

SUPER TALK

Wisconsin
Golf Course
Superintendents
Association

Vol. 2, No. 7

October, 1967

Notes

by Peter Miller

This will be very quick this month as it seems as though aerifying, a ridiculous growth of grass, pump problems, etc., have finally caught up with me.

The October 9 meeting is the annual meeting, with the election of officers, etc. Be sure and attend, as I am sure Walt's course will be in its usual beautiful shape, in a beautiful fall setting.

The December Symposium is coming up, December 13 and 14 at the Pfister Hotel in Milwaukee; subject: soils mixes. This is a must, mark the date on your calendar.

We have had two good outings, one at Knollwood for the joint meeting with the Chicago group and another at Nakoma. There were about 28 Wisconsin people at the Knollwood meeting with a total of 91 for golf and 131 for dinner. A very nice course and a beautiful day. We also had a very good day at Nakoma, although the crowd was considerably less, 31 for golf and 61 for dinner.

I know that that I have forgotten something, but it will just have to wait until next month. See you at Wausau.

Being educated means to prefer the best, not only to the worst, but to the second best.—*Wm. Lyon Phelps.*

Nominating Committee Candidates

President — William Sell, Port Country Club, Port Washington

Vice-President—H. R. Hanneman, Rainbow Springs, Mukwonago; Robert Musbach, North Shore Country Club, Neenah

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Directors—Gil Bergdoll, Janesville Country Club, Janesville; Gerald Faubel, South Hills Country Club, Fond du Lac; Peter Miller, Nakoma Country Club, Madison; James Verstegen, Oneida Golf and Riding Club, Green Bay

These candidates were picked by the nominating committee, although candidates may still be nominated from the floor for the various positions that are open.

I have included in this issue an article by R. B. Youngner on aerification and poa annua invasion. This is about the right time of the year to think about this problem that we all face. The article could also be quite controversial, and if this is true, how does one relieve compaction?

OCTOBER MEETING

Monday, October 9

Wausau Country Club

Highway 51 to business 51 to Rothschild, turn left on Grand Ave. to Country Club Road.

Highway 29 turn left 2 blocks after the traffic lights in Schofield to Grand Ave., then turn left to Country Club Road.

THIS IS OUR ANNUAL
ELECTION MEETING

WGCSA Bulletin

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NOTES (Continued from page 1)

For those of you who missed the Madison trip, here is a set of figures on the Southeast Golf Course of the City of Madison that 35 of us toured. Many thanks to Irv Graf and Art Johnson for all the work that this entailed and to Mr. Jim Marshall, Madison's Park Director, for the fine accommodations and the soft drinks that were served. Compare these figures with your own, and you will soon realize what a large place this golf course is.

Total Yardage	13,124
East 18	6,666
West 18	6,518
Total Acreage	409.8
Greens	8.0
Tees	15.0
Fairways	178.4
Roughs	179.6
Traps	4.6
Practice	10.0
Nursery	1.0
Pond	3.7
Service	9.5
Average Size of Greens (sq. ft.)	8,800
Largest	10,444
Smallest	7,200
Average Size of Tees (sq. ft.)	16,000
Largest	26,650
Smallest	13,060
Average Size of Fairways (acres)	5.7
Largest	7.4
Smallest	2.9
Trees Planted (to date)	1,300
Materials Used in Green's Mix (yards)	
Sand (med. coarse)	12,665
Peat (sedge)	11,395
Soil (fine loam)	6,330
Texture of Green's Mix.....	Medium Sandy Loam
Grass Composition Used On	
Greens:	
Old Orchard Bentgrass	
Tees	
35% Pennlawn fescue and	
15% Ky. bluegrass	
20% Bentgrass (Seaside	
and Highland)	
45% Pennlawn fescue and	
35% Ky. bluegrass	
Miles of Irrigation Pipe.....	11

Vertical Mowing—Aerification And Poa Annua Invasion

by DR. V. B. YOUNGNER
University of California, Riverside

Turf weed problems can be related frequently to specific management practices. Slight errors in timing of a maintenance operation or improper use of equipment may result in a weed population explosion. This is certainly true for annual bluegrass, *Poa annua*, a weedy grass that thrives under many conditions that may weaken or destroy the desirable turf grasses. Elimination of annual bluegrass from golf greens seldom may be possible, but attention to a few practices can reduce the problem greatly.

Often faulty methods are used because of an inadequate knowledge of the life history and ecology of the weed plants. *Poa annua* populations in golf greens increase and control methods fail when certain characteristics of the plant are not considered. In much of the United States, heaviest germination of annual bluegrass seeds takes place in the fall. While germination may continue through the winter in regions of mild winter climate such as California, it will be at a much lower rate.

However, in cold-winter regions heavy germination may occur also in the spring.

Very little seed germinates during the warm weather from late spring to early fall. Time of germination and length of the germination period can be determined for any area by a little observation.

Poa annua seeds require moisture, moderate temperature (optimum about 70°F.), light and air for germination. Seedlings are poor competitors in a dense turf of perennial grasses.

Flowering begins a few weeks after seed germination, when plants may consist of only four or five tillers, and continues thereafter within a wide range of temperatures and photoperiods. A single plant, therefore, can produce seed continuously for many months. This seed does not germinate immediately, but lies dormant in the soil and thatch for several months, usually until fall. Thus, large quantities of seed, which may be produced by only a few plants, will be ready to germinate as soon as favorable conditions are provided.

Vertical Mowing and Aerification

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(continued on page 4)

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Poa Annua Invasion . . .

(continued from page 2)

effective means to keep *Poa annua* in check by maintaining a virgorous bentgrass turf. However, performing these operations during the wrong time of the year can have the opposite effect. Disturbing the turf by any means, so as to expose the seed that is almost certain to be in the thatch or soil to light and air, at a time when temperature and moisture conditions are favorable for germination will increase the *Poa annua* population.

There are perhaps few times in the year when these operations will not have some effect on germination, but it is obvious that they should be avoided if possible during the normal time of highest germination rate.

A few years ago a simple experiment on the UCLA campus demonstrated clearly the effects of fall vertical mowing on the subsequent *Poa annua* population. A long narrow plot of U-3 bermudagrass turf which had contained some *Poa annua* in past seasons was divided in half longitudinally. The thatch was partially re-

moved from one half in the fall, using a vertical mower, while the other half was left untouched. Following vertical mowing the entire area was watered as necessary to keep the soil constantly moist. No seed was planted.

Within 10 days after vertical mowing, numerous annual bluegrass seedlings were observed in the dethatched area. A month later this entire area was covered with a solid stand of *Poa annua*, but there were only a few scattered plants in the untreated part.

The following autumn the experiment was repeated, reversing the two treatments. As in the previous year, the area on which the vertical mower was used contained a dense stand of *Poa annua* in contrast to the untreated area, which had a thin, scattered population. Thus, the dense population always developed on the disturbed area regardless of the condition the previous year.

Timing Is Important

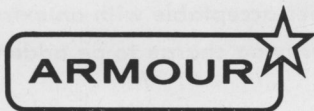
The lesson should be obvious. While this study was conducted on bermuda turf, the principle illustrated would apply

to any turf including bentgrass greens. The same result, although perhaps to a lesser degree, could be expected from fall aerification which would promote *Poa annua* germination in the aerifier holes. This has been observed in one instance where the annual bluegrass plants were evenly spaced in the turf, corresponding to the former location of aerifier holes.

What should you do if the turf condition necessitates vertical mowing, aerification or spiking at an unfavorable time in respect to annual bluegrass? A logical suggestion seems to be to follow immediately with an application of a preemergence herbicide for *Poa annua* such as Bensulide (brand names are Betasan and Presan) or standard lead arsenate. By so doing, many seedlings will be killed shortly after germination.

Germinating seeds are highly vulnerable to drying. Therefore, permitting the soil to dry as much as possible at the surface between irrigations will assist also in reducing the stand. In fact, this is a good practice to follow throughout the year to reduce weed infestation.

(continued on page 5)



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Poa Annu Invasion . . .

(continued from page 4)

Chemical control of *Poa annua* in bentgrass greens is seldom as successful as desired. Often this is the result of poor timing of herbicide applications. If heavy seed germination occurs in the fall, it is illogical to expect control from a late fall or spring treatment. The weed killer must be in the soil at a toxic level prior to seed germination. Where germination may ex-

tend over a long period, supplementary herbicide applications may be required to maintain this toxic level throughout the germination period.

There are, as yet, no effective post-emergence annual bluegrass herbicides that are safe for bentgrass greens. As many *Poa annua* variants are perennial rather than annual, spreading vegetatively year after year, the necessity for preventative management becomes more apparent. Once perennial types have become

established in a green, the choice must be between living with them or complete renovation.

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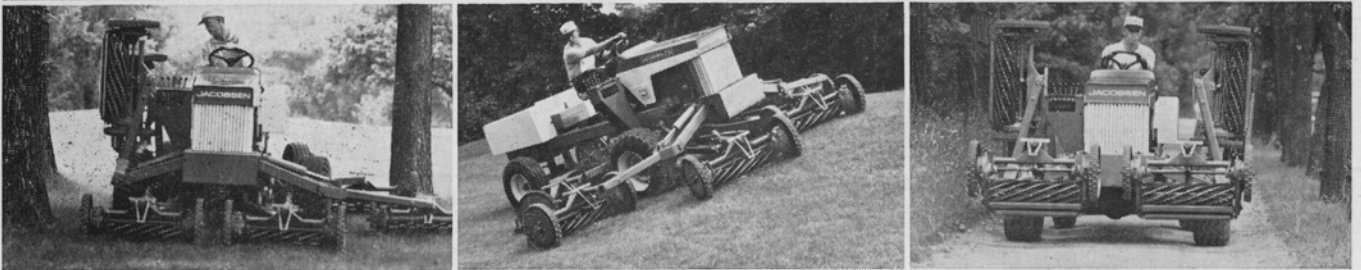
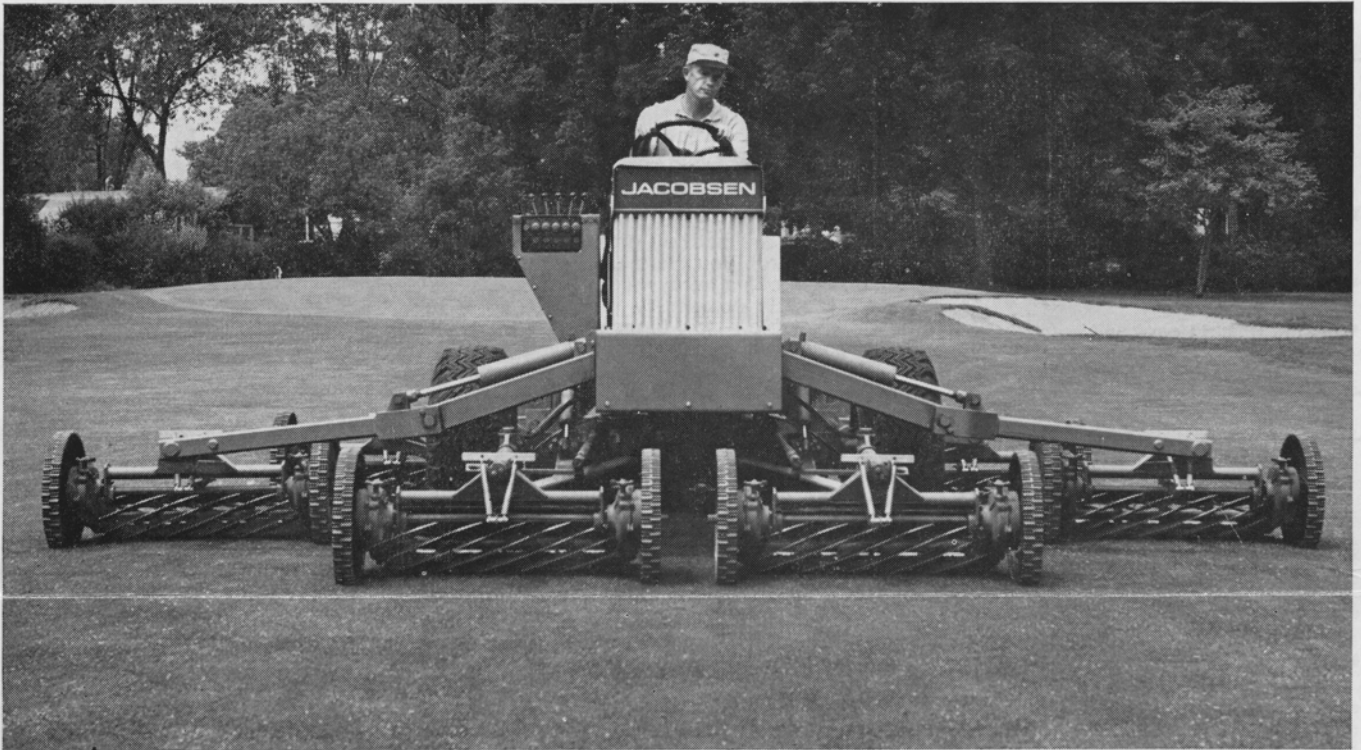
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