ential functions, such as: reproduction, protein formation, fat synthesis, carbohydrate or sugar utilization and metabolic processes. All living cells require phosphates, therefore there is intensive competition between plants and the lower forms of life for the phosphate of soils. Under ideal conditions, plants obtain a fair share of the soil phosphate unless the soils are so run-down that the phosphates are made unavailable by a chemical process called phosphate fixation.

When grasses are established on highly fertile soil, the soil particles which contain the phosphate in chemical combination are held in place by the network of roots. Old roots die and along with the clippings are attacked by soil bacteria, fungi, and other low forms of life. The minerals, including phosphate, which the dead materials contained, are made available to other plants or lower forms of life.

A resulting residue of organic matter is produced which is dark colored and which serves many useful purposes in the soil. This important organic matter called humus, serves as a physical conditioner of soils by holding the soil particles in desirable aggregates and thus contributes materially to the physical condition of the soil. This humus makes the soil hold more water and at the same time allows more air to get into the soil. Since both air and water within the root zone are desirable for good plant growth, grass keeps improving the soil and in turn grass keeps improving because of the more desirable conditions it creates itself.

All these fine features of grass are based upon the presence of a desirable level of nutrients for establishing a good sod when the grass is planted. Rundown soils with little organic matter or available phosphate make the problem of establishing grass a difficult one. It is therefore necessary in establishing grass to prepare a good seedbed to which has been added sufficient phosphatic fertilizer to create conditions desirable for good grass growth before this soil building effect of grass can become operative.

Within the soil are some vulture substances that have great phosphate consuming power. These substances, compounds of iron and aluminum, combine chemically with phosphate and “fix” it in a condition which is extremely difficult for the plant to obtain. Keeping the phosphate from coming into contact with these elements, iron and aluminum, will increase the effectiveness of added phosphates. This is achieved by banding of the fertilizer or by pelleting the fertilizer so that large concentrations will be localized in the soil.

Once the grass has been established,
nature has provided a means for keeping the phosphate available. Around the roots of grasses and other plants is a zone called the rhizosphere which is literally teeming with bacteria. When properly nourished these active minute living cells produce organic substances for which the iron and aluminum have a greater affinity than they have for phosphate. Thus phosphate which has been "fixed" by iron and aluminum is freed and made available for plant use. The cycle goes on and on with little loss of phosphate; however, most soils in the East and South are so low in native phosphates that periodic additions of phosphates are necessary to get the level of soil phosphates high enough to get this grass-phosphate system into its highest effectiveness.

Phosphate is necessary for good grass and good grass makes the use of phosphates produce better grass.

*(NGSA convention paper)*

**Jaycees Add Course Building To Tournament Promotion**

Continuing to expand their golf activities throughout the country the United States Junior Chamber of Commerce released early in December a 15 minute, 16 mm sound, color film "Golf for Youth." The production was jointly produced by the USJCCC and the National Golf Foundation.

Hugh Egan, Jr., Jaycee sports and recreation director, reports the film has been enthusiastically received by junior chambers, golf associations and country club groups in various parts of the nation and pointed out that the film is available from his office at no cost.

In addition to bringing to the screen a complete history of the growth of the National Jaycee Junior golf program the film also includes shots from Jaycee-sponsored PGA tourneys. "However," Egan said, "one of the most important messages in the film is the need for increased golf facilities across the nation. We have found Jaycee groups coming to the front in this field and accordingly have filmed actual work at Zanesville, Ohio and Springfield, Illinois where municipal installations are now underway sparked by the local Junior Chamber of Commerce."

Another portion of the film alerts the nation's junior golfers to the 5th Annual National Jaycee Junior championship which will be played on the Iowa State College course August 13 to 19th. Over a short span of five years the Jaycee Junior has risen to the largest organized golf program in the nation. Working through a systematized series of playoffs on a local, state and national layout the Jaycee junior golf program last year en-
compounded some 15,000 young golfers.

Egan said the Jaycees this year are pointing towards 500 local tourneys and expect all 48 state organizations to be represented by junior golfers in the starting field at Ames, Iowa. Two days of qualifying play will reduce the field to

The right start for your players means a strong season for your club... 

**EDERER GOLF NETS**

are now giving players at hundreds of clubs an ever-ready opportunity to warm-up before the round, to take lessons and get in needed practice.

**THE EDERER "INVINCIBLE"**

"Invincible" — the full size Ederer golf net is the standard throughout golfdom for outdoor or indoor instruction and practice. Hundreds of clubs and pros have found the "Invincible" one of their most popular and profitable features in developing better and happier players.

**THE EDERER "PORTABLE"**

Sturdy, compact, lightweight—handles the full range of iron and wood shots. Ideal for limited space practice, indoor or outdoor. Folds into a compact unit 3 ft. x 6½ ft. x 5 in. Weighs 23 lbs. with backdrop.

Write for folder and price list.
A TOOLSHOP
IN YOUR HAND

One Tool for every job around pro shop and clubhouse. Initial clubs-smooth nicks out of irons and faces of wood clubs and for refinishing operations.

The Handee is always ready with smooth, steady power to grind, drill, polish, rout, engrave, cut, carve, sand, etc. Handee does all these operations on all kinds of material, metal, alloy, plastic, wood, etc.

Get a Handee, first tool of its kind — today's finest, and be sure of ruggedness, dependability, long life and cool running. AC or DC 25,000 r.p.m. Weighs only 12 ozs. Easy to carry and use. Balanced for perfect performance.

NEW LOW PRICES
Handee only, with 7 accessories, $19.95. Complete Handee Kit with 51 accessories, $24.95. Order Today. Sent postpaid. Satisfaction Guaranteed!

CHICAGO WHEEL & MFG. CO.
1101 W. Monroe St., Dept. G.
CHICAGO 7, ILL.

FOOD COST CONTROLS
(Continued from page 46)

say you want the restaurant to break even; so do I. If you want my restaurant to break even you must give me a chance to make it break even. If you want to subsidize the restaurant that is all right, but you will have to raise your dues in this club because the dues in this club don't pay the cost of overhead."

That answers another question that I heard. Somebody said, “Can you set up a budget to cover your overhead?” Of course you can. The overhead is there and the dues should cover it and nothing else—but, they should cover the overhead. When they don't cover the overhead you either have to raise your restaurant prices and bring prices to the point where they will return you a profit or else raise the dues.

Feature cheaper dishes on your menus. Feature some as specials to take away the stigma of the lower prices. “Today’s Special” will sometimes sell a fellow at the big tables who otherwise wouldn't order such an item because of “keeping up with the Jones's.” I think you know what I mean.

Inventory turnover, that feature of all well-run establishments, too, can be ac-

Pneu-Mat STOPS
CLUBHOUSE DIVOTS!

Don't let spikes ruin your clubhouse floors. Install PNEU-MAT RUNNERS in locker rooms, corridors, pro-shop—over any flooring being "chewed up" by spikes.

PNEU-MAT RUNNERS
- The choice of leading golf clubs
- Spike-resistant, tough
- Provide soft cushion under foot
- Save valuable flooring from destruction

Write TODAY for complete details!

SUPERIOR RUBBER MFG. CO., Inc.
122 EAST 25th ST. NEW YORK, N.Y.
Boston • Chicago
Alon

ith your food control of your daily meals served, portion, and so forth. Once in a while you will have to disregard your indicated selling prices and feature items below your regular price. Sometimes House Committee policy will compel this, but in the long run if those sort of feature items increase your volume of business, and your menus feature your low-cost profitable items too, you will come out all right on your over-all food cost.

Along with your food cost control go the statistics as to meals served, portions, and so forth, all of which will help you with your buying, help you keep your inventory down, help your cooks in knowing quantities needed for preparation, tell you the items that sell, those that don't, and so forth.

I have always felt our big job was to intelligently present our case to the House Committee and Board with figures they cannot brush aside. The fallacy that club dues call for club restaurants to sell food at lower prices than competition still persists in the minds of some club members, while nothing is further from the truth in most cases. Put them on the Boards of clubs and on the House Committee and I think every one of you know that the minute they get in a Board meeting or House

WESTERN GOLF CART
New Improved Principle
Easy to Fold ... no locks
levers or springs

Here's a light-weight
golf cart that
features a new,
simplified folding
method. Your cus-
tomers will prefer it.

Check these important points:
• Large ball bearing
  wheels
• Wide pneumatic
  rubber tires
• Strong aluminum al-
  loy construction
• Popular
  price range
• Folds compactly
  without pressure
  on clubs

Write for additional in-
formation and prices.

WESTERN GOLF CART
5216 N. E. Sacramento
Portland 13, Ore.
Dealer Inquiries Invited

Exciting
NEW INSOLE

Sells on
Sight!

Made of Latex Foam!
Miracle of Foot Ease!

Dr. Scholl's
AIR-PILLO INSOLES

Advertised in LIFE, SATURDAY EVENING POST, LADIES' HOME JOURNAL, AMERICAN WEEKLY

A new red-hot seller with the fastest turn-over you've seen in a long, long time. Instantly converts any golfer's shoes into air-ventilated, air-cushioned shoes. Such walking ease never before known. Every user tells others about them!

Dr. Scholl's AIR-PILLO INSOLES are beautifully cellophane packaged ... have strong eye and feel appeal. Come packed in sturdy wire display container, holding 3 dozen pairs, in assorted sizes, Men's 7, 8, 9, 10, 11, 12 and Women's sizes, 5, 6, 7, 8, 9. Complete, only $14.40.

WHOLESALE
$4.80 DOZEN

Get In On This Sales Bonanza. Mail us your order NOW!

THE SCHOLL MFG. CO., Inc.
213 West Schiller St.,
Chicago 10
62 West 14th Street,
New York 11

April, 1950

95
Committee meeting they lose all the busi-
ness sense they ever had.

Now, you take this food cost control
and these statistics so you can know your
prices and know what you are talking
about. Go into the meeting and just
resolutely tell them, “These are the facts
of life, gentlemen. You can’t dispute this.”
You will get along a lot better if you have
some fellow tell you in there that he don’t
see why you with your possibly $200 a day
business can’t sell something as cheap as
the hotel that has $1000 a day business.

Know your food costs, have your prices
set to break even or return a small profit,
for in most clubs you will find your dues
are not carrying the overhead expenses
they are supposed to cover. Give some
thought, too, to the combining of food and
liquor results. Most hotels today do this,
although separate schedules of each
department’s revenues and expenses are also
kept for management information.

I remember a few years ago we got out
a form of standard account for city clubs
and you have also had one for country
clubs. We did a separate accounting in the
restaurant and bar, like country clubs al-
ways did but we have one sheet that com-
bines the two together and why not? The
successful restaurants in your town sell
food and liquor, they hire chefs, cooks,
waiters, cashiers and everything and when
they make up their results at the end of
the month they take the cash register
tapes, that is their receipt, and they make
a profit and they put you fellows at a dis-
advantage because somebody on your
board says, “Joe’s Restaurant down here
makes a profit, why didn’t you?”

If you could say to him, “All right, throw
into my restaurant department also the
receipts from the bar and then let’s see
what we are doing.” The one good excuse
for you to do that, and the logical excuse
and the necessity for doing it is: how much
of the liquor do you serve in your club by
your waiters? In our club the largest
amount of our liquor sales goes through
our banquet department and, therefore, if
we were following out the old system in
its entirety the service of all that liquor
would be credited to the bartender, the
head bartender’s department and no part of
it to our restaurant, but our restaurant is
paying the wages of serving 60 per cent of
the liquor business that is being done in it,
including everything. That is the reason
why one should keep that schedule and
have the club used to getting the figures
that way so they will know what is being
done.

Remember, there are just three ways
you can better your operating results:
First: Increase prices
Second: Increase volume
Third: Decrease costs
Tee off to greater profits...

with THE Kroydon 1950 LINE

- Back your experience with KROYDON'S great new line of golf clubs, balls and accessories...fashioned for top-flight performance.
- The KROYDON 1950 line will help you make money three ways. In the tournaments
- In your shop—By having satisfied members.

Kroydon Woods
Distinctively designed for power and beauty, to please ALL GOLFERS

Kroydon Blasters
Designed to give you easy lift.

Kroydon Balls
Compression tested. Built for distance, accuracy and durability.

Your Pro Shop display is not complete without the KROYDON line. Write for catalog.

THE Kroydon COMPANY
MAPLEWOOD, NEW JERSEY

Clubs can seldom increase volume because patronage is limited by membership privileges being limited. There is little opportunity for you to decrease expenses, although sometimes there is a possibility here, but in the matter of prices, there is much you can do if you know your costs. Have the figures to back you up and the courage to show your House Committee and your Board what your costs are and why your selling prices should be increased, when such increases are indicated.

To my mind the club is not in the merchandising or propaganda business. You run a club for a certain specific number of members, you offer your wares to that member, not to the public. There is no need for you to try to go out and snare other business or try to induce a man who pays his dues to come down to the club when he doesn’t want to.

SPECIAL for MINIATURE COURSES

Two way putters (both blade and center-shafted types) with all steel shaft, rubber grip and bronze head...$1.75 ea. Also available in children’s sizes...$1.75 ea.

Miniature golf balls, colored or striped $2.40 per dozen.

Miniature golf balls, plain white $2.20 per dozen.

Pencils $1.25

WITTEK GOLF RANGE SUPPLY CO.
5128 W. North Ave., Chicago 39, Ill.

IDEAL SPORT GIFT or PRIZE!

Perpetual Calendar
Any athletic Sun-Ray figure on beautified walnut base. 5½” high. Suitable engraving space.
G-2144 Es. (no tax) $6

Write for New Catalog
Edwin W. Lane Co.
32 W. Randolph, Chicago
For Players Who Demand
The VERY FINEST . . .

King’s Custom made WOODS

Master Craftsmanship, Superb Designing and the non-chip, no-crack, everlasting (varnish) finish . . . plus the fact that they are handmade to the player’s personal requirements, make these America’s finest Golf Woods.

We offer GOLF PRIDE “rubber and cork” grips on your new “Kings” or to replace your old grips. Delivery 48 hours.

Irving King
P. O. Box 3252
SHREVEPORT, LOUISIANA

CHLORDANE CONTROLS
(Continued from page 54)

In a preliminary laboratory test it was found that the oriental beetle Anomala orientalis Waterhouse, the Asiatic garden beetle, Autoseric a castanea (Arrow), and the Japanese beetle, Popillia japonica Newman, were about equally susceptible, but a native white grub, Cyclocephala borealis Arrow, was slightly more resistant to the action of the chemical.

Control of these species was studied also in the field. A treatment at the rate of 10 pounds per acre, applied in April near Bridgeton, N.J., reduced the 1947-48 brood of Anomala by 98.6 percent in 4 weeks and eliminated it in 7 weeks. The 1948-49 brood was eliminated by mid-September.

Turf infested with Popillia and Autoseric a at Moorestown, N.J., was treated with chlordane at the rate of 10 pounds per acre in March, before the larvae became active. The treatment had little effect on either species during the following 4 weeks but after 9 weeks there was a reduction of 87 percent in the Popillia and 68 percent in the Autoseric a and after 13 weeks a reduction of 98 percent of both species.

In another test, turf at Philadelphia infested with Popillia, Autoseric a and Cyclo-
cephala was treated in May with chlordane at the rate of 10 pounds per acre. Three weeks later there was a reduction of 66 percent in the Popillia and 70 percent in the Cy clocephala. The effect on the Automera could not be evaluated because of the light population. By mid-September this treatment had eliminated the 1948-49 broods of Popillia and Automera and caused a reduction of 99.5 percent in the Cy clocephala.

Effect on Grass

In preliminary tests chlordane applied to established grass at the rate of 25 pounds per acre, 2.5 times the amount used in control of larvae, had no effect on the color, general appearance, or growth of the following grasses: Redtop, Colonial bentgrass, Astoria bentgrass, Bermuda grass, Orchard grass, meadow fescue, Chewings fescue, perennial ryegrass, Canada bluegrass, Kentucky bluegrass, and rough stalk bluegrass.

No injury with chlordane at the rate of 10 pounds per acre was observed on lawns and golf courses of mixed grasses at Blairstown or Moorestown, N.J., Orange or New London, Conn., Deerfield or Northampton, Mass., or Philadelphia, Pa. Twenty pounds of chlordane per acre had no effect on a lawn of mixed grasses at Moorestown. Forty pounds per acre had no effect on a lawn of mixed grasses at Rye, N.Y., but

KOSAR DRIVING RANGE TEE

EASIER  FASTER  CLEANER

The ONLY TEE for Driving Tee Mats

Increases range income by speeding up play 25% to 40% ★ Easy convenience adds to player enjoyment ★ Helps keep Driving Ranges cleaner ★ 50% savings over wooden tees.

Made of the finest natural black gum rubber — there are no screws, springs or special attachments for installation. Just cut a hole in mat and slip the tee through from beneath. Can be replaced in ten seconds.

Send for Free Sample. Used by better ranges everywhere.

2 sizes: Regular 1½” Longer 1¾”

KOSAR DRIVING RANGE SCOOP

This scoop is a MUST for all driving ranges. Even with an automatic retriever it is still a necessity to pick up the balls in the rough spots; close to trees, fences, etc.

Specially designed and HAND MADE for long wear and light weight, this scoop will hold from one to six balls at a time. LEFT OR RIGHT HANDED. Comes equipped with Steel Shaft and Golf Pride Grip.

Also — DISTRIBUTORS FOR Flexi-Grip — GOLF PRIDE AND KUSHLITE GRIPS.

KOSAR'S GOLF DEVELOPMENT LAB.

P. O. Box 231  CUYAHOGA FALLS, O.
caused a slight yellowing of the bent grasses on a green at Philadelphia. The discoloring was more pronounced when chlordane was used at the rate of 80 pounds per acre. However, this discoloration disappeared in a month.

—Presented at the meeting of the Philadelphia Association of Golf Course Superintendents.

U. of MINN. DRIVING RANGE
(Continued from page 61)

aid during the evening after he has left. Having learned this, Ryman made it a point to have someone with golf teaching experience (not necessarily a professional) on hand at this time. He found several individuals who were glad to take the assignment at no cost to the University, but rather on the stipulation that they collect and keep fees from lessons.

Of the 42 tees in operation at the Minnesota range, only 18 are automatic. These are rented at a cost of 50 cents daily. The remainder are of the door-mat type in which it is necessary to use wooden tees. Ryman believes that the automatic tees are vastly superior, however, for the turnover on them during the periods of heavy play is much greater. "And," he says, "the more completely automatic the tees, the better. Be sure to get the kind requiring

---

THE POWERS REGULATOR COMPANY
2720 Greenview Avenue, Chicago 14, Illinois

☐ Please send Circular H48 and prices
☐ Have an engineer call

Name: ____________________ Title: ____________________

Club: ____________________

Address: ____________________

BTG

---

One shower accident may cost many times more than Powers shower mixers. They are really safe and non scald. Temperature of Powers regulated showers remains constant wherever set regardless of pressure or temperature changes in water supply lines. Failure of cold water supply instantly and completely shuts off the delivery. Bathers can really relax and enjoy the best showers they ever had.

MAY WE SEND CIRCULAR H48?

---

Here's a beautifully tailored golf shirt made for both men and women. An ideal way to increase sales. Pure virgin worsted wool jersey fabric, form-fitting, action-back. 12 colors.

Write for samples, colors, prices

2621 N. E. Broadway
Portland, Oregon

Golfdom