Bayer to buy Aventis CropScience

By A. Overbeck

STRASBOURG, France — Merger mania continued unabated in the agrochemicals business.

After announcing its intention to divest its CropScience division in November 2000, Aventis has reached an agreement to sell the business unit to Bayer AG in a deal worth approximately $4.9 billion including $1.7 billion in debt. Schering AG, which owned 24 percent of CropScience, also signed off on the deal. The agreement was announced Oct. 2.

Aventis, which had been in exclusive talks with Bayer since July, has made a strategic shift to be a pure-play pharmaceutical company to add to Raven stable through third party contracts

Intrawest launches aggressive strategy to expand Raven brand

By Andrew Overbeck

SCOTTSDALE, Ariz. — Intrawest Golf is moving full steam ahead with its plan to bring its Raven Golf “brand” to every key market in North America.

While the company owns and manages 19 golf resorts, only five sport the Raven brand. However, that will soon change as the company implements a strategy to add to the Raven stable through third party management contracts.

The first of many anticipated third party deals was announced in late September, with the company taking charge of management at Cabo San Lucas Country Club in Mexico.

“There has been a lot of third party interest in the Raven brand,” said Jeff Stipec, senior vice president for Intrawest Golf. “Courses have approached us because they see the value of being associated with the Raven brand that we have built. The Raven has become synonymous with great service, which allows us to attract a more discerning customer.”

A MONEY MAKER

Attracting loyal, more discerning customers has paid large dividends for the company, which has been enjoying a good run since acquiring the original Raven course in 1998. All of the clubs are high-end, daily-fee facilities that charge $95 to $185 green fees.

“As everyone was going through a really tough year last year,” Stipec explained, “our

Farris to make design debut in South Dakota’s Black Hills

By Andrew Overbeck

RAPID CITY, S.D. — Architect Ron Farris is hard at work here on what he considers his official U.S. design “debut.” One could think of few better places to launch a career as a golf course architect.

The Golf Club at Red Rock, set amidst the rolling Black Hills of South Dakota, is the perfect setting for golf, according to Farris. “We are taking a minimalist approach to the design,” he said. “It will be a natural course, we are going let it be what it is.”

The layout covers undulating hills and dramatic elevation changes and will feature native grasses and stands of pine trees. “We are working towards the classic style,” noted Farris. “The bunkers will be rugged like Sand Hills with native grasses on the outer edges.

“The elevation changes on the course don’t allow us to use long, sweeping lines,” he continued. “So we will have more pot-style bunkers.”

BUILT FOR LESS THAN $3 MILLION

The course, which is being

Pesticide residues in grass clippings raise concerns

By Joel Joyner

MANHATTAN, Kan. — Over a billion pounds of pesticides are sold in the United States annually. Though an estimated 70 percent are applied for use on agricultural foods and products, golf courses often are targeted when pesticide use issues develop.

While federal legislation is currently focused on regulating pesticide usage at public schools, some golf course superintendents and courses are taking a proactive approach on the issue, particularly with grass clippings, before the government enacts regulations.

One of the main subjects being addressed is the proper disposal of turfgrass clippings that have been
Pesticides
Continued from page 1

"We have a contained wash pad station that was installed when the course was built," said Gourlay. "The Waterstax unit uses a process called bioremediation to treat the wash water." After equipment used on the course is washed, the system removes dirt and turfgrass clippings. "The wash water is then treated with a solution of microbes that break down the waste into carbon dioxide and water," Gourlay said. The water enters a separate tank and is further cleansed with aeration and additional treatment before it's made available for reuse. "It's capable of treating a thousand gallons a day at a rate of 15 gallons per minute," Gourlay said. "The grass clippings are either dried and redistributed to the course or composted."

Persistence of Pesticides

Gerald Stephenson and colleagues at the University of Guelph in Guelph, Ontario, Canada, published a study on the persistence of pesticides in turfgrass clippings this summer. Stephenson recommends not to collect clippings for composting for about four weeks following pesticide treatments. The research focused on 2,4-D, Mecoprop, Dicamba, Chlorpyrifos and Chlorothalonil in controlled "once-loaded" and "multiple-loaded" compost scenarios. "Basically, we treated a large

A view of the sixth hole at Colbert Hills area of turfgrass with these different pesticides, and then we harvested a large quantity and mixed

TEAM BUILDING

Team building
Continued from previous page

A view of the 7th hole at Colbert Hills equipment washing facilities.

More and more facilities are installing systems that separate clippings and recycle and reuse the water following a filtration and treatment process. "The clippings can then be transported to a compost heap to recycle nutrients back to the environment," said Lowe.

Dave Gourlay, course manager here at the Colbert Hills Golf Course, makes use of Landa's Waterstax wash-water treatment system to reduce potential runoff of pesticides when equipment is cleaned at the facility.

Team building
Continued from previous page

have his or her own locker. Also, putting the employee's name on the locker instills a sense of belonging.

• The typical American lunch, sandwiches, is no match for the elaborate dishes of the Hispanic workforce. Their lunches are more like most American's dinners. Having a minimum of three microwaves and sufficient refrigerator space available is a big plus.

• Taking yearly crew photos and displaying them in the lunchroom is a nice touch. We have our crew photo enlarged and give one each to the staff members. The staff takes these photos home and can explain to their family about the people they worked with and about the work they did.

GOLF COURSE NEWS

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BASF
Pesticides in turfgrass clippings

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clippings in roughly a 60/40 ratio with tree leaves. We placed the mixture in home composters to monitor the disappearance of pesticides over time," said Stephenson.

The researchers harvested one study the day after pesticide treatments were applied, and multiple-loaded studies were harvested at week intervals. "In about four to five weeks, the pesticide residues were not detectable in the multiple-loaded scenarios," Stephenson said.

"In the once-loaded scenario, although the pesticides were disappearing, the dry weight of the compost was decreasing as well," he said. "The concentration of the pesticides didn't change."

CHANGING CULTURAL PRACTICE

Superintendent Rob Brown at the Martindale Country Club in Auburn, Maine, used to compost clippings at the facility. "We weren't under any restrictions to change our practice at the course, it just seemed the sensible thing to do," he said. "About three years, we stopped composting grass clippings altogether and decided to leave them on the course and in our rough areas."

For Brown, environmental awareness and responsibility prompted his proactive measure toward changing the cultural practice at the course.

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<tr>
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<tr>
<td>Chlorothalonil</td>
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PERSISTENCE OF PESTICIDES

Estimated total dry weights of compost, 2,4-D, mecoprop, dicamba, chlorpyrifos and chlorothalonil in each composter at the beginning and end of the "once-loaded" composting process.†

†Compost consisted of treated grass clippings plus untreated tree leaves (60/40, v/v).

Mean of 3 composters.

The studies with chlorpyrifos and chlorothalonil were conducted in a different year than the study with 2,4-D, mecoprop and dicamba.

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**Effluent**

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With this storage lake configuration come environmental issues. In some cases, the lake will need to be lined with an impermeable membrane to ensure the separation of the effluent from the groundwater. Courses should consult with a civil engineering firm to make sure they are in compliance.

- **Storage tank option** – The other on site storage method is the use of a storage tank. The use of a tank can be problematic, as this configuration can be restrictive because of the finite amount of water stored in relation to the fluctuations in daily irrigation demands. Also, it is usually difficult to find a location on a typical course for a tank large enough to store a daily requirement of irrigation water, let alone providing any buffer.

- **Direct supply** – The least favorable way of receiving water is "direct supply." In this method, the course receives the water directly into the irrigation mainline, or booster pump, for direct distribution through the system. This configuration can result in inadequate operating pressure required for proper irrigation equipment performance.

The method of boosting the pressure is difficult, due to fluctuations in the supply pressure. This is primarily due to the fluctuation in flows that are typical of an irrigation system operation. If the supply pressure fluctuates substantially, the irrigation booster pumps cannot respond quickly enough. This is even true with variable frequency drive (VFD) controls. The result can be a high- and low-pressure shutdown of the pump station.

With all of these points to consider, it is important to note that each can have an effect on the amount you will pay for the water. The fees are set on a "cost per thousand" basis. This averages around 20 cents per thousand gallons. This cost fluctuates based on whether the effluent provider will be required to store the water after treatment or if they deliver the water as it is treated. Your effluent provider will want to set a minimum water delivery amount. This should be carefully considered, as this can commit you to water that you cannot use or dispose of.

Hal Kilpatrick is president of Irrigation Services Group, Inc. in Delray Beach, Fla.

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New irrigation products

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retaining snapping, valve, valve seal, valve seat and inlet rock screen can be removed in one fell swoop," said Dunn. "When there's contamination in the line from mainline breaks, you can pull out the entire unit leaving a large opening–larger than anything in the industry–to flush contaminants through."

The company also has released to full production the Genesis III central control system with integrated graphics.

"You can scan a golf score card or layout rendering and create hot spots," Dunn said. "A superintendent can place the mouse over a portion of the course and click to bring up the programming for the controller in a specific area. It's a user friendly way to control and manage the irrigation system using graphics."