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## Analyze Cost Factors

Let us outline a few factors which influence the costs on a golf course. In regard to the figure given out as the total expenditure for year, it often contains the cost of other game areas, clubhouse grounds, new work, etc. The only figures which we can compare are the cost of maintenance of one course with the cost of maintenance of another. If we wish to do this, we must be fair and study all the factors which affect the costs. We must study the degree of maintenance, the factors of soll, cllmate, ralnfall, topography, amount of play, etc. We must study the wages and salaries paid. Then as we study and try to compare the costs for the varlous parts of the course, we must consider the varlous factors for each that influence the costs.

Factors that influence costs of greens Include size of greens; amount of composting and fertilizing used; amount of insect and disease control work necessary; number of times cut per season; kind and condtifon of mowing equipment; kind of grass on greens; amount of weeding done; amount of watering necessary, and others.

Among fairway factors are topography; stze, kind and condttion of mowing equipment; amount of fertilizing, composting, watering, and insect and disease control work done; kind of grass; number of times cut during senson. Another factor which affects the cost of mowing very much is whether the fairways are long unbroken stretches or are cut up extensively with traps.

Factors affecting cost of tees' maintenance include some of the above, and especially size; number; amount of patching necessary, and amount of play.

It may be easily seen that costs for rough and hazards are likewise influenced by various factors. From these mentioned above, It wII be easy for anyone studying this subject to find other factors for each division of the work.

## Control Costs

How foolish it is to attempt to standardize goll course maintenance! How, Indeed, can we do it? We simply can control those factors which we are able to control, and recognize the others as vital, and minimize them as much as possible. We must remember that each course is a different probtem; indeed, there are many problems on each course, each different from the others, and each affected by its own factors.

If we cannot standardize maintenance, can we standardize a system of cost analysis for golf course mafntenance? This is possible, but 1 do not feel that it would be advisable to do so for all courses, in spite of the fact that 1 have a system of my own which I belleve could be used on any golf course. Many clubs have installed systems which are kept in part by club clerks or secretaries, and in many cases it would be foolish to throw aside these workable systems for another. Then, too, many greenkeepers have evolved, and are using, very fine systems in which they are naturally interested, and they will continue to be more interested in their own than in some other. The main thing in cost analysis is to have a workable system and to use it, and to get results from it:

## Rates Unjust Comparisons

Too long have organizations and individuals complted figures of golt course maintenance costs and made unjust comparisons from them. Some Service Bureaus, formed to help golf clubs by co-operative buying and giving information, have referred fluently and frequently to what they have done, how great were the wastes in golf course maintenance, and how much they were saving their member clubs. The main trouble with what these Service Bureaus have done is that they haven't considered the greenkeepers at all in all of their constructive work. They forgot that golf course maintenance cannot be helped very much if the greenkeepers are not taken into consideration!

It is my opinion that Service Bureaus have levelled prices and have saved some clubs money. Against this, they have often bought inferfor goods. But it was never the function of any Service Bureau to make unjust comparisons and statements, and I sincerely hope the last one has been made!

There is plenty of room left for standardizing, to some extent, methods of maintenance among clubs in sections, for example, where general mafntenance is roughly the same. It would be a good polley to find the most economical means of doing certain operations efficiently, and then of educating the greenkeepers to do these operations along these lines. There can be set up for all courses of a championship type a certain standard toward whitch they can strive, such as good greens, large tees, fair traps, divotless fairways, etc., but the costs of mainte-

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These are the men who attended the successful opening short course of greenkeepers held at the Pennsylvania State college
nance on even these can not be standardized.

Thts then is a plea for fafrness of comparison, and Mr. Green-committee Chairman, as you look over the costs of your course, and compare them, costs on another course, be fatr, and just! If you flud that your greens have cost more than they did on the other course, consider all the factors which entered Into their maintenance costs on both courses. It may be that by so doing you will find that there exists a factor which you can control, such as by purchasing new equipment, and by so doling you can reduce the costs. It may be that you will find that some uncontrolable factor is making your cost higher. At any rate, study the factors, and do not blame your greenkeeper unless you find after careful study that he deserves it. Talk it over with him, and you may find he has some ideas too. Remember that a "little milk of human kindness" often does more than censure.

So after all, standardization on the golf course can onfy apply to methods, and not to costs. Too many factors, many of which are uncontroliabie, govern the costs. Let us resolve to be fatr in our comparisons, and to study carefully all factors which may influence the costs before a decision is reached. Let the night which covers all of those unfair comparisons which have been made, usher in the dawn of a better understanding which will help all, greenkeepers, green-committee chairmen, and Service Bureaus, to work together for golf's good.

# Greenkeepers' Short Course Success at Penn State 

By AUSTIN L. PATRICK<br>Chairman of Agricultural Short Courses and Professor of Soil Technology at Pennsylvania State College

THE first short course held at the Pennsylvania State College was surprisingly twell attended. This was in spite of a heavy snowfall the day before the meeting. Forty-six clubs were represented by 62 individuals.

Tuesday morning the program was devoted to:
"Fundamental Principles of Fertilization" by A. L. Patrick.
"The Effect of the Various Fertilizer Experiments on the Growth of Blue Grass on DeKalb, Volusia, and Westmoreland Solts" by J. W. Whitte.
"The Effect of Various Combinations of Fertilizers on Blue Grass and the Growth of Weeds on Hagerstown Soil" by C. F. Noll.
"The Practical Application of Experimental Results on Golf Course Fertilization" by Nickolas Schmitz.

Tuesday afternoon the addresses were:
"Machinery for Golf Courses" by R. U, Blasingame and H. B. Josephson.
"Dralnage of Golf Courses" by J, R. Haswell.
"Insects of the Golf Courses and Their Control" by V. R. Haber.

Tuesday evening those in attendance were entertained by the college golf squad

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at a smoker held in the Phi Kappa Sigma fraternity house. The boys had complete charge of this meeting. The money for the smoker was furnished by the Blue Key Society. Everyone in attendance appeared to enjoy the program.

Wednesday was devoted to "Problems in Golf Course Design and Planting" by John R. Bracken and C. A. M. Sorg, and to "Golf Course Grasses and Golf Grass Seed Identiffcation" by H. B. Musser and J. S. Cobb.

Wednesday evening a banquet was held at the Centre Hills C. C. Professor J. W. White acted as teastmaster. The speakers were Dean R. L. Watts, D. R. Reese, President of the Abington Hills Country Club, Dean A. R. Warnock, president of the Centre Hills C. C., Joseph Valentine, greenkeeper of the Merion Crieket club of Haverford, Pa., and John Qual, Secretary of the National Association of Greenkeepers.

Thursday morning the short course people heard:
"Golf Course Weeds and Their Eradicatfon" by J. P. Kelly and R. B. Rutherford.
"Diseases of Turf Grasses and Their Control" by C. R. Orton of the Boyce Thompson Institute, Yonkers, New York.

It is the consensus of opfnion that all members in attendance were well pieased with the type of instruction given, as evidenced by the enthusfastic expressions to various members of the committee and to instructors, and in speeches at the various functions of entertainment.

The principal subjects, which seemed to be on the minds of the experienced greenkeepers were the lack of definite knowledge on the fundamentals of fertilization, kinds of grass for turfs, insect control and disease control as applied to golf courses.

There seems to be no question concerning a demand on the part of the greenkeepers and golf club officials for more detalled instruction in the future on golf course management. Two points of view are evident in regard to the types of instruction desired; the club officials want a longer course to prepare untrained men for course management positions, while the experfenced greenkeeper desires a shorter and more concentrated winter course.

The details of future work along these lines at Penn State have not been fully worked out. However, now that this type of work has been started it certainly will be continued. A definite research program covering years has been outlined.

## Poison Syrup for Ant Extermination

ANTS may be controlled by using a dilute poison syrup bait made in the following manner:

Boil together the following materlals for thirty minutes: Granulated sugar ............ 4 pounds Water . . ...................... 4 pints Tartaric Actd (crystallized) . . 3 grams Dissolve sodium arsenite in hot water in the following proportions: Sodium arsenite (C. P.) ........1/4 ounce Hot water.............. 3 flufd ounces
When the above solutions have cooled. add the second to the first and stir well. Then add two-thirds of a pound of strained honey to the resulting syrup and mix thoroughly.

The ingredients for this syrup may be purchased from any drug store, and should be carefully welghed by the druggist. Mix carefully according to the dfrections given.

While this bait is somewhat difficult to make, it is generally effective against these ants. Small pleces of sponge should be thoroughly soaked in the syrup and placed in tin boxes, the lids of which have been punched with several holes in order to give the ants ready access to the bait. A few stands of excelsior may be substltuted for the sponge. The bait should be renewed from time to time, and if the ants cease feeding in any one spot, the location of the tins should be changed. It will be two or three weeks after thls balt's effect will be noticeable.-C. C. Hamilton.


You have to supply facilities like these for the women these days. This is part of the ladies' lounge at North Hills, St. Louis


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# PITY THE POOR golf orphan -PUT IN A PLAYGROUND! 

By JACK FULTON, Jr.



This is part of the playground at the Medinah Country club in the Chicago district. It is a highly popular feature of the club, with both the children and the members.

UP to a very few years ago, one of the standard butts of humor claimed by the cartoonist, the jokester and the raconteur was the patient, neglected wife of the rabid golf "nut." She was known as the "golf widow," and many and varied were the abuses she was reputed to meet. But within the past few years the golf widow has passed out of the picture, and humorous writers have been forced to look elsewhere for their humorous subjects. There are no golf widows any more; they are all out playing on the same course as their husbands.

As a natural result of woman's increased interest in golf, a new "injured party" has taken her place, and although the humorous writers have not ye selzed the new victim, they doubtless soon will. I refer
to the "golf orphan," the poor neglected child of golfing parents, left to shift for himself while Mother and Father go in quest of pars and birdtes on the Itnks.

Seriously, now that women have taken so strongly to the game, the problem of what to do with the chlldren while the parents are both on the links has become one of major importance, and the club interested in luring its members to the club as frequently as possible, and thus fincrease its fncome, must make proviston for taking care of the youngsters.

The need for supervision of the golf orphan is obvious. Left to shift for himsself, a child, from the time he can barely totter around untll he is 12 or 14 , is a genius in his ability to get in the way. He invades the locker rooms, sings the

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battle cry of childhood up and down the porches, plays noisy tag around the bridge tables, and regards the carpet-11ke greens immediately adjacent to the clubhouse as specially cultivated for him to dig into with his heels. These annoyances, in the eyes of the members, are, of course, not deliberate on the part of the children; they are the result of the perfectly normal enthusiasms of childhood, and cannot be changed.

To the club, therefore, interested in attracting parent-members to the grounds as often as possible, some way must be tound to segregate the chftdren away from the clubhouse and at the same time offer them sufficient attractions so they will be interested in accompanying their parents to the cub grounds whenever the parents choose. The answer is-build a playground for the youngsters; establish a house rule that children must not play games except in the immedlate vicinity of the playground, and employ, if possible, an attendant to keep them in hand.

All things considered, it is surprising more golf clubs have not established playgrounds. The peace of mind of the parents, the other members and the club management; the added assurance that the youngsters are safely supervised, and the very reasonable investment necessary to equip a playground and the small amount of land needed for the site knock out all arguments against its establishment.

The first item in a playground is the sand box, a lure that will keep chftdren Lappy hour after hour. Construct a shallow box, about 10 ft . square with 12 to $\mathbf{1 5 - i n}$. sides. The reason for not putting down sfmply a frame around the pfle is to keep the earth underneath from mixing with the sand and soiling it; clean sand leaves no grime on the youngsters' elothtigg, evell after a protracted sessfon of castle building, but if there is dirt in it, the kids will come out pretty messy. Locate in a shady corner of the play area.

Next in popularity to the sand pile are the slide, which can be purchased at reasonable cost and in various heights from 10 ft . to 16 ft , with chutes from 16 ft . to 30 ft . In length; see-saws, generatly 14 ft . long, which may be purchased in groups of two, three or four mounted parallel on a single frame support; the "giant stride," consisting of an upright pote firmly flxed in a concrete base, with a pivot head, from which are suspended several ropes or chains with ladder handles; and lastly,
possibly the most important of the items in the whole playground, the swings, whioh need no description except to sugfest that they be not higher than 12 ft .

Obviously the playground should be level; should be well drained, and turfed. There should be shade trees about. The grass will be worn away under the popular pieces of apparatus, but if the soll is a firm sandy loam, no returfing is needed. If the underlying soil is a clay, however, It is advisable to tamp down cinders and top-dress with gravel.

Much of the playground apparatus can be built by the club at low cost, but all things taken into account, it is generally wiser to request recommendations, layouts, and bids from a number of firms specializing in playground equipment. Purchased items of equipment are more sturdily built, safer for the youngsters to use, and keep in order under abuse longer than locally constructed pleces.

## Foremost Factors in Club Policies

T0 summarize the most important factors in club development and operation : Comfort and convenience for the members:

Harmonious Board of Directors; Complete and adequate budget system; Certified monthly audit;
Capable club manager; Consideration of members' time;
Economy and efficiency-operation, the same as that of any million-dollar proposiHon, on a business basis;

Social activities arranged by the manager and hostess, under house chairman's directions:

To try and make the members feel at home and free to offer constructive suggestions, notwithstanding the fact that definite rules, regulations and policies are necessary to suecessful operation.-D. Howard Hawk, manager, Callfornia Country club.

SOIL which is not absolutely free of weeds should never be put on greens. Weeds must therefore not be allowed to go to seed on or near compost piles.


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