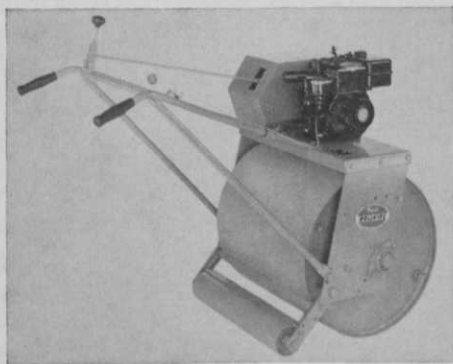


**You can rebuild
a worn-out tee or
green in less
than a day
with the
RYAN JR.
SOD
CUTTER**



This versatile, self-propelled unit will cut 100 sq. ft. of sod per minute (over 11 sq. yards) so that you can completely strip old sod from a tee or green in minutes, then cut new sod in your sod nursery just as fast for a complete replacement job in less than a day's time! By ordering

the optional blades, you can keep a Ryan Jr. Sod Cutter going every day: edging sand traps . . . trenching for underground sprinkler systems . . . loosening and pulverizing soil for seeding . . . cutting 3" sod strips (mainly used for introducing new grass strains into existing turf.) Ryan also builds 3 heavy duty sod cutters that provide a choice of cutting widths and even faster cutting.



◀ See how Ryan units team up to do more jobs: use the self-propelled Ryan Rollaire to firm down newly laid sod, also for any rolling, leveling, or patching job that needs up to 640 pounds pressure (over 1/4 ton). Reverse gear for back-and-forth rolling, easy maneuvering. See your Ryan distributor or write:



Manufacturers of WORLD FAMOUS turf equipment

EQUIPMENT COMPANY

2055 WHITE BEAR AVE., ST. PAUL, MINN., 55109

AERATORS, RENOVATORS, VERTICAL MOWERS, SPREADERS, ROLLERS, AND SOD CUTTERS

Others Get Praise, Money While Supts. Sulk in Their Maintenance Buildings

By **HARRY E. LORENCE**

Supt., Beaver Island GC,
Grand Island, N.Y.

For the past few years I have heard supts. in my area constantly declare they are worth much more than their present salaries. I have heard them say that growing fine turf is not a simple matter. I have been told that supt. must be trained in agrostology, agronomy, arboriculture, botany, chemistry, landscape architecture, mechanics and business management; that he is a landscaper, chemist, plumber, mechanic, accountant, purchasing agent, personnel manager and golfer.

I have continuously been challenged to name where else in the business world a person in charge of 10-20 men, an annual budget from \$35,000 to \$100,000, thousands of dollars worth of machinery and 150 acres of valuable land is making well under \$10,000 a year.

What is the answer? Could it be that we need to tell our story? Shouldn't we inform the public as to the problems involved in turfgrass management? We definitely do! Our handling of public relations has been extremely poor. We must acquaint the public with the duties of a supt. by writing magazine and newspaper articles, by accepting speaking engagements and by making ourselves known to the players at our clubs.

150 Acres of Problems

It is our responsibility to erase the image of the simple grass cutter from the minds of the public. The homeowner has an idea of the problems involved in keeping a weed-free, insect-free and fungus-free lawn. He should be told the supt. encounters these same problems every day, that he is striving for perfection on a 150 acre tract of land with several different types of grass cut at different heights. In addition several hundred feet are tramping his turf and 50 electric golf cars are rolling over it.

You don't think this is true? All right, try this the next time you're introduced to a stranger. Tell him your occupation and watch for the puzzled expression on his face. I'm sure you all already have seen it. Now ask this person if he knows what you do. I bet more often than not the answer will be, "You must be the fellow who cuts the grass."

No Screening Here

A supt., who did not have an assistant, recently retired from one of our exclusive country clubs. Did this club accept applications from qualified candidates to fill this vacancy? No! They awarded the position to one of the course laborers who doesn't know one grass, weed, fertilizer or chemical from another, but does know how to cut grass. Another club appointed a supt. who was not the best qualified man for the position, but offered to work for the least money. It can readily be seen that even the men in charge of country clubs do not recognize the fact that a supt. must possess technical knowledge.

Recently I watched the concluding ceremonies of a televised tournament. The winner thanked the club president, the club manager, the assistant manager and the pro and congratulated them on the condition of their fine golf course. But he didn't think to mention the man who really had the golf course in such excellent playing condition for the tournament.

No Newspaper Recognition

I have noticed that newspapers hardly recognize our profession. In the spring, when an article appears on the sport pages concerning the conditions of golf courses in this area, the writer asks the opinions of the pros. But the pros aren't to blame for oversights such as these.

This past year a supt. and a profes-

(Continued on page 74)



KEEP GREENS, FAIRWAYS
in Championship Form
with

PMAS

REMEMBER - There is only ONE

the original, patented product

of **W. A. CLEARY CORPORATION**

Apply PMAS early for dual control of BOTH disease and Crabgrass. PMAS has stood the test of time . . . the genuine PMAS has demonstrated its worth, over the years, to the golf course superintendent and is now an established control chemical for BOTH disease and Crabgrass on courses in all parts of the country. Be safe, be sure . . . if PMAS does not appear on the label it is not the genuine PMAS, patented and manufactured by W. A. Cleary Corporation.

**CLEARY
PRODUCTS**
for
**BETTER
TURF**

SPOTRETE

75% Dry Thiram Fungicide

CADDY

Liquid Cadmium for Turf Disease

METHAR

Lightest concentration of DSMA-Disodium Methylarsonate for Crabgrass and Dallisgrass in both liquid and powder.

PM2,4-D

Phenyl mercury-2, 4-d dichlorophenoxy-acetate for selective weed control.

ALL-WET

makes water "wetter" for better penetration in all turf areas, especially thatched or compacted spots.

AMA2, 4D

Amine Methylarsonate plus 2, 4-D liquid for Dallisgrass and weed control.

THIMER

Fungicide combines Thiram and Organic Mercury in a wettable powder. Treats fungus diseases, like Snow Mold.

AMA

Amine Methylarsonate, liquid, for Crabgrass and Dallisgrass control.

MCPP

For weed control on bentgrass greens and fairways; bluegrass and fescues.

25% GRANULAR CHLORDANE

pre-emergence control of Silver Crabgrass, grubs, insects.

**W. A.
CLEARY**
CORPORATION

New Brunswick, New Jersey
Skokie, Ill. Belleville, Ont., Canada

Organic Material Helps to Rebuild Depleted Soil

By **FRANK T. SPROGELL**

Vice President, Dr. Allen's
True Organic Compost Co.

Some of us who, for many years, have been responsible for golf course maintenance have wondered how we once managed to keep greens in such excellent condition despite the somewhat primitive stage of turf management technology compared with today's advanced methods, materials and machinery.

We had turf diseases, pests and miscellaneous troubles, including poor construction, to contend with in our early days of "greenkeeping". But, in retrospect, they do not seem to have been any worse comparatively than the difficulties that beset us even with all the advantages we have in this modern, highly scientific turf management era.

Evaluations of factors accounting for progress and continuing problems in turf maintenance depend to some extent on the viewpoint and interests of the person who is making the appraisal. I had my own special interest in going with Dr. Paul Allen after spending 40 years in the management of golf courses in eastern, central and southern states. After Dr. Allen combined activated sewage sludge and poultry manure into a "True Organic Compost" that was being talked about favorably in Florida, I tried it on greens at the PGA National course in Dunedin, and later on some of the greens at the PGA courses in Palm Beach Gardens.

Results were decidedly satisfactory. The weedless compost, rich in major nutrients and minor elements, non-burning and odorless, wasn't absolutely unique. There are numerous effective turf fertilizers. But it appears that the old-fashion-

ed value of soil building in "True Organic" compost and similar material has supplied what had done so well by us in the old days.

A good living organic compost is much more than just a fertilizer when made of 100 per cent manures. It is a means of continuing life. Nature makes compost. Manures composted scientifically are evidence of nature's efforts to build soil. This type of organic compost is an efficient digested fertilizer and the heart of soil building.

Bacteria Depleted

Many experienced supts. realize that life (soil bacteria) is being depleted in the soil. This is caused by the constant use of sterile materials and the necessary application of various chemicals needed to correct weed and turf diseases. Detergents and chlorine in city water used on many courses also deplete soil life. Seldom are materials, containing living soil organisms, added to turf programs to help remedy the deficiency. Lack of active, living organics in the soil creates a condition difficult to cope with. Unhealthy turf, shorter roots and compaction result. The soil becomes less friable, preventing adequate water and air circulation.

To correct this condition supts. are beginning to revert to the old custom of using substantial amounts of live and active organics. Humus is a necessary and active organic portion of the soil. It creates a loamy textured structure by producing granulation, thereby improving aeration and drainage. It also improves the soil's exchange capacity, which is the soil's ability to retain plant nutrients and moisture. Active organic matter is needed by soil microorganisms as a source of food.

Accumulating an ample supply of active organisms in the soil reduces injury to growing plants from toxic substances and excessive quantities of soluble salts. Sufficient living organic matter in the root zone assures the full and complete productive value of all types of inorganic or sterile fertilizers.

Regular applications of properly composted organic matter, scientifically digested and not sterilized, will, in time, develop a rich and fertile soil.

THE WINNAH AND STILL CHAMP, CALO-CLOR!

Forty years is a long time for a champion to reign, but veteran Calo-Clor® holds this record. Mallinckrodt's Calo-Clor was the first entry in the fungicide arena to K.O. brown patch and other turf diseases. Year after year Calo-Clor has entered the arena and remained champ—under the toughest conditions.

Other contenders, sponsored by other companies under a variety of names, have made loud noises about how they'll clobber Turf Disease Alpha, Turf Disease Beta or Turf Disease Complex Gamma. They've been given a fair match, but that extra something that makes champion material just wasn't there.

That's why turf managers who want to win the fight always sponsor Calo-Clor when the chips are down . . . they've tried other fungi fighters and lost the bout. Calo-Clor is as much a part of the routine turf maintenance team as mowing, watering and fertilization.

Managers sponsoring Calo-Clor last summer for control of hot weather diseases and last fall for snow mold point proudly to greens emerging from the winter healthier, denser, greener and with finer texture than those managers sponsoring lesser contenders. Calo-Clor is a hard slugger . . . just an ounce per 1000 sq. ft. every week or two (or a half-ounce with the regular weekly two-ounce application of broad-spectrum Kromad®)

continued pg. 2 col. 2

PRE-SAN . . . THE STITCH IN TIME THAT SAVES NINE



If you want to stop crabgrass, goose grass and poa annua before it gets started—use Pre-San™. You had a sneak preview of this exceptional product at the Philadelphia Turf Conference . . . now you can get it!

What does anyone look for in an ideal pre-emergence herbicide?

- Positive pre-emergence control of crabgrass, goose grass, poa annua and similar pests.
- Economy—low cost per 1000 sq. ft., and only one application per season.
- Safety on the finest turf—even the finest bentgrass putting greens.

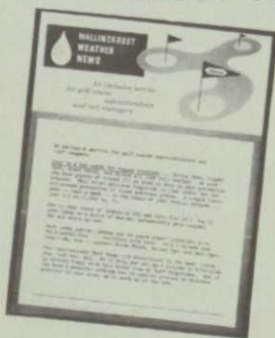
- Good residual control during the season.
- Dissipation after residual period—insuring a high percentage of germination of desirable seeded grasses.

Pre-San gives you *all* these important features.

If soft crabgrass has already germinated in your area, a post-emergence treatment will be needed. *But*, goose grass germination will come in the weeks ahead. *And*, poa annua will be germinating almost daily. So, we'd suggest you adopt this program right away. Pick up several gallons of Pre-San from your Mallinckrodt distributor today.

continued pg. 2 col. 3

WE'RE DOING SOMETHING ABOUT THE WEATHER!



We're not saying we're going to control it (although one Mallinckrodt chemical has been used extensively in cloud-seeding experiments). But we are going to let you know what's in store for your area a month ahead of time. That way, you can plan your turf fungicide treatments to give the best possible protection to those precious greens. Watch soon for Mallinckrodt Weather News!

Stan's Corner



You Don't Get Paid to Solve Problems! You might quarrel with that, but stop and think for a moment. Do you admire the superintendent or turf manager who is continually solving problems—some very well? Or do you *really* admire—and in fact, envy—one who doesn't *have* problems?

Some turf managers say that not having problems is an accident . . . or the other fellow's good luck. Don't believe it! The turf manager without problems is usually the one who *plans* for problem-free turf and a problem-free golf course. He buys trouble-free equipment that won't wear out or break down. He plants the kind of grass best suited to conditions in his area . . . not the kind that will "go out" quickly because it's unsuited to the area. He waters his turf *before* it dies from drought. And he sees to it that he doesn't have to "cure" turf diseases or repair damaged turf by reseeding, resodding and rebuilding.

How does he do it? He follows a *preventive* disease control program using Kromad, Calo-Clor, Cadminate® and other fine Mallinckrodt fungicides. He knows you can't "cure" diseased turf. You can only replace the sod or cut off unsightly disease-riddled blades. In a way this corrects or solves the problem, but club members and guests will know the problem existed and that he

hadn't geared his plans to *prevent* it!

Get with a *preventive* Kromad—Calo-Clor—Cadminate program now. Your Mallinckrodt distributor has stocks on hand. Then take a look in the nearest mirror . . . you'll see a turf manager to be admired! He's the man with disease-free greens and a secure future. He doesn't have to solve problems . . . he doesn't have problems. Hey! Isn't that *YOU*?

Stan Frederick

continued from pg. 1 col. 1

wins the fight for praiseworthy putting greens.

The smart thing is to not wait until things get tough and the chips are down—apply Calo-Clor *preventively*, stay with it *routinely*, and you're sure to win the fight against fungi!

Newcomer Thiramad-Plus Gives Double Socko Performance. Busier than a one-armed paper-hanger, that's new Thiramad®-Plus in action! It not only controls turf disease . . . at the same time it corrects iron deficiencies.

Most turf grasses are either deficient in iron or will show a marked favorable response when iron is added. In many areas where iron is the only deficient micronutrient, leading turf authorities suggest addition in this way:

- Add iron as the sulfate
- Apply as a spray
- Apply iron with fungicides

Thiramad-Plus was developed to follow this program:

- It is 10% iron sulfate
- It is applied as a spray
- The 75% thiram content provides all the fungicidal effectiveness of the finest thiram. In addition you can add Calo-Clor or Cadminate

To prevent goose grass (silver crabgrass)—apply at the recommended rate on your turf *now before* it germinates. This is especially necessary on putting greens where a Pre-San treatment will save you the trouble of hand-picking goose grass plants later. If you don't want to treat all areas where you've normally had goose grass infestations, make a trial on half a putting green—or on a section of your bentgrass nursery. The results will convince you that overall Pre-San treatments early next spring will be a "must" for your 1965 maintenance program.

To prevent and control poa annua. In areas where you *want* to control poa annua, apply Pre-San any time—but especially in late July or August. Pre-San-treated soil will prevent the normal fall germination of poa annua seeds . . . and encourage the spread of desirable turf grasses.

Start your trial Pre-San program now. Plan for a *full* Pre-San program in early 1965.

in your tank-mix when you need the extra effectiveness of mercury or cadmium to cope with tough turf disease conditions.

For proof positive, pick up a couple of cases of Thiramad-Plus from your Mallinckrodt distributor today. If you use thiram—*any* thiram—as part of your disease-control program, treat half a green with it. Treat the other half with Thiramad-Plus. Examine the green 24 hours later . . . *you* be the judge. Just see how the Thiramad-Plus-treated area stands out . . . greener, darker, denser.

These are the plus features:

- Effective disease control
 - Better looking turf
 - Iron included—no need to add it separately.
 - Real economy—costs only pennies more per 1000 sq. ft.
- For disease control with differences you can *see*, get Thiramad-Plus.

Visits to Other Courses Best Part of Turf Education

Studying how experienced supts. handle a job enables young men to get their problems solved

By **PAUL VOYKIN**

Supt., Briarwood CC, Deerfield, Ill.



Because of differences in topography, soil condition, drainage and, of course budgets, the maintenance of a course isn't exactly alike at any two clubs. As far as I am concerned, about the only thing supts. actually have in common is the weather — or their battle against it. Weather and nature are the most important influences we have to contend with in our business, yet little is spoken or written about these factors in comparison with turf itself, fertilizers, insecticides and similar things that become so much a part of our lives.

In the 12 years I have been in the turf business, the most successful supts. I have run across are those who not only have wide technical knowledge and practical sense, but understand how to work with nature and its elements. They never fight nature or try to rush it. They learn to live with it and, that, I think is the secret of their success.

This is something you don't learn in a classroom. Part of it comes from experience, although it may be inborn with some men. At any rate, it doesn't come easy to some of us, mainly because we don't have enough patience. But without a smattering of it, no number of diplomas, reports, charts or skill as a public relations man is going to make any supt. much of a success. How much or how little of this knowledge, or instinct, or whatever you may want to call it a person has, makes the difference between a good supt. at one club and a mediocre one across the highway.

We all realize that there is a great demand for youth and education in our profession. If there wasn't, we would never have grown beyond the gardener stage. But let's not get carried away by the diplomas and immediately give titles of supt. and foreman to fellows just out of school. Let's first show them how to handle the machines we use and the supplies we deal with. Let's show them how men have to be handled. Most important of all, let's let these young men spend an apprenticeship in nature's classroom. It's here that the fellows who stay on in our business are separated from the dropouts.

Good Man Priceless

Next to learning how to cope with nature, I'd say our most important job is getting along with the people who work for us. The Chicago area is beset with golf labor problems. Most of these are due to the fact that work on the course is temporary or seasonal and wages are low. In too many cases, only transients are attracted. I know of a few cases where supts. have become so wrought up over the lack of quality in their poor workmen that they have chased away both the good and the bad by their attitude toward everyone who works for them. A good man comes close to being priceless, especially when the pressure is on in July and August. So my advice to the young supts. is to cultivate as many of them as possible.

For the last several years, I have hired Mexican Americans at Briarwood. They
(Continued on page 74)

GRAU'S ANSWERS TO TURF QUESTIONS

BY FRED V. GRAU



High Schools Need Help in Maintaining Their Athletic Fields

Admittedly, athletic fields are not directly concerned with golf and golf turf but with so many Junior golfers using their high school athletic fields, let's be generous and give consideration now to this phase of our business. Most of us enjoy athletic events played on turf.

Most of the basic principles of producing satisfactory wear-resistant turf, known by course supts., seem to be unknown or are ignored by those in charge of athletic fields. It is well-known that most high schools simply do not have knowledgeable caretakers for their turf. Too often the grass is just one more job thrust upon the long-suffering janitor.

Perhaps supts. and others can encourage school boards to retain part-time agronomists or turf specialists for supervision of agronomic procedures. One man could serve several schools over a considerable area. Periodic visits of a few minutes would suffice for a trained turf man to advise on the needs for cultivation, fertilization, seeding, sodding or sprigging, irrigation, weed control, mowing and other details.

Knotweed for Graduation

Many of my visits to high school athletic fields have revealed a sorry condition. Rarely is there any turf in the center of the field. Knotweed, fortunately, comes in early and strong and covers the iron-hard compacted clay that is referred to as "soil." After the last game in the fall it was too late to cultivate, fertilize and seed. This spring the field had to be used for spring sports, band practice, etc., etc. As a result nothing much can be done until school is out. Oh yes, they want it

beautiful for graduation exercises.

Some schools have learned to use their county agent or university agronomy specialist, just as many courses do. It is a sound system, especially since nearly every university now has accepted the challenge of providing turf information. As a result of this activity there have been published some excellent guides to better turf on athletic fields.

Occasionally one finds a field that is in such constant use by such a large number of participants that the grass literally is worn off and "stomped out." The answer here may be periodic re-sodding if it is desired to make a pass at having grass.

Density Is A Problem

Too often the field has been improperly built so that water can not percolate through the dense clay. Drainage tile are fine if water can reach them. Unfortunately, once a field is in play, it is virtually impossible to tear it up and rebuild it.

Fertilization and irrigation frequently are hit-and-miss procedures that lack direction and purpose. With modern fertilizers and watering devices these factors can, at little extra cost, be the cornerstone of good turf.

Obviously we can not, in these columns, set up a system of athletic field management. What we can do is to channel some of our turfgrass experience to those who can put it to good use on these



WITH THE NEW
**Roseman
Mark IV**

**YOU
CAN
NOW
MOW
AT
NIGHT!**

- AVOID PLAYER INTERFERENCE
- IMPROVE PUBLIC RELATIONS
- GET THE JOB DONE PROMPTLY
- REDUCE MOWING COSTS

Former efforts at night mowing and much of today's "early morning mowing" on turf wet with heavy dew, rain or sprinkling causes bunching and droppings of clippings in unsightly clumps. Unattractive messy looking fairways are the result.

With the new Roseman Hi-Speed-Reel, Mark IV, Hollow Roller Drive mower you can now mow turf of any moisture condition at anytime . . . day, early morning and at night with clean, neat appearing fairways the result.

If heavy play and mower and player interference and interruption are becoming a problem on your course the new Roseman Mark IV, that gets the job done ahead of the players, is the answer you have been looking for.

Non-breakable construction, faster mowing speeds, elimination of hand trimming, more efficient use of labor, lower operating costs and improved turf are additional advantages of the Roseman Mark IV Mower.

Write for descriptive literature, prices and availabilities
AND MAKE YOUR NEXT GANG ROSEMAN!



ROSEMAN MOWER CORPORATION

2300 WEST LAKE AVENUE

Nation-Wide Sales and Service

GLENVIEW, ILLINOIS

RELIABILITY PART OF OUR PIPE

When it doesn't rain

"IT'S TOUGH! No flexure breaks at all—even though Certain-teed pipe was installed amid coral rocks!" says Wallace Martin. The group includes (l. to r.) Donald Martin, Assistant Engineer; Joe Pool, Chief Engineer; Boise Miller; Wallace Martin; and Robert W. Holden, Vice President and General Manager of the Grand Bahama Hotel.



Quality Made **CERTAIN**
Satisfaction Guarant**TEED**



CERTAIN-TEED PRODUCTS

pours

With Certain-teed "K&M" Asbestos-Cement Irrigation Pipe installed underground, there are no "dry-season" worries—even in the sunny Bahamas, where this irrigation system served by Certain-teed pipe keeps the championship course at Grand Bahama Hotel up to par. "Right from the word GO, Certain-teed pipe performed beautifully" says Wallace Martin, superintendent and pro at the Grand Bahama course. "Installation was completed on schedule, thanks to the remarkable ease of handling and coupling. The terrain was so rocky that the pipe was laid with very little cover; but even under these conditions there have been no flexure breaks. No leakage under pressure, either. We look forward to many years of reliable, trouble-free service . . . and I'm talking about year-round service in this climate."

In all climates, rugged Certain-teed "K&M" Asbestos-Cement Irrigation Pipe is your best investment. It's easy to handle and install, conforms to fit land contours (5° deflection at each joint), will not rot or tuberculate, stays immune to electrolysis. To make any day a "rainy day", choose Certain-teed "K&M" pipe. Write for full details.

CORPORATION, PIPE DIVISION LEA BUILDING,
AMBLER/PENNSYLVANIA
PLANTS AND OFFICES THROUGHOUT
THE UNITED STATES

Want Championship Greens?



Then plant *Warren - STOLONS* Grown on Sterilized Soil

DEFLOWERED BEFORE SEEDING TIME TO PREVENT CROSS POLLENIZATION

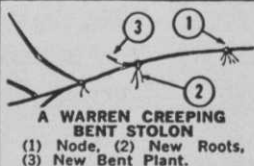
Field sterilization assures purity of strain — prevents *Poa Annua* — eliminates off-strains of Bent — kills weed seeds.

Pure strain foundation stolons grown on sterilized soil result in velvet smooth greens of uniform texture and color.

Our research has shown that when greens are grown with Bent seed, there can literally be hundreds of variations in color and texture from the same seed bag, because of the variability of seed. People illustrate this principle: a dark-haired mother and blond father could have a red-haired child.

When greens are grown from stolons, it is the same individual plants which grow again. Therefore, uniformity is maintained in color and texture of the grass.*

**For further information on this subject, check coupon.*



Warren's Stolons give more nodes per bag.

**Shipped anywhere on
the North American
Continent within
forty-eight hours**

Golf course superintendents from New York to California — from Mexico to Canada are numbered among our satisfied customers.

Ask about our new Putting Green Bluegrass Sod for easier maintenance. Ideal for Par 3 courses, home putting greens, Motels, Clubs.

Warren's TURF NURSERY

8400 W. 111th St., Palos Park, Illinois

Send us details on beautiful, hardy, vigorous greens and tees with Warren's Stolons • Warren's Sod

FREE LITERATURE

- "Construction and Planting of Putting Greens with Creeping Bent Sod or Stolons."
 "Genetic Variability in Creeping Bent" A study of seed versus stolons for planting putting greens.

Club Name _____

Address _____

City _____ Zone _____ State _____

Superintendent _____

For Perfect Putting-Greens
PLANT

Warren's Sod

or

Warren's STOLONS