A GOLF instruction program that was started two years ago when a 13-year-old boy told his father that his schoolmates were itching to learn to be golfers has blossomed into one of the most active junior undertakings in the country.

As luck would have it, the father in the case was Gene Conway, pro at the Elks CC, Elkhart, Ind., and this hint from his son was all that was necessary to start the wheels rolling.

Conway immediately got in touch with Harold Oyer, principal of North Side Jr. High school and volunteered to conduct golf classes in the school gymnasium. Nearly 200 students signed up for the instruction making it necessary to limit the program to two 25-member freshman classes which were given lessons each week. By springtime, when Conway was ready to move his charges across the street to the Elks CC, several youngsters had developed such fundamentally sound swings hitting Ensolite balls off cocoa mats that they showed surprisingly good results once they got out on a course and started to swing at the real thing.

Having put over the Junior High program to the satisfaction of everyone concerned, Conway then undertook a class of summer instruction for children in and around Elkhart who were under 16 years old as his contribution to the Elks' youth activity program.

Tuesday mornings were set aside for this activity and from eight until noon the Elkhart pro was kept busy giving group lessons and then taking the kids aside and giving them the individual instruction he thought would help take some of the rough spots out of their game. At the same time he filled them in on golf etiquette, safety and the rules of the game. Classes were continued throughout the summer and were constantly attended all the way through August by upwards of 50 kids.

When the 1955-56 school term rolled around again, Conway went back to conducting classes in the gym, and as soon
帮助他的人非常感激……他几乎等不及要等到春季俱乐部的开放，以便开始实践你的教学……继续做好工作！

去年，当地的报纸，Elkhart Truth，整版报道了Conway的暑期学校，并且National Elks Magazine高度赞扬了他所做的工作，称其为该组织试图在活跃其青年活动项目中最好的例子之一。

**Pro Needs A Lift**

要启动和维持一个儿童高尔夫项目，当然需要一个足够感兴趣投入业余时间来推广游戏的专业人士。但他不能单独做到。Conway的情况是，他有幸运地获得了一些支持，他们中有设备捐赠给初级学校和帮助他处理一些细节，如开展课程。学校当局也尽可能地提供帮助。

“在所有事情中最鼓舞人心的是，许多家长写信给我，或者在街上拦住我，称赞我做的好工作。一封典型的信件，来自一个制造商，部分文字是：

‘我的儿子参加了你的高尔夫课程，我知道他感到你做得很好……他几乎等不及要等到春季俱乐部的开放，以便开始实践……继续做好工作！’

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**25-Year Background**

Conway已经运营了25年的青年项目。没有任何一处的青年高尔夫课程能给他带来这种成就感。他解释说，‘这可能是因为这些孩子，他们的父母，以及事实上，这座小镇上很多人都对初级高尔夫球感兴趣’。他说，‘我捐赠我的服务来保持这个项目运作，但我已经从中学到了一些东西。许多年长的人在Elkhart开始打高尔夫，我认为任何一个促进青年高尔夫的人，为他自己的老年做了储积。’
Soil Tests That Tell Needs of Golf Turf

By O. J. Noer

Soil testing to determine fertilizer needs has become extremely popular. Most state agricultural experiment stations have soil testing laboratories where thousands of soil samples are tested each year for a nominal charge. These laboratories specialize in farm crops, but accept samples from golf courses within the state.

The interpretation of results and recommendations are best in the states where the experiment station staff includes a specialist in turfgrass management.

Some county agricultural agents have facilities for making quick soil tests. The work is done free or for a very modest fee. Many fertilizer manufacturers have a soil testing service for their customers and seldom make a charge. Some of them employ trained agronomists who are qualified to interpret results — others do not.

There are inexpensive soil test kits on the market for the layman. The better ones for testing soil reaction are eminently satisfactory, provided instructions are followed. Several of the kits for quick soil tests are satisfactory, but some are not trustworthy. The best way is to send samples to a responsible laboratory manned by trained personnel where reagents are kept fresh, and are tested for accuracy. Results should be interpreted by a competent turfgrass agronomist.

A soil deficiency in one or more plant nutrients is blamed whenever grass behaves badly. Usually this is true, because a fertile soil is essential for growth. But other factors may contribute to poor growth. They must become favorable before fertilizer will produce the results expected of it. These factors include:

1. Use of grass suited to climate and local weather.
2. Sufficient light, or use of shade-tolerant grasses.
3. Favorable air temperatures, both daytime and at night.
4. An adequate supply of moisture.
5. Sound maintenance practices.
6. Protection from injury—mechanical, insects, and disease.
7. A good soil environment—50 per cent solids, 25 per cent air, 25 per cent water.
8. Favorable soil reaction.
9. A fertile soil containing needed nutrients in ample amounts.

Seven Factors to Explore

In times of stress the proper procedure is to explore the top seven factors first. Then by correcting the unfavorable ones environmental conditions will be made satisfactory for growth. After doing that, apply lime or the kind of fertilizer indicated as being needed by the soil test. Lime and fertilizer never do the job expected of them until all the factors governing grass growth are favorable.

Soil testing is even more useful when used to take stock of soil reaction and to provide an inventory of the mineral soil nutrient elements, principally phosphorus, potassium, calcium, and magnesium. Existing nitrogen tests are not satisfactory for grassland areas. Need for it can be judged by the behavior of the grass. Poor color, slow rate of growth, thin turf, and the presence of clover and weeds are the best and surest guides in determining need for this growth-promoting element. In semiarid regions tests should include the determination of soluble salts. With the above information it is easier to devise a sensible fertilizer program.

A colorometric test is a good way to determine soil reaction and possible need for lime. The test expresses soil reaction in terms of pH (potential or hydrogen). The scale is 0 to 14, with 7 as the dividing or neutral point. Figures below 7 represent...
The greatest idea in golf club design is available to ladies, too!
SYNCHRO-DYNE® golf clubs are now available to your women customers in the new Marilynn Smith registered woods and irons. This exclusive Spalding club-making system of scientific weight coordination makes every club in the set swing and feel the same.

In eye appeal and play, Marilynn Smith clubs attract the girls. The persimmon heads of the woods are in appealing Flamingo pink. Blending powder-blue leather grips on woods and irons. The complete set of 4 woods and 8 irons retails for $215.00.

Two lower-priced sets now grace the Marilynn Smith line—the medium-priced KRO-FLITES® and budget-priced Autographs. Both include True Temper shafts, feminine styling and many other exclusive Spalding features to make them play and look better.

Complete set of Marilynn Smith KRO-FLITES, including 3 woods and 8 irons, retails at $125.00. Complete Marilynn Smith Autograph set, 4 woods and 8 irons, retails at $99.80.
sent increasing acidity, and higher figures increasing alkalinity. Each figure differs by a multiple of 10, so pH 6 is 10 times, pH 5 is 100 times, and pH 4 is 1,000 times more acid than neutral.

Soils fall within the range of pH 4.0 to pH 8.5, but more commonly within the narrower limit of pH 5.0 to pH 7.5. Most turf grasses grow best in the range of pH 6.0 to 7.5. Soils which are more than moderately acid, that is, below pH 5.7, definitely need lime. Its use is justified without regard to any other factor.

Soil Reaction

All plants are affected by the reaction of the medium in which they grow. The direct effect upon rate and amount of growth is the major reaction. Another is related to the soil tilth. Reaction influences the accumulation of organic matter, the animal and micro-organisms of the soil, and the availability of the soil nutrient elements.

Kentucky bluegrass is a classic example of a lime-loving turf plant. It will not tolerate marked acidity and it is at its best when reaction is above pH 6.0. Ryegrass is another lime-lover. The bentgrasses and fescue can withstand considerable more acidity, but respond to the use of lime on moderate to strongly acid soil. Among the Southern grasses, Bermuda grows best when soil is not more than slightly acid. Carpetgrass can tolerate more acidity. Centipede is an acid-loving plant like azaleas, etc. Lime induces severe iron chlorosis with resultant loss of grass.

Rates For Applying Lime

The rate for applying lime is influenced by the kind of soil, also. Less lime is needed on a sandy soil than on a loam or clay soil to produce the same change in pH.

Kind of grass and type of soil are taken into account in Table I (above) of suggested rates for applying finely ground limestone to fairways.

The figures below are for golf greens. The indicated rates are for finely ground limestone:

<table>
<thead>
<tr>
<th>Soil Reaction (pH)</th>
<th>Rate per 1,000 Sq. Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.6 to 7.0</td>
<td>0</td>
</tr>
<tr>
<td>6.1 to 6.5</td>
<td>0-10 pounds</td>
</tr>
<tr>
<td>5.6 to 6.0</td>
<td>10-20 pounds</td>
</tr>
<tr>
<td>5.1 to 5.5</td>
<td>20-40 pounds</td>
</tr>
<tr>
<td>4.6 to 5.0</td>
<td>40-60 pounds</td>
</tr>
<tr>
<td>4.0 to 4.5</td>
<td>60-80 pounds</td>
</tr>
</tbody>
</table>

Hydrated lime should not be applied at more than 10 to 20 pounds per 1,000 sq. ft. at any one time. The heavier rate is safe only when grass is dormant.

In hot weather even 5 pounds may scorched the grass. Hydrate must not be used immediately before or right after an application of fertilizer containing chemical nitrogen in the ammonia form.

When lime is needed a test for calcium and magnesium should be made. If calcium is very low, heavier liming than would otherwise seem necessary is justified. A reasonable amount of calcium is desirable to prevent fluctuations in reaction and because of its beneficial effect upon soil granulation.

The test for magnesium is more important. Some soils are so low in magnesium that turfgrass growth is depressed as a consequence. By applying a dolomitic limestone acidity is corrected and magnesium is provided besides. The dolomite should contain 20 to 30 per cent magnesium reported as the oxide.

Marked acidity has an adverse effect upon the physical condition of loams and heavier soils. The minute and clay particles exist alone as individual entities. This dispersed condition is referred to as defloculated soil. Surfaces become compact and impervious to water penetration. Root systems are shallow.

Calcium-saturated clay particles associate

(Continued on page 65)
WHAT does it take to run a successful pro shop?

When this question was put to J. C. Fondren, pro at Colonial CC, Memphis, Tenn., a short time ago, his reply came so unhesitatingly and was so concisely stated that you would have thought the interview had been rehearsed, or someone had tipped off J. C. that a GOLFDOM roving reporter was in the neighborhood and to get his answers prepared in advance.

But, as the Colonial pro explained after answering the above question, he groped around for several years trying to find what he thought were the right answers. Then, after reaching some pretty clear cut decisions as to what they are so far as he personally is concerned, he has always kept them on the tip of his tongue.

They boil down to these four basic rules, principles, or whatever you might want to call them:

1. Go the extra mile in giving service to the members;
2. Handle only top-grade merchandise;
3. Don't use high pressure to make sales;
4. Go out of your way to help members in making merchandise selection so they'll be sure to get the best.

Fondren hurriedly points out that he doesn't think there is any magic or great merchandising secrets behind the rules he has adopted for running his pro shop.

J. C. Fondren, pro at Colonial CC, Memphis, Tenn., stands between two of the five glass showcases used to display merchandise in his shop. The shop has oak flooring over concrete, with rubber mats on top of it to prevent damage from spikes.
MacGregor Colokrom Irons for 1956...

Big and Beautiful
No other clubs let you enjoy your game so much

Colokrom irons bring out the best in your swing. Each one has largest effective hitting area of any comparable club made today. Two-tone scoring on face automatically helps you address ball correctly. Bronze portion of face actually "grips" ball at impact, gives more "feel" and better control of every shot.

Colokroms are made with True Temper shafts built to MacGregor’s exclusive patterns. Your choice of new Tri-Tac grips or spiral-bound calfskin leather grips.

MacGregor Colokroms are prestige irons ... the most admired, most wanted of the world's golf clubs. Available in three models—MT, Tommy Armour and Louise Suggs—at all pro shops in the U.S., Canada and nearly all parts of the world.
Built-in racks are used to display clubs and bags. Other racks show shoes and trousers. At right is portion of the display window. Above racks is a plaque listing club champions and runnersup since 1932. Entire shop is dotted with interesting pictures, with emphasis on members’ photos.

“Everybody knows about them,” he says. “All of us have been tripping over them for as long as we’ve been in business. They’re as basic as ABC, but the real question is: ‘How long does it take us to learn how to apply them?’

Meaning of Service

“Let’s take a look at this business of going the extra mile in giving service,” the Colonial pro continues. “How many pros actually do that? Most of them say they do, but how many occasionally take time out to oversee the club cleaning operation and insist that the fellow handling the chore give the members’ clubs that extra minute’s attention in order to turn an ordinary job into an A-I job? Or, if the pro detects a flaw in a member’s swing does he offer unsolicited tips on how to correct it, or does he say to himself: ‘I’m not supposed to be giving unasked advice free. If the fellow wants to improve his game, let him take lessons.’

“Service requires an understanding of each member’s temperament and requirements. It isn’t merely a matter of being cheerfully willing to work to increase a member’s enjoyment of the club but also is a matter of thinking ahead of the member and doing more than is expected by members and officials.

“Pros have failed on jobs because they didn’t have a clear understanding of what their duties were supposed to be but I’ve never heard yet of a pro who didn’t stand high and strong at his club because he did more than was expected of him to make the members happy.

“Service is a matter that is too broad to define sharply. It differs with almost every member at a club. Some members may be difficult and discouraging but they’re the same sort of a challenge to a first-class businessman professional that a testing golf hole is. You can’t skip the tough member or the tough golf hole. They’re both part of the course. You’ve got to learn how to play them.”

As for top-grade merchandise Fondren asserts there are at least three advantages in handling it.

For one thing the pro must protect and extend his own reputation by association with highest quality. Secondly, the name brands, because of their standards of manufacture, their years of honorable and mutually profitable service to their customers and their advertising to the pro’s kind of customers have built up an acceptance that makes selling easier and customer satisfaction more certain. And

(Continued on page 98)