

NEWSLETTER

SEPTEMBER 1968



Golf Course Superintendents Association OF NEW ENGLAND, INC.

Sponsors and administrators of the Lawrence S. Dickinson Scholarship Fund — Awarded yearly to deserving Turf Management Students.

NEXT MEETING

COUNTRY CLUB OF NEW SEABURY

Mashpee, Cape Cod, Massachusetts

The Country Club of New Seabury is located between Falmouth and Hyannis. It has two 18-hole courses, the Green and the Blue.

Seven holes on the Blue course were built on filled swamp, the rest of the holes on both the Red and Blue courses were cut through scrub pine and oak.

The Blue course front nine is bordered by Nantucket Sound. It is a demanding course with many water hazards. *Golfers Digest* rated it as one of the ten toughest in the country. The Green course is of executive length, 5,300 yards, and much less demanding.



Guy Tedesco, Supt. New Seabury.

The Blue course was opened for play July 20, 1964, the Green a year later. Both of them are Bill Mitchell designs and were constructed by Paulini & Vespa.

Greens are Penngrass, Fairways and tees are Merian and fescue. Because of high winds, irrigation is a problem, so most of it has to be done by hand sprinkling.

For the ones who are going to play the Blue course, hope for a calm day and bring all your weapons.

Date: September 9, 1968

Where: Country Club of New Seabury

Directors' Meeting 10:45 A. M.

Regular Meeting 11:15 A. M.

Buffet 12:30 P. M.

Golf 1:30 P. M.

DIRECTIONS —

Route 128 to Route 3 over the Sagamore Bridge to Route 6. Four miles after Bridge go right on Route 130 and follow signs to New Seabury.

GOLF AT NEW SEABURY

Superintendents' Championship Tournament on the Long Course.

Seniors' Championship for 55 years (not handicap) and over on the Short Course

PRESIDENT'S MESSAGE

Now that we have encountered the worst portion of another season, so drastically different from so many others, whereby we had one of the driest springs, the wettest May and June, and the driest July on record; with the many problems of wilt, wet wilt, diseases, lack of water with some of the finest irrigation installations; with the demands of the golfer, his maintenance standards; and the rounds of golf tremendously increasing, one problem continues to exist, *the labor problem. What type of a crew will you have come September?*

Of the many Superintendents I have spoken to, most of them continue to have an acute labor problem. Many will not be able to embark upon their fall programs, which are necessary in good turf management. Some Clubs are aerifying and top-dressing before Labor Day, while the summer help is still available.

Yes, we know the answer to this problem. There is the occasional Green Chairman who will say, "Oh, the Superintendent will get by. He always manages somehow."

Superintendents always have too much pride and will always make certain that the best is offered at all times. If the membership on a Saturday morning, after a torrential Thursday and Friday rain, found the greens, tees and fairways not cut, due to the lack of proper help, answers and money would be found to attract a better permanent labor force.

The enjoyment derived from the country club, the total investment and tremendous value of the country club, is all standing on a very poor foundation — **THE INADEQUATE GOLF COURSE CREW**. This is the time of year, before budgets are formulated, for the superintendent to fully analyze and explain his acute labor problems to his chairman. Mr. Green Chairman, it's your duty and responsibility to present this problem to the club officers and the membership.

Anthony B. Caranci, Jr.
President

KEMPER OPEN

1968 INVITATIONAL GOLF TOURNAMENT
SEPTEMBER 9, 10, 11, 12, 13, 14, 15, 1968

Pleasant Valley Country Club, Sutton, Massachusetts

The Kemper Open Invitational Golf Tournament will be glad to grant members of your Section a complimentary daily ticket during tournament week, on presentation of their current membership card.

These tickets will be given out at the Pleasant Valley **MOTOR LODGE ONLY**, so would you kindly so inform your members in your next mailing. It is most important that they do not head for the Country Club, nor the public parking areas until they have obtained their tickets. The Lodge is prominently displayed on Route 146, a mile from the Club.

Golf Course Superintendents Association

A STEP IN THE RIGHT DIRECTION

It was evident during the recent bread-breaking and bogey-making of superintendent and greens chairman at The Country Club, Brookline that a swing to efficiency in this sometimes-hairy relationship at long last is underway and running a smooth path.

Not too long ago it was common practice for country clubs to "stick" some unknowing and unwilling member with the task of "keeping the course superintendent in line." More often than not, the chosen chairman was in all respects a loggerhead as far as job knowledge was concerned. It was a very unhealthy situation. Usually, both parties suffered.

There have been written so-called "confessions of supers" and "letters to mother" during which it was noted how much co-operation and understanding was eliminated with the appointment of an uninspired greens chairman. In the end one blamed the other for whatever faults were uncovered in the condition of the grounds. It developed into a stalemate of conflicting ideas, mostly because the chairman wasn't properly educated in the super's field.

For the most part, the problem of unlikely chairmen has dwindled down to isolated occurrence. This may have come about in the increasing state of sound judgment from the board of governors and the superintendent's genuine attempt to familiarize the entire membership with the intricacies of his job. It probably is a combination of the two.

Anyway, the typical greens chairman of today is a far cry from the pigheaded culprit of the past. Most are in constant touch with the super, some make it a point to have contact two or three times a week . . . even a short ride around the course to get the feel of things.

The one glaring feature of this new relationship between the two was on parade at The Country Club. It is simply a feeling of respect for each other and respect for his part in the exchange of ideas and words. There was none of the overpowering methods of yesteryear when chairmen looked down on the super as an impersonal hired hand. And it was apparent that the super took special delight in this even-grounds meeting of minds.

Probably the most beneficial aspect of The Country Club affair was the tournament, itself. It afforded chairmen and supers to stroll the fairways together and avail themselves of the opportunity to discuss their problems under fire where a first-hand look at a golf course facilitated the explanation on either's part.

Country club presidents and board members should take notice of the highly successful meeting of chairmen and supers during The Country Club date. It is another way of saying to them that the two important contributors to the overall country club picture are working as a team and not as one individual trying to outdo the other.

It also might be a sound suggestion for the future to have the country club appoint an assistant greens chairman as a sort of apprenticeship method of moving up to the bigger task when the bi-laws call for replacements.

What it boils down to is a definite improvement in communication. With the more personal form of relationship, the superintendent feels he can go to the chairman and hash out ideas and problems without the threat of a retaliatory tongue-lashing for overstepping his bounds.

This super-chairman thing certainly is a step in the right direction for attaining the common goal of each . . . to make his course a source of pride for everyone who is part of the country club operation.

— Gerry Finn



Mike O'Grady (left) handing gavel to outgoing president Mark Azza of the Rhode Island Association.

LAST MEETING

The last meeting was held at the Rhode Island Country Club and was a joint meeting with the Rhode Island Association. The meeting was a success with fifty-five supers attending in the 90 degree plus weather. John Dolan had his course in fine condition. Many thanks to John and the Rhode Island Association.

GOLF RESULTS AT RHODE ISLAND

1st Low Gross	Bob St. Thomas 74
1st Low Net, tie	Guy Tedesco 72
	Len Blodgett 72
2nd Low Net	Tony Kruckas 73



Left: John O'Connor, Supt. Salem C. C.
Right: Bill Brennan, Supt. Bear Hill Golf Club.

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Robert Mucciarone	Wayne Ripley
Philip Cassidy	Dean Robertson
Albert Allen	Leon St. Pierre



Golf Course Superintendents of Maine

Editor — Dr. Burton R. Anderson, Route 5, Augusta, Maine

NEXT MEETING

The next meeting will be held on Tuesday, September 10, at the Sebasco Lodge Golf Club, where Frank Cutting is superintendent. The meeting will be at 11:30 followed by luncheon. Golf will be available at the Lodge golf course. Take route 209 from Bath and turn right on route 217 to the course.

* * * * *

Once summer "began" on June 30, Maine has experienced a near record season for tourists. Golfers have enjoyed the good weather on courses that are in fine shape with few disease problems. Unwatered fairways are holding up reasonably well under the sustained dry weather, and we are, at this writing, hoping for one good rainy day to tide us over. The busiest member is undoubtedly John Davis at Riverside, which is the busiest course in the state normally and, in addition, hosts the Maine Open Tournament and has nine new holes under construction.

The August meeting at the Thorndike Hotel in Rockland was the best in a couple of years, thanks to the hospitality and planning of host Harvey LaMontagne. The main speaker was Dick Blake, superintendent, Mount Pleasant Country Club, Boylston, Massachusetts. The subject was winter injury, but Dick used many slides and went into the causes of winter injury at his golf course, and it boiled down to improper construction that had to be done over for correction so that the title might well have been "Why Do Things the Hard Way?" During the day some members negotiated the Rockland Country Club in some sort of fashion, sometimes getting shots into the abandoned limestone quarries there.

* * * * *

Conservation should be the standard of every community in America. This does not mean — as some would have it — that development should be stopped, or that every tree is to be guarded. But it does mean that we develop in this country a wise set of priorities for our environment."

President Lyndon B. Johnson

MORE NOTES ON POTASSIUM

In northern country where winter injury is always a threat, superintendents are making a fall application of potassium to greens to "harden off" the grass plants to help ward off winter injury. In support of "old-time lore" and the recommendations of Dr. Beard of Michigan State University, the editor believes that a late September application of one pound of potassium per thousand square feet helps greatly to reduce winter injury caused by an ice layer. How this occurs, of course, is yet to be documented fully.

Having started his work in the greenhouse, the writer has forsaken muriate of potash, potassium chloride, for potassium nitrate or potassium sulfate. It is noted that there has not been concern about the source of potassium in turf fertilizers by superintendents and turf specialists. On the tobacco farm and in the greenhouse there is much concern, for the accumulation of chloride salt through sustained use of muriate of potash, either by itself or blended into a complete fertilizer, is detrimental; chloride prevents cigar or cigarette ash from holding during a smoke, and under the intense culture in a greenhouse accumulation of chloride can build up so much that plants will not even live, let alone grow well.

It is conceded that for general turf management, use of muriate of potash is fully acceptable, but it is suggested that greens management approaches somewhat the intensity of greenhouse culture and that it would be better to avoid use of fertilizer materials containing much chloride. This is a bit easier in the northeast with a market already established for tobacco culture and supplies of potassium sulfate and potas-

sium nitrate available. The cost of these materials is higher but the amounts used small enough to keep the absolute increase small.

Let it be clear that there are no documented reports showing the dangers of chloride buildup in greens soils. There is merely an inference here that considering the danger of chloride buildup in greenhouse culture, potential trouble in greens management can be avoided by using potassium nitrate or potassium sulfate. There is a growing body of superintendents that has switched to use of completely water-soluble, high-analysis fertilizers on greens because they give better "results." These fertilizers are without chloride, and it might be possible that the good "results" are due to this chloride absence. Use of potassium nitrate, of course, provides a small amount of nitrogen along with the potash, and there is no residue. Use of potassium sulfate is probably a very good procedure since ordinary complete turf fertilizers no longer contain much sulfur, and over a long time sulfur can become deficient in soils.

Prof. Dickinson used to say that an incorrect management procedure not showing up in adverse results right away would show up if sufficient time should pass using this incorrect procedure. Former greens management was of lower intensity than it is today, and it is possible that this matter of chloride accumulation in greens soils might become troublesome in the modern era. When a greenhouse man reaches the end of this path, he must change soil or leach with steam and hot water to correct matters. What could be done to rid a golf course green of excessive chlorides?



New Hampshire Golf Course Superintendents Association, Inc.

Editor — George Hauschel, Supt. Rockingham Country Club, Newmarket, N. H.

Kingswood Happenings

The August meeting of the New Hampshire Golf Course Superintendents Association was held at Kingswood Country Club, Wolfeboro, N. H. Hosts of the day were Mr. and Mrs. Robert Hale.

This was our annual Superintendents' Wives' Day, and the weather was beautiful, giving everyone an enjoyable day. Golf and antiques shopping were enjoyed by all, followed by a delicious steak barbecue in the evening. After the barbecue, music for dancing was furnished by a four-piece orchestra.

Winners of the golf tournaments were: Scotch foursome, Fran and Ford Leach, first low gross; Men's tournament, Lyle Cheney, first low net; and Mr. Frank Butler, first low gross. Frank Butler was Pro-Superintendent at Kingswood for 50 years and he still can show the youngsters how to play golf. Frank is 81 years of age and shot an 86 for 18 holes!

The Association extends a hearty thank you to the Club, for the use of its facilities, and to the hosts, Bob and Anita Hale.



Superintendents and wives exchanging ideas and discussing course activities. Left to right: Agnes LaChance, Virginia Bye, Don Bye, Supt. Province Lake C. C., Wakefield, N. H., and Roland LaChance, Supt. Beaver Meadow C. C., Concord, N. H. Back row: JoAnne Hauschel, Rockingham C. C., Newmarket, N. H., Mrs. Chet Sawtelle, Danvers, Mass., Mrs. Norman Pease, Purpoosduck C. C., Cape Elizabeth, Me., William and Ann Barrett, Portsmouth Country Club, Portsmouth, N. H.



Left to right: Hosts Robert Hale, Supt., Kingswood Country Club, and Anita Hale; Ann Barrett, William Barrett, Vice-Pres., NHGCSA; Peggy Flanagan, and Robert Flanagan, Pres. NHGCSA.



Left to right: Ray Pollini, Pres. Kingswood Country Club, Kate Butler, Frank Butler, former Pro-Supt. at Kingswood, and Robert Flanagan, Pres. NHGCSA.

• NEXT MEETING TUESDAY, SEPTEMBER 10, 1968

The September meeting of the NHGCSA will be held at Beaver Meadow Country Club, Concord, N. H., on Tuesday, Sept. 10, 1968. Host Superintendent will be Roland LaChance.

Directors' Meeting	10:00 a. m.
Regular Meeting	11:00 a. m.
Lunch	12:15 p. m.
Educational Program:	1:00 p. m.

followed by nine-hole golf tournament.

Roland LaChance will give some interesting details and show a few slides of construction of the second nine holes at Beaver Meadow.

Directions to Beaver Meadow: Follow U. S. 3 and 4 in West Concord and watch for signs on highway. Coming from the south, enter by the Aranosian Oil Co.; coming from the north, enter by the Coca-Cola warehouse. Meeting will be held in the new clubhouse.

ENVIRONMENT AND DISEASE

Elsie A. Cox

Webster's dictionary (1) states that a *pathogen* is: "a specific cause of disease"; and *disease* is: "an impairment of the normal state of the living animal or plant body that affects the performance of the vital functions", or "a particular instance or kind of such impairment." In terms of disease, *host* is described as: "a living animal or plant affording subsistence or lodgment to a parasite" and a *parasite* as an organism which lives in or on a host from which benefits are obtained and, in turn, usually causes injury to this host. The pathogen, then, is the eternal "Guest Who Came to Dinner", the cause of parasitic disease in a crop. This differs greatly from non-parasitic disease which evolves from physiological upsets and is the result of some unfavorable environmental factor(s).

Parasitic disease involves *inoculation* and subsequent *infection* by a specific pathogen: "To communicate disease to by introducing its causative agent into the tissues" is Webster's definition of the verb "inoculate", the act of "*inoculation*. *Infection* is "the establishment of a pathogen in a host after invasion." For example: to cause disease a single spore of a fungal plant pathogen resting on the surface of its host must: 1) *germinate* (produce a germ tube), 2) the germ tube must elongate and 3) penetrate the host plant's surface and 4) produce infectious hyphae which 5) must obtain nutrition from the host. Steps 1 through 3 complete the process of *inoculation* while 4 and 5 establish *infection*.

Fungi, nematodes and parasitic seed plants are the principal plant pathogens which produce *inoculum* in the form of reproductive bodies. Generally, nematodes have eggs; seed-plants produce seed and the fungi form various types of spores. However, bacteria (with the exception of *Streptomyces*) and viruses produce nothing like these as far as we know presently.

Fungal spores *germinate* by producing germ tubes. Germination of seed becomes apparent with the rupturing of the seed coat by the radicle; the eggs of nematodes hatch. The term "*germination*" also must be applied to: a) bacterial fission, the spontaneous division of one body into two parts, each of which is capable of developing into a separate bacterium, and b) the increase in number of particles of viruses.

Inoculation is the intimate contact between the host and the infectious body of a pathogen. *Infection* begins when this pathogen becomes established on the host as a parasite, receiving its nutrition from this host and usually causing an unfavorable reaction within the plant: the appearance of disease symptoms.

The rate of speed in which disease becomes established is controlled by genetic factors in both host and parasite, combined with environmental conditions. The genes of the pathogen determine within what varied environmental conditions the organism can develop: the limiting maximum and minimum conditions under which germination of the pathogen can occur are pre-set by the genes of the specific organism. Temperature, moisture, light, pH and nutrition are some of the environmental factors which affect the germination rate (how *fast* the inoculum germinates) and amount (how *much* inoculum germinates) which, generally, determine the extent and seriousness of parasitic disease within a crop.

The genes of the host determine its susceptibility or resistance to infection by a specific organism and may play a strong role in the length of time a plant part can be receptive or resistant to pathogenic invasion under given environmental conditions. Disease resistance of plants range from complete resistance (immunity) to complete susceptibility. The estab-

lishment of disease, first then, is dependent upon the genetic make-ups of the infecting pathogen and the host plant; second, upon their environments. Thus, a strongly pathogenic organism can infect an exceptionally susceptible host under poor environmental conditions, but this same pathogen can infect an exceptionally resistant host only when these conditions are very favorable.

Invasion of the host plant's tissues by the germinating pathogen may be through *wounds*, through *natural openings* or by *direct penetration* of the plant's surface. Of all the wounding agents the grower himself often is the culprit responsible for injuries and thus the spread of disease throughout his crop. He carelessly wounds and infects these bruises with inoculum during his planting, culturing, cutting and harvesting. Insects, biting, sucking, burrowing and boring, cause wounds; they may be inoculating and disseminating agents as well. Plant parasitic nematodes are suspected of aiding in the spread of soil-borne diseases through their wounding of roots. Bacterial and fungal parasites make secondary infections by other pathogens possible through the wounds created by their own entry into the host's tissues. Man-caused wounding can be avoided; insects and nematodes, bacteria and fungi can be controlled with good cultural practices, sanitation and spray programs.

Natural plant openings through which pathogens can enter are stomates, water pores and lenticels, although the latter are not true openings in that they are usually filled with loose layers of thin-walled cells. Thus, an easy way for penetration into the inner tissues has been provided by nature. However, such openings are not employed by all pathogens. The bacterium *Xanthomonas*, the agent of leaf spot, stem rot, and cutting rot of geraniums, can enter the plant through such openings. However, it also can be introduced through wounds and is commonly spread by the grower when cuttings are taken with a knife which is not dipped or sterilized between cuts. The rust *Puccinia* gains entrance through the stomates as do some species of *Cercospora*, some leaf spotters, and the downy mildew fungus, *Peronospora*.

Peronospora also invades the plant surface by *direct penetration* as do the blighter *Botrytis*, the powdery mildews, and leaf spotters such as *Alternaria* and *Colletotrichum*. Although some pathogens are capable of entering the host only by direct penetration, some can enter only through wounds, others only through natural openings and yet there are others which can enter in any of several ways.

Although the genes of the pathogen preset the method of entrance, the ability to enter often is determined by environmental conditions, particularly the presence of free water on the plant surface. The activities of some pathogens are stimulated by light, and penetration of the plant by certain fungi may be activated by contact with the host's surface, but, in general, there is little actual understanding of what triggers the processes of penetration and infection. However, germination, penetration and infection do occur, undoubtedly are influenced by multiple environmental factors, and disease is an ever-present problem with which crop producers must wrestle continuously.

The importance of disease in the economics of growing cannot be overstressed. The importance of *understanding how* disease becomes established in a crop, and the *understanding of what* influences the establishment are the first steps the grower must take if he is to *understand why* environmental conditions must be controlled for the directly related control of disease within his crop.

(1) Webster's Seventh, G. & C. Merriam Co., Springfield, Mass., 1961.

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NEWSLETTER

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