

Golf course superintendents don't all face the same on-the-job challenges. For the first time, WTT outlines the superintendent's job by type of course and location.

The Golf Battleground

by Bruce F. Shank, executive editor

The golf course superintendent's battle with man and nature is never the same from course to course. Superintendents who have worked in more than one part of the country or more than one type of course know the job can vary tremendously.

Northern superintendents lose turf to bitter winds and ice cover, transition superintendents struggle with dormancy to keep warm- and cool-season grasses playable, and southern superintendents have to manage two totally different types of grass without a slow season.

Daily fee and municipal course superintendents try to fulfill the public golfer's dream to play on courses like he sees on television with budgets less than half the size of tournament courses. Resort course superintendents adapt to volume golf while trying to make the golf course a carrot worth travelling hundreds of miles to play. Private course superintendents must satisfy the pickiest bosses who scream at the slightest sign of weeds or disease.

Up to now, data on golf courses and superintendents have been too general, lumped together by geographic regions and types of courses to provide average 'national all-course figures'.

Since *Weeds Trees & Turf* is the only organization, other than National Golf Foundation (NGF), possessing a list of virtually all golf facilities in the U.S., we thought our survey should produce specialized data. This report is the first specialized data on golf course maintenance to be published. We thank the



superintendents who gave us their cooperation to develop the report.

Major trends

NGF announced in its 1983 Statistical Profile of Golf in the United States that the number of public golf facilities (municipal and daily fee) now, for the first time, exceeds the number of private facilities.

This fact alone could have major impact on the future of the golf course superintendent. Rather than serving a small, privileged membership, more superintendents are competing with each other to attract an estimated 14 million golfers in the U.S. to their courses. Golfers spent more than \$43 million in greens fees and \$16 million

in equipment rental in 1983, or \$900 per golfer per year says NGF.

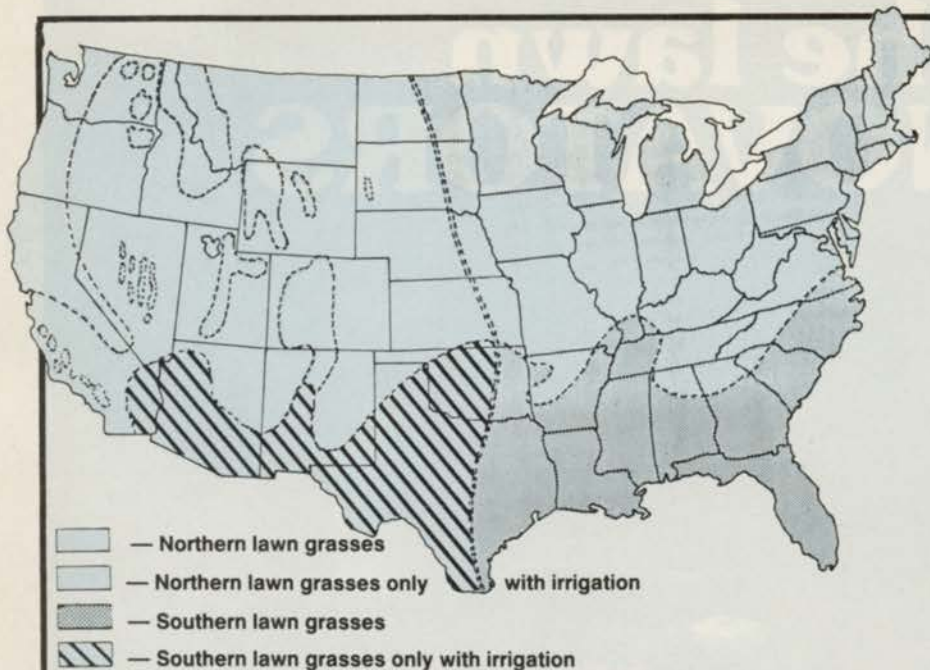
A major reason for the increase is the growth in daily fee courses. NGF says the number of new daily fee courses in 1983 was three times the number of new municipal or private courses.

Daily fee courses are the only segment of the golf market that is profit motivated. Superintendents of daily fee courses have to produce a course that attracts the public golfer at the least practical cost. The only other segment of the market approaching the profit motivation of daily fee is the contract operator of municipal or private courses.

Superintendent profile

Nearly 200 superintendents completed the survey questionnaire. Of these, 31% work for southern courses, 15% for courses in the transition zone, and 54% for northern courses. Also, of this total, 25% work for daily fee courses, 51% work for private courses, 20% for municipal courses, and 4% for resort courses.

The average respondent has 11.5 years of experience, with those superintendents working for private courses having the most, 12.7 years. Municipal course superintendents have 9.4 years experience, resort course superintendents 11.8 years, and daily fee superintendents 9.9 years. Northern superintendents have 12.9 years experience compared to 9.2 years for southern superintendents and 11.2 for transition superintendents.



	NORTH	SOUTH	TRANSITION
Maintenance	\$150,724	\$335,236	\$156,340
Herbicide	\$ 2,866	\$ 9,156	\$ 4,766
Insecticide	\$ 2,563	\$ 6,769	\$ 3,057
Fungicide	\$ 8,828	\$ 6,024	\$ 8,100
Fertilizer	\$ 7,233	\$ 19,748	\$ 7,868

Rounds played

If you were a developer trying to figure out what type of course would get the most play, the answer is an 18-hole resort course in the South. The least play would come from a 9-hole private course in the transition zone.

The most play is experienced by daily fee courses in the summer. The next highest play is on resort courses in the winter. Third highest play goes to municipal courses in the summer.

As you might expect, private courses have the least play and resort courses and municipal courses have the most. Daily fee courses carry 20% less play than municipal courses in our survey.

Northern courses face considerably higher play in the summer than southern courses in their busiest spring and summer months. Nine-hole courses averaged one fourth the rounds of 18-hole courses.

Crews and budgets

From a superintendent's point of view, more play means more wear and the need for more maintenance. This is supported by our findings that 18-hole resort courses in the South also have the largest crews and the highest maintenance budgets.

Resort courses have an average of 13 maintenance workers. Private

courses are not far behind with an average of 10 employees. Municipal courses have the smallest average crew, 6 employees. Daily fee courses also have 6 workers.

Overall, 18-hole courses have average crews of 9 people and 9-hole courses 3.5 people. Southern courses average 10 crewmembers, transition courses average 7.5 crewmembers,

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and northern courses average 8 crewmembers.

Only 8.2% of superintendents responding have union crews. The greatest incidence of unions was in the municipal course category with 25.7 percent unionized. This is a major reason for the growth of contract maintenance for municipal golf courses.

There were no union crews reported by resort courses. Daily fee course crews are union in only 2% of the cases. Less than 4% of nine-hole

courses are unionized. Location makes little difference in union involvement.

Resort course superintendents have the highest maintenance budgets, averaging \$341,429. Daily fee supers have the lowest at \$131,038. Private course maintenance budgets averaged \$234,905. Municipal course budgets were greater than daily fee at \$194,089.

Southern golf courses understandably have budgets more than twice as high as transition zone or northern courses. Southern superintendents have an average of \$335,236 for maintenance, whereas transition zone and northern superintendents both have budgets of approximately \$155,000.

Eighteen hole courses have budgets averaging \$221,245 and 9-hole courses average \$54,209.

One way to find out who spends maintenance dollars most efficiently is to compare rounds played to maintenance budget. This method leaves out variables, such as course quality and other income generated by the course, but it supports some assumptions on how efficiently different types of courses are maintained.

Using this method, daily fee superintendents are the most efficient spenders. Municipal course superintendents, surprisingly, spend 15% more per round for maintenance than daily fee. Of course, private course superintendents spend the most per round for maintenance.

Northern superintendents squeeze more out of maintenance dollars per round than southern, 30% more. Transition superintendents spend 18% more per round than southern supers. Finally, 9-hole superintendents spend 6% less per round for maintenance than 18-hole superintendents.

Superintendents also provided data on budgets for types of chemicals in the survey. Superintendents responding spend an average of \$5,160 for herbicides per year. Daily fee courses averaged only \$2,586 for herbicides and 9-hole courses only \$1,198. Municipal courses spend nearly as much as private courses for herbicides, \$5,678 compared to \$5,909 for private. Southern courses spend the most per year for herbicides, \$9,166, compared to \$4,766 for transition courses and \$2,866 for northern courses.

Resort course superintendents spend the most for insecticides per year, \$7,286. Again, daily fee and 9-

Budgets by Type of Course (average of 183 responses)

Type of Course	Maintenance Budget	Herbicide Budget	Insecticide Budget	Fungicide Budget	Fertilizer Budget	Winter Overseed	Renovation Seed
9-Hole	\$54,209	\$1,198	\$1,323	\$3,648	\$4,368	\$117	\$547
18-Hole	\$221,245	\$5,568	\$4,164	\$8,413	\$11,039	\$4,298	\$2,083
Daily Fee	\$131,038	\$2,586	\$2,073	\$5,399	\$8,560	\$1,711	\$748
Private	\$234,905	\$5,909	\$4,645	\$10,059	\$11,700	\$4,943	\$2,435
Public	\$194,089	\$5,678	\$3,337	\$4,859	\$10,050	\$2,363	\$1,323
Resort	\$341,429	\$7,101	\$7,286	\$7,271	\$26,286	\$11,833	\$1,833
All Courses	\$208,798	\$5,160	\$3,957	\$7,855	\$11,178	\$4,201	\$1,829

hole supers spend the least for insecticides, \$2,073 for daily fee and \$1,323 for 9-hole. Private courses spend an average of \$4,645 per year for insecticides and municipal courses \$3,337.

Southern superintendents spend more than twice as much as either northern or transition zone superintendents for insecticides, \$6,769.

Fungicide expenses are more standard than other pesticide expenses by region and by course type. It was the only product that daily fee superintendents spend more for than municipal superintendents, \$5,399 compared to \$4,859. Also, northern and transition courses actually spend more for fungicides than southern courses, \$8,828 and \$8,100 compared to \$6,024 for the South. Some superintendents spend \$35,000 or more for fungicides each year. Nine-hole courses have an average fungicide bill of \$3,648.

Some of the biggest dollars spent by responding superintendents are for fertilizer, one spending \$80,000. Southern superintendents spend an average of \$19,748 per year on fertilizers. Resort courses took top prize spending \$26,286 per year on fertilizers. All other regions and types of courses averaged less than \$10,000 for fertilizers.

Equipment

Almost half the superintendents said they bought equipment in 1984 that they had put off buying previously. Using these answers to gauge budget sensitivity, it appears daily fee courses postponed buying equipment the least during the recession. Resort courses postponed buying more than the others.

Leasing is used to lighten the cash

blow of buying during hard times. On average, only 6% of the superintendents lease maintenance equipment. Southern superintendents lease the most, 10.7%, and transition supers the least. Resort supers didn't lease at all in our survey. Daily fee and municipal courses lease roughly to the same degree, 9%. Only 4% of private courses lease maintenance equipment.

When asked if they have increased the amount of leasing, 9% of the

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southern and municipal course superintendents said they had. Seven percent of the daily fee supers said they are leasing more.

1984 was a good year for irrigation suppliers with more than a fourth of the superintendents improving their systems.

All superintendents had some type of irrigation system. Sixty percent of municipal and 9-hole courses still have quick coupler systems. All resort courses reporting have automatic systems, with 25% of those solid state. Half the northern courses are still quick coupler while two thirds of southern, transition, and private courses now have automatic systems.

Fertigation, injection of fertilizers into the irrigation system, has taken hold in the South with 27% of the courses trying it. Maintenance-conscious daily fee superintendents are trying fertigation on 16% of their courses. Twelve percent of resort courses and 9% private are trying it. Fertigation is not a factor in 9-hole, municipal, transition and northern courses.

Only 14.2% of the superintendents manage the golf car concession. Maintenance of the golf car fleet is done by 20.2%. Sixty-five percent have nothing to do with the golf car concession.

Golf cars are leased in 27.3% of the cases with resort courses leasing the most, 37.5%. Private, membership restricted courses leased the least with 23.4%.

Of the 76.5% who own their fleet, each owns on the average 49 cars, with the largest having a 200 car-fleet.

E-Z-Go topped the list with 51.6% of the respondents owning cars by that manufacturer. Yamaha and Club Car tied for second with 18.5% of the respondents owning cars by those manufacturers and those clubs owning Harley-Davidsons were third with 16.3%.

Cultural practices

Municipal course superintendents still rely heavily on postemergence herbicides for weed problems. Slightly more than a third of the municipal superintendents use both pre- and postemergence herbicides. Another third use just preemergence herbicides.

Resort and private course supers are most inclined to use a complete

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 cored 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.

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