organization were adjusted accordingly.

3. Postage and handling fees have more than doubled in the last two years.

4. Over all operating expenses; which cover office supplies, host superintendent gifts, flowers, hospitality suites, printing of the directory, and operation of the **Bull Sheet**, have all risen dramatically over the past six years.

Note: Donations to scholarship and research have not been increased in the past three years nor has there been any expenses incurred due to Public Relations activities.

In short, in order to maintain the association at the level we have all grown accustomed to, we must restructure our dues payment to meet the growing financial requirements.

As our association continues to grow both in size and scope, it is the job of your elected officials to offer suggestions and direction as to where we as an association want to be. Our recommendation of a dues increase after six years is warranted. The combination of increased operating expenses and the desire to progress in order to keep pace with other professional organizations in the golfing community are the primary reasons for a dues increase.

As in any case, the more we as individuals are recognized as professionals the greater our responsibilities become. In retrospect the more professional our organization becomes, the greater the responsibility of its' President and Board of Directors.

We as the leaders of this association see the proposal of a dues increase as a responsibility. A responsibility that we as elected officials have to maintain the professional level of our organization both now and in the future. I am confident that the membership will accept and support the Board on this matter. I also would like to make it clear to every member that the members of the Board of Directors are available to discuss questions concerning the dues increase and that, as always, the financial report concerning the associations activities will be presented at the Annual Meeting. I hope to see you all there.

Daviel R. Behiman

David R. Behrman, CGCS

Disease Highlights (?) from Summer '86

by R. T. Kane U of I/CDGA Turf Advisor

Of the many different types of turf diseases I observed this year, several were recurring and potentially destructive problems that should be of general interest to area superintendents. Three major diseases that occurred during the summer of 1986 were: nematode damage on sand topdressed greens, bacterial wilt, and **Poa annua** "decline" in fairways.

Plant parasitic nematodes are present in all soils; however, the damage observed depends on nematode populations and species present, as well as on the severity of stresses imposed on parasitized plants. Severe nematode damage has most often been observed on soil (or soil mix) base greens with a layer of sand topdressing (incl. 80:20) of an inch or more. No nematode problems on tees or fairways were encountered, although sand topdressed tees may be at risk. Layered sand topdressing apparently favors nematode feeding and population increases because of optimal moisture, aeration, and porosity. Also, severe symptoms may be more likely to occur on sand topdressed greens because of higher surface temperatures, restricted root depth, and rapid water and nutrient fluctuations — all of which can occur in the sand layer and add additional stress to plants.

Nematode infested putting greens may appear yellowed or off color, and have shallow, poorly developed root systems. Infested greens show little or no response to fertilization or other treatments. In some cases, patchy areas of greens are affected since nematodes often feed preferentially on different types of grasses. Also, nematode populations may spread slowly from an initial point, which also can lead to patchy symptoms. Patches may appear yellow or silver grey, and show signs of wilting during the day with recovery overnight. When populations are high (300-1000/100cc of soil) and heat or other stress occurs, plants will rapidly wilt and die, even when soil moisture is high. Severe problems usually occur on one or a few greens per course — those greens that are subject to the greatest stress due to poor location, construction, design, etc. generally go first, although other greens may have developed equally high populations.

Nematode problems are not easily diagnosed. Shallow, swollen roots and patchy wilted areas are clues. The best evidence for nematode problems can only be gained by obtaining a lab analysis of population density. Indirect evidence can also be gained by conducting a nematicide strip test. Recommended nematicides include Nemacur, Mocap, and Dasanit. These products are highly toxic ($LD_{50}4$ -60 ppm), must be applied as labelled, and must be drenched into the rootzone to avoid phyto-and mammalian toxicity.

Bacterial wilt was very severe this year on susceptible C-15 bentgrasses. The disease was first observed at the end of May, but became more severe with the high heat and excessive rainfall in early to mid July. The heat and rain provided ideal conditions for disease development since moisture and stress are important contributing factors.

Bacterial wilt was also found (much to my surprise) on old "south German" or "Washington" type bent greens. In these cases, the disease was confined to particular clones or segregants — the entire green did not appear to be in jeopardy. In this form, bacterial wilt can be mistaken for anthracnose, dollar spot, red leaf spot, or other maladies. Greens with a high percentage of **Poa** will quickly fill in, and the problem may go unnoticed. If the disease becomes serious enough, symptom suppression can be obtained with the tetracycline antibiotic Mycoshield.

Hopefully, bacterial wilt has run its course in the Chicago area. However, there are still some clubs with C-15 bentgrass on one or few greens, tees, aprons, or fairways. I have encountered sevral occurrances of bacterial wilt on courses where reconstruction of 1-3 greens was carried out in the 1960's or 70's and the greens were stolonized or sodded with C-15. The relative isolation of these greens may have delayed the onset of bacterial wilt or slowed the development of severe symptoms until this summer.

Also this summer, I observed several cases where **Poa an**nua decline occurred in distinct, small, circular patches. Plants on the edges of the patches were often stunted and yellowed. (cont'd. page 4)

(Disease Highlights con't.d)

Many times the patch was believed to be due to Pythium blight or Rhyzoctonia brown patch, although no aerial mycelium was seen. At U of I, Dr. Henry Wilkinson was observed similar symptoms in the past, and has found that fungi of the genus **Phialophora** are associated with diseased **Poa**. I also have found several strains of **Phialophora** associated with crown and root rot of **Poa**, with Poa decline. **Phiaolphora** is a fungal genus related to **Gaeumannomyces graminis**, which causes take-all of cereals and grasses, including of course bentgrass (take-all patch). Also, **Phiaolphora graminicola** is known to cause summer patch of Kentucky bluegrass — formerly part of the "Fusarium blight syndrome".

What may be happening with this type of patchy **Poa** decline is that **Phiaolphora** — type fungi are disrupting the older, deeper portions of the **Poa** root system, which puts all of the impetus for plant growth on the young, shallow roots. Once temperatures and/or water becomes limiting, affected Poa plants "check out". This problem is more severe where soil compaction or wear puts extra stress on **Poa** (e.g. gang mower turnarounds, wet depressions). Further research by Dr. Wilkinson and myself hopefully will elucidate disease mechanisms and possible controls.

Other problems encounted this summer included fairy rings, take-all patch of Penncross bentgrass, anthracnose of bent and **Poa**, and "stimpmeter disease" (not my term). It was a fairly tough summer for growing turf (remember '83?). I am looking forward to a quiet and peaceful autumn ...





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