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APOLLO #45; broadleaf weeds, wild onion and wild garlic *go!* And the grass stays vigorous and green.

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### School is for all seasons

Now we're about in the middle of school days in golf business. Far gone is the time when ''b' guess and b' god and let nature take its course'' was adequate operating policy for any department of the now billion-dollarsplus golf business.

The United States Golf Assn. as usual got off with the correct keynote, "Economy in Golf Course Maintenance." at the Green Section annual conference on Golf Course Management, January 24. which preceded the USGA annual meeting by a day. Who would have thought 20 years ago that the Green Section in any of its high-level deals would star superintendents such as Tom Sams of Audubon and Ray Hansen of Essex County? And the way superintendents now stand up and sound off with considerable sense in these meetings is worth millions to golf clubs.

If you want to see how far golf course maintenance has come as a business operation, read "Turf for Golf Courses'' by Piper and Oakley, published in 1917 by The Mac-Millan Company. In it Dr. Walter S. Harban of the U.S. Department of Agriculture and Columbia CC at Washington, told the history of starting course construction in 1909, and how many things got screwed up because of ignorance and economy. I have seen, maybe 1,500 golf courses burdened with extravagant maintenance costs because of so-called construction economies. I've belonged to some of those clubs and saw fellows who didn't know what it was all about try to save construction money and end up costing the club heavily in corrective alterations, several years of satisfactory play and temporary loss of superintendents' reputations.

You've got to give Henry Russell, USGA Green Section chairman and his predecessors credit for seeing that superintendents get spotlighted because they are the guys who lose their jobs or go on to better ones depending on how



the course is. Green Section staff for years has been far more valuable than it has been rated publicly for its scientific leadership, its working guidance and coordination of superintendents and their employers and for its amazing correlation of the state experimental work on golf turf.

The Golf Course Superintendents Assn. of America's annual conference and exhibition of equipment, although always trying to focus on a phase of course management as a convention theme, seldom hits a subject as sharply as the Green Section.

The conference program at Miami Beach did have a questionnaire which asked men attending the sessions the size of their maintenance budgets (under \$50,000 . . . \$100,000 . . . over \$100,000), whether the course has an automatic or manual irrigation system and whether the superintendent is Continued on page 69



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### Winter fertilization: a new concept

Effect of Nitrogen on Winter Root Growth of Bentgrass.

A. J. Powell, R. E. Blaser and R.
E. Schmidt. Agronomy Journal.
59(6):529-530. 1967. (from the Department of Agronomy, Virginia Polytechnic Institute, Blackburg, Va. 24061).

The objective of this investigation was to study the effect of fall and winter nitrogen fertilizations on root growth of bentgrass maintained under putting green conditions. Root growth during the winter was ascertained by the placement of Penncross bentgrass cores in aluminum cans four inches in diameter and seven inches in depth. These containers were placed in holes in a Penncross putting green and were removed at periodic intervals throughout the winter and spring periods to ascertain the amount of root growth achieved.

One pound of nitrogen per 1,000 square feet was applied in the following monthly treatments: (a) October, (b) October-December, (c) October-December-February-April. In addition there was (e) a check treatment receiving no fertilization during the winter period and (f) a two pound per 1,000 square feet rate applied in the months of October, December, February and April.

In these experiments conducted in Virginia latitudes the root growth was greatest during the fall and spring and minimal during the winter period. Regardless of what month the nitrogen application was made, there was an immediate affect in reducing root growth of the bentgrass maintained under putting green conditions, but root growth was actually enhanced on a long term basis. The best root growth throughout the winter and spring period was achieved with an initial nitrogen application in October or with one or two additional bimonthly applications made following the October fertilization. Monthly applications of nitrogen at one pound per 1,000 square feet throughout the winter period retarded root growth. Bentgrass which received no fall or winter nitrogen fertilization had substantial fall root growth but resulted in minimal root growth during the spring period.

The authors concluded that bimonthly applications made during the fall and winter period in Virginia latitudes resulted in improved winter color, turfgrass quality and root growth of cool season turfgrasses. These responses were evident throughout the early spring growing season and resulted in a reduction in the amount of nitrogen which must be required during the spring period. This in turn decreased the problem of excessive top growth during the spring period.

Comments: The concept of late

fall or winter fertilization to maintain better winter color and root growth is relatively new. As a result the spring fertilization requirement is reduced or eliminated. By avoiding the need for spring fertilization, the increased mowing resulting from the stimulated top growth during the optimum moisture and temperature periods of spring and early summer are avoided. This response is now documented by several universities and confirms the reports from Virginia. This concept of late fall and winter fertilization may prove to be one of the most striking changes in turfgrass fertilization principles developed in several decades.

The question arises as to how wide a range of latitudes and winter climates this concept can be applied. Observations in regions where severe winters occur and low soil temperatures are common are that it has not been possible to maintain a green color through the winter period. Also, it has been shown that excessive late fall fertilizations applied during the period when the grass is still making some vegetative growth can result in decreased low temperature tolerance. More studies comparable to the Virginia studies need to be conducted throughout the climatic zones of the cool-humid region in order to ascertain how widely the concept of fall and winter fertilization can be employed.

### Sign of the times

determination to continue this policy.

It will take a while for Golfcraft to rid itself of its business that is not pro-only, but once reaching that status here are some of the benefits the pro can expect from the merger. For the first time in the history of golf says parent firm Acushnet, golf professionals Continued from page 31

will have a complete line of golf equipment—golf balls, clubs, bags, gloves and headcovers—with no competition from any other outlet by goods from the same company under a different brand name. For the first time, states Acushnet, pro shop sales ''will be protected 100 per cent against downtown competition.''



For more information circle number 169 on card

Another wedding within the leisure field has seen Shakespeare acquire Plymouth Company, a golf ball manufacturer. Shakespeare hopes to be a prime manufacturer of all the products it sells and hopes to eliminate the middle man in many cases.

MacGregor has acquired The Hinson Company, a golf bag maker. MacGregor is expanding and will take over the entire production of golf bags now being manufactured by Hinson, hoping to accomplish this by 1970.

The most recently announced merger is the acquisition of Harley-Davidson into American Machine & Foundry Company. AMF is interested in leisure time activities (it is a prime supplier of automatic bowling alleys and owns famed golf equipment supplier Ben Hogan) and feels the wedding to Harley a natural for this side of its business.

Harley will operate as a whollyowned subsidairy of AMF. AMF told GOLFDOM it is reviewing all its golf-related activities which may mean that they will be able to offer more to the pro. Harley is, of course, the well-known manufacturer of both gas and electric golf cars, as well as utility cars.

For a fitting cap, it might be well to mention that the Wilson Sporting Goods Company has operated as a subsidiary of the giant Texasbased conglomerate, Ling-Temco-Vought. LTV has become known in industrial and financial circles as a company that moves to where the action is, fundamentally interested in acquisitions that link them to firms doing business in solid growth fields. There can be little doubt that leisure is one of these fields.

A national financial newspaper recently pointed out that the financial community is looking for a sharp rise in the revenues that are forthcoming through golf as increased leisure time attracts a growing number of golfers, both young and old.

Mergers may start with a conversation on the golf course, or perhaps end with such a conversation, but it must not be forgotten that mergers also effect the golf course.  $\Box$ 

### Graffis

Continued from page 65

responsible for golf cars and swimming pools.

Informal sessions at GCSAA where superintendents get together and discuss their baffling troubles often seem to me to be the conference feature that offsets the amount that most clubs spend in sending their men to the meetings. The intimacy, close cross-examination by various superintendents and suggestions and citations by material and equipment men such as Charley Wilson, Leo Cleary, Stan Frederiksen, Bob Miller, Tom Mascaro, Jim Watson and the Green Section and state agriculture experts have solved more problems than chairmen or course owners or other executives realize.

There's a tremendous geographical factor in course management problems that, despite programming efforts, forces a general view in GCSAA schooling. The association does as well as can be expected in moving around its annual

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meetings to meet operating problems in turn at short range. GCSAA 1970 annual conference will be at Houston.

Club Managers' Assn. annual convention at Dallas, February 11 to 15 is pretty much a review of the CMAA workshops in which almost 800 managers attended last vear. The managers' study program presents financial, building and property management, food and beverage management and personnel management study with an overall plan of certifying graduates of the three-year organized schooling as club managers. There have been about 5.000 enrollments in the CMAA study programs since they were started in 1955.

Club financial management is accented in the CMAA courses. Club books are kept in the clubhouse and not too often can club officials or members get a clear idea of what the club's financial score is.

Continued on page 74





### NOW Warren brings you Warren's A-20 Bluegrass

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Write for specific information about A-20 Bluegrass and Warren's stolons.



### Emerson

Continued from page 58 it very much to his liking, though a bit loosely run. But he felt that he could do a good job, and the pay and fringe benefits were excellent.

On the job Jones found even more to reassure him. He liked the members and, apparently, the feeling was returned. He found, as the months passed, that more and more responsibility was given to him by the club's committees until, at the end of his first year, he was doing most of the planning and making the majority of the decisions that had formerly been delegated to the various committeemen. At the club's first annual meeting, he was roundly praised.

His first few months with his new officers seemed to give every indication of a repeat of the previous year. There were a few comments that he seemed to be doing everything his way, but his explanation that as the man on the premises he was better able to see the overall operation and make the on-the-spot decisions seemed to be accepted. Thus it was a total shock when the club president informed him that his contract would not be renewed. In the heated discussion that followed, it became evident that some of the influential members of the club felt that as manager Jones had overstepped his authority. Although he pointed out that he had accepted only those responsibilities which had been suggested during the past year, his explanation seemed to aggravate matters.

Mr. Smith's case, though differing in its time span, was basically similar.

Over the years Smith had, in effect, become the club; his hand was evident in all decisions. By custom, the nominating committee consulted him on potential club directors; the entertainment committee habitually deferred to his recommendation, and the house committee and the greens committee seemed anxious to let him continue to make their decisions.

He had not acquired these responsibilities overnight, but only as each passing year inevitably brought the election or appointment of a few club members only too anxious to receive credit for work they could delegate to others.

Now, with 15 years on the job, Smith had acquired a staff which could be counted on to work efficiently, the club annually showed a tidy financial net gain which could be used to develop its facilities. All the members needed to do was sit back and enjoy their golf club.

The blow, then, was doubly severe when it came. A month after the new board of directors took office word got to Smith that it was looking for a new manager. Unable to believe the rumor he confronted the president, who reluctantly confirmed it. When he asked for a reason, Smith was told that the board felt that he was no longer functioning as they thought a manager should. Enraged at what he felt was a lack of gratitude Smith tried to take his case directly to the members and abruptly found himself out of a job with two weeks pay.

Although these two incidents differ in detail, the basic cause and the dismal endings are the same—and variations of the scene are played and replayed every year in clubs across the country.

Each instance has one thing in common: Neither club nor manager took the time to develop a comprehensive job description for the position.

Given the cost to the club in time and money and the cost to the manager in terms of reputation, the frequency with which both overlook a proper job description is truly amazing.

The club spends dollars and hours in screening and interviewing applicants, pays for telephone calls, transportation and often for moving expenses. Yet it seldom puts in writing—even in general terms—what it expects of its manager, the limits of his responsibilities or a definition of his privileges.

The manager all too often lays his professional reputation and his personal security on the line in exchange for a vague verbal Continued on page 76