BRIEFS

NAMES

BRIEFS

GILBERT, Ariz. — Ground has been broken on an 18-hole course at Meadowbrook, a residential area being developed by UDC Homes and Sunbelt Holdings. Arizona-based architect Dick Bailey is designing the track. This is the second time Bailey has teamed with Sunbelt. The firms have also worked on the Arizona Traditions golf course in Surprise. The new links is expected to be open by March 1999.

***

ST. GEORGE, Utah — Keith Foster has been hired to design an 18-hole course as part of a 900-acre, master-planned community here. SunCor, an Arizona development firm, is developing and will manage the daily-fee facility. Plans are to begin construction in early 1999 and open the course sometime in 2000.

***

ARDMORE, Okla. — A nine-hole, $1.3 million expansion has been approved for the Lakeview Golf Course here. Architect Tripp Davis said the current 18-hole course gets a great deal of use and the greens will eventually have to be rebuilt. The addition of nine holes will allow the greens to last longer, said Davis.

Responsible golf development topic of worldwide conclave

By MARK LESLIE

ST. ANDREWS, Scotland — The custodians, protectors and leaders of the golf world for the next millennium should be guided by the concept of "affordable, accessible and sustainable," according to golf course architect Dr. Michael Hurdzan.

Keynoting the World Scientific Congress of Golf here July 22, the former president of the American Society of Golf Course Architects said:

- "affordable" means keeping the game within economic reach of all citizens by building simplistic, low-cost golf courses as well as upscale facilities;
- "accessible" means to build those courses near population centers, train or bus lines, or within bicycling or walking distance; and
- "sustainable" means building courses that will be maintained with the fewest maintenance inputs as possible to produce an acceptable golfing venue.

"It means applying emerging science to conserve or efficiently use every possible liter of water, kilogram of fertilizer, gram of pesticide or drop of fossil fuel," Hurdzan said. "It also means changing the attitudes of golfers to accept less-green turf, the maintenance techniques of our greenkeepers, and the public view of a golf course's worth to the environment."

Hurdzan, who holds a bachelor's degree in turfgrass management and master's degree and doctorate in environmental plant physiology, said the same turfgrass sciences that produced products that allowed golf courses to reach their "ultimate perfection" are causing the pendulum to swing back toward "a sustainable middle ground."

"The final test of success for this research and development will be if the golf courses of the year 2020 look like golf courses of 1920," he said.

Continued on page 9

Enhancing Waterways...

Otterbine Barebo offers a complete line of custom water features; including ornamental 1/2 HP Instant Fountains and High Volume units that dramatically increase the flow of oxygen throughout your body of water. From golf courses to residential housing, we can meet all your water quality management needs. Each Otterbine aerator is made to the exacting standards that have given Otterbine products their reputation for high quality, longevity, safety and ease of installation.

Inquire today and let an Otterbine representative show you how!

Otterbine®/Barebo, Inc.
3840 Main Road East
Emmaus, PA 18049
1-800 AER8TER
World Congress
Continued from page 3

Science has already made vast advances toward that goal, Hurdzan said.

He predicted even more dramatic improvements in global po-
shing systems; plant breeding and genetic engineering; "seeding" of root zones with soil micro-
organisms; an array of techniques and soil amendments to modify a root zone to a more ideal state;
and systems to improve the quality of irrigation water.

Specifically, he said:

• "As the accuracy of satellite imagery improves, it can be used to monitor migration patterns of
animals through or to the golf course site, assess the health of the turf, and evaluate the effi-
ciency of irrigation systems."

• "Scientists are developing turfgrass cultivars that have been selected or genetically designed to
provide better adaptability to heat, shade, drought, compac-
tion; better resistance to weeds, disease, insect and mechanical
injury, and require less water, fertilizers and cultural manipula-
tion. Planting better-adapted and genetically superior plants
means less environmental impact while producing outstand-
ing playing conditions at lower costs. It is truly 'doing more with
less.'"

• "Research on mycorrhizae [an endophyte that lives in the
root and helps plant absorb nutri-
ents and water] in turfgrass is
just starting and holds great
promise."

• "Soon, 'seeding' root zone
with soil microorganisms may
be a normal part of golf course
construction or maintenance.
Science is making the future to-
day."

• "The promise of short supply
and poor quality of irrigation
water in the future requires spe-
cialists to tackle the problem in
several ways, he said. 'One is to
product turfgrass varieties that
can cope with the limitations of
lower-quality irrigation water,
such as high tolerance to salt.
Another is to improve the qual-
ity of irrigation water through
bioremediation, or passing it
through inexpensive osmotic fil-
lters, or by using an electromag-
netic field that changes the polarity and,
and hence, the properties of the
water. Such techniques are in
their infancy, but show promise.'"

• "Scientific and engineering
research has recently introduced
the first economically priced
and easily calibrated soil-moisture
sensors for golf course use. In-
stalled at various depths in the
root zone, these sensors and
computer software programs al-

low irrigation applications to be
matched to soil-moisture reserves
to small areas around the golf
course, resulting in enormous
water savings by tailoring water
application to each small area.
• "Irrigation head design and
control systems continue to ad-

dance so water can be placed
exactly where it is needed, in the
proper amount, and at a rate that
the soil and plant can receive it."

• Along with calcine clay, diatomaceous earth and zeolite
products, 'polyacrylamide gels
to retain water and nutrient are
finding application in turfgrass
culture as they did in agriculture
in the arid areas."

• "Systems for pumping air
under root zones of greens are
applying a vacuum to drain
greens down. [This has] made
troublesome microclimatic sites
more predictable, healthier for the
plants and hence reduced the need
for artificial cures like preventa-
tive pesticide treatments."

• "The 'seeding' of soil organ-
isms that increase the health of
turfgrasses and act as antagonists
to pests may soon be standard prac-
tice in golf course construction."

Citing great advances in pesti-
cides, turf-grade fertilizers and
biological-control products,
Hurdzan said: "Properly applied
modern pesticides and fertiliz-
ers used on golf courses pose no
significant health threat to golf-
ers, greenkeepers, neighbors or
the environment.

'I welcome any peer-reviewed
research to the contrary and, in
fact, I have challenged the United
States Environmental Protection
Agency at the highest levels to do
that, and none has come forth."

THE PROBLEM IS COMPLEX.
The temperature rises. So does the humidity.
And you've got a problem, because conditions are
perfect for algae and turf diseases like Brown Patch
and Pythium Blight. If the health and vigor of turf
are your responsibility, you really feel the heat.

THE SOLUTION IS SIMPLE.
The solution is Fore®. The active ingredient in Fore
creates powerful synergistic action with products
like Subdue®, Aliette® and Banol® to control a wide
spectrum of your worst summer challenges. Mixtures
that provide a simple solution to some tough problems.

FORE®...ALL THE RIGHT REASONS.
And there's more. Like the way Fore controls over
a dozen fungus diseases. Easy-to-use packaging
combined with cost-effective, broad-spectrum turf
protection make Fore your best solution for
complicated problems. Call 1-800-987-0467 to get
more information.