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Circle No. 160 on Reader Inquiry Card

herbicide arsenal with 75% using both pre- and postemergence herbicides. Southern supers are also more inclined to use both.

Fairways on southern and public courses are the least likely to receive fungicide treatment. Half or more of municipal, resort, and southern superintendents apply fungicides only to greens. More than a third of northern and private courses use fungicides on greens, tees, and fairways. Twenty percent of daily fee courses apply fungicides to everything but greens.

Sulfur-coated urea (SCU) was the slow release fertilizer used most frequently by the respondents, 45%. Seventy-five percent of the resort courses use SCU. Resort courses, and also daily fee courses, are the biggest users of IBDU. Ureaform is used the most by resort courses and the least by 9-hole courses. Organic fertilizers (i.e. Milorganite) are most popular with 9-hole and daily fee courses.

Wetting agents were used by 70.5% of the respondents on localized dry spots. Resort and southern courses use wetting agents the most. Nine-hole and transition courses use them the least.

Aerification is firmly entrenched in golf course culture. An overwhelming 94% of all courses aerify greens. Fourteen percent even said they aerify roughs. Tees are the next target of aerifiers at 80% and fairways are cared at 66% of the courses.

Private courses lead in all categories of aerification with 80% of fairways and greater percentages for tees and greens. Location makes little difference, except for roughs, where 23% are aerified in the South.

The gang fairway mower, once pulled by horses in the early 1900's and by tractors today, is losing ground to the self propelled fairway mower. Self-propelled fairway mowing units were used by 99 percent of the superintendents answering the survey.

Forty-two percent still use the gang mowers for fairways. Municipal and daily fee courses are holding on to the gang mower more than other courses. Only 25% of resort courses use gangs, opting for self-propelled 75% of the time.

Twelve percent have tried light-weight triplex type mowers for fairways, mainly private and northern courses as a method to reduce *Poa annua*.

Riding greens mowers were preferred by 71.6% of the superinten-

dents to walk-behind greens mowers. Even 86% of the 9-hole supers favor riders. Private courses still use walkers 35% of the time.

A little more than half of the superintendents said they have tried to speed up their greens this year. Most of the quest for speed is at resort and private courses. Even 9-holers and daily fee courses made greens faster in more than a third of the courses.

Overseeding is a necessity today for golf courses with warm-season turf, with an average of \$7,215 spent each summer by southern superintendents for cool-season seed. Resort courses spend nearly \$12,000 per year for winterseed. Daily fee and 9-hole courses spend the least.

Seed for renovation averaged \$1,800 per year for all courses, so you can see winterseeding is a big boost for seed producers. Northern courses have begun to overseed fairways in the spring to push out *Poa annua*. This may prove to be a huge new market for seed companies, quadrupling sales in some northern states.

Weed, insect problems

Crabgrass takes the honors as the most troublesome weed for golf course superintendents, with annual bluegrass, dandelions, clover, and goosegrass not far behind. Private course superintendents are those most concerned with annual bluegrass. Goosegrass is a concern primarily in the South and transition zone. Dandelions are most troublesome in the North. Nutsedge is a problem mainly to resort courses.

Grubs, cutworms and sod webworms are the most persistent insects superintendents have to deal with. Chinchbugs were less of a problem than anticipated at 5%. Most southern and resort superintendents rate mole crickets as a major problem. Resort courses took more insects seriously than other types of courses.

Dollarspot and brown patch are the most bothersome diseases, followed by pythium, leaf spot, and snow mold.

The survey showed 66.7% of the superintendents belong to the Golf Course Superintendents Association of America.

Superintendents were also very specific about the type of information they want to be able to do their jobs better; 83.1% want technical information, 69.9% want new product information and 66% like to know how other superintendents do things and solve problems.

WT&T

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The breathtaking first hole at Cherry Hills Country Club, Englewood, Colorado. Home of the 1985 PGA Championship.

Grounds for Ransomes.



The curves and slopes and traps on the grounds of Cherry Hills are more than a groundskeeper's handicap. They're grounds for using the Ransomes Motor 180.

The reel mower that offers real maneuverability. With a low center of gravity and wide wheel track for outstanding stability and performance on steep slopes.

Precision mowing at cutting heights from $\frac{3}{8}$ " to 3". And a 71" cutting width that slices hours off the biggest mowing jobs. Ransomes Motor 180. On a par with no other mower. And that's grounds for seeing your Ransomes Bob Cat distributor. Or, call Ransomes, Inc., One Bob Cat Lane, Johnson Creek, WI 53038, (414) 699-2000.

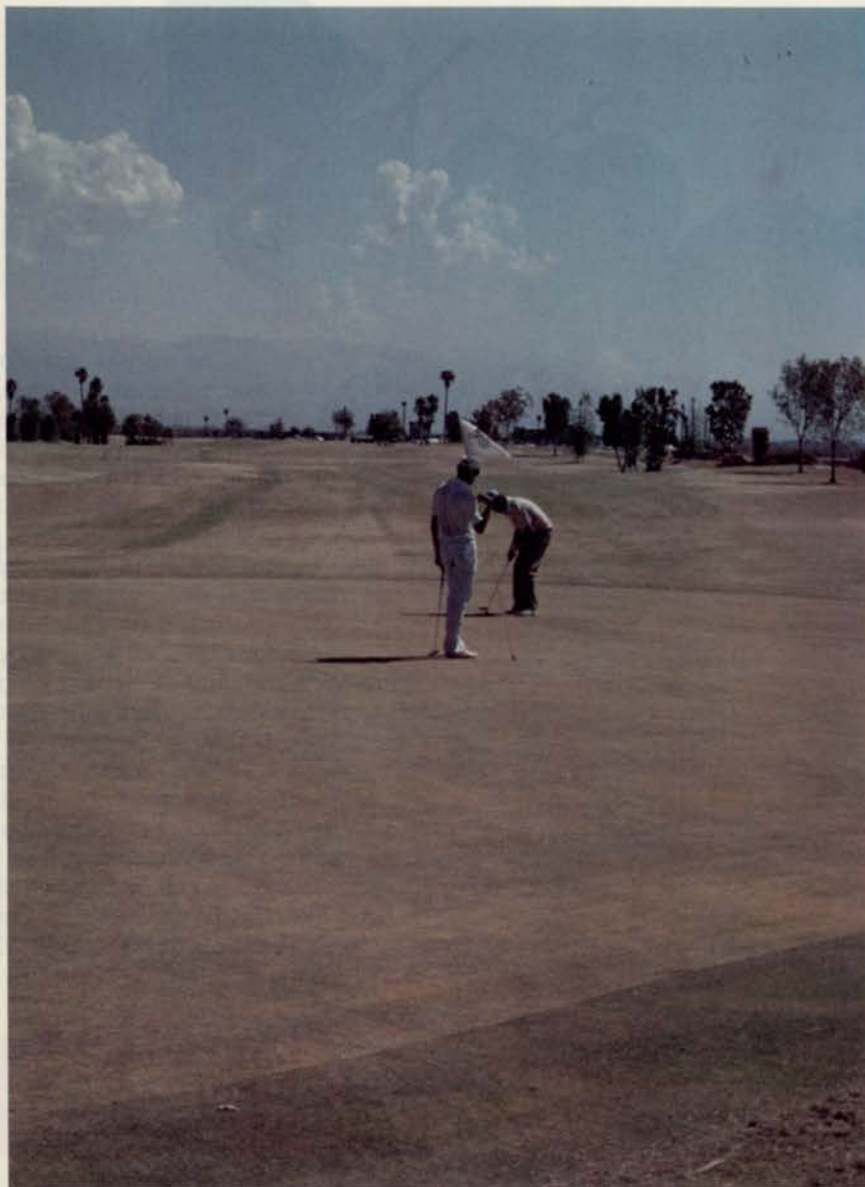
RANSOMES

The grass machine.

Circle No. 147 on Reader Inquiry Card

Pressure in Paradise

One of the poshest golfing meccas in the world is also one of the hardest to maintain. Perfection has a price. And the golf superintendents of the Palm Springs area are only too familiar with the intricacies and peculiarities of grooming the courses so many come to play.



by Hartley Bennett

In the middle of the California low desert sits an oasis—and a gold mine.

In an area 25 miles long and 5 miles wide, an enclave of approximately 60 golf courses form the crown jewel of golfdom known as Palm Springs.

Twenty-two more courses are in the planning stage. Six of the new courses are actually in the community of Palm Springs. The vast majority, though, occupy a strip in the Coachella Valley. The valley extends eastward from Palm Springs along the base of the San Jacinto Mountains and includes Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta and Bermuda Dunes. Current development is moving towards the community of Indio.

This Garden of Eden sits in an otherwise stark, dry wasteland.

The legacy began back in 1926 when California oilman Thomas O'Donnell opened a private nine-hole course in Palm Springs.

A high price

Today, creating and maintaining the top-notch playgrounds of the Palm Springs area well enough to satisfy the expectations of the world's most knowledgeable and demanding golfers requires a golf superintendent to wage a constant battle against the hostile desert environment.

Relaxation in the lush surroundings beckons vacationers, but pressure in paradise is nothing new to the

Natural vegetation and the mountains surround the beginning of another course under construction in Palm Desert.



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In 1983, we surveyed state extension authorities and universities. We did it again in 1984 and Betasan, once again, came out the number one choice for crabgrass control and safety to turf.

That should come as no surprise. Comparing published test results from six different universities stretching across the U.S. from Rhode Island to California, no other herbicide consistently scores so high on crabgrass control, yet so low on injury to existing turf. No other preemergence herbicide even comes close for poa annua control.

Betasan is the only safe and effective product on bentgrass. It's also safe on established bluegrass, fescue, perennial ryegrass, Bermuda grass, Zoysia, bahia, centipede, St. Augustine and dichondra.

That makes it safe for your tees, fairways and greens—the safest crabgrass control of all.

Betasan not only offers longer protection than most other herbicides, but with multiple applications, you can achieve control of goosegrass, barnyardgrass, redroot pigweed, sheperds-purse, lambsquarters and deadnettle, as well as crabgrass and poa annua. Keeping more weeds out of play. Longer.

For all those reasons experts say, "Betasan has always been best." For all those reasons, it still is.

Available in granular or liquid formulations, with no settling out problems. Always follow label directions carefully. Stauffer Chemical Company, Specialty Products, ACD, Westport, CT 06881.

BETASAN[®]
PREEMERGENCE HERBICIDE
NO.1 AGAINST CRABGRASS.



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Palm Valley Country Club, Palm Desert, CA. From left, Paul Quill, golf course construction manager, Gary Peterson, superintendent, Dennis Orsborn, director of golf course operations for the Sunrise Co. which owns the course.

The explosive growth of new recreational real estate development presents yet another demand on the superintendent.



At the Lakes Country Club, Palm Desert, CA, course renovation and construction of exclusive private villas go on simultaneously.

golf superintendents who work there.

The explosive growth of new recreational real estate development presents yet another demand.

At the forefront of the most recent boom is the master plan concept of condominium development, and Dennis Orsborn, director of golf

course operations for the Sunrise Company of Palm Desert, is one of its biggest proponents.

In on the ground floor of planning for multi-million dollar country club communities, he supervises the creation and maintenance of challenging golf courses which are established

and playable five months after groundbreaking.

Speed and efficiency are essential as luxurious living units are simultaneously constructed next to emerging fairways with palm trees stacked like cordwood waiting for installation.

"We can never forget that the golf course is the homeowner's backyard before it is a golf course," says Orsborn. "Color is very critical. Construction and maintenance personnel must keep in mind that the visual appeal is of paramount importance and next the quality of the playing surface. We are in the business of selling condos and the golf course is a vehicle, secondary to sales."

Yet, he admits the course must provide outstanding playability.

The Old Guard

In contrast to the new community development concept, many private clubs exist which are among the oldest and most famous of the region.

"Perfection is the absolute requirement," says David Lozoya, superintendent of golf course and grounds for the Annenberg Estate.

The exclusive and superprivate country club courses both entertain and have as members some of the wealthiest and most influential clientele in the world.

Clubhouse grounds at these establishments are as important to the overall atmosphere as the course itself.

Mike Mongiello, superintendent of Eldorado, proudly points out the Desert Beautiful Award he won the last three years for the beauty of the total grounds area of his club.

In addition to maintaining a playing surface which is chosen as one of the outstanding courses for the nationally-televised Bob Hope Desert Classic, Mongiello designs and directs the installation of flower beds in the club house and entry area which are famous for their colorful display.

Hundreds of flats of annuals, over 60 varieties, are planted the third week in October. The spectacular display is completely replaced in the spring by thousands of First Lady marigolds for the Eisenhower Sunburst Tournament.

continued on page 50

ANNUAL GRASS CONTROL OR COST CONTROL

WHEN DOES EXTRA ANNUAL GRASS CONTROL BECOME TOO EXPENSIVE?

Uncontrolled annual grasses can threaten your turf's appearance and your reputation. But try to control them all, and your budgets and profits are endangered.

That's why so many turf managers count on Balan® for effective control of crabgrass and other tough annual grasses. Some herbicides last a little longer, but that extra control can *almost double* your costs.

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northern climates, where crabgrass is the only annual grass problem, a single 80-pound application of Balan is all you need. And at Balan prices, that's a huge savings over competitive preemergence herbicides.

If you have annual grasses that continue to germinate beyond Balan's residual period, a second application gives season-long control.

And Balan gives you extra management flexibility. With Balan, you can stimulate root growth by performing aerification between applications.



You can even reseed as soon as six weeks after Balan application. Some competition makes you wait up to four months before reseeding.

So why spend up to twice as much to control a few more annual grasses? Control your annual grasses, your costs and your management options with easy-to-apply Balan granules.



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And because your turf aeration and cultivation equipment has to work so hard...for so long...and come back for more, we've designed a complete system of hard-working equipment that you can match to whatever your jobs demand.

With Ryan turf care equipment, your turf looks great. And your bottom line looks even better.

Here's why Ryan equipment is worth the investment:

A better way to aerate greens.

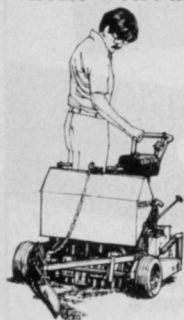
Nowhere is the quality of your turf so critical as on the greens. But considering the rough treatment they get from most aerators, you may be reluctant to aerate at all.

Not so with the Ryan Greensaire® II or Greensaire® 16— aerators so precise that even fresh holes won't affect the roll of a putt.

Unlike rolling aerators, the Greensaire tines don't tear into the turf. They penetrate it in a quick up-and-down motion, removing cores up to 3" long.

Greensaire II (pictured at right) covers a 24" swath; takes 36 cores from

every square foot; and aerates up to 8,000 square feet per hour.



The Greensaire 16 gives you the same thorough aeration as the Greensaire II— but in a more economical size.

Add the optional Core Processor and you'll aerate, collect thatch, break up cores and top dress all in one operation.

The Greensaire 16 offers the same thorough aeration, but in a more economical size. You get a 16" swath; 36 cores per square foot; and a speed of up to 4,000 square feet per hour. An optional windrow attachment makes clean-up simple.

Both units are available with revolutionary heat-treated tines that provide self sharpening action and less plugging-up.

Once you've seen either Greensaire at work, you'll never settle for an ordinary aerator again.

The toughest power rakes on turf.

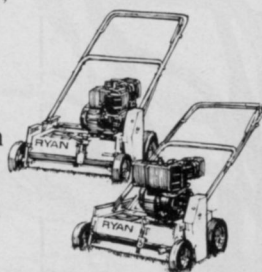
It's no easy matter for a machine to spin a blade 2700 revolutions-per-minute through thousands of square feet of thatch, roots and hard soil.

Hour after hour.
Day after day.
Year after year.

How long can a power rake take that kind of stress? You'll never know until you've owned a Ryan.

Take our big Mataway®, for instance. It's powered by a mighty 10-hp engine; built around a massive cast iron block; and features a 4-stroke cycle for extra torque and longer life.

If you don't need the muscle of



The Ryan Ren-O-Thins. 8 or 5-HP

a Mataway, you can still get Ryan ruggedness in the 8-hp Ren-O-Thin® IV or the 5-hp Ren-O-Thin® III.

Interchangeable blades for all 3 models let you adapt your Ryan power rake to a variety of different jobs—from cleaning up surface thatch to deep slicing the soil.

A sod cutter that earns its keep.



Ryan's Jr. Sod Cutter is an investment every golf course can afford.

The compact size of the Ryan Jr. Sod Cutter makes it the only one economical enough for your golf course to own.

Its performance makes it the only one worth owning.

The 8-hp engine lets one man cut up to 135

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And whether you choose our 12" or 18" model, you'll be getting a professional, uniform cut with straight edges.

And The Ryan Family of turf-care equipment is only available from your Ryan dealer. He's in business for the long haul, with a proven record of service after the sale and a complete line of turf-care equipment to meet your needs.

A free demonstration.

Of course, the best way for you to learn about Ryan turf-care equipment is to see it in action.

Right on your own golf course. To do that, contact your nearest Ryan dealer or call us toll-free at 1-800-228-4444.



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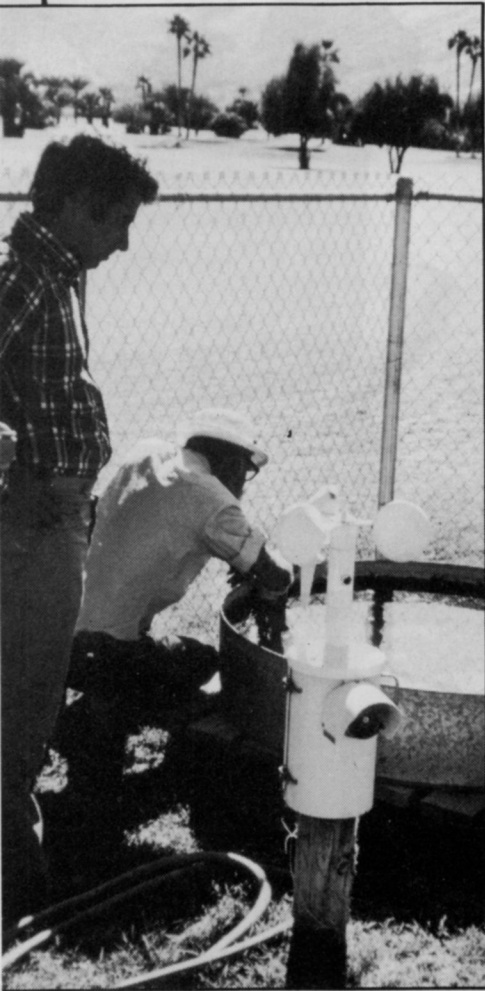
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Mike Caranci, superintendent of Canyon Country Club oversees some work being done at the course's weather station.



Middle-priced condominiums and hotels border the many semi-private courses in the area. Residents get preferential starting times, but a great number of memberships are held by individuals who find the dues reasonable and within their recreational budget.

Providing an attractive, playable course while operating within tight financial constraints is a constant challenge. More than one superintendent has lost his job when poor management practices caused utility and equipment costs to rise.

Key to success

Hard work and dedication have laid the foundation for Palm Spring's success.

Within an environment of extremes where summertime temperatures can reach 120 degrees and wind can uproot trees and fill the air with blowing sand, golf course superintendents are under constant pressure to innovate and adapt. Most courses either shut down or allow only minimal play during the hot summer months.

All plans focus on the opening date of each course, usually sometime between mid-October and the first week of November.

Bermudagrass is most widely used for fairways and roughs with hybrid on the tees and greens. Ryegrass is used as overseed to overcome the bermuda's tendency to become an unsightly brown in winter.

In early August and September more than three million pounds of seed are delivered to the Coachella Valley area. Superintendents breathe a bit easier when the bags of seed are safely stored in sheds.

Once begun, the overseeding process must progress on a closely timed schedule. Irrigation systems are checked and double checked to guard against breakdowns.

Terry Lortz, superintendent of Palm Springs Municipal Course, has to depend on the pool of city mechanics if he has any breakdown problems. Even in light of that, he proudly reports, "We've never failed to open on time."

Two months prior to overseeding, greens, tees and fairways are aerated and amended. Water is withheld and chemical growth retardants and defoliants are used.

Mechanical renovation is next with mowers operating 10 to 12 hours in the hot, dusty desert air. Seed is then applied and constantly watered. Daytime temperatures hover in the 100s and the sandy soil dries rapidly. Water is applied around the clock at carefully monitored intervals. Crews patrol the area on the lookout for sprinkler heads that may be stuck causing washouts.

If all goes well, the rye emerges a dramatic green within six days and is ready for the first mowing in two weeks.

A balancing act

Much can go wrong in the intervening time.

If the daytime and nighttime temperatures stay high the bermuda will reestablish and choke out the infant rye or an unexpected severe cold snap can kill it. Winds can blow the seed

away and thunderstorms can drown it. Pythium blight can develop with devastating suddenness.

Bud Lombard, longtime area turf specialist, notes that he can never remember a failure nor an inability to make the opening date.

"The change is awesome," he reports. "No golf courses in the world are lovelier or better manicured. They all produce perfection in six weeks."

During the spring transition, the ryegrass is maintained as long as possible in the rising temperatures to allow the emerging bermuda to reestablish before "scalping" the rye.

Bermudagrass is most widely used for fairways and roughs with hybrid on the tees and greens.

At Eldorado and Ironwood greens are bentgrass and only fairways and roughs need renovation. The bentgrass does present a challenge in keeping the cool season grass alive during the summer months in the extreme heat of the desert sun.

Water crunch

Water is always a problem in the Coachella Valley.

A blow-sand filled aquifer fed by mountain runoff and a scant four inches of yearly rainfall is the lifeblood of the area. Some feel this natural basin has unlimited potential. Many others, like Tom Caranci of Cathedral Canyon Country Club and his son, Mike, who supervises Canyon Country Club, are concerned not only about cost accountability to the club owners but also about conservation of this valuable resource for the future. They fear that without the evaluation and modification of some current management practices, demand may eventually exceed the recharge.

Working closely with the University of California, the Carancis have weather stations on their courses which are monitored daily and provide information which Tom Caranci reports has saved 25 percent of the water that was formerly being used. Other measures such as modified pumps and separately designed irriga-

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