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Of Salmon and Superintendents

The issue of water and water rights in western Washington is as hot as any issue out there, and it's not going away anytime soon **BY RON FURLONG**



When grilling salmon, it's best cooked on the barbecue with a few alder sticks smoking in the coals. Avoid a gas grill if you can. A little lemon on top of the salmon and maybe a thin swipe of butter across one side (but not too much) is ideal. No seasoning is required. You don't want to kill the flavor.

Since I developed a sudden and very depressing allergic reaction to any shellfish about five years ago, my appreciation of salmon has grown immensely. So living here in the Pacific Northwest is a good place to be to appreciate this nonshellfish. I resemble a brown bear in that salmon have become a staple of my diet.

But the downside to these wonderful-tasting salmon is their habitat here in western Washington, and how that relates to my job as a superintendent. I love eating them, but trying to justify my need to irrigate the golf course to some of the more radical fish huggers — and the organizations the fish huggers have stuck into their back pockets — can be as frustrating as a downhill putt at Shinnecock Hills.

The issue of water and water rights in western Washington is as hot as any out there. It's been brewing for a few years and is not going away anytime soon. Salmon are just one facet of the issue — which is extremely complex and, dare I say it, convoluted.

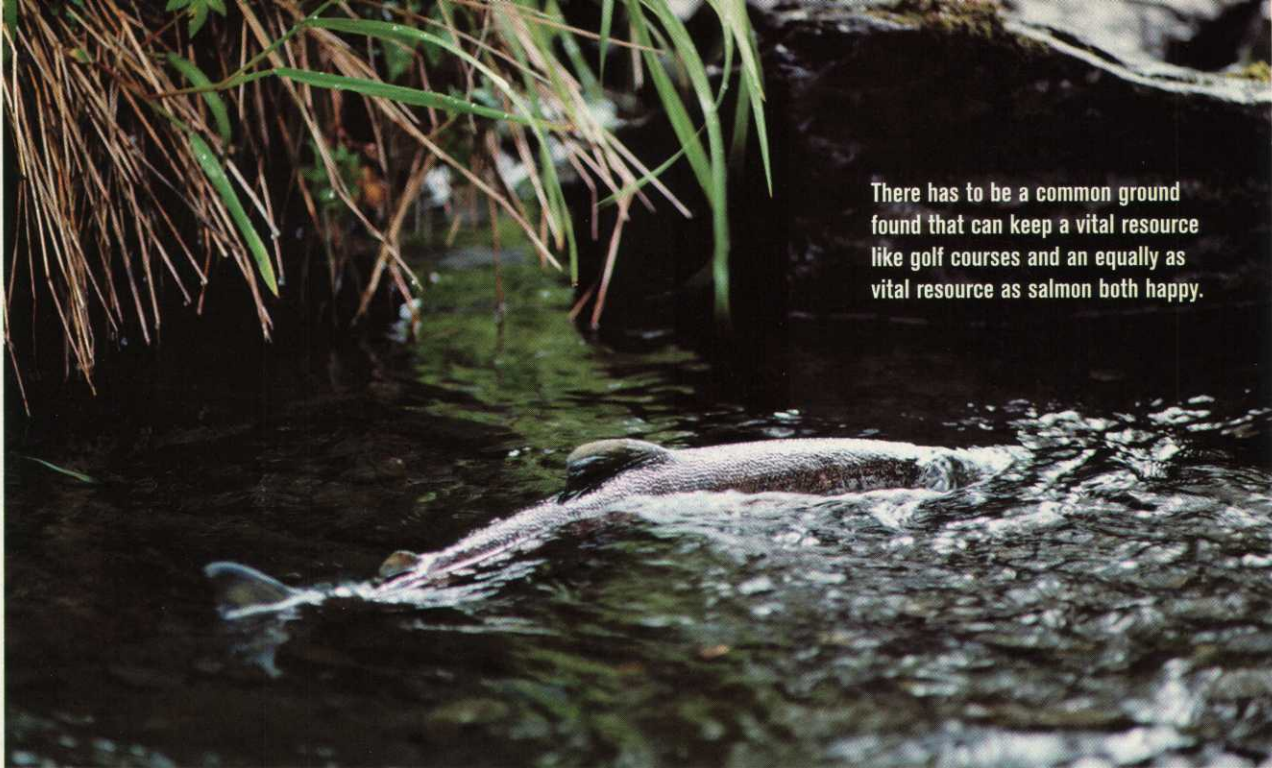
Each golf course, although they may share some of the same problems and restrictions as their neighbors, has its own circumstances when it comes to water rights. Many facets are involved in determining each separate issue, such as:

- Do you draw from a well? If so, how deep is your well?
- Does water removal from your well affect any nearby streams or rivers?
- Do you have a stream or river running through the golf course?
- Are there salmon on your property?
- What is the exact hydrology of your watershed? Which watershed are you in?
- How much water is your course permitted to draw each year? Is that sufficient in a drought year? If not, what do you do?
- What is your relationship between surface and ground water?
- Do you conserve?
- Do you *really* conserve?
- Who was the 15th president?

If I closed my eyes and concentrated really hard, I could probably add about 20 more questions to that list, but you get the point. The gist of the argument is this: There are competing interests for the water in Washington, which include:

- fish and wildlife preservation and enhancement;
- recreation;
- municipal and industrial uses; and
- agriculture and hydropower.

The problem many golf courses face is that the first item on that list — fish and wildlife preservation and enhancement — has taken such a prominent and often radically substantial role in many groups' and individuals' minds that nothing else on the list seems to matter to them.



PHOTODISC

There has to be a common ground found that can keep a vital resource like golf courses and an equally as vital resource as salmon both happy.

Salmon have been around for tens of millions of years. Their lifecycle is rather complex when compared with most fish. They hatch in freshwater from eggs laid in the gravel beds of streams. Then they migrate downstream, eventually making it to the sea. They may spend years in the ocean, traveling thousands of miles. When salmon have matured, they make their way back to the freshwater streams where they were born. There they spawn and die soon after.

In 1998, lawmakers passed the Watershed Planning Act here, which is framed around watersheds or subwatersheds known as Water Resource Inventory Areas (WRIA). Forty-two of Washington's 62 WRIs are represented by 33 planning units engaged in watershed planning at some level. The goal is to develop a more thorough and cooperative method of determining the current water situation in each water-resource inventory area of the state and to provide local citizens with the maximum possible input concerning their goals and objectives.

A central element of planning under the Watershed Planning Act is an assessment of how much water is available and how much is being used and or needed in the watershed.

If the assessment indicates there is sufficient water for in-stream uses and there is additional water available for desired growth, then the state's Department of

Ecology uses that information as part of the basis for making water-rights permit decisions for growth. Among its other functions, the Department of Ecology is the state agency responsible for preserving and protecting water quality and administering the water-rights permit system.

In a report to the legislature from March 2003, the Department of Ecology warns: "Statewide monitoring and information systems should not be limited to activities centered on salmon recovery. Rather, these efforts should address a broad range of water-resource information, including demographic growth, land use, water rights and water uses."

My own situation here in western Washington is a fairly common one, but still has its own distinct variables that set it apart from anyone else's exact situation. The golf course of which I work, Avalon Golf Club, lies on the southern end of a watershed known as the Samish Watershed in Skagit County. I draw from a well that feeds the pond from which we pump water.

Ever since the golf course opened in 1991, Avalon has been allocated to draw up to 78 acre-feet of water per year from the well. We are now being told this number will be reduced, greatly reduced — perhaps by four times. It has been suggested, although never proven, that drawing from our well affects the nearby Samish River.

Avalon believes strongly of the possibility that there may be no hydraulic connection between the well and the river. Withdrawals from the well more than likely have no impact on the river at all. But we have now been told not to draw from our well when the river is at a certain low level, which is published daily on a state-run Web site. Of course, the times when we need to draw the most water are exactly the times the river is at a level when they don't want us to.

During a very dry 2003, I would not have been able to water the golf course from June through August. It's kind of a Catch-22 for the course. We can have 78-acre feet of water, but it would be great if we could use it in the rainy season of winter. Agghh!

From October through April, western Washington does live up to its reputation for a lot of rain and cool weather. However, May through September can be very dry, and the average rainfall we experience will surprise some. Check out some of the eyebrow-raising average annual rainfalls for a few cities around the country compared to Seattle, which receives 38 inches of rain:

- Chicago, 38 inches;
- Washington D.C., 41 inches;
- New York, 42 inches;
- New Orleans, 57 inches; and
- Miami, 63 inches.

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Of Salmon and Superintendents

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In 2003, our rainfall total on the golf course was 36.5 inches (Avalon is about one hour north of Seattle). Only 4.25 inches of that total fell from May through September. That's only a little more than 19 percent of the entire year's rainfall in five months. This sounds even more impressive when you state that nearly 90 percent of our rain fell during the winter months (January through April and October through December).

It almost goes without saying what a key ingredient water conservation becomes in all of this. Audubon International gives this view of water conservation: "To ensure adequate water supplies not only for irrigation, but also for the healthy ecological functioning of water bodies, such as rivers, streams, wetlands, lakes and ponds." It further states, "Water conservation and water-quality management are critical for ensuring adequate irrigation supplies, without taxing or degrading vital water sources."

State policies and laws need to balance the allocation of water for the different uses to support the economic vitality of cities and towns while being sensitive to long-standing legal water rights. But on the other end — the superintendent's end — there are some things that can be done to help lessen the consumption of water. They are:

- constructing more ponds and thus creating a larger holding capacity for the precious resource;
- deepening ponds;
- building more native areas on the course that don't need irrigation;
- using effluent water;
- implementing better irrigation systems and practices; and
- finally, not just joining an organization like Audubon International, but making it a part of your course's everyday management arsenal.

There has to be a common ground found that can keep a vital resource like

golf courses and an equally vital resource as salmon both happy. It just takes a little common sense from all involved.

On the golf courses' end, it's to ensure that every possible method of conservation is being used. On the salmon's end, it's making sure realistic requirements are set.

By the way, I forgot to mention not to overcook the salmon. With fillets, don't cook more than 10 minutes, and don't flip them. Just close the top of the grill and smoke the dickens out of them. The steaks may take a little longer, and you'll want to hit both sides about eight minutes each.

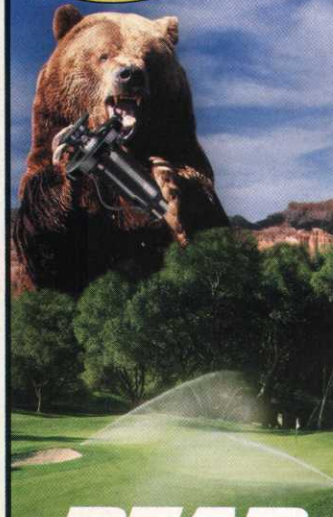
It's hard to go wrong with any choice of wine, but I'll go ahead and recommend a good Riesling.

Enjoy. ■

Furlong, superintendent of Avalon Golf Club in Burlington, Wash., can be reached at rf7500@aol.com.



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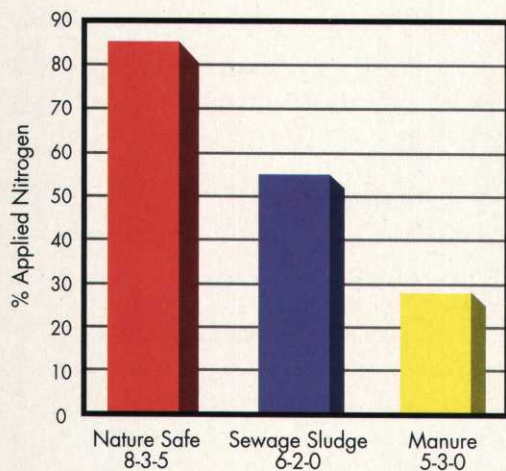
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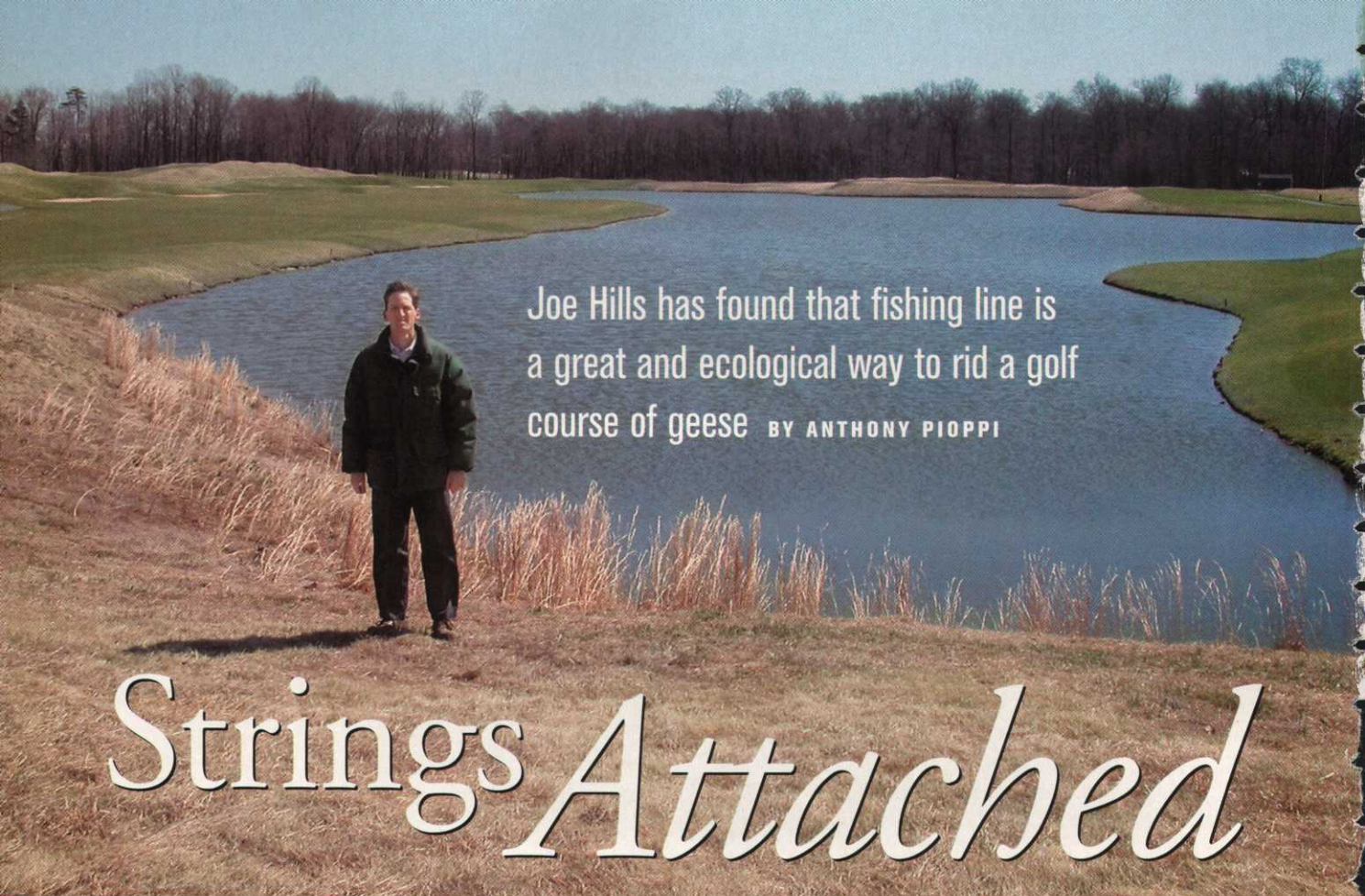
Nature Safe is specifically formulated to ensure product consistency and nutrient availability, resulting in an extremely predictable release. The USDA approved ingredients are part of the food chain and contain vitamins, enzymes, sugars and carbohydrates along with chelated phosphorus and calcium for a balanced feed. In the adjacent North Carolina State study, Nature Safe released 60% more available nitrogen than the sewage sludge product and almost three times more than the manure-based fertilizer, confirming Nature Safe's unparalleled fertilizer efficiency.

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Joe Hills has found that fishing line is a great and ecological way to rid a golf course of geese **BY ANTHONY PLOPPI**

Strings Attached



When Canada geese began taking over Blue Mash Golf Course, owner Joe Hills tried a variety of methods to rid his layout of the pests.

Once it became apparent none of them worked, he devised his own defense system using nothing more than 30-pound test fishing line. His ingenuity earned him top prize at the National Golf Course Owners Association annual meeting's Idea Fair earlier this year and accolades from the National Audubon Society.

"We opened more than two years ago, and within a year they were all over the place," Hills says about his Gaithersburg, Md., layout, designed by Arthur Hills.

He said the favorite gathering place for the geese was his 5-acre pond. There is no buffer between the pond and the holes that wind their way around it because the course is wide open. As a result, the geese weren't just eating grass, but also wrecking fairways as well as leaving behind large amounts of dung. "They were really destroying the place," Hills says.

First he tried a remote-control car to scare

them off. Later he added a remote-control speedboat to his arsenal when the geese began to retreat to the pond. To avoid the watercraft, the geese — sometimes in flocks of up to 100 — only visited the course at night.

"I was staying after dark trying to get rid of them," Hills says, indicating a growing obsession.

But, finally, when it seemed like Hills had exhausted all of his efforts to rid Blue Mash of the dastardly waterfowl, his inventive side kicked in.

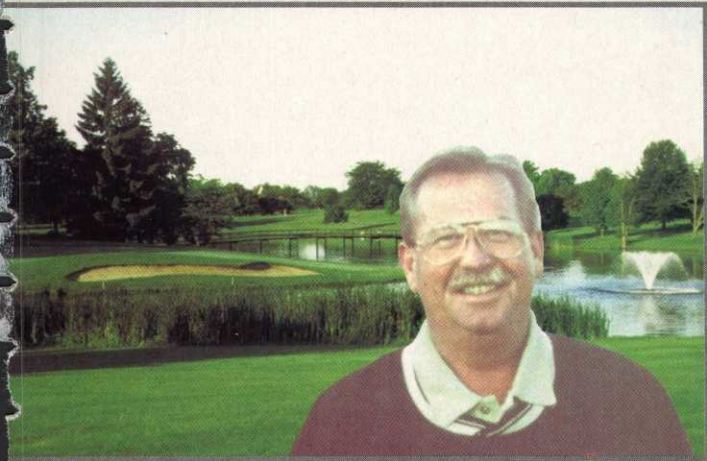
He came up with the idea of stringing clear fishing line across the pond. Using his remote-control boat to traverse the water, he placed the line in 30-foot increments with the line attached to the shore by sod staples.

Within a few days the geese were gone. On one occasion, Hills saw a pair of the birds land in the water and start swimming. One lightly bumped into one of the strands, and the pair turned and left the property.

The method did not work quite as well on a half-acre pond, so Hills added a second row of fishing line in the opposite direction. This created a grid, and the geese stayed away from

Continued on page 48

If you have Dollar Spot and Brown Patch on overseeded greens, tees and fairways ...
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Mike Sullivan of Hawthorne Hills Golf Club in Lima, Ohio had this experience:

“ I had been having trouble with Dollar Spot on a few of my Penncross greens for the last few years. Last fall, I overseeded with LS-44 in areas that were persistently and heavily infected with Dollar Spot. LS-44 established quickly and looked good. This year the areas I had overseeded have not developed any Dollar Spot. I'm looking forward to overseeding LS-44 in more areas this fall. ”

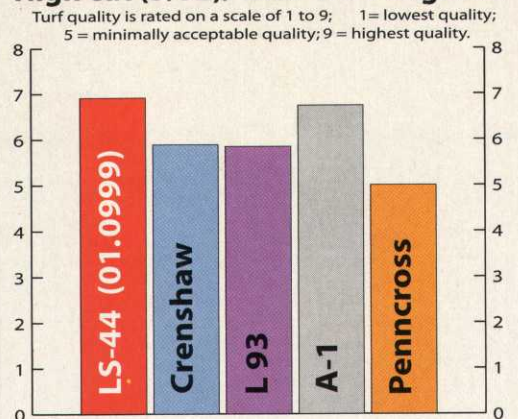
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Continued from page 46
the small pond as well.

Hills also perfected his method of distributing the fishing line when he added a second layer to the larger pond. He now secures the ends to one side of the pond, places three or four spools on a pipe and walks the lines to the other side of the pond where they are again fastened with sod spikes. His total cost was \$75.

Greg Butcher, bird conservation director for the National Audubon Society, called the method "novel" for golf course use. He said the same strategy is gaining favor as a tactic in keeping nesting birds, such as pigeons, off buildings.

The use of the monofilament line is successful because Canada geese prefer to take off from and land in water. It is also their favorite place to sleep, says Audubon spokesman John Bianchi. He surmised the extra line was needed for

The use of the monofilament line is successful because Canada geese prefer to take off from and land in water.

JOHN BIANCHI
NATIONAL AUDUBON SOCIETY

the smaller pond because the geese were landing on the ground and walking to the water.

To make the lines even more effective, Butcher suggested Hills try attaching markers near the center of the pond.

This will not only remind previous visitors of the problem, but also serve as a warning to newcomers.

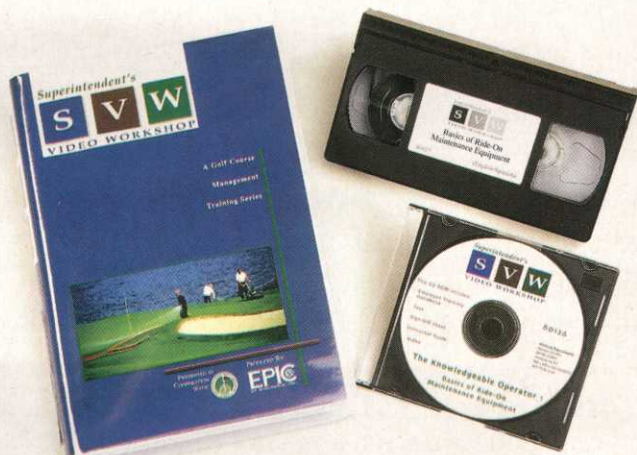
Sharon Pawlak, of the Coalition to Prevent the Destruction of Canada Geese, also did not object to Hills' method. She did, however, caution that the golf course could have problems if birds were injured by the monofilament. According to Pawlak, the best way to rid of any geese is through a variety of methods such as floating alligators, balloons and dogs.

"Geese will seek the least resistance," she says. "They will rehabilitate to an area where there is no harassment."

Pawlak said she would not be surprised if the geese returned to Blue Marsh, this time landing on the fairways, eating for a while, and then leaving. Golf courses are hard to resist for Canada geese. "We're creating a habitat they love," Pawlak says. "You're literally setting out a dinner table for them." ■

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1. Insignia (0.50 oz) and Heritage (0.20 oz)/1000 sq. ft. Anthracnose control at 14-day application intervals. Average disease severity in controls was 24.8%. Source: Summary of university trials from 8 locations.
 2. Insignia (0.90 oz) and Heritage (0.40 oz)/1000 sq. ft. Pythium blight control at 14-day application intervals. Average disease severity in controls was 70.1%. Source: Summary of university trials from 8 locations.
 3. Insignia (0.50 oz) and Heritage (0.20 oz)/1000 sq. ft. Gray leaf spot control at 14-day application intervals. Average disease severity in controls was 50.5%. Source: Summary of university trials from 8 locations.
 4. Insignia (0.90 oz) and Heritage (0.40 oz)/1000 sq. ft. Dollar spot suppression at 14-day application intervals. Source: Virginia Tech University, 1996.