paul Rogers; "New Ornamental Plant Introductions by Jan Groot, Mike Evans and Rodger Duer; "Pruning and Training Shrubs" by Richard Baldwin; and "Weed Control in the Nursery and Landscape" by Clyde Elmore.

To register, send \$25 (check payable to Horticulture Education Fund) with your name and address to Ed McNeill, 2492 E. Mountain St., Pasadena, CA 91104 by Jan. 4.

CHEMICALS

EPA amends fungicide label

After numerous meetings, the Environmental Protection Agency has advised the W.A. Cleary Chemical Co., that adjustments to its Caddy Liquid Turf fungicide, the only labeled cadmium-based fungicide, will be necessary.

"W.A. Cleary fought vigorously to protect the Caddy label," the company says. "We met on numerous occasions with the EPA and presented our case to a specially convened Scientific Advisory Panel."

Cleary agreed to the following changes to the new Caddy Liquid Turf label:

- Expanded list of diseases controlled, including dollar spot, copper spot, brown patch, damping off, fading out, leaf spot and melting out, red thread, pythium blight and snow mold;

- Restricted to use on only greens, tees and aprons;

- Restricted to use by or under the direct supervision of a licensed pesticide applicator; and

- Restricted to use in power sprayers only—no backpack or manually operated sprayers.

Use of Caddy, as before, is prohibited in California, Connecticut and Wisconsin.

LAWN CARE

Barefoot buyout scrapped for now

Though both companies had signed a letter of intent, Barefoot Grass Lawn Service of Worthington, Ohio, will not be bought as planned by CDS Holding Corp. Negotiations were discontinued after about three months, says Barefoot president Pat Norton.

CDS Holding Corp. was formed by New York-based Clayton Dubilier for the purpose of buying Barefoot Grass. Clayton Dubilier owns O.M. Scott & Sons.

A notice to O.M. Scott employees said: "Discussions between Barefoot and CDS have continued until recently. Unfortunately, a final agreement satisfactory to both companies could not be reached.

"We are disappointed that this transaction could not be completed. Barefoot is an excellent company with an outstanding record of growth and profitability.

"We will renew our efforts to find ways to enter and benefit from the lawn care service business."

Ron Gagne, commercial sales manager for O.M. Scott, says "We're all very disappointed. We hoped and worked very hard to make it work."

Norton says he won't rule out the possibility of Barefoot being sold in the future. "We saw it as a positive step if it happened but we're also pleased with the results of the company (Barefoot)," he says.

Barefoot had total sales of \$22 million in 1986, including both corporate and franchise revenue.

RESEARCH

Turf herbicide can reduce contamination

A turf herbicide designed to reduce groundwater contamination dangers was developed and patented by a researcher from the University of Florida's Institute of Food and Agriculture Sciences (IFAS).

The herbicide, to be marketed by Ciba-Geigy under the trade name

"Premier," controls weeds in lawns, golf greens and other grassy areas. The company is awaiting EPA registration.

Agronomy professor Merrill Wilcox, Ph.D., synthesized the chemical compound for the herbicide. He has assigned patent rights for the product to the University of Florida so it will receive royalties on sales.

Wilcox, who is also licensed to practice patent law, says EPA registration is the last hurdle. He is hoping for registration during 1988.

"We are confident EPA will look favorably on this herbicide," Wilcox says, "because of its low toxicity and because it will be for non-food use."

Wilcox explains that because of its low water solubility (18 parts per billion), the herbicide will pose no danger of groundwater contamination in places like Florida, where compounds tend to move easily through the sandy soil profile.

The new product has been seven years in developing and testing, according to Wilcox.

IRRIGATION

Efficient irrigation needed in xeriscapes

A properly designed and installed irrigation system plus efficient watering and system management are essential to "xerigation," the irrigation part of a xeriscape.

Xerigation design, says Larry Keesen of Larry Keesen Ltd., Englewood, Col., combines 10 basic practices for efficiency:

- 1) Border irrigated areas to prevent runoff.
- 2) Control pump pressure.
- 3) Maintain uniform precipitation rates.
- 4) Create separate irrigation zones for turf and planting beds.
- 5) Zone for exposure.
- 6) Avoid using large heads in small areas.
- 7) Use drip/bubble emitters.
- 8) Check valves under low heads.
- 9) Require three to four inches of pop-up height; this is done to allow for general upward building of developing turf areas.
- 10) Use digital or solid state electronic controllers; they are the most accurate.

Keesen adds, "without proper maintenance, all is lost."

On a weekly basis, he suggests operating the system after mowing to check for misaligned sprinkler heads, leaks, plugged heads, dry spots and turned heads. Leaks can be found by listening to the line with a stetho-

scope, or walking the line.

On a monthly basis, change the amount of water put down by adjusting controller timing to fit seasonal water needs. Also, check zone control valves for seepage by looking for wet spots and continuous drainage from low heads.

Semi-annually, check for leaks in valve boxes and flush drip system lateral lines by removing the flush cap or opening the flush valve. Clean filters and strainers and aerate turf areas to improve infiltration.

On a yearly basis, heads should be raised to accommodate thatch buildup if necessary. Rain shutoff units should be tested by pouring water on the devices. Flow meters should be checked with the system under pressure, though not operational, and with no domestic water use while testing.

Test the backflow preventer as suggested by the manufacturer. In freezing climates, shut off and winterize the system in the fall, using manual drains if possible.

Keesen spoke at the International Irrigation Exposition and Technical Conference Oct. 26 in Orlando.

LAW

Protecting against lawsuits

Lawsuits are won or lost long before the opposing parties enter a courtroom, says Mike Olexa of Quality Control. Landscape managers need to be aware of "preventive law."

"What we're really talking about here is a matter of business survival," Olexa says. "Be aware of your business vulnerabilities."

Olexa recommends several steps to avoid lawsuits.

- Draw a map of the lawn area to be treated. Note the environmental conditions at the time of application. Note the application procedure. Apply the product only according to label. Check the application equipment. Check if the client applied anything to the lawn previously.

- Have the customer date and sign any documentation you make concerning the job. Give the customer a copy. If the client refuses to sign, give the customer a copy anyway. Every piece of paper and everything you say is subject to review in a lawsuit.

- Be alert to any trouble signals within your dealings. Be aware if the customer has refused to pay bills in the past. Be especially careful in dealing with customers under financial stress or those with a history of litigation.

- Preparation begins in your office.

You can't limit education to field personnel. Even phone operators should be educated. "Take the office staff into the field," Olexa says. "It's an investment, not an expense."

- Time is of the essence. Respond immediately to any complaints. Don't make any admissions. Simply tell the client you will carefully study the situation. When you do, take careful notes and photographs. Make sure the notes will be understood months down the road.

- Proper conduct is essential in diffusing a potential lawsuit. Proper conduct includes handling a complaint and conducting the field evaluation. "Preparation and awareness are extremely important," Olexa explains.

- Establish a good line of communication with clients. Always be friendly and be a good listener.

- Keep good records. Don't take chances. Stick to your area of expertise. When in doubt, don't.

- Examine your insurance policy. But don't tell anyone about the policy. It's a confidential business matter.

"Ask yourself, does the prospect of economic business gain and ecological soundness, exceed the possible loss or ecological damage," says Olexa. "Your chances of being sued are excellent and getting better every day." Olexa spoke at the Florida Turfgrass Conference.

HEALTH

Be skin conscious with sun and chemicals

Employers should pay for workers' sunscreen, says Dr. Robert Shapiro, skin specialist in Honolulu, Hawaii.

LANDSCAPE CONTRACTORS
LANDSCAPE MANAGEMENT will run its annual "Top 50" list of Landscape contractors in the February issue. If your company had sales of \$2 million or more in 1987, and you want to be included in the list, call us by December 16 at (216) 243-8100.

Shapiro says sunscreen is a safe way to protect against skin cancer. By providing it to employees, companies can help keep health insurance costs down.

"All kinds of skin cancer can be prevented by sunscreen, clothing or a wide-brimmed hat," Shapiro says. Landscape managers and golf course superintendents need to be especially careful with sun exposure since they work outside.

Shapiro says sunscreen has changed over the last decade. It used to be that manufacturers couldn't list a Sun Protective Factor (SPF) higher than 15. Today they can list whatever the actual SPF is. The SPF number shows the number of times more that skin is protected over straight exposure to the sun. In other words, a sunscreen with 10SPF would take 10 hours to produce the damage usually done in one hour.

It's also important to check the ingredients. Some sunscreens are alcohol-based and don't stay on as long as greasy sunscreens. It's also important to see whether the sunscreen covers for UVA light or UVB light. You should try to be covered for both.

Shapiro says the most dangerous time for sun exposure is between 10 a.m. and 2 p.m. He warns that it's important to keep re-applying sunscreen since it washes off with sweat.

Skin cancer is the most common cancer in all adults over 65 years old. Shapiro says to watch all spots on the skin either for new ones or those that have changed. A change could be in the pigmentation, surface, shape or sensation. Red, white, blue, gray or black are suspicious colors of moles.

"Try to pick up on it before it bleeds," Shapiro warns. "By the time a melanoma bleeds, it may be too late."

Sunscreens, and allergies to chemicals, plants or insects can cause a rash or skin reaction which is not cancerous. If you get one from a sunscreen, read the ingredients and try to switch brands. If you think the reaction is from something else, see a doctor.

"If you have any questions, you should go to a dermatologist," Shapiro says. "Most G.P.'s don't have the knowledge."

Shapiro says most dermatologists have pre-set patches to test landscape managers for allergies to plants or chemicals. The patient leaves a patch on for two days while the doctor monitors the reaction. Two patch tests can be done at one time. Most dermatologists can easily distinguish between cancer, fungal infections, insect bites and allergies.