

Beautiful courses get that way with Armour Vertagreen®

From 1 to 18, you'll find that Vertagreen does a better job of maintaining your course in beautiful, top-playing condition. In fact, the beauty of Vertagreen-fed fairways will earn you

compliments throughout the season. This year, use the *best* fertilizer . . . Armour Vertagreen . . . and expect the *best* results!



Vertagreen®

The complete, premium fertilizer with a wide range of analyses for every course need.

Armour offers a complete line of specialized turf fertilizers and pesticides. There's one for every green or fairway need.

See Your
Armour Dealer
or Salesman Soon

use

Vertagreen®

Watch Something
Beautiful Happen!



ARMORGANIC

Non-burning, long-feeding, 100% organic plant food. Good for feeding during hot summer months.

ARMOUR AGRICULTURAL CHEMICAL COMPANY

Atlanta, Georgia

Results are listed below:

| | |
|---------------------|---------------------|
| pH | 6.3 |
| Available phos. | 700 lbs. per acre |
| Available potash | 400 lbs. per acre. |
| Available calcium | 9000 lbs. per acre. |
| Available magnesium | 1600 lbs. per acre. |

Reaction and content of calcium and magnesium of the light brown sandy loam were good, so lime was not needed. The levels of phosphorus and potash were excellent.

An exact measurement of the green was made. It contained 3,823 sq. ft. A data sheet for recording the green weight of clippings was provided. Each Monday a 5 pound, exact weight, sample was collected and forwarded to the Milwaukee Sewerage Commission Lab. for the de-

Noer Gets USGA Award

O. J. Noer, retired Milwaukee Sewerage Commission agronomist, has been given the annual USGA green section award for distinguished service to golf through work with turfgrass. The presentation was made at the recent USGA meeting in New York.

termination of dry weight and chemical composition.

The green had not been overseeded for winter play, so no fertilizer had been applied from Nov. through Mar.

The fertilizer program for the 1958 season has been recorded in Table 1. The cyanamid had been used to sterilize the topdressing mixture. In round numbers, the green received 12 pounds nitrogen, 6 pounds phosphoric acid, and 2.75 pounds potash per 1,000 sq. ft. for the season.

Yield Figures

The yield of Tifgreen dry clippings per 1,000 sq. ft. is shown in Table 2. For the 24 week period the total yield was 131.94 pounds, or 5.49 pounds per week. During 18 weeks, the yield of common Bermuda was 119.5 pounds, or 6.64 pounds per week.

The weekly comparison is not significant because the heavy rate of growth is from early June to late August. Tifgreen continued to grow in fall after growth of common had stopped. This is desirable from the play point of view where overseeding is not practiced for winter play.

The percentage of major nutrient ele-

J. E. Hamner, supt. at Memphis CC; assisted O. J. Noer in making this study.

ments is summarized in Table 3, and the corresponding pounds per 1,000 sq. ft are given in Table 4.

The average percentage content of major nutrient elements in the clippings for the season were 5.28 per cent nitrogen, 1.27 per cent phosphoric acid, 2.05 per cent potash, and 1.35 per cent sulfur trioxide. Nitrogen content was significantly higher, phosphoric acid was slightly, and potash was definitely lower than comparable results for common Bermuda. These differences were reflected in the quantities of nutrient elements removed during the season.

Even though more phosphoric acid and potash were used on Tifgreen than on common Bermuda in 1956, the Tifgreen clippings contained less of both elements percentagewise. Nitrogen applications were about equal, yet Tifgreen clippings contained almost one per cent more nitrogen than common Bermuda.

Comparison with Washington

In comparable trials at Brynwood in Milwaukee, potash content of Washington bent grass clippings was 3.24 per cent, definitely more than in common or in Tifgreen Bermuda.

The results at Memphis substantiate the practices of supts who know the secret of good Bermuda grass greens. They emphasize nitrogen to keep the grass vegetative and furnish minimum requirements of phosphoric acid and potash. If used in excess they promote stubby growth and encourage seedhead formation. Phosphoric acid and potash are used generously before seeding with rye grass for winter play. Nitrogen is not used then. The large seed contains enough to start seedling growth. With the smaller seeded blue grasses, poa trivialis, and bents, the seedlings need some nitrogen right from the start.

S. C. CMAA Honors Zuckerman

Edward K. Zuckerman of Brentwood CC, Los Angeles, and former president and now a director of Southern Calif. GA, recently was presented a plaque by the CMAA of Southern Calif. in recognition of his dedication to the welfare of golf clubs, their members and management over the years. The presentation was made at a dinner attended by about 165 managers and their guests. Zuckerman was particularly cited for leading resistance to oppressive tax measures that would have driven many clubs out of business if they had been enacted.

solve your turf care problems with National Chemsearch compatible chemicals



At National Chemsearch, continuous scientific research by experienced chemists provides the easy solution to turf-care problems! A complete line of chemical products includes iron chelates, fertilizers, fungicides and deep penetrating agents... all in compatible liquid form! This means any combination of turf-care chemicals may be easily mixed and quickly applied simultaneously... saving both time and labor costs! Whatever your need for lawn or turf maintenance, call on your National Chemsearch Representative for the safe, effective, economical solution!



National Chemsearch Corp., P.O. Box 10087, Dallas 7, Tex., Branches in Los Angeles, St. Louis, New York

May 25 Designated As National Golf Day

Saturday, May 25, has been designated by the PGA as National Golf Day.

This is the 12th year that the competition for the nation's golfers is being staged. In the 11 years that it has been held, approximately \$900,000 has been raised for golf charities and education and research projects. Proceeds from the annual event are turned over by the PGA to National Golf Fund, Inc. for distribution.

The target score for persons who take part in National Golf Day will be established on May 28 when Gary Player, the 1962 PGA champion, and Jack Nicklaus, winner of last year's Open, meet in Dallas in the round of the champions. Their match will be played at the Dallas AC CC, site of the 1963 PGA Championship.

Rules for taking part in National Golf Day are the same as in recent years. The player pays \$1 for each round submitted in the competition. There is no limit on the number of rounds that may be submitted.

Contestants will compete against the winner of the round of the champions on the basis of scores in relation-to-par rather than on a stroke-for-stroke basis, as once was the case. If either Player or Nicklaus wins their match with a 2-under, the Golf Day participant will have to shoot a 3-under (with handicap) to win. This makes it possible for entrants in the contest to play their rounds on Par 3 as well as standard courses. Men amateurs will play their handicaps; women will play their regular handicaps plus an additional seven strokes. Persons who beat the champion will receive medals from the PGA.

Funds from National Golf Day are divided among 17 organizations. These include caddie scholarship funds, blind and amputee associations, turf research and education programs and the education, relief and benevolent funds of the PGA.

PGA Junior Tourney

PGA members have recommended a PGA National Junior Tournament for both boys and girls to be played at the National GC in Palm Beach Gardens.

USGA delegates will attend a quadrennial conference on the Rules of Golf with the Royal and Ancient GC of St. Andrews in Turnberry, Scotland, May 18-19.

Palmer Overtakes Middlecoff in Postwar Dollar Derby

The \$80,000 plus that Arnold Palmer earned on the tour in 1962 enabled him to pass Cary Middlecoff as the postwar era's leading money winner. A year ago, Palmer trailed Middlecoff by approximately \$19,500 but Cary managed to win less than \$7,000 in official money in 1962 and forfeited first place in the standings with hardly a protest. At the same time, he relinquished second place to Doug Ford, whose \$28,000 winnings in the past season pushed him over the \$300,000 mark.

Five of the six leading money winners for the 1947-62 period are in their 40s, but fellows like Bill Casper, Jr., Gene Littler and Dow Finsterwald, all around the age of 35, are closing in on them. Sam Snead, in the No. 4 position has picked up \$277,000 in the last 16 years, but if his career record were taken into account, he'd be leading the pack.

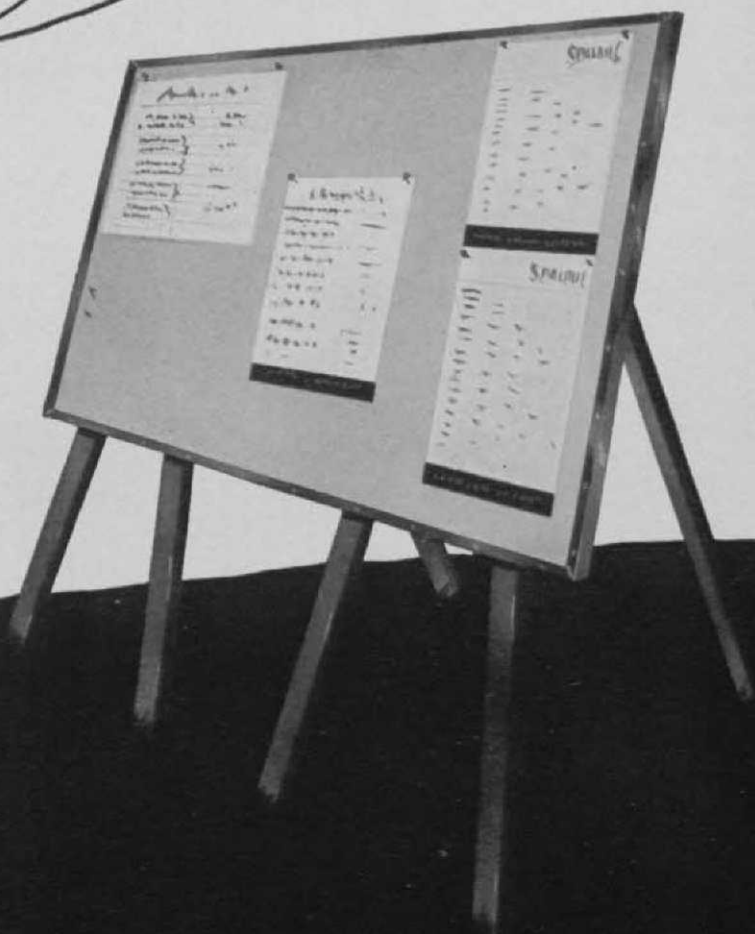
Here are the standings:

| | |
|------------------|------------|
| Arnold Palmer | \$ 344,778 |
| Doug Ford | 306,080 |
| Cary Middlecoff | 303,550 |
| Sam Snead | 277,609 |
| Julius Boros | 253,925 |
| Ted Kroll | 249,899 |
| Bill Casper, Jr. | 248,688 |
| Gene Littler | 248,041 |
| Dow Finsterwald | 238,957 |
| Art Wall, Jr. | 217,648 |
| Jack Burke, Jr. | 215,490 |
| Lloyd Mangrum | 201,184 |
| Mike Souchak | 194,734 |
| Tom Bolt | 192,318 |
| Jay Hebert | 189,831 |
| Fred Hawkins | 170,655 |
| Bob Rosburg | 170,172 |
| Jerry Barber | 165,645 |
| Doug Sanders | 164,712 |
| Billy Maxwell | 164,319 |

Memorize This, Men!

Here is the tonnage report on the tomes delegates to the 1962 PGA national meeting are supposed to assemble and digest for the enlightenment of section members: 237-page report of officers and committees; 86-page report of treasurer and finance committee; 248-page proceedings book of 1961 annual meeting; 227-page report of executive and tournament committee meetings; 17-page report on PGA foundation for education-service.

STAN,
LET'S CHECK THE
BOARD FOR OUR
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1 of 63 PAR AIDE PRODUCTS for 1963

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DEPT. G



Turf Talk

by Bob Miller

As I talked with superintendents at various meetings and during my travels around the country this fall, it was made clear to me, time and again, that labor is the major item in the cost of maintenance at most golf courses.

It was interesting to note that many superintendents are finding ways to reduce this cost while still keeping playing conditions up to par. For example, one way is to minimize duplications. Although you can't stop cutting grass, you can follow a fertilization program which makes this less of a chore. Mack Tatlock, Cincinnati Recreation Department, uses "Uramite" in his fertilization program. He tells us that two applications of "Uramite" per year provide good color and uniform clipping despite heavy play.

And from Atlanta, Ga., Mel Warnecke reports that the long feeding of "Uramite" saves time and frees him from worrying about repeated fertilizer applications. What's more, Frank Sirianni (and many others like him) of Sewickley, Pa. have found that "Uramite" is ideal for establishing and maintaining good healthy turf all season long.

This appears to be the case across the country. More and more superintendents tell us that by using "Uramite" ureaform fertilizer they have reduced the cost of applying fertilizer and used that labor more effectively elsewhere. Why don't you try this method if you haven't already?

Looking forward to seeing you all at San Diego. Stop in and see us at Booth Nos. 120 and 121 and let's discuss your fertilization- and disease-control programs.

Bob Miller

"Du Pont" than fill m



Carl K. Smith, Superintendent at Lakeview Country Club, Morgantown, West Virginia, has found Du Pont "Uramite" meets all his nitrogen needs, whether it's on No. 12 tee or anywhere else on the course.



TERSAN® 75
turf fungicide

SEME
turf fung

Better Things for Better Living
...through Chemistry

'Uramite' does more fertilizer needs."

says Superintendent Carl K. Smith
Lakeview Country Club, Morgantown, West Va.



"Labor costs at Lakeview are way down since I started using 'Uramite' four years ago, because two applications a year are all it takes," Supt. Smith says. "They provide ample supplies of nitrogen all season long. And they fit our maintenance program—help distribute our work load over the year.

"Because 'Uramite' is slow releasing, it seems to bring a greater safety factor with it. We get nice even growth all season instead of the 'feast or famine' effect you often get with other forms of nitrogen. This even growth helps simplify our mowing schedule.

"Uniform feeding, and the resulting healthy growth, has meant less in the way of disease problems, too," Smith says. "We aren't troubled much with the soft, lush growth that diseases thrive on. Where we do encounter diseases, Du Pont fungicides can bring them under quick control."

DU PONT TURF PRODUCTS can help you keep your course healthier and greener. Regular applications of "Tersan" 75 or "Semesan" turf fungicide will stop large brown patch and dollar spot. Or spray Du Pont "Tersan" OM turf fungicide to control a wide range of turf diseases with maximum safety to turf.

For long-term feeding of tees, fairways and greens, Du Pont "Uramite" ureaform fertilizer is most suited. A 38% slow-release form of nitrogen, it resists leaching, feeding turf slowly and steadily without burning.

For faster turf green-up, spread or spray Du Pont "NuGreen" fertilizer compound, a 45% nitrogen from urea. Water-soluble, "NuGreen" is non-corrosive and compatible with all Du Pont fungicides.

For full information on how to maintain outstanding playing conditions on your course with these time-tested Du Pont turf products, consult your golf course supplier...your service agency.

On all chemicals, follow label instructions and warnings carefully.

TERSAN® OM
turf fungicide

URAMITE®
ureaform fertilizer

NU GREEN®
urea fertilizer

GRAU'S ANSWERS TO TURF QUESTIONS

BY FRED V. GRAU



Accuracy Doesn't Mean Just Coming Close

It would seem that the word, Accuracy, hardly needs further definition. Webster describes it as "freedom from mistake; precision; exactness". It seems appropriate to quote from an anonymous philosopher who said:

- History is the study of man's successes and failures, but pay closest attention to man's failures — you will learn more from them.
- Always try to learn from the mistakes of others. You haven't got time to make them all yourself.

Were it not for the accuracy of modern timepieces our systems of appointments, transportation timetables, radio and television schedules and other facets of our daily living would become hopelessly snarled. Consider too, the importance of the accuracy of the stopwatch in determining the outcome of races of men, horses and vehicles.

Editor Blames the Printer

Anyone who has ever been in the publishing game knows what it is to live in constant agonizing dread of the unconscious, inevitable mistakes that crop up on the printed page. Gremlins mostly get the blame. Sometimes they are simply the result of temporary lack of discipline on the part of the proofreaders or others. At times one suspects that they might be the result of just not knowing the score.

The story is told concerning a family by the name of O'Hara, members of which regularly are in the news. For years they have been patiently correcting reporters and editors who insist upon spelling their name O'Hara. It is still going on.

This Takes Some Explanations

It is unbelievable what hotel clerks can do with the simple name "Grau".

Upon leaving the office it is customary to leave with the secretary my itinerary and the names of hotels where I'll stay. Family relations become strained when Mrs. Grau tries to relay a long distance call and is advised that her husband is not registered. At long last, after visions of chicanery have been dispelled, the hotel discovers a guest by the name of Gran, Gray, Graul, Grace — all living at my home — every name but the right one.

Pity the poor girl who was the unwitting victim of a wrong telephone number printed on hundreds of business cards that were rather widely distributed. Patiently she would explain, "No, I'm not Bill. Bill doesn't live here. No, I don't know who Bill is. I'm not even married."

Accuracy in the manufacture of clubs and balls has contributed immeasurably to the game of golf. The necessity for close tolerances in producing equipment is so apparent as to need no further comment. It has become obvious that any lack of accuracy in the game, especially in the putting department, can be attributed principally to the human factor.

It Applies to Mowers

Without extreme accuracy in the adjustment of greenmowers it would not be possible to make the foregoing statement with any degree of accuracy. Techniques have been developed which permit supts. to produce smooth, true putting surfaces which permit of perfectly predictable results from a stroked putt, given the ability to measure the input of forces derived from human sources.

The modern miracle of perfection in playing surfaces is the result of many forces acting in harmony under skilled direction. Responsibility lies in the integration of a connected series of accurate decisions and actions in a complex, dy-

COLE'S IMPERIAL (Plant Pat. 105)
 This graceful, spreading Honeylocust transplants easily, grows straight *without staking*, needs little care, causes no ground litter. Highly resistant to storm damage and city conditions. Ultimate height 35 ft.



TALLHEDGE Plant Pat. 1388 (Luedy) Gives you perfect hedges and screens at low cost. Tallhedge above grew to 10 feet in 5 years from 2½ foot plants 30 inches apart. It was trimmed once, at top only, never side-trimmed. Lustrous heavy dark green foliage stays neat from the ground up. Attractive berries change color all season.

*Special-Purpose
 Low-Maintenance*

Trees and Hedges for Golf Club Landscapes



COLE'S SUNBURST (Plant Pat. 1313) This spectacular two-color tree is one of four modern Honeylocusts with distinctly different characteristics of size, shape and color developed by Cole. Bright yellow and rich green foliage give it a striking effect in any landscape.

Now you can get the right type, size, shape and ultimate height you want in trees for your special purposes. You can choose from a wide selection of patented modern varieties and the most popular old standards, developed and improved at the 1200-acre Cole nurseries. For many years Cole has specialized in high quality trees and landscaping material—hardy, strong-rooted plants that will thrive and flourish for you—trees and shrubs that need minimum maintenance. Write for catalog (wholesale only) or ask for a special quotation.

THE COLE NURSERY CO.

Phone ELmwood 2-3121

HEADQUARTERS: 2000 W. Jackson St., Painesville, Ohio
 CIRCLEVILLE DIVISION: Old Route 63, Circleville, Ohio



WASHINGTON THORN (Cole's Tree Type) An ideal "under the wires" street tree. Height 20 feet. White flower clusters in spring. Medium green foliage turns scarlet in autumn. Orange berries from early fall to late winter. Thoroughly hardy.

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busiest months of the year, when the
Pro cannot take time out from club
duties and shop selling to personally
cultivate each member as he should . . .

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IT'S LOW IN COST — for only pennies
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during the year's busiest selling months!
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Club _____
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City _____ State _____

Turf Dates

Feb. 6-15 — 34th GCSA International
conference and show, El Cortez Hotel,
San Diego

Feb. 18-21 — Penn State U. turf confer-
ence University Park, Pa.

Feb. 21-22 — Minnesota GCSA confer-
ence, Minneapolis

Feb. 25-28 — Cornell U., Statler Hall,
Ithaca, N. Y.

Mar. 4-6 — Midwest Regional turf confer-
ence, Purdue U., Lafayette, Ind.

Mar. 7-8 — U. of Massachusetts turf
conference, Amherst, Mass.

Mar. 12-14 — Turfgrass short course,
Iowa State U., Ames.

Mar. 21-22 — Michigan Turfgrass Confer-
ence, Mich. State U., East Lansing.

Mar. 27-29 — Ontario Agricultural Col-
lege, Guelph.

namic biological system. The supt. must
interpret scientific findings in the light
of his experiences and his knowledge of
course conditions. Involved are machines,
grasses, fertilizers, insects, diseases, chem-
icals and people. Mistakes happen, of
course, but much less frequently than one
would expect.

One Part Per Million

Some chemicals are so potent that the
difference of a few parts per million can
mean the difference between perfection
and just another job. Others, too, may
have difficulty visualizing 1 ppm. (one
part per million). In other terms 1 ppm
is:

one square foot in 200 putting greens;
one needle in a haystack of one ton (not
precise);

one minute in 2 years (approximate);
one pint in 625 power sprayers with
200-gallon tanks.

Accuracy in developing correct dilu-
tions is of little consequence if other
measurements have a lesser degree of ac-
curacy. Materials often are reported to
have failed. Investigation reveals that the
specified quantity had been applied to
an area half again larger. For some un-
known reason there seems to be a re-
luctance to measure turfgrass areas accu-
rately. Questions about the fairway acre-
age may get the reply, "I really don't
know for sure but I think it is about 25
acres." Actual measurement may reveal
45 acres of fairway turf. Manufacturer's
recommendations for rates imply effective
performance when applied as specified!