company started. South Florida was experiencing a mysterious, severe turfgrass decline that had agronomists, pathologists and all the chemical companies stumped. “It was brutal,” Brown recalls. “I could name half a dozen top-notch superintendents who lost their jobs when they lost their turf and nobody could tell them what had happened.

“We began to work on it and so did some of the major chemical companies and we finally figured out that it was a manganese deficiency.

“We adjusted our formulas and in a matter of days, courses that were using Liquid Ag were looking a lot greener and healthier than those that weren’t. The turf responded amazingly quickly. It sure didn’t hurt business.”

The mechanical problem had to do with the method of injecting the liquid fertilizer (Continued on page 72

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POMPANO BEACH — Two years ago, Liquid Ag founder and president Max Brown decided to install complete containment and protection programs at all three plants.

“Our goal was not to allow any foreign materials other than rainwater to hit the ground,” he said.

“It’s for our own benefit to do it the best way we can,” he added. “We are going to be looked at pretty closely in the industry. Regulatory agencies will be inspecting what we are doing.

“We want to be a model operation.

“I expect in a short time, regulation of all agricultural chemical interests will be very tight. This will sort out the companies that haven’t been complying with the regulations: it’s going to be so costly (to change their ways) that they may not be able to afford to do it.

“The companies that have complied with regulations and budgeted to get the job done are the ones that will survive and still be in the business.”

“We have never had any major problems, but anything can happen. There are possibilities of a spill or some kind of mistake that might endanger the aquifer. “It should concern us because we all drink the water. We have families, children and our grandchildren’s future to think about. Whatever we are doing — or others are doing — to the groundwater and the environment has an effect on all of us.

“We are all responsible for the future.”

---

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into the irrigation system.

"The early systems were not flow-sensing," Brown says. "Fertilizer was metered in at set rate regardless of how much water was flowing. Later we learned that it is very important to maintain precisely the proportion of fertilizer to water.

"Whether one sprinkler is running or 30, the proper amount of fertilizer must be used.

"The flow-sensing injection system has evolved through several generations. We try to take advantage of the latest technology," says Brown, who does not patent any of the equipment he designs or the formulations he uses.

"The technology evolves so fast. The key thing is to be at the leading edge. Why spend a lot of money to patent or copyright something that might be obsolete by the time you get it done?"

Although Liquid Ag is in the business of selling fertilizer, Brown says hardware accounts for about 10 percent of his golf course business.

"Well, you have to make it easy for a prospect to become a customer," he says. "So we handle the storage tanks, meters, control boxes and injection pumps. We sell them and we install them."

Golf courses — Liquid Ag has "something less than 350" of them on its client list — account for about 60 percent of the company’s business. Lawn care, nurseries, vegetable farms and citrus are the other industries it serves.

Nurseries, Brown notes, have been using fertigation for some time, but, until he founded Liquid Ag, most were using homemade systems.

Although he has a few clients in North Florida, nearly all his business is in the central and southern regions of the state.

"It’s very expensive to move this stuff around," Brown says. "The freight is not cheap."

Expansion is a possibility, he says, but no firm plans are in the works.

"Originally my thought was to work the company personally only to help get it started and get the concept established. My real love and interest was in golf course consulting.

"But with the company growing so rapidly, it now demands so much of my time that I sometimes think it controls my time more than I control it."

"Still... looking back after 15 years at what was pretty much a crazy idea at the time and seeing something you helped start develop into an accepted standard in the industry..."

It’s hard to top.

EDITOR’S NOTE: George and Charlotte Jones contributed to this story.
Enterprising used equipment broker proves that one superintendent’s pile of junk is another’s latent treasure

BY EARL COLLINGS

HOBE SOUND — You’ve heard of the “people-to-people” program where travelers exchange their experiences with people from other countries on a planned face-to-face basis?

Bill Barnette has started something like that in the turf business that might be called the “superintendent-to-superintendent” program to buy and sell used turf equipment as is.

And it is almost face-to-face. Barnette finds excess used equipment, lists it, photographs it as is and, when a buyer wants it, Barnette picks the unit up from the seller and delivers it. The selling price listed includes his brokerage fee.

Barnette’s business is called UTEC — Used Turf Equipment Co. Simple enough. He started the business in behalf of the overworked superintendent who doesn’t have time to go out and look for buyers of equipment he no longer needs, or who doesn’t have time to go out and find used pieces to fit his needs and his budget.

UTEC is really a used equipment clearing house.

The company started a little more than a year ago when Barnette, who had been selling new turf equipment in south Florida, suddenly realized that every course he called on had several pieces of used — sometimes almost new — equipment sitting idle in the yard.

He would hear his prospects say, “I would like to get that new unit but I can’t get rid of some of this extra stuff I have around here now.” Or “I sure need one but my budget won’t handle one. Do you have a good used unit?”

The light went on, and Barnette set up shop.

“Shop,” that is, with a truck, a trailer, a mobile phone and a camera. Plus the conviction that he could fill a real need. He knew that all the unused equipment he had seen for a couple of years was useful and saleable. He knew the area. He knew the business. And he knew machines. (He had been division director of maintenance for the South Florida Water Management District and, before that, had been in construction, an authority on welding.)

His plan was simple. Find the turf equipment superintendents want to sell. Take a picture of it in color. Get an honest listing of it and its condition. Publish a flyer to all courses offering the equipment for sale. When he has a buyer, pick it up, deliver it and get the check.

It worked. In fact, he has already worn out one truck.

When asked why so much extra used equipment is available, Barnette suggests several reasons. A superintendent might

(Continued on page 74)
Joint venture paves way for expansion

(From page 73)

find equipment he is not familiar with at his new course. He phases out his inherited equipment as soon as possible, and gets his old favorites.

Or the superintendent at a more affluent course might feel it is more economical in the long run to have a good routine maintenance program and replace equipment every two to four years on a rotating schedule rather than do major repairs.

Or since major turf equipment is so specialized, a superintendent at one time might have bought a unit for a special use and it is now rarely if ever used.

Barnette points out that all such cases offer the opportunity for clubs with smaller budgets to get that needed unit at great savings. And from experience, he knows that a good mechanic can spruce up almost any unit. Many times the used equipment needs only the clean-up-tune-up-grease-or-sharpen treatment. Barnette, however, does not repair or rebuild equipment himself. But he does have a list of qualified turf mechanics he can refer the buyer to.

UTEC serves southeast-central Florida, roughly the area covered by the Palm Beach, Treasure Coast, Ridge and Central Florida chapters. Shipping is free for transactions between superintendents in the same chapter; otherwise it’s $1.50 a mile.

The most common equipment available? Greensmowers, sand rakes and trim mowers. However, UTEC has sold everything from an almost-new fairway mower in excellent condition for $22,500 to golf cars in fair condition for $480 to a $300 sod cutter. Barnette will list any piece for sale, but his minimum brokerage fee is $100. The selling price includes brokerage on a sliding scale of 20 percent or less.
Currently UTEC offers a couple of major units available from the Chicago area. In those cases, the sellers have arranged for commercial carrier delivery and included that in the price.

The color photos Barnette takes are in his working catalog he personally shows to customers. He urges them to call the seller or his mechanic. He also mails a black-and-white flyer showing equipment on a regular basis.

Where does UTEC go from here?

Barnette is expanding slowly. In August, he entered into a joint venture with Lakeland-based Golf Ventures to represent UTEC in the Bahamas and much of the rest of the state. David Miller and Jim Sartain will represent the company in Central Florida, Bob Schroter in North Florida and David Cheesman in South Florida and the Bahamas.

EDITOR’S NOTE: Earl Collings is a freelance publicist based in South Florida. Advertisers may submit feature stories about their companies, which will be edited to meet Florida Green standards and will be used when space is available. Priority will be given to stories about new products and services.

Ransomes buys Cushman, Ryan

JOHNSON CREEK, WIS.—Ransomes America has acquired three major names in turf equipment with the purchase of Cushman, Ryan and Brouwer Turf Equipment Ltd. from the Outboard Marine Corporation.

According to Helmut Adam, president of Ransomes America—a division of Ransomes plc (sic) of Ipswich, England—the price was $150 million.

The Cushman group, based in Lincoln, Neb., includes Cushman turf vehicles and mowers, Ryan aerators and sod cutters and Brouwer mowers, vacuums and sod harvesting equipment.

“It is a well-run company with a good name,” said Adam. “We are not going to change something that runs as well as

(Please see RANSOMES, page 78)
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David Lowe, The Plantation at Ponte Vedra, Jacksonville, FL

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Steve Kuhn, Doral Country Club, Miami, FL

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Southern Turf opens facility in Spain

TIFFON, Ga. - Southern Turf Nurseries has opened a production facility in Spain, the first international facility of an American-based turfgrass producing company.

With the expanding golf course market worldwide and the exporting of the American golf course architect expertise, demand has been created for the high quality hybrid bermudagrasses in the tropical and subtropical regions of Europe and Asia.

Southern Turf Nurseries has established a farm near Malaga, Spain, where hybrid Tifway 419 and Tifgreen sol are being produced to standards of greens-quality, certified grass.

Partners in the venture are Larry and David Cooper. The latter is a member of the Royal & Ancient at St. Andrews.

Ransomes takes over Cushman, two others

（From page 75）

Cushman.

"I am excited about working with Stuart Rafos (Cushman president) and the rest of the management team at Cushman. Its product line complements the Ransomes line of commercial turf equipment extremely well."

Ransomes America, which manufactures and markets commercial turf equipment in North and South America, also acquired a line of turf renovation equipment from Salco of Cheshire, Conn., in August. The line includes aerators, seeders, spreaders, loaders, blowers and dethatchers.

Last year the company bought Steiner Turf Equipment of Orrville, Ohio, which it operates as an independent manufacturer of mowing tractors and attachments. Ransomes plc has ceased production of agricultural equipment to concentrate on turf machinery worldwide.

Its other three divisions are Ransomes Commercial, which manufactures and distributes professional turf equipment outside the Western Hemisphere, Ransomes Consumer, which manufactures garden machinery and Ransomes Property, its development and investment arm.

Ransomes Consumer recently purchased Westwood, a producer of garden tractors in the United Kingdom.

Duda opens 7th branch

OVIEDO - Duda Sod opened a Clewiston branch in August, the company's seventh Florida location.

"The demand for Duda sod has grown so much in recent years that we felt it was necessary to move closer to our buyers," said Betty Miller, Duda marketing representative.

Established in 1972, Duda Sod specializes in Floratam St. Augustine, 419 bermudagrass and other grasses.

Duda has locations in Zellwood, Oviedo, Cocoa, Fort Lonesome, LaBelle and Fort Pierce.

Duda Sod is a division of A. Duda & Sons, which was founded in 1926 as a five-acre celery farm. Headquartered in Oviedo, the company also has offices in California and Texas. Its Florida land holdings exceed 115,000 acres.
This Gator is at home in the North, but also goes South in the winter.

Gator turf-type perennial ryegrass is a seasoned traveler that is comfortable in any situation, virtually anywhere.

While handsome and tough enough to be in the ryegrass blend that creates Super Bowl turf, Gator is also at home on golf course fairways in the North.

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What good is a golf course?

As a recent attendee of the GCSA seminar on Environmental Considerations in Golf Management, I would like to share some of the topics of discussion.

"What good is a golf course, anyway? Only the rich are able to use it."

This is part of the image problem we in the golf business face when dealing with the general public who do not play golf. Well, here is a list of some of the things that a golf course does for the community.

- Recharge the ground water
- Filter that water through turfgrass
- Rainwater runoff slowed in turf
- Provides a greenbelt
- Provides a wildlife habitat
- Enhances the oxygen-carbon dioxide exchange
- Provides a heatsink to moderate the temperature in the area
- Aids in soil conservation
- Uses less water than a subdivision
- Pays more taxes in relation to services used
- Raises property values
- Provides employment for a number of people

This is just a partial listing but it is important for those of us in this business to think of all the good that a golf course does for the whole community, for non-golfers and golfers alike.

We must not fail to acknowledge that, yes, we do apply pesticides and fertilizers, but only as needed and in correct rates. Turfgrass is an excellent filter and biodegrader, thus the products that we use are confined to the surface and are consumed on site. They do not pose a leaching problem when applied properly.

Each of us in the golf business has an obligation to see that we do apply all of the materials that we use in the proper manner. One of the best ways to demonstrate our training is to become a certified applicator.

In the water-use area, we are responsible consumers. What water we use either aids the turf growth, cools the climate, or recharges the groundwater.

Do not forget that a golf course is an asset to the community.

-Lee A Webb, CGCS
Northwest Turfgrass Topics
Spring 1989

Victory for truth and reason

For the past couple of years, Daconil — a fungicide — has been under indictment for the death of a golfer from "licking his golf balls."

The case has been covered on several television talk shows, including ABC's "Good Morning America" and "20/20."

After more than five years of sensational reporting, Daconil finally had its day in court.

Daconil, a product of Diamond Shamrock Co. Inc., has been held out by environmental hysterics as proof that lawn chemicals pose a danger to the general public. As recently as May, 1989, Newsweek cited the fungicide as cause for concern about lawn pesticides.

The story began in 1982 when Navy Lt. George Prior died of toxic epidermal necrolysis (TEN) 14 days after playing golf on the Army-Navy CC golf course. Prior's widow alleged via Navy pathologist Dr. Jonathan Lord that Daconil was the cause of death.

It took only one day in court for Judge Paul Sheridan to rule in favor of Diamond Shamrock Co., dismissing the $16 million in damages sought by the Prior estate. Testimony in the case showed that Prior had, in truth, died of TEN caused by the flu and the use of aspirin and tetracycline.

Unfortunately, what was crystal clear to the judge in this case somehow escaped the attention of the media. As usual, a reporter's search for the truth was overshadowed by his zest for a story and it will be years (if ever) before the chemical industry recovers from this all-too-common example of public misinformation.

-Oregon GCSA Newsletter
May, 1989