FREE FAST

GOLF COURS

Do you wish to receive/continue to receive a FREE subscription to Golf Course Industry? ☐ No

Signature Date

Title Company

State	Zip
E-mail Address	
use your email address to c information. If you do not wa ase check here. \Box	
contact you for future renewa faxtelephone	uls?
	EΓΓ
INDUSTI	
ive/continue to receive a	
State	_Zip
	Lemail Address use your email address to conformation. If you do not wasse check here. contact you for future renewataxtelephone COURSINDUST ive/continue to receive a conformation of Course Industry? No State

What is the best way to contact you for future renewals?

___email ____fax ____telephone

Check off the reader service numbers that you're interested in and mail in this card. Or visit www.golfcourseindustry.com.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220
221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240
241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260
261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280
281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300
301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320
321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340
341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360

JULY 2007

1.	1.	How Do You Want to Receive Your						
		Subscription?						
E	1	1-Digital and Print						

- 2-Print Only
- 3-Digital Only (No Print Copy Received) (a valid e-mail address is required for digital delivery)

What is your primary business at this location? (check one)

- 21-Public Golf Course
- 22-Private Golf Course
- 23-Semi Private Golf Course
- 24-Municipal/City/State Golf Course
- 25-Hotel/Resort
- 26-Par3/Executive Golf Course
- 27-Practice Facility
- 29-Other Golf Course
- 30-Golf Course Management Company 31-Golf Course Architect
- 32-Golf Course Developer
- 33-Golf Course Builder
- 39-Supplier/Sales
- 99- Others (please describe)

3. What best describes your title?

- A-Golf Course Superintendent
- B-Green Chairman
- C-Director of Golf/Head Pro
- D-Club President
- E-General Manager
- F-Golf Course Owner G-Builder/Developer
- H-Architect/Engineer
- I-Research Professional
- K-Assistant Superintendent
- L-Golf Course Management Company Executive
- ☐ Z-Others (please describe)

Number of Holes: (check one)

- A-9 Holes B-18 Holes
- C-27 Holes
- D-36 Holes
- F-Other

Total Annual Maintenance Budget: (check one)

- 1-Less than \$50,000
- 2-\$50,000-\$99,999
- 3-\$100,000-\$249,999
- 4-\$250,000-\$499,999
- 5-\$500,000-\$749,999
- 6-\$750,000-\$1,000,000
- 7-\$1,000,000+

7. Total Course Acreage

- Course Renovation Plans for the Next 12 Months
- 1-Full Reconstruction 2-Partial Reconstruction
- 3-Greens
- 4-Tees ☐ 5-Fairways
- 6-Irrigation System
- 7-No Renovations Planned
- 9. If Only a Partial Reconstruction is Planned, Please Indicate the Number of Holes
- 10. What is the Name of the Architect Who Designed

the Course?

11. What Year was the Course Built?

12. Is this course part of a

- Resort Chain
- Golf Course Management Company
- 3. Municipal Course System
- 4. None of the above

13. What is the name of the Resort Chain, Golf Course Management Company, or Municipal Course

Please allow 6-8 weeks for delivery of first issue. Incomplete forms will not be processed. Publisher reserves the right to reject all non-qualified subscription requests.

Postage Required Post Office will not deliver without proper postage.

FREE FAST

GOLF COURSE

PO BOX 5817 CLEVELAND, OH 44101-0817

Idlalladladaddaladaddalaadlalaaddda

Postage Required Post Office will not deliver without proper postage.

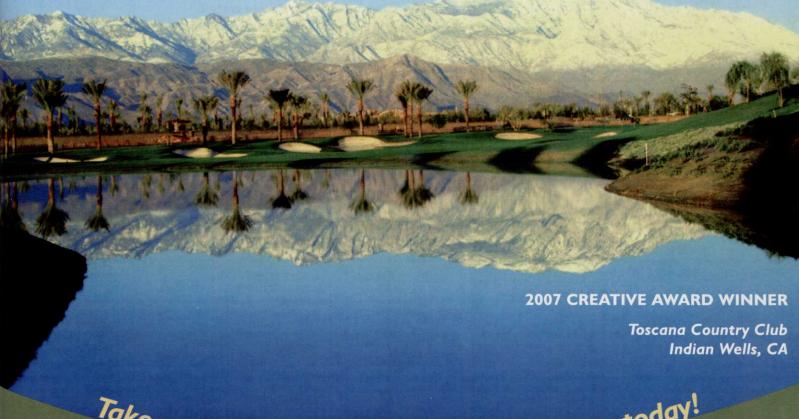
GOLF COURSE
PO BOX 2191

PO BOX 2191 SKOKIE, IL 60076-7891

Builder Excellence Awards

In Conjunction with the Golf Course Builders Association of America





Take your shot towards excellence - Enter today!

The 2008 Builder Excellence Awards are presented to companies who continuously improve the profession of golf course construction in agreement with the GCBAA mission statement. The prestigious awards increase awareness of the contributions made by builders to the industry and the benefits of excellent course design and construction to the game.

Four Award Categories:

- Creative Award for best new construction
- Heritage Award for best reconstruction
- Legacy Award for best renovation
- Affinity Award for best environmentally conscious course

Call John Walsh, editor of

Golf Course Industry, at

800-456-0707, or visit

www.golfcourseindustry.com

to download an application form.

Research

mowing height. This disease is typically more severe in turfgrass that has been fertilized with nitrate-nitrogen.

STEP 4: MAP OUT THE POTENTIAL TIMES FOR DIS-EASE PRESSURE AND FUNGICIDE APPLICATIONS.

After the diseases requiring control has been identified, the next step is to map the potential times for disease pressure. Typically, history is the best guide. There are tools that offer historical data to help determine these times.

The mapping process is done by creating a series of boxes representing each month of the year and marking them accordingly. In months where disease activity frequently occurs, the box is colored green. In months where disease activity occasionally occurs, the box is colored yellow. If disease rarely occurs during a month, the box is left uncolored. This practice helps superintendents visualize the development of a disease control program.

Next, place a star in the month when you plan to make a fungicide application to control the particular disease.

This process should be done for each disease on your list. The final step is to create a spray schedule that accomplishes all that is mapped out. In creating a schedule, list all fungicides that will control each disease. Look for broad-spectrum fungicides that control multiple diseases, as this increases efficiency of fungicide applications.

Once the program is committed to paper, it's easy to add other scheduled management practices. One that shouldn't be forgotten is fertilization. It's critical to maintain good plant vigor when dealing with diseases such as anthracnose, dollar spot and summer patch.

When planning a disease control program for greens, it's best to not extend any application longer than two weeks. Plant protection is limited by how long the fungicide can remain in or on the plant. The residual activity of fungicides is affected by many factors, including rainfall/irrigation, height of cut, frequency of cut and depth of roots. GCI

Michael Agnew, Ph.D., is a field technical manager for Syngenta Professional Products and can be reached at michael.agnew@syngenta.com. Michael Fidanza, Ph.D., is courtesy professor of turfgrass science at Penn State University and can be reached at maf100@psu.edu.

Example of a fungicide spray program for Poa annua/bentgrass greens using a solutions approach to disease control

Diseases of bentgrass: Dollar spot (DS), anthracnose (A), Pythium blight (PB), brown patch (BP), yellow patch (YP), fusarium patch (FP)

Diseases of Poa annua: Dollar spot (DS), anthracnose (A), brown patch (BP), Pythium blight (PB), leaf spot (LS)

APPLICATION	TIMING	FUNGICIDE/PGR	RATE/1000 FT ²	TARGET PATHOGEN		
1	APRIL 1	BANNER MAXX DACONIL ULTREX PRIMO MAXX	2 FL OZ 3.2 OZ 0.125 FL OZ	A, LS, YP, FP		
2	APRIL 15	BANNER MAXX DACONIL ULTREX PRIMO MAXX	1.0 FL OZ 1.8 OZ 0.125 FL OZ	A, LS		
3	MAY 1	MEDALLION CHIPCO 26GT DACONIL ULTREX PRIMO MAXX	0.25 OZ 2 OZ 1.8 OZ 0.125 FL OZ	A, LS, YS, FP		
4	MAY 15	HERITAGE BANNER MAXX PRIMO MAXX	0.4 OZ 1.0 OZ 0.125 FL OZ	A, DS, LS, SP		
5	JUNE 1	CLEARY'S 3336 DACONIL ULTREX PRIMO MAXX	4 OZ 3.2 OZ 0.125 FL OZ	A, DS, BP, LS		
6	JUNE 15	HERITAGE MEDALLION DACONIL ULTREX PRIMO MAXX	0.4 OZ 0.25 OZ 1.8 OZ 0.125 FL OZ	A, DS, BP, SP, PB		
7 JULY 1		BANNER MAXX SUBDUE MAXX DACONIL ULTREX PRIMO MAXX	1.0 FL OZ 3.2 OZ 1.0 FL OZ 0.125 FL OZ	A, DS, BP, PB		
8	JULY 15	HERITAGE MEDALLION DACONIL ULTREX PRIMO MAXX	0.4 OZ 0.25 OZ 1.8 OZ 0.125 FL OZ	A, DS, BP, SP, PB		
9	AUG. 1	BANNER MAXX DACONIL ULTREX SUBDUE MAXX PRIMO MAXX	1.0 FL OZ 3.2 OZ 1.0 FL OZ 0.125 FL OZ	A, DS, BP, PB		
10	AUG. 15	BANNER MAXX MEDALLION DACONIL ULTREX PRIMO MAXX	1.0 FL OZ 0.25 OZ 1.8 OZ 0.125 FL OZ	A, DS, BP		
11 SEPT. 1		CLEARY'S 3336 DACONIL ULTREX PRIMO MAXX	4 OZ 1.8 OZ 0.125 FL OZ	A, DS, BP		
12 SEPT. 15		BANNER MAXX DACONIL ULTREX PRIMO MAXX	.5 FL OZ + 1.8 OZ 0.125 FL OZ	A, DS		
13	OCT. 1	BANNER MAXX DACONIL ULTREX PRIMO MAXX	1.0 FL OZ 1.8 OZ 0.125 FL OZ	A, DS		
14 NOV. 1		MEDALLION BANNER MAXX DACONIL ULTREX	0.5 OZ 2 FL OZ 5.1 OZ	A, YP, FP		



Who's telling your story?

Your work results in more available oxygen and fewer allergens, noise reduction and lower cooling bills, thicker turf that filters pollutants and landscapes that increase property values. There are endless environmental, economic and lifestyle benefits that green spaces provide—yet consumers don't know about them. They don't understand the true value of your products and services.

Join us in telling the whole story of what you do. Project EverGreen is an organization dedicated to educating the public about the value of green spaces and encouraging responsible practices.



To make a contribution or find out more, call 877-758-4835 or visit www.projectevergreen.com.

BY JOHN WALSH

An ongoing battle

A superintendent in New Mexicao experiments with wetting agents to combat localized dry spots

or Steve Campbell, wetting agents aren't a miracle product; they're just another gun in the arsenal of turfgrass management.

"If you know how to use them and what they're supposed to do, they work," says Campbell, director of agronomy at Las Campanas, a 36-hole facility that sits on 5,000 acres of high desert in Santa Fe, N.M. "If you don't know what they do, you won't get good results. There's no 'follow A, B, C and D,' and you'll be successful. Find out what your problems are and figure out how to fix them. If wetting agents work for me, I believe they'll work for everyone if they apply them to their individual needs and situations. Each golf course is different. You don't treat them all the same."

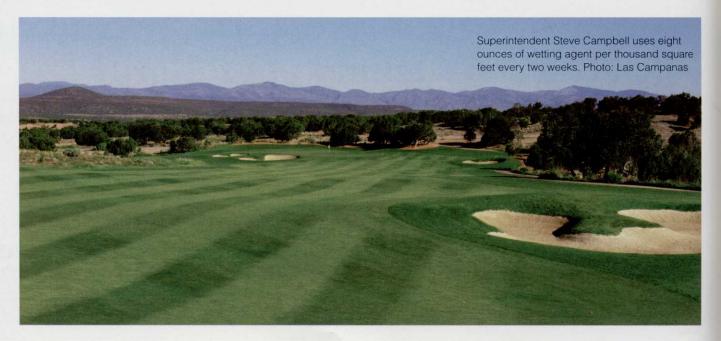
Campbell manages 100 employees and runs the golf course, landscape, public works and revegetation divisions at Las Campanas, a Lyle Anderson development. Budgets are confidential, but Campbell's is more than \$1 million.

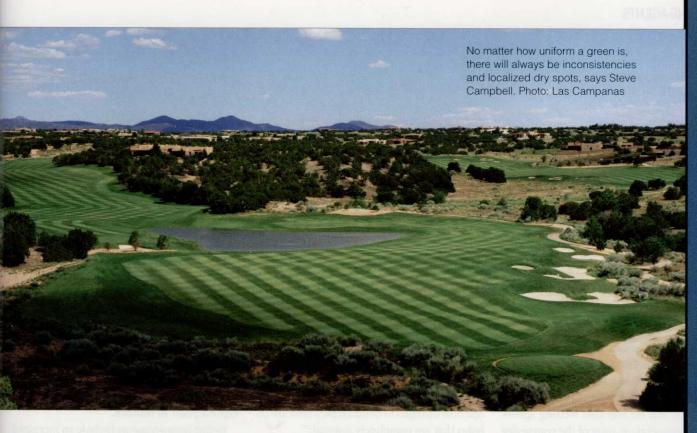
Campbell, who's been at Las Campanas for 12 years, is a big believer of wetting agents and has used them his entire career. He injects wetting agents into the irrigation system, using 1/16 to 1/4 of an ounce per thousand square feet of turf per day.

Las Campanas receives just 12 inches of rainfall a year, so water is king.

"I need to make water wetter to conserve and use every drop," Campbell says. "Wetting agents break the surface tension of the water droplet and force it to go into the soil."

Under water conservation mandates, the most water Campbell can use per golf course per day is 600,000 gallons, even though he says he can use less than that during less stressful months of the year. Determining





how much water he uses is a complicated system, he says. He checks water use every morning via a computerized monitoring system and reports it monthly. Other parties, namely municipalities, can check his water use daily if desired.

The water is high in salts and bicarbonates, which makes it difficult for Campbell to flush the soil. He can flush salts down into the soil profile with the annual 12 inches of rainfall and the wetting agents he uses.

The bentgrass Campbell grows isn't native to the area. He says there has been ongoing talk about changing the turf, but the native grasses (buffalograss, for example) would never be used because they wouldn't survive if cut at turf heights.

"I have bentgrass on greens, tees and fairways," he says. "The temperature will go down to zero degrees Fahrenheit in the winter, and if I don't have snow cover, I irrigate the turf once a week because the plant will freeze dry if I don't because of the high winds and very low humidity. The crown needs to stay wet or it desiccates. We're at 7,000-feet elevation. The Rocky Mountains begin here in Santa Fe."

To treat localized dry spots, Campbell uses eight ounces of wetting agent per thousand square feet every two weeks. No matter how uniform a green is, there will be inconsistencies and localized dry spots, which is compounded with salts, he says.

Campbell says he has tried every wetting agent on the market and started using them in Philadelphia where it was hot and humid with an entirely different set of weather, soil and agronomic conditions.

"Surfside is the best wetting agent I've used," he says. "I use it exclusively."

Campbell uses wetting agents throughout the year and is always looking for a deal. He buys the 55-gallon drums even though the shipping is expensive.

"I spend a minimum of \$12,000 on wetting agents a year," he says. "There has been no year where I spent less than \$10,000 on wetting agents. The drier the year, sometimes as little as four inches of rainfall a year, the more I need to supplement my irrigation."

Campbell acknowledges there's an uncertainty about wetting agents in the industry, but he says a superintendent has to know his soils, drainage, irrigation and

turf problem areas.

"You need to spend the time to experiment," he says. "One size doesn't fit all. What I used in Philly is different than what I use out here. It's no different than any other business. Attention to detail is the key, and versatility is key to success. You need to make adjustments. You don't just dump a wetting agent in the tank and go."

When Campbell sees a water-related problem, he applies a wetting agent, which alleviates the problem but doesn't eliminate it.

"It will be different for me every year," he says. "It's frustrating, but just because it worked last year, doesn't mean it will work exactly the same way this year. It's an ongoing thing."

Superintendents will always deal with localized dry spots and wetting-agent use, Campbell says.

"Every superintendent should have a wetting agent as part of his arsenal," he says. "They've been around a while, but they must be doing something for someone because they've last a long time. That's somewhat of a testimonial." **GCI**

BY JOHN WALSH

More than one use

Wetting agents contest localized dry spot and wet turf while reducing labor for a superintendent in Indiana

olf course superintendents have Ulong turned to wetting agents to combat localized dry spots. John Parker, golf course superintendent at the French Lick (Ind.) Springs Resort, does. But he also uses wetting agents to keep certain areas of the course dry and reduce labor.

There are a lot of improvements being made to the French Lick Springs Resort as part of an overall \$382-million renovation. The resort features the 18-hole Donald Ross Course built

in 1917 that was newly renovated by a team led by architect Lee Schmidt.

"We've been called one of the most originally kept Ross designs in the country," Parker says. "Throughout the years, we've had only one hole changed to build a lake. There are 16 holes that are completely original."

Currently, the Tom Bendelow Course, which was known as the Valley Links and used to be an 18-hole course, is being renovated and converted to a nine-hole course scheduled to open this fall. A casino was built where the old driving range used to be, and a new one is being built nearby. The casino opened in November 2006 along with the newly renovated French Lick Springs Hotel. A brand new 18-hole Pete Dye course is expected to open in 2008 atop the second highest point in Indiana.

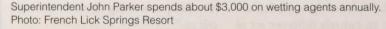
Resort improvements include an increased golf course maintenance budget, from \$450,000 to about \$800,000. Parker says owner Bill Cook wants to restore the historical grandeur of the area (French Lick was home of the largest standing dome, the West Baden Springs Hotel, before the Astrodome was erected, Parker says), improve the quality of the golf courses and meet the higher guest expectations that will be likely once the renovations are complete.

"We've improved the green complexes using Best Sand, and we're using more fertilizer by spraying iron on the fairways," Parker

The turfgrass is Penncross bentgrass on the native soil greens and approaches, Quickstand Bermudagrass on the tees and fairways, and turf-type tall fescue in the rough.

"We're in the transition zone, although it's been a rough year for the Bermudagrass because of the cold spring," he says. "We had been using a systemic fungicide with a wetting agent, but now with the Bermudagrass, I don't need the fungicides, so I spray just the wetting agents. On the greens, it's still a mix."

Parker spends about \$3,000 a year on wetting agents and uses them to help cure localized dry spot on greens and fairways. He





also used wetting agents to help establish sod for greens expansions. Some greens were rectangular and eventually became rounded. Parker used wetting agents to establish the grass in the areas that made the greens rectangular again.

Parker says that when he started at French Lick 11 years ago there was a lot of localized dry spot, but now there has been less because he has been using wetting agents. Using wetting agents also eliminates a lot of labor, such as dragging hoses to certain areas on the courses, even though Parker's crew still drags hoses sometimes.

Because the water Parker uses to irrigate the golf courses has high sodium content and is of poor quality, he can't flush the soils well. So, he uses wetting agents and when it rains, and the combination of rain water and wetting agents helps flush the soils properly.

Parker applies wetting agents starting in late May or early June then reapplies them every three or four weeks on the greens and fairways through the first part of September.

"We have hills and valleys here, and wetting agents help on the high peaks," he says. "Wetting agents also help percolate the water in the valleys to keep them drier."

Parker purchases wetting agents as needed, usually monthly.

"I can't buy a year's supply, but with the new budget, I will buy the 50-gallon barrels to save money."

Parker has tried different brands the past two years but is now stuck on one - Revolution from Aquatrols.

"Ten years ago, if you applied a wetting agent and you didn't water it in right away, it would burn the grass, so I've been cautious," he says. "Now the products are better than 10 years ago, and you can wait a bit before applying water."

Parker applies 6 ounces of Revolution per 1,000 square feet every three to four weeks on the greens. On fairways, he uses Primer Select by Aquatrols. He says the difference between the two is cost.

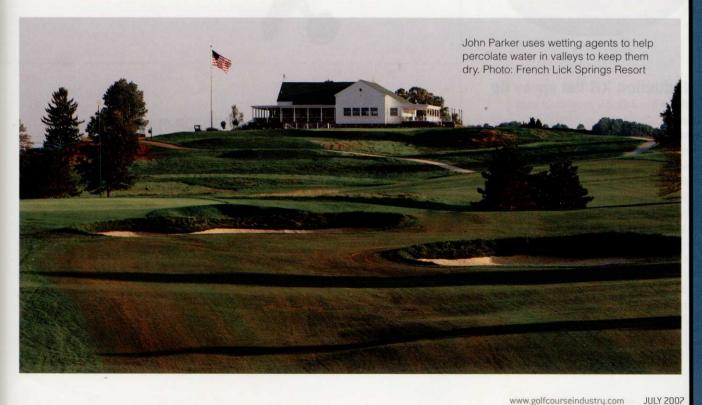
"I've used Cascade - it's a good product - and a lot of wetting agents," he says. "But Aquatrols conducts research and is committed to wetting agents, which eases my mind."

Parker spot treats certain areas with wetting agents and makes blanket applications on the greens and fairways throughout the summer. He would like to inject Dispatch into the new, three-row irrigation system (he used to have a tworow system) to reduce labor but hasn't done so vet.

"I'm not using it now but will in a few months after I use the rest of the Revolution," he says. "It's always good to have wetting agents on hand to treat problematic areas."

Parker is convinced wetting agents help organic matter slide off the sand in the soil profile and allow water to collect between sand particles.

"The benefit of wetting agents is you don't have so much dew on the bentgrass, so you'll be less prone to dollar spot," he says. "If you choose not to mow and applied a wetting agent, you don't have dew, but rather a nice green complex because all the moisture goes down into the soil." GCI



Flexibrush

- · Designed for fast, effective brushing on large turf areas
- · Includes six sets of independently floating V-section brushes that are divided into three sections that float also
- · Brush can follow ground contours to enable a better dispersal of topdressing materials
- · Can be used for dew dispersal
- · Outer sections fold for transport and storage
- · Stands are supplied for storage, too SISIS

golfcourseindustry.com/readerservice # 200





Air Induction XR flat spray tip

- · Produces few driftable droplets at high pressures
- · Provides drip control without compromising
- · Nozzle uses an air induction design to produce larger air-filled drops that stay on target
- · Ideal for preemergent, surface-applied herbicides; postemergent systemic herbicides and postemergent contact herbicides
- · Preorifice is removed easily for cleaning
- · Polymer material provides long-wear life and better acid resistance
- · Operating pressure ranges from 15 to 90 psi

golfcourseindustry.com/readerservice # 201

Blade-capable trimmer

- · Powered by a 26.30-cc engine
- · Weighs 10.8 pounds
- · Produces low noise and vibration
- · Ergonomically designed
- · Includes a convenient control location
- · Features a 16.9-ounce fuel tank
- · CARB Tier III approved
- · Includes a lifetime electronic-ignition-module warranty

Kawasaki Power Products golfcourseindustry.com/readerservice # 202







EFB-CP-R valve series

- · Designed to withstand the abuse of reclaimed water systems
- · Made of red brass
- · Features a nylon-reinforced EPDM rubber diaphragm that resists corrosion
 - · Comes with a stainless-steel, selfflushing, contamination-proof filter screen to resist debris build-up Rain Bird

golfcourseindustry.com/readerservice # 203