BRIEFS

MORSE JOINS CORON SALES TEAM

Souderton, Pa. — Stanley Morse, formerly of Vicksburg Chemical and Arcadian Corp., has joined the Coron sales team. Morse now has the responsibility for sales and technical support of Coron’s liquid, controlled-release, nitrogen fertilizer products in the Southwest and mid-South.

LUPER TO REP GREENTURF IN S.E.

McKinney, Texas — John Luper has joined GreenTurf International as the southeastern regional sales manager, having previously served as general manager of Liquid Ag Systems in Fort Lauderdale, Fla. Luper will be based in College Station, Texas.

PULLIAM PROMOTED AT ZENECA

Wilmington, Del. — Keelan Pulliam has been named business director for Zeneva Professional Products, based here. Pulliam will oversee the business growth and direction of Zeneva’s new restructuring plan.

CHANGE OF SCENERY FOR DAKOTA

Sioux Falls, S.D. — Dakota Turf has relocated its offices here. The new address is Dakota Turf, 2121 E. 50th St. North, P.O. Box 1859, Sioux Falls, S.D. 57104. The firm can be reached by telephone at 605-336-1873; or by fax at 605-336-0005.

AMIAD TAPS DAVIDSON FOR WEST

Van Nuys, Calif. — Mike Davidson has been named regional sales manager for Amiad Filtration System’s Irrigation Division, based here. Davidson is a 17-year veteran in the use, design and sales of irrigation filtration systems.

Emissions deadline comes, goes in Calif.

By Hal Phillips

Sacramento, Calif. — Enforcement dates on the California Air Resources Board’s (CARB) stricter emission standards have passed, and manufacturers of mowers and utility vehicles have fallen in line. However, engine manufacturers may not be completely up to snuff until later this spring.

Wisconsin Total Power has received CARB approval on its Wisconsin engine models AENL2, BRK2 and THD3, while Kohler will not even request approval for its Magnum model. Other manufacturers — including Briggs & Stratton and Mitsubishi — have received the okay on some models, but not others.

“In some cases, the engines have not been certified,” said Kirk Reimers, chief engineer for Cushman, a division of Ransomes America Corp. “We’re not hurt- ing on the sales side because they’ve been grandfathered. But the engine-switching process has been very expensive.”

“Of course, we — as an on-road motorcycle and meter-maid vehicle manufacturer — have been involved with CARB before. They have not other choice but to be hard line because the EPA has named

Lanford names new Lebanon president; stays on as COO

Lebanon, Pa. — Katherine Bishop has been elected president of Lebanon Chemical Corporation and its subsidiaries, headquartered here.

Bishop, who was elected president at a recent directors meeting, will continue as chief operating officer and will be responsible for the operations of the business.

At the same meeting, Richard J. New- master, Jr., chief administrative officer, was appointed corporate secretary. New- master was already serving as secretary of Lebanon’s Stanford Seed and Seaboard subsidiaries.

Bishop will continue as chairman and chief executive officer. Bishop will remain involved in the overall direction of the corporation and in counseling management.

In other Lebanon news, Paul Grosh has been named national sales and mar-keting manager for Lebanon Turf Prod- ucts, headquartered here.

Grosh has served as sales and market-ing manager for Professional Products. He joined Lebanon in 1987 as a sales representative and was promoted to sales manager of Southern and Mid-Atlantic sales in 1989.

Ferris to debut SubAir in San Francisco

By Mark Leslie

Early indications are that golf course superintendents will soon have an important addition to their arsenal. Called SubAir, it is a system that blows air into the drainage network below the root zone of a U.S. Golf Association-specc green.

“It doesn’t solve all your problems,” said its inventor, Augusta National Golf Club superintendent Marsh Benson. “But it gives a turf manager a much better fighting chance to control the micro-climate he’s trying to grow grass in.

“All of us typically have one or two notorious greens that give us problems year-in and year-out. I think that’s where the system will get its start, trying to turn those greens around. Then, with a mobile unit, taking those benefits from green to green.”

“It has incredible potential,” said Tim Elers, superintendent at Collier’s Reserve in Naples, Fla., who has used SubAir on his greens. “There are a lot of other things you have to do right, but this is a tool that could be extremely beneficial.”

“We’re working with three angles — oxygen, temperature control and moisture control — using the air system to do all three,” said David Ferris, president of SubAir, Inc., which teamed with Benson about a year ago. Benson first designed the system in 1989 and spent four years

Continued on page 86

Continued on page 87
SubAir System
Continued from page 81
making "significant developments."
Ferris explained the SubAir system features a base that is installed either in a
vault below ground or on a portable trailer.
The blower can distribute air into the
root zone, or reverse the air flow to suck
soil moisture — and with it some gasses — out of the soil.
"The main thing is, you need the gravel
blanket [found in USGA green construc-
tion]," said Benson, "That blanket evenly
distributes the air."
The portable SubAir unit, which is
hooked into the green's main drainage
pipe, is about $8,000, Ferris said. The cost
to install the permanent unit underground
ing a vault at construction is about $16,800 to
$17,000 including labor, he said.
"It is so logical," said Hiers. "If a person
uses it correctly, it will almost certainly
reduce pesticide usage because you will
make that soil less friendly to fun-
gus... You can take away excessive mois-
ture, create the right temperature and
give oxygen to the roots. That produces a
feature turf, create the right temperature and
that is more resilient to disease, insects and
traffic damage. You're going from a 90-
pound weakling to a 180-pound linebacker."
"We also think we have good potential for
controlling sodium," Benson said. 
"Being able to flush the greens out at our
convenience, we should be able to moni-
tor and hold down salt buildup, which is a
big problem out West and in certain other
parts of the country."
"The theory is absolutely correct," said
Dr. Michael Hurdzan. A golf course ar-
chitect who owns a PhD in environmental
turfgrass physiology, Hurdzan was nev-
evertheless reticent to support SubAir until
it is proven in the field.
"Will it work? Time will tell," he said.
"All indications are that it will. It defi-
nitely moves air. We have been able to
create a temperature drop in a small area, a
day to get green. From that standpoint, we feel we
may be able to do away with some surface
fans."
Kennedy is mostly looking at air move-
ment and temperature moderation. The Little Course's 17,000-square-foot
green for the 4th and 8th holes, and its
17,000-square-foot putting course both
have cooling systems — a four-foot deep
network of pipe through which air is
drawn.
"When the air came through the cool-
ing grid, it — not the soil — dropped 30
degrees," Kennedy said. "We don't know
until this summer what effect that will have
on the soil. But that part is promising."
Meanwhile, it could also affect grasses,
allowing superintendents to grow
bentgrass further south, or Bermuda-
grass further north by controlling soil
temperature. Benson added, "Guys with
Bermuda grass who overseed because of
fear of five or six cold days in the winter,
would have a way to dodge those five or
six days, and they would no longer have
to underseed."

Some had questioned whether SubAir
would work as well on older USGA greens,
which were built with more restricted
macro and micro pores. But Benson said
that, somewhat surprisingly, test greens
have shown "age is not a factor."
"We fully expect a number of situations
where the greens have significant prob-
lems where the soil is not acting as it
should," Ferris said. "We've developed a
tool with which we can go into the gravel
blanket on any spot on the green and find
out how good the [air] movement is. We
will be able to find those areas, and that
will allow the superintendent to focus on
them and deal with them appropriately."

SubAir: New spin on an established practice
SubAir may be brilliant in its sim-
plicity. But in theory, it is certainly not
new. The agricultural industry has used the "treat-the-subsurface" theory
since the 1920s. Dr. William Daniels,
now retired from Purdue University,
invented the fluid- and air-based Pre-
scription Athletic Turf (PAT) System
in 1972, and since then has seen it
installed in 31 National Football League,
college and high school fields. But a
golf course application, based on mov-
ing air, not water, is new. And it could
have profound implications for turfcare.
"Trying to get air into the roots and
trying to keep grass growing under
adversity has always been a challenge,
particularly when we shear it down to
the ground at 3/16-inch cut," Dr. Daniel said. "Where this ball game is
going, I don't know."
Daniels reported that, with his PAT
system, "a 1.5-horsepower pump on a
vacuum blower can pull 100 cubic feet
of air a minute out of a football field.
Theoretically, in about 20 minutes
you've changed the air completely."
Ferris estimates a complete air ex-
change in an average-size golf green
in about 15 minutes with SubAir, us-
ing its 10-horsepower electric motor
or 18-horsepower gas engine.

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February 1995 87