Here's proof that repeated yearly applications of "Tupersan" do not injure the root systems of many established cool season turf grasses, even when "Tupersan" is used at extremely high rates. The Kentucky Bluegrass turf cores shown at the middle and right were taken from plots that were treated with "Tupersan" for three straight years at the rates of 80 and 120 lbs. per acre. The Kentucky Bluegrass turf core at the left was taken from an adjoining plot that was not treated. Note that there is no difference between the treated and untreated cores. Similar results were obtained in plots of fescue and certain strains of bentgrass.

Control crabgrass without injuring turf (cool season grasses) with Tupersan®

Du Pont "Tupersan" is a unique, highly-selective pre-emergence weed killer for the control of crabgrass (smooth and hairy) and certain other annual weed grasses in turf. "Tupersan" offers a high degree of safety to turf. It can be used on newly seeded areas without causing injury to germinating seeds of cool season grasses, as well as on established turf.

You can seed and treat the same day with "Tupersan". It prevents crabgrass—but lets the desirable grass grow. For full information on "Tupersan", consult your golf course supplier—your service agency.

With any chemical, follow labeling instructions and warnings carefully.

For more information circle number 163 on card
Grow it...
with TORO Sprinklers

...add your own loving care

Call it what you will ... it's a cinch that TORO can help you get the best turf grass at the lowest cost. You start with TORO Turf-Care Specialists who'll show you how.

1. How TORO automatic sprinkling equipment will save you money, both in terms of initial instal-

A TORO Exclusive: the Valve-in-Head Sprinkler. Sprinkler and valve in one economical unit! Gives you individually-controlled sprinklers at a real savings. Also makes conversion of non-automatic sprinkling equipment to a TORO system easy and economical.
TORO makes a complete line of power mowers. A right machine for every job...both heavy duty reels and rotary units.

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lation economy and long-term operating benefits (ask about the TORO Sprinkler Layout-Design Service).

2. How the complete line of hard-working TORO mowers will get your mowing done faster than any other turf equipment (ask about the TORO Mower Survey and Proposal Service).

Get the facts from the folks at TORO...facts about how their 53 years of turf experience can help you grow and mow your turf more effectively. Put this coupon in the mail today.
A maintenance shed that works

With proper site selection, size and type of building and layout, the superintendent will have a shop, not a shanty.

By STANLEY METSKER
Superintendent, Boulder (Colo.) Country Club

An important but often neglected phase of planning or operating golf courses is the maintenance building.

Know as the "shops" or "storage barn" in some areas, the maintenance building is supposed to serve several vital functions. Among them are storage for machinery and supplies; construction, paint and repair shops; administrative headquarters for the superintendent.

A building or complex of buildings properly designed to take care of all these needs is essential to a successful operation. Yet fine old country clubs still get by with ancient sheds for maintenance headquarters, while spending $100,000 or more to rebuild the golf course or enlarge the clubhouse. New golf clubs, embracing the most modern concepts in course and clubhouse areas, often put up a makeshift Quonset hut tucked away in a remote corner, forcing the super to operate inefficiently from the beginning.

In planning a new course, the superintendent should be consulted about location of the shop, and his views should be respected by those who plan the building or buildings.

Not all superintendents would agree on design, construction and size. It depends on course, geographic location and size of operation. But ask any group of experienced supers and you will get some good ideas. Eighteen were queried in part of the Rocky Mountain Region—Colorado and Wyoming—where there are four distinct seasons and courses must be cared for in dry, hot summers as well as freezing winters. The survey shows:

- Mid-course setups are preferred by 67 per cent of the superintendents; only about 50% of the shops are now in mid-course while the others are near the clubhouse.
- Most buildings are too small; two-thirds are less than 2,500 sq. ft., not nearly enough for adequate storage.
- Opinions are evenly divided between metal and concrete construction; only one super voted for wood.
- Sixty per cent prefer all materials, repair and equipment areas under one roof; 40 per cent prefer them separated.
- Virtually every superintendent believes the buildings should include offices and lunchroom-locker-shower areas for the crew.
- The cost of an adequate shop building varies with the size of the operation, ranging from about $10,000 to $30,000, not including equipment.
- The biggest mistake is erecting buildings that are too small, not allowing enough storage area and crew facilities, and lacking a large, central door for the movement of equipment.

From my own experience in building my shop at Boulder (Colo.) CC I would make the following suggestions to fellow superintendents planning a new shop:

SITE SELECTION

1. The area should be virtually flat, in order to maneuver machines, and mix and store top dressing.
2. The location should be central to the course.
3. The area should drain.
4. The area must be accessible to big trucks.
5. All utilities must be available.
6. The parking lot must be out of danger from mis-hit golf shots.

**DESIGN**
1. The overall look should fit in with surrounding buildings, clubhouse or homes.
2. Materials should be durable and easily maintained.

*continued on next page*

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*Layout of shop at Boulder (Colo.) CC, above. Plan of whole maintenance building, below. Built in 1963, it is considered one of best in Rocky Mountain Region.*
More important, all these plant-food elements known to be needed for vigorous, healthy growth are naturally chelated. This means they are not subject to "tie-up" or "unavailability" even in the trickiest soils.

Chart Tells How Much of the Grass-Important Ones

<table>
<thead>
<tr>
<th>Element</th>
<th>Pounds per Ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrogen</td>
<td>120.00</td>
</tr>
<tr>
<td>Phosphorous</td>
<td>91.80</td>
</tr>
<tr>
<td>Potash</td>
<td>16.00</td>
</tr>
<tr>
<td>Sulphur</td>
<td>53.80</td>
</tr>
<tr>
<td>Magnesium</td>
<td>33.60</td>
</tr>
<tr>
<td>Calcium</td>
<td>31.00</td>
</tr>
<tr>
<td>Iron as oxide</td>
<td>132.60</td>
</tr>
</tbody>
</table>

Also appreciable amounts of Copper, Manganese, Zinc, Lead, Chromium, Molybdenum, Baron, Titanium and Vitamin B-12.

SUPER SHOP

3. Doors should be kept away from the windy side.

4. There should be enough space for all machinery, plus repair shops, personnel area and storage.

5. The shape should either be wide (more than 30 feet) with a center aisle and large doors at each end, or have many doors opening into the side of a narrower building.

6. The number of windows should be kept to a minimum, made to open, but screened for ventilation and security.

7. The area should be well lighted for night operation, and, if possible, separately fenced and locked.

Work Arrangement

1. There should be a separate personnel area with at least lockers, lunch table and toilet facilities.

2. If spray painting is to be done, a special area is needed, or at least extra ventilation.

3. Lighting must be good in all work areas.

4. At least the shop area must be well heated and insulated.

5. The superintendent should have a quiet private office, with window, closet, desk and chair, bookshelves, drawing board and telephone.

6. Arc welding space should be separated from other areas.

7. A floor drain should be included in the washing-cleaning area.

8. Gas pumps should be located where they will not block normal traffic—but where big machines can get to them.

9. The repair shop must have an overhead rail to hold a half-ton hoist for pulling motors and handling large mowers, moving them from floor to assembly table and grinder.

10. Electric sockets should be plentiful.
for the "Birdies"

Gloves created by Champion help give a confident feel. They offer distinctive style for high fashion golf. The Continental by Champion (above) is all superior grade Italian Cabaretta Capeskin with elastic cuff and snap tab (which also serves as a ball marker). The Eagle Statite by Champion (below) is cautiously constructed from thin, tacky leather with a popular lastik back. Why not write for illustrated literature and price list!

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Buying for the clubhouse

Keep the element of competition among your suppliers and you’ll get the most value for your purchasing dollar.

By JOHN E. STRAUB

General Manager, Dellwood Country Club, New City, N. Y.

Along with his other duties, the club manager has the responsibility of spending tens, and many times, hundreds, of thousands of dollars of someone else's money. It goes without saying the wiser he buys, receives and stores these goods, the more valuable he will be to his employer, "The Club Member." Also, it is important that this Club Member know that he is buying, receiving and storing these goods wisely.

One of the problems, however, is that a manager, like any buyer, can become lethargic. He becomes married to one supplier through habit, and this supplier, when raising his prices, simply passes them on to the club manager without mentioning it. The alert manager must avoid this possibility by making certain he does not overlook another supplier of the same item(s), who, by reason of more efficient business methods, will NOT pass on the extra cost, but absorb it himself in order to offer the manager a better price.

Therefore, a manager must establish a buying system. Establishing this system is no great accomplishment, and there are many ways to do this. We here at Dellwood use a system of getting at least two bids on all items purchased daily. This two-bid system applies to china, glassware, flatware, paper napkins, office supplies, lockerroom supplies, and swimming pool supplies. On those items whose prices fluctuate with market conditions, such as foodstuffs, we ask for bids each time we buy them. Then we contact our current supplier for his bid, sometimes we give the whole contract to one supplier, sometimes we split it between two suppliers. Linen, we handle a little differently in that it is a three-year contract which is reviewed toward the end of the contract where we again employ the two-bid system.

When we first established our system, conferences were held with the chef, steward and myself setting down specifications in detail on all the food items that we purchase. Once these 'specs' were established, we called in the suppliers of these items and explained what it was we were talking about when we first called requesting quotations. In this way, each time we called a dealer, we did not have to go into detail about the quality of the items we were purchasing.

All that remained now was to print a form on which all the commonly used supplies were listed with columns in which to enter these suppliers' bids—the most commonly used forms being those
for produce, meat, fish, and dairy products, and frozen foods.

It was then a simple matter for the steward to make his call or receive one from the supplier and then ask the prices on the items he wished to purchase. After employing a two-bid system, the steward would then call the supplier who submitted the lowest bid and ask him to ship the required items. Keep in mind that each time we discuss an item with a supplier, he is aware of the specifications we require and the system which we employ.

The buying of liquor, is, of course, of prime interest to any club manager. Five years ago, I got together with the steward and wrote up a tentative inventory list, by brand and quantity, of everything we would stock. I then submitted this list to the House Committee which they approved, and this formed the basis of a permanent list.

This permanent list serves another valuable function. Everyone has a favorite liquor. This list enables me to say to the member who asks, "Why don’t you stock my favorite, Red Eye?" My answer (and my staff has been told to refer all such inquires to me) is to say, "Well, we don’t carry that brand; it’s not on our list. I will take it up with the House Committee and see if they’ll substitute your brand for the one on the list."

In practice, the list has been so refined by the popularity of the brands that practically of these requests are turned down—about 60 such requests have been rejected by the House Committee in this fashion since the system was inaugurated.

Our current stock of liquor is reviewed as necessary by the steward and the head bartender, and orders are made based on the forecast for the month of the parties and other functions planned. Here, at Dellwood, we only stock premium liquors—there’s no demand for lesser priced liquors. When available, of course, we do take advantage of post-downs.

There are some items which a bid cannot be called for each time they need purchasing. An outstanding example of this at our club is the fuel oil purchase. Each year, we buy 80,000 gallons of No. 2 Oil. However, at the beginning of each year, we call a competitor to the current supplier, and also ask for a closed bid from our current supplier.

These bids, in a way, are informal contracts by which the price is set for a year. The oil market is like many others in that it rises and falls with the season. Our price is based on a set amount of continued on next page
cents below the posted prices with a top figure set—no matter which way the market goes. This has worked out especially well for us over the past seven years. Checking these prices is simply done by looking at the newspaper occasionally and comparing it with our invoices.

An important part of the follow-up on our system is the involvement of "The Member." Each year, a member of every committee spending funds is appointed to supervise purchases for which his committee is responsible. The member is involved in just about every purchase except those that are insignificant. Rather than a hindrance, as many people might suspect, I have found this a big aid to management.

A manager often has to spend a great deal of time convincing a committee that he has bought wisely. However, a member, who has personally investigated the spending, even if only on a spot check basis, can assure the committee that the purchase was properly handled in far less time. In addition, any other member who might question a purchase can be referred to this committeeman. His explanation of the purchase will be far more effective than your own.

To get the member involved is, of course, not always easy. When we first tried to get the member to participate in this program, he was shy because he felt that his inquiry might be offensive to me. After he was assured that anyone involved in purchasing, (be it the steward, the chef, the housekeeper or other departmental head) had been advised that the member's inquiry was sought after and not to be avoided, the member was willing to be involved in the program.

I don't mean to suggest that this member should be at the receiving door all day checking on everything that is shipped to the club, but, rather, invited occasionally to witness the bidding, receiving and storage of shipments.

This member involvement has been so effective since we started it five years ago (a new member is appointed each year) that now there is practically no discussion at all about any of our purchasing.

The political aspects of the membership involvement cannot be measured, but I would say that it has definitely made for a better understanding between the employer (The Member) and the employee (The Manager).

A big advantage in purchasing is enjoyed by many club managers who have members who own or operate many different businesses. On practically all big purchases or projects of the "one-of-a-kind" nature, I consult with those members in the business directly involved. The member is not asked to bid on the project or materials (it can be very embarrassing to ask a member to bid on an item), but rather he is asked for his knowledge and advice on the subject.

On the occasion when there is no member with a business about which you seek information, a few calls to fellow club managers might prove helpful.

In one case, we were installing a large central air-conditioning unit and the calls to some fellow club managers resulted in finding one who had a member who was the manufacturer of air-conditioning units. On my behalf, this manager asked the advice of his member on how we might outline our specifications and what pitfalls to look for. This manager's member was so gracious and helpful that it was estimated that this phone call saved us from five to eight thousand dollars and cut many weeks off the installation and inconvenience to our members. I have found there is a lot of help to be had along these lines, and it is there simply for the asking.

Summing up, I have found that the best way to get the most value for your purchasing dollars is to keep the element of competition among your suppliers constantly in the picture. This requires a little more effort, perhaps, but the savings make it well worth the effort.