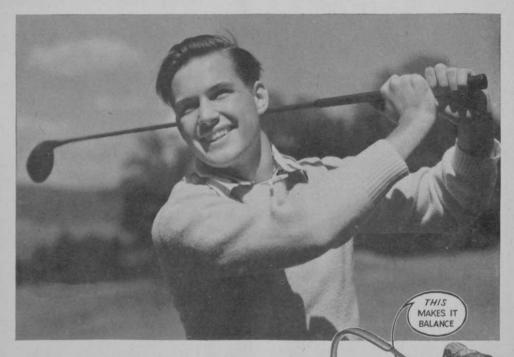
THE SWING IS TO ... THE LIGHTWEIGHT BALANCED GOLF BAG



Yes, golfers all over the country are swinging to BALANCED GOLF BAG. And why? Because millions of golfers are learning about BALANCED GOLF BAG by brand name through national advertising in Saturday Evening Post, Collier's and Holiday. And they're buying BALANCED GOLF BAG because it's lightweight and perfectly balanced, so easy to carry-because it adds so much more pleasure to the game.

Your customers, too, will want this amazingly popular golf bag-be ready to supply them by ordering now. Remember-what's good for golf is

good for you!



NATIONALLY ADVERTISED!

BALANCED GOLF BAG, INC. North and Noble Streets

U.S. Patent No. 2364223

STANDARD MODEL \$500

Finest quality duck. Sun-tan or White trimmed in olive green.

\$3600 per dozen

One dozen or more shipped prepaid.







Wilson Chompionship Tennis Ball
Wilson Chompionship rennis hall has
The Wilson in the official half for more
The Wilson in the official half for more
Than W

The new Freecomiort. No sh Nothing to bir -swing -with and in sport s styling. It's exclusive, par story in the S Life, Collier's

> This double-page spread pears in the May 18th of the Saturday Evening

Naturally, shortage of materials due to reconversion will limit supplies of these new golf balls until such time as productive capacity and material stock piles can be increased.



IT'S WILSON TODAY IN SPORTS EQUIPMENT

Cats should not be treated with the dust because they lick themselves and may swallow enough of the poison to prove harmful. Oil sprays should not be used on cats, dogs or other domestic animals because there is danger that the poison will be absorbed through the skin.

Bedbugs have been controlled satisfactorily in homes and in chicken houses by treating the beds or harboring places with a 10 per cent DDT powder or a 3 to 5 per cent DDT spray. Chicken house roosts should be painted or sprayed with the solution.

A 10 per cent DDT powder has been used successfully as a control for cockroaches and is about as effective as sodium fluoride for this purpose. It is a slow acting poison and may require a week before any noticeable reduction of roaches takes place.

DDT Gets House Ants Species

Certain species of house-infesting ants can be controlled by spraying with a 5 per cent DDT-kerosene spray behind window sills and frames, behind and beneath baseboards, about sinks in the kitchen and in cracks and crevices leading to the outside of the building. Caution should be exercised in using the DDT-kerosene solution to prevent fires.

DDT was made available to the public too late this summer for use on most fruits in New Jersey. Experiments to date indicate that DDT kills codling moth, Japanese beetles, oriental fruit moth, apple leaf-hoppers, grape berry moth, grape leaf-hoppers, rose chafer and each tree borers.

In most cases DDT was used in one or more sprays at 1 pound of actual DDT in a wettable powder to 100 gallons of water, or ½ pound of actual DDT in a wettable powder with Summer oil 2 to 3 quarts per 100 gallons of water. DDT appears to be compatible with other insecticides, such as lead arsenate, nicotine and Summer oil; also with fungicides, such as sulfur and bordeaux mixture.

DDT has not proved satisfactory as a control for plum curculio on peaches, apples and plums; nor for orchard mites and pear psylla. DDT appears to favor the build-up of mites on apples and peaches and there is some evidence that woolly aphids build up on apples following the use of DDT.

The question of possible injury to fruit and foliage from DDT sprays is not fully answered as yet. Nor has the problem of DDT residue removal at harvest been cleared up. For these reasons it is suggested that those desiring to use DDT on fruit go slowly until more information is available.

DDT sprays and dusts have been tested

against considerable numbers of the more common vegetable pests and on the more common vegetable crops. Our tests indicate that the insecticide is very effective against many of the insects, such as cabbage worms, European corn borer, Colorado potato beetle, flea beetles, cucumber beetles, thrips and leafhoppers.

It has not proven effective against Mexican bean beetle, tomato hornworm, cabbage aphid and red spider. There are other insects, such as pea aphid, potato aphid, corn earworm, etc., against which DDT gives only fair control.

From the standpoint of plant injury, DDT has been disappointing since such plants as beans, tomatoes, sweet corn, cucurbit crops and peas show varying degrees of injury or a reduction in crop yields when treated with DDT. Potatoes and cabbage appear to be able to tolerate DDT applications without interfering with yields.

As some of the vegetable pests are not controlled by DDT insecticides and because some plants are injured by their use, thus far, there appears no particular advantage of DDT over the standard insecticide. Until concentrations and formulations of DDT which are safe on vegetable crops are found, growers are advised to use the current recommendations for pest control.

Emphasis has been placed on food production during the war years and so insect control on flowers, etc., has not been stressed, but preliminary experiments have been conducted which indicate that DDT may be a useful insecticide on flowers and ornamental plants.

Dusts containing 5 to 10 per cent DDT have proved very effective against the hairy chinch bug in turfs or lawns.

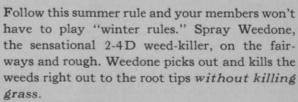
WOMEN'S "TRANS" RENEWED — Women's Trans-Mississippi GA will hold its 16th annual championship at Denver (Col.) CC July 8-13. The event was cancelled during the war. Mrs. Russell C. Mann won the 1941 affair at Houston. Entry applications may be secured from the Women's Trans sec., Mrs. Holbrook T. Ashton, 36 Fair Oaks, St. Louis, Mo.

FEE COURSE PRICES UP—Walter Grego, mgr., Bayside Links, Long Island de luxe fee course designed by late Dr. Alister Mackenzie, increased prices this year, with very little comment from players. Grego says he's meeting nearly \$2400 monthly greater payroll than the course had 15 years ago. He estimates that a course built today on Bayside pattern of design and materials, on low-priced land in middle of Long Island, would have to charge \$6.50 per round to break even.

SPRAY WEEDS ON AND OFF THE FAIRWAYS

WEEDONE

WEEDS DIE . . . GRASS LIVES



Clear the course of broad and narrow-leaf plantain, dandelion, pennywort, heal-all, knotweed, hawkweed... most weeds that spoil turf. Spray annual weeds early and they will die before seeding next year's crop. Weedone is not sure-fire on crab grass. Go easy with Weedone on the greens; under certain conditions, bent may be susceptible.

Weedone does not sterilize the soil; re-seeding can be done as soon as weeds die. Weedone does not corrode metal spray equipment. It is less poisonous than common salt to humans and animals.

Weedone is economical . . . \$12 to \$14 an acre for heavy infestations . . . much less on a "spot" basis. Ask your dealer for Weedone; or write to

AMERICAN CHEMICAL PAINT CO.
AMBLER, PA.



The Real Caddie Problem

Columbus, O., club officials are sponsoring the national caddie tournament to be played at Columbus, O., Aug. 26-31. That event can be added to the Western Golf association's long and earnest work for the Evans caddie scholarships as evidence that more real American sportsmen are really concerning themselves about caddies.

What is called the caddie problem by the golfer is merely the difficulty of getting enough boys to carry bags and watch the balls.

The real caddie problem is far greater than that. It's the matter of demonstrating a sincere and foresighted interest in the training of the youngsters as good American citizens.

There hasn't been enough of that done. The businessman at his golf club often can see the nursery of an attitude that has become so lamentably extensive in adult labor relations. Despite the genuine consideration of some among the members, far too frequently the club official attitude is simply that of getting a supply of juveniles to work while the golfers are at play.

Caddie rooms and recreation facilities usually are supplied not primarily for the welfare of the kids, but to attract labor in a competitive situation. The caddie master whose job, from the community and club standpoint, should be one of the most important at the club, many times has to rely on candy and beverage sales and a percentage of caddie fees to make a living.

Then we wonder why some kids grow up without a great deal of trust in what is termed during prejudice-arousing political campaigns as "the country club set."

We think of our caddie problem this year as that of getting enough kids so we won't have to put up with double-carrying by the caddie.

That isn't our caddie problem this year, next year or 10 years hence.

The demands of the youngsters for double-carrying with its substantial take-home pay will work itself out exactly the same way the general labor situation will work itself out. The bag carriages and the better light bags will have many players content to caddy for themselves. The cost of golf will be reduced, therefore there'll be more players with the ultimate result of there being more and steadier employment of caddies.

But, while nature is taking its course, golf may miss an opportunity to be a tremendous factor in the development of millions of fine American citizens.

How blundering we generally have been in the club handling of caddies was disclosed in several cases during the war years. Wives of pros who were in military service and young men high school teachers, physically disqualified for military service, did amazingly well in handling the caddie recruiting, training and supervision at clubs. These people, prior to emergency, had only sketchy knowledge of what the caddie management job required. They went at the job from the kids' angle rather than in the customary manner of clubs trying to get kids for the members' convenience.

The really expert caddie-masters, of which there are far too few in golf, are successful because they think of the kids before they think of the members and the club officials. These experts also are smart enough not to let the members and officials know that.

We all will do better for ourselves as golfers and American citizens if we stop thinking of the caddie problem hind-end-to and consider that the major difficulty could be what the kid might think of as his golf club problem.

Just because some kids are not jubilant and grateful for the chance to work at a golf club need not discourage the club officials who really know kids. Look at the juvenile delinquency figures these days and you'll know that managing kids is not easy. It might have been a bit easier if golf clubs had thought of caddies as kids rather than as adolescent and unpredictable employees.

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SWEET SHOT

Pro Distribution Exclusively

Watch it GO-GO-Go-go-

REAL RUBBER is back—and so is the Super-charged Sweet Shot—packed with the power of our exclusive high compression construction—true in flight and accurate on the putting green, because each ball is X-Ray tested to assure perfect balance, durable because of an exclusive vul-

canized cured cover-thin but tough.

Pro only distribution—as always for the Super-charged Sweet Shot assures you all the benefits of constantly growing player satisfaction with this great ball.

Quantities are limited by available supplies of natural rubber. For information, we suggest you write promptly.

THE WORTHINGTON BALL COMPANY

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WORLD'S LARGEST EXCLUSIVE GOLF BALL MAKER

May, 1946 47

What Research Is Doing, To Improve Turf

By FRED V. GRAU

USGA Green Section

A CHANCE observation of the effect of bordeaux spray on some weeds in a vineyard in France was the first recorded instance of chemical weed control. We have come a long way since. From that beginning we have learned to use various materials and have discovered their practical applications, their dangers and limitations. For instance, iron sulfate, widely used in British South Africa discourages certain weeds and improves the chlorophyll content of the grass blades, the vital factor in the making of food and the build-ing of dense turf. Chlorates have their place, but are unsatisfactory in many respects. Arsenicals have had a big place in turf, and they are going to continue to have a place in turf, because of the added advantage of the control of certain types of soil insects.

We are hearing a little bit about selenium compounds. You can now feed selenium to a plant and when the bug bites the plant the bug dies.

Now we have 2,4-D which controls many weeds, is neither poisonous nor a fire hazard, but which has certain limitations. Applied research is discovering how best to use this new material.

There is a lot of work ahead, and we must never lose sight of the fact that intelligent management can never be replaced by the mere application of a chemical so long as we are working with nature.

Our mercury compounds and all our complex organic substances represent distinct accomplishments in the control of diseases, but here again I want to call attention to a 3-way approach to that problem. One is the breeding of plants for disease resistance, a very, very fertile field; the further development of chemicals and their applications; and a thorough knowledge of nutrient balance in the turf field.

Here I want to call attention to the results of the late Dr. Haley of Penn State, who found that tobacco wildfire, which was threatening that industry, became non-existent when they had the proper nutrient balance between the plant and the soil.

How many of the diseases that we have to work with might be approached the same way? We do know, O. J. Noer has demonstrated many times, that the proper application of nitrogen can largely control dollarspot.

The fertilizer picture on turf is far from clear. We have done things a certain way, because it is the only way we had to do. The farmers did, too, but what is happening right here in the Midwest today? They are not putting on fertilizer like they used to. They are plowing it under the ground. They are putting it on the plow furrow. Why? Because there is where the moisture is, and when ears of corn were reduced by what they call firing in midsummer, it wasn't a moisture deficiency but lack of plant food. When they put the plant food under the ground where the moisture was, where the plant roots could get it, they increased their yield. The same thing is beginning to be done with turfs of different classes, but we have just barely made a beginning.

Why is that? What is the principle back of it? Evaporating soil moisture carries the soluble plant nutrient to the surface of the soil. The water goes on out. The nutrients stay on the surface. It is dry. The plant roots cannot use it. After a dry period we get a rain, and what happens? The grass just greens up overnight because of that large supply of available nitrogen right there in the surface carried down to the plant roots.

Some of you who have used tubular-time forks on the putting greens find you get superior results because a great deal of the fertilizer goes down into those holes. Whether that is the answer or not, I don't know. It certainly has improved a lot of conditions.

Soil Modification Problems

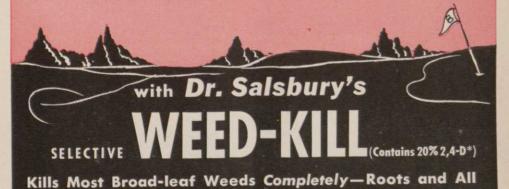
This question of soil modification is not a specific problem. It includes a whole group of problems. We have made a lot of progress. You remember the discussions on charcoal and peat and on the excessive use of water. There is a lot of good work back of us, but certain requirements and certain principles are absolutely clear, that turf surface must be as nearly perfect as possible for the use for which it was intended, and in addition, the plant requirements must be met.

The modified soil structure, in addition,

Greater Beauty and Pleasure

WEED-FREE Golf Course

at Low Cost in Labor and Upkeep



Harmless to Blue Grass—Easy to Apply, Economical

Up until now weeds have been number one "headache" for golf course managers. They're difficult and costly to dig out. Yet, allowed to remain, they can quickly ruin the beauty of your fairways, spoil your golfing pleasure.

Now you can kill weeds scientifically with Dr. Salsbury's Selective Weed-Kill. Selectively kills unsightly broad-leaf weeds completely. Saves you time, labor and money.

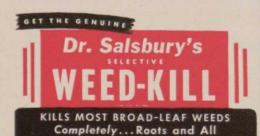
Weed-Kill is easy to apply with standard spraying equipment. Leaves no harmful. residue. Won't harm blue grass. Use it on weedy sections of fairways, along ditches, waterways, on club house lawn, etc. Complete directions on label.

Concentrated: diluted, one gallon of Weed-Kill treats 1-1/5 acres for ordinary coverage. Five gallon and 50 gallon drum gives large quantity users great economy.

Send handy coupon for information and the name of your nearest distributor, today.

* 2, 4-Dichlorophenoxyacetic acid.

DR. SALSBURY'S LABORATORIES Charles City, Iowa



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Į	Name
i	Position
i	Club Name
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must meet other requirements. On the putting greens we can't tolerate foot-printing. The greens have got to be firm, yet perfectly aerated and drained. An athletic field must be firm, and yet have deep enough roots and dense enough sod to withstand terrific punishment. All-weather turfed airfields must meet rigid requirements for load-bearing capacity, and in addition for growing plants. So the problem ahead with each type of turf is to bring about a correlation of the factors for moisture control, desired plant growth, and desirable surfaces for each specific purpose.

Among the hundreds and hundreds of grasses and innumerable strains of many turf species, we can make this statement: There is a purpose for every grass and a grass for every condition. Maybe we haven't been smart enough to find all of them yet, but somewhere in the group of grasses in the world there is one to suit a purpose. We have had very encouraging results to date. We have selected a lot of strains out of Nature's own laboratory. That has been one of our most fertile sources of plant material. She selected them. Then we picked them up, increased them, and spread them around, and got superior results.

Grass Breeding Prospects

Plant breeders are hard at work on the grass family. Most of the emphasis in the past years has been on the crop plants or in the cereals, but the grasses are receiving a great deal more attention now, and out of that research for hay and pasture we are getting a lot of cast-offs that do not meet the requirements for tonnage, but they do meet the requirements for dense turf.

Those plant breeders who are working with grass have the know-how, and if they are given a specification for grass, the chances are they will be able to produce one, given the time and the money to work with. We have really got a great future in that respect.

In insect control, we have done a lot of work, but there is a lot ahead, too, with DDT on the horizon. It is not being recommended yet for many places. I picked up a recent issue of one of the chemical abstracts, and read of TDE, newer and better than DDT. It opens up a whole new field, and it is going to take a lot of study on the part of every one of us to keep up with those developments.

Irrigation research has been talked about for years. There has been a lot of talk about dual systems that would sub-irrigate and drain alternately. That is not out of the picture yet.

Soil and plant testing to determine nutrient balance is a very fertile field. How far we can go, I don't know, but there is a lot of work to be done because we must know more about nutrient balance because of its tremendous effect on disease.

Seed production of proven superior strains also is a big field. Unfortunately in the past there has been a lack of correlation in the turf field between the use areas and the production areas. We have taken what was offered because it was the only thing we had, but we are going to get our heads together, and we are going to say, "If you are going to grow seed for us, you grow what we want, what is going to do us the most good."

We haven't even begun to make uniform measurements for turf because most of us don't know how to measure turf. It is so different from anything in the agronomic field, where you can measure tonnages or bushels or pounds. Here we are measuring something entirely different, and we have not yet found that uniform method of evaluating results.

Certainly there is need of more adequate mechanization of turf. The labor problems that have beset you point to nothing else but complete mechanization with the minimum of manpower requirement.

What about the personal factor? That to me is one of the greatest factors in this whole industry. If we fail to evaluate that human element, we have missed an awful big bet. The practical applications of research will always be tempered by that personal factor. You give 10 men identical materials, identical instructions, and you will probably get 10 different results, and a large part of the difference will be due to the personal factor.

One of the neglected phases of turf work has been the dissemination of information. Unfortunately, many of us have our hands tied in that. We have not been able to get complete information out to all the people who need it. In a great many cases, particularly in some of the agricultural colleges, it has been easier to overlook that because it hasn't been a particularly important phase of agronomic work. That picture is changing, as I have said, because the public demand is such that they will have to give recognition to this phase of work.

There is an extension service in every state in the union but not all of them have taken cognizance of the importance of turf. Some of them have. That is one way in which results can be disseminated.

I think the county agent can be a significant factor in the dissemination of turf information, along with his other duties. Some of them are too busy. They can't do it. Some of them don't have the know-how or the inclination. We can't expect one hundred per cent, by any means, but the