

# Inexperience brings odd attempts at disease cures

By Vern Putney

The absence of local agronomy expertise has led to strange maintenance practices and a learn-as-you-go attitude in Asia, according to turfgrass and agronomy expert Neil Noble.

Noble has encountered the bizarre in his travels the last few years, first as director of turfgrass for Dye Designs International and now as president of Environmental Turfgrass Systems,

Inc. in Honolulu, Hawaii, U.S.A.

"Many of the newer courses have tried to import grasses, construction and maintenance techniques from the United States only to see them fail," he said. "I visited one greenskeeper who had read in an American turfgrass text that frequent top dressing would improve putting greens. He top dressed his greens heavily every week. After a short time, he had completely buried the grass. Only the tips of the grass blades were visible."

"There also is the idea that if a 10-

inch per hour percolation rate is good for greens in California or Arizona, a 50-inch percolation rate would be most suitable for Indonesia, since it receives five times the precipitation," Noble added. "The result in this case was putting greens that did not hold enough moisture in the rootzone to get through one day of evapotranspiration. The sand held no nutrients, as the huge quantities of irrigation water needed to keep the grass alive also leached the applied nutrients from the rootzone."

He said: "There is a real low level of expertise. People play here and want to develop their golf courses in Indonesia and Asia. But there is no one with a background in growing grass."

Hybrid Bermudagrasses are being sold to these new golf developments, he said, "without any information as to how they differ from the native 'grasses.' Again, the result is failure or at least less-than-expected results."

#### GRASSES SITE-SPECIFIC

He said seed companies, without

any concept of the climate, are selling cool-season grasses in Taiwan.

"It's real site-specific — with microclimates everywhere — in Japan and Korea. But in Thailand, Taiwan, Malaysia, Indonesia and Singapore, zoysiagrass and Bermudagrass are about all you see," he said.

Noble, who has lived and worked in Japan for three years, sees greater future opportunities for foreign companies in Singapore, Thailand, Malaysia, Indonesia and Guam.

While less developed than Japan, these countries are much easier to work in, he said, "partly because of protectionism in Japan and the fact that Singapore business can readily be done in English."

He cited a great need for the expertise of American contractors to fill the needs of a course construction boom.

"Draw a 500-mile circle around Singapore and there is a 500-course potential," he said. "Probably 200 will be built in the next four or five years. Thailand went from zero to 50 courses in construction in two years."

"The islands in Asia have six, eight, 10 courses in play or under construction on each one. The Japanese who can't afford to build in Japan or Hawaii go to Indonesia and buy half an island, build a resort and two golf courses for half the cost of building 18 holes in Japan."

Yet, although there are tremendous opportunities to design, build, and sell products and services in this region, there are pitfalls.

Golf course architects, fertilizer and chemical suppliers, irrigation designers, equipment and product suppliers must address "how their products and services fit into new cultures and climates," Noble said. "Nowhere in the United States, for instance, are there monsoons or regular three-inch per hour rainstorms; and few places have volcanic soils."

#### LOCAL EPAS

Noble said new government environmental agencies are starting to affect development.

The new Environmental Protection Agency in Taiwan recently announced it was going to begin monitoring golf course maintenance practices in the drinking watershed areas, and if they were found to be contributing substantially to pollution, they would be closed.

This agency also recommended that no new courses should be developed in the watershed areas, a decision that "is having a big impact as there are developers planning courses in those areas," Noble said.

Concern over ground water has the Guam EPA "leaning toward required ground- and surface-water monitoring for new courses that is estimated to cost nearly \$1 million per course per year," he said. "This cost, if enforced, is more than enough to stop development of several new courses."

As a result of that Guam action, a group of planners and developers have asked Noble to help them devise plans

Continued on page 35

GOLF COURSE NEWS

One that's dependable, yet economical. One that won't color you or your cart paths a sick

is Pennant®. And although it's brutal on stubborn weeds,

your bahiagrass and Bermudagrass beautiful, your centipedegrass stunting, and your St. Augustinegrass awesome.

Apply Pennant by impregnating it on fertilizer or simply spraying.

Since weed protection lasts up to 4 months, all you'll have to worry about in the meantime is too much rain, too little rain, too many pests, and divot-digging golfers.

**UNLESS YOU MANAGE FAIRWAYS LIKE THIS, YOU NEED PENNANT HERBICIDE.**

Weeds are to turfgrass what hot, sticky wads of gum are to astroturf. They're aggravating, unyielding, and downright offensive. So in order to keep weeds off of your turf, you need a tough preemergence herbicide.

shade of orange. And one that will take care of annual sedges, crabgrass — even yellow nutsedge. The only herbicide that meets all these criteria

So you can use Pennant to keep

**PENNANT**

© 1991 CIBA-GEIGY Corporation, Turf and Ornamental Products, Box 18300, Greensboro, NC 27419. Always read and follow label directions.





From wetland to country club, American architect Gary Roger Baird made magnificent use of his design skills and the construction know-how of developers of The Royal Gems Golf and Sports Complex in Bangkok, Thailand. An 11-foot-high levee needed to be built around the property and the land was drained before construction could begin on the \$100-million project. Baird said 75 laborers worked four months hand-laying the stonework in the double-tiered sand bunkers.

Photos Courtesy of Gary Roger Baird Design International, Ltd.



## Wetlands areas no issue where monsoon season strikes

By Mark Leslie

BANGKOK, Thailand — Wetlands may be an environmental obstacle for golf course development in the United States, but not so in Thailand, according to architect Gary Roger Baird of Memphis, Tennessee, U.S.A.

Baird says Thailand is concerned, rather, with developers "randomly cutting into its hardwood forests."

While confrontations take place over the valued forests, wetlands abound in the monsoon region and a golf course only enhances the value of the land.

Baird was involved in a major case in point — the \$100-million Royal Gems Golf and Sports Complex in western Bangkok. Built on a site that was once mostly under

water, Royal Gems officially opened last Dec. 21 and has already hosted the Asian Women's Championship and is being hailed as perhaps the best course in Bangkok.

Baird said the site is 1-1/2 miles long and about 500 yards wide. The first phase of preparation was to build a levee three meters (10 feet) tall around the entire project. That protected the property from flooding when the monsoons hit.

The property was drained of water by 8,000-gallon-per-minute pumps placed at each corner of the site. Four to five months of tedium followed as wide-track tractors peeled off the earth a little at a time to dry it out and allow rough earthwork to be

done.

The 200-acre golf course was then built so all fairways would drain into the 40 acres of lakes within the course.

Baird says the special preparation and work paid off. The course is under consideration for World Cup play. And the rest of the development is special to behold.

Waterfalls are everywhere, he said, and

plans call for 260 homesites, four towers of condominiums, a 100-room hotel, 110-square-foot clubhouse, two restaurants, an observatory tower, conference center with library, and a ballroom that seats 350.

For athletes, the project boasts a 100-meter pool, jogging track, aerobics center, tennis courts, snooker, billiards, and much more, including 24-hour medical aid.

## Inexperience means odd cures

Continued from page 34

that would reduce chemical use and justify less intensive pesticide monitoring.

"The biggest concern is to help the Guam EPA identify and recognize all the potential

chemical use mitigation practices available to reduce chemical use, then cut the monitoring requirements accordingly for the developers who implement the reduced chemical use practices," Noble said.

## Turf Diagnostics & Design, Inc.

CHARLES "Chuck" DIXON, a nationally recognized scientist in the sports turf industry, joins with his partner, Stephen McWilliams, in announcing the opening of TURF DIAGNOSTICS & DESIGN, INC. We are the best equipped and staffed physical evaluation laboratory serving the turf industry. We offer the best turnaround time in quality testing at fair prices using the accepted test methods of the American Society of Test Methods and the American Society of Agronomy.



Our services include:

- Competent USGA physical evaluations by graduate level agronomists for golf course construction & renovation
- Consulting in the design & diagnostic testing for high performance turf systems
- Technical support to the environmental community in soil science & physical testing

**Turf Diagnostics & Design, Inc.**  
310 A North Winchester St.  
Olathe, KS 66062

Phone (913) 780-6725 Fax (913) 780-6759

**SIGNAL™**  
SPRAY COLORANT

PREMEASURED  
PACKETS —  
EASY TO USE



Available in three convenient styles to meet every need.

• **Tablet** — Effervescent tablet to be used with hand-held or backpack sprayers. One tablet treats one-to-three gallons.



• **SoluPak** — Water-soluble, quick dissolving packet for use with all spray equipment. One packet treats 100 gallons.

• **Liquid** — Reliable, proven, economical. Available in quart and one gallon containers.

SIGNAL™ now affords you the convenience of choosing the package that will work best for you.



Call 800-323-6280  
For a **FREE**  
Tablet Sample  
and the name of  
your local distributor.

**PRECISION LABORATORIES, INC.**  
P.O. Box 127, Northbrook, IL 60065

**PRECISION™**  
PRODUCTS FOR GROWTH

Signal is a trademark of Precision Laboratories, Inc.

EFFERVESCENT,  
HIGHLY  
CONCENTRATED  
TABLETS

