Bayer to buy Aventis CropScience

By A. Overbeck

Strasbourg, France — Merger mania continues 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 and agribusiness company.

“In this area, we believe that our core businesses in the agrochemicals and crop protection sectors have a lot of potential,” said Thomas Eilmann, Aventis’ board member responsible for the CropScience unit.

“As a result of this agreement, Aventis will be able to focus on its core businesses in the health care and pharmaceuticals sectors,” Eilmann added.

In a statement, Bayer CEO Johann Graf, said the deal will strengthen the company’s position in the agrochemicals market.

“Not only does it diversify our product portfolio, it also gives us exposure to emerging growth markets such as India and China,” Graf said.

The acquisition of CropScience will make Bayer the world’s second largest agrochemicals company, behind DuPont.

Intrawest launches aggressive strategy to expand Raven brand

By Andrew Overbeck

Scottdale, 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 amongst 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 classical 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 sprays them with new regulations.

One of the main subjects being addressed is the proper disposal of turfgrass clippings that have been
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 facility, so 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 pro-active measure toward changing the cultural practice at the course.

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**Pesticides in turfgrass clippings**
Continued from page 13

Farris at Black Hills
Continued from page 1

constructed by two local businessmen as a part of a housing development, is projected to cost less than $3 million.

The low-cost construction has been achieved, in part, because very little money has been moved.

"Ron did a great job routing the course," said golf course builder Timothy Furness. "He has laid it into the ground as well as can be done, so there has been minimal earthwork. We did most of the work with just a dozer. It will be a very cost effective project."

There has been some luck as well, admitted Farris. "We were worried about two things — water and topsoil," he said. "The Black Hills are typically light on topsoil, but we found pockets of it as we began digging and have not had to import any. We also drilled wells that gave us access to a local aquifer."

**OLD FRIENDS**
This is not the first time that Farris and Furness have worked together.

While Farris honed his design skills working with Pete Dye as a project manager in the United States and Japan, Furness was doing the same as a shaper. Farris also designed two courses in Japan — Aygami Golf Club and Miyazaki Sunshine Golf Club — before relocating to South Dakota in 1989.

Back in the States, Farris hooked up with Furness on a job renovating Scenic Golf and Country Club in Pigeon, Mich. According to Furness, Farris is doing something special at Red Rocks. "This is going to put Ron's name on the map," he said.

Furness' crew has all 18 holes at Red Rocks roughed in and for the first time is also installing the irrigation system. They will also seed nine holes before winter hits and put down dormant seed for the rest of the course.

"We want to have a head start in the spring," said Farris. "We are putting low-mow bluegrass on the fairways and tees and L-93 on the greens."

Superintendent Rick Witt, formerly the assistant at Minnehaha Country Club in Sioux Falls, is already on board to oversee the grow-in of the course.

**AFFORDABLE GOLF**
Green fees at Red Rock will be low to compete with the surrounding market.

"The green fees will be around $30, which will be affordable," said Farris. "We aim to increase the quality of golf but still keep the price reasonable."

The developers plan to recoup most of the construction costs from the sale of the 300 homesites on the 360-acre property.

After having a season to grow in, the course is scheduled to open in spring 2003.

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**Effluent**
Continued from page 10

With this storage lake configuration come environmental issues. In some cases, the lake will need to be lined with an impermeable material 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 pump 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**
Continued from page 12

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."

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**NEWS**

**PERSISTENCE OF PESTICIDES**

Information provided was originally printed by the International Turfgrass Society Research Journal Volume 9, 2001, in an article titled: Persistence of 2,4-D, Mecoprop, Dicamba, Chlorpyrifos, and Chlorothalonil in Composted Turfgrass Clippings.

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<td>Chlorothalonil</td>
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*Compost consisted of treated grass clippings plus untreated tree leaves (60/40, v/v).*

**X** Mean of 3 composts

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