

Ford tractors and equipment are available in a wide variety of combinations to match your job needs. Ford tractor power includes Ford industrial tractors, Ford all-purpose tractors, Ford LCG (low center-of-gravity) tractors and Ford lawn and garden tractors. Most are available with options to match your special requirements. Here are a few of the many landscaping and grounds maintenance jobs that Ford tractors and equipment can do for you.

See your Ford tractor dealer today. He's listed in the Yellow Pages under "Tractor Dealers" and/or "Lawn Mowers".

FORD TRACTORS



Ford 1600 tractor. 23-hp diesel economy in a rugged design for a wide range of utility work. Front-end equipment available includes loader (illustrated), snow and dozer blades. 3-point hitch (category I) and transmission pto handle a wide range of mounted and pull-type equipment.



Ford industrial tractor loaders. Backfill, load, lift, carry, spread or dump materials. Bucket capacities up to 1½-cubic yards. Optional or standard Ford tractor features such as power steering . . . differential lock . . . foot accelerator . . . power-reversing transmission to ease operations.



Factory-installed integral cabs are available for all Ford all-purpose tractors from 32 horsepower up! Provide operating comfort year 'round. Heater, defroster and blower. Air-conditioner optional on most models. Cabs meet OSHA noise limitation requirements for eight hours.



Ford lawn and garden tractors. Cost-saving power for mowing, snow removal, other grounds maintenance. Five rugged new models, 10 to 16-hp, featuring remarkable new sound control, durable steel frame, cast-iron front axle and rubber mounts to improve your ride.



The long, thin line at Holden

“Prime horticultural displays in key areas of the Holden Arboretum every day of the year for the benefit, enjoyment, and education of all visitors are my objectives for 1977,” says Winfried K. (Marty) Martin, superintendent of maintenance.

If past efforts are reliable indicators, Martin will succeed this year in achieving a garden-like appearance of the complex’s Thayer Center, rhododendron collection, and Corning Lake area. He will accomplish this while deploying men and equipment over an additional 11 major and 3 minor areas, an enormous task involving the care of 7,000 species and subspecies of cultivars.

Arboretum maintenance is somewhat of an uphill struggle for Martin. This stems partly from the fact that the arboretum has grown in leaps and bounds from an original 100-acre tract in 1931. Holden directors have invested wisely in the future through programs emphasizing the acquisition of land and the



preservation of natural eco-systems. Holden is therefore a relatively "young" arboretum, and one that has expanded more rapidly than allocations for the care of such vast grounds. This also may be translated into a great potential, or bright future, for "the world's largest" arboretum.

In total, the arboretum consists of 2,643 acres in northeast Ohio — about 25 mi east of Cleveland and 15 mi south of Lake Erie. Over half of this hilly Western Reserve land is preserved as forest and monitored by a naturalist. The remaining grounds range from a public-entrance area, which is highly maintained, to outlying areas providing a natural transition into the woods. In fact, naturalist considerations sometimes outweigh those of grounds care, keeping maintenance at lower levels than desired by Martin.

Scattered throughout Holden's in-between areas are its famous collections — planned, organized plantings of trees and shrubs that

Continued on page 24

Holden, nature's "work of art"

One of the world's largest "museums of woody plants," The Holden Arboretum in northeast Ohio is a 2,643-acre showcase for over 7,000 different species, varieties, and cultivars of trees, shrubs, and vines. Native and foreign plants under cultivation range from exotic nut trees to ornamental shrubs. Collections, or living displays, include a wild-flower garden, experimental nurseries, a hillside of azaleas, maples, and viburnums, and entire forest eco-systems replete with deer, birds, and small animals.

The reach of the arboretum extends from nearby communities to international arboreal circles. Plant material, seeds, and scion wood are exchanged with arboretums and botanical gardens throughout the

temperate world. New plants are propagated in the nurseries, which are also used to test unusual and foreign trees and shrubs for aesthetic appeal and climatical hardiness. Hundreds of woody plants are given annually to municipalities, churches, schools, and hospitals.

A resident staff of experts — arborists, horticulturists, and naturalists — direct Holden programs, hold talks and demonstrations, conduct youth and adult classes, serve as public consultants, and provide services such as plant/disease identification and species recommendation. These activities are multiplied through many volunteers from the Western Reserve area, plus representatives of universities in Cleveland (25 mi west of the Arboretum). Grounds of the four-square-mile complex are open to members throughout the year, and to the public from April through October.



Holden Arboretum hosts a multitude of activities from special events, to picnics and field days, to lazy summer afternoons by a pond.



Holden *Continued*

are maintained at medium to low maintenance levels. Increased maintenance would provide a more effective setting for some of the collections, says Martin, especially the shrubs in certain public areas.

The arboretum's 5-tractor/7-truck fleet and 8-man crew are spread pretty thin over the 1,300 acres under maintenance. Martin jokingly refers to his task as one of "keeping things together with baling wire and C-clamps." He is slightly apologetic about less-than-desired maintenance levels. He is firmly dedicated to his job, present and future. And he is very serious about constantly improving appearance levels as much as possible within the constraints of funds, manpower, and equipment.

Nonetheless, Martin is intent on transforming Holden into a truly great arboretum. He wants to equal or surpass European arboretums of which he is quite knowledgeable.

Trained in silva-culture, Martin was a forest ranger for the Bavarian government until 1953. His first 15 years in the U.S. were devoted to machinery maintenance. He joined Holden in 1968 and became its grounds superintendent in early 1974.

The grounds crew consists of Martin, one janitor, two maintenance men and four gardeners. This year-round force is supplemented by two part-time students from a nearby vocational school, a student from one college in the spring, a student from another college in the fall, and eight summer interns — men and women majoring in horticulture at various universities. In addition, members of the arboretum volunteer to care for the wildflower garden.

Student workers offer much-needed labor and represent potential additions to the staff. But they require considerable supervision, especially when certain equipment, operations, or plantings are involved. Attracting and keeping com-

Continued on page 45


Sixteen operations in four categories keep Holden's eight-man crew busy the year-round. This force is supplemented by part-time high-school students, summer interns from colleges, and member volunteers. The arboretum annually attracts about 100,000 visitors and 20,000 school children. Gates are opened to the public in April when over 100 varieties of crab apples start blossoming. Visitation remains high with the blooming of lilacs and rhododendrons in May and June, respectively. Attendance slackens for two and a half months, then peaks again during the fall coloring in September and October.

Blending Maintenance with Public Viewing

Operations	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Collections of trees and shrubs												
Prune, trim		■	■	■	■							
Transplant			■	■	■	■			■	■	■	■
Apply herbicides		■	■	■								
Fertilize				■	■	■	■	■	■	■		
Irrigate							■	■	■			
Clean-up, chip	■										■	■
Grounds												
Fertilize			■	■	■							
Mow				■	■	■	■	■	■	■		
Leaf removal										■	■	■
Nurseries*												
Prune		■	■	■	■							
Apply herbicides		■	■	■								
Till					■	■	■	■	■	■		
Irrigate							■	■	■			
Other												
Snow removal	■	■	■	■							■	■
Roads, trails, and picnic areas	■	■	■	■	■	■	■	■	■	■	■	■

Key: ■ regular program, ■ as needed


* Excludes manual digging, balling, staking, mulching, etc.



First Class Permit


No. 665

Duluth, Minn.



BUSINESS REPLY MAIL

No Postage Stamp Necessary if Mailed in United States



Postage will be paid by



Weeds Trees & Turf

Box 6049

Duluth, Minnesota 55806

Weeds Trees & Turf *FREE INFORMATION*

Want free information on products and services advertised and featured in this issue? Use this card. Circle the numbers on which you want information and mail today.

101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220
221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240
241	242	243	244	245	246	247	248	249	250	700	701	702	703	704	705	706	707	708	709
710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729

NAME	TITLE
COMPANY	
ADDRESS	
CITY	STATE ZIP

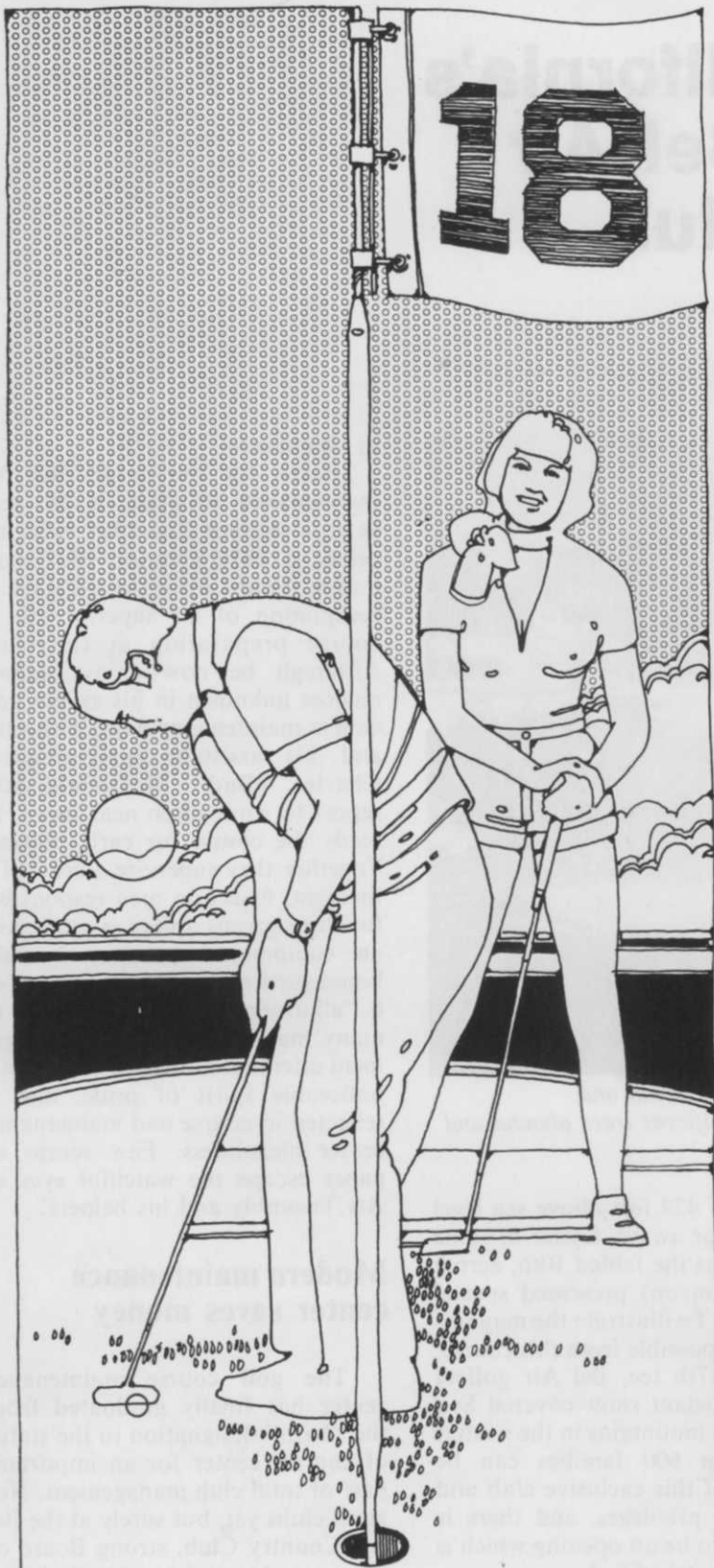
Do you want to receive Weeds Trees & Turf? YES NO

Are you interested in receiving or continuing to receive WEEDS TREES & TURF? If you are, complete all the information on this card and mail today.

DATE _____ SIGNATURE _____

Please check the one item which best describes your primary type of business:

- | | |
|---|--|
| 1. <input type="checkbox"/> Rights-of-Way Maintenance | 12. <input type="checkbox"/> Airports |
| <input type="checkbox"/> a. Highway | 13. <input type="checkbox"/> Military Installations |
| <input type="checkbox"/> b. Utility | 14. <input type="checkbox"/> Grounds or Landscape personnel in businesses not specified above. |
| <input type="checkbox"/> c. Railroad | 15. <input type="checkbox"/> Mine Field Reclamation |
| 2. <input type="checkbox"/> Chemical Applications (vegetation and structural) | 16. <input type="checkbox"/> Chemical lawn care companies |
| <input type="checkbox"/> a. Commercial/Industrial ground applicators | 17. <input type="checkbox"/> Landscape contractors |
| <input type="checkbox"/> b. Aerial Applicators | 18. <input type="checkbox"/> Landscape architects |
| 3. <input type="checkbox"/> Extension Services; Forestry; Federal and State Regulatory Agencies | 19. <input type="checkbox"/> Sod Growers |
| 4. <input type="checkbox"/> Parks and Grounds Maintenance — Federal, State, Municipal (does not include Forestry) | 20. <input type="checkbox"/> Seed Growers |
| 5. <input type="checkbox"/> Golf Courses | 21. <input type="checkbox"/> Tree Service Companies/Arborists |
| 6. <input type="checkbox"/> Cemeteries | 22. <input type="checkbox"/> Wholesale nurseries/Tree Farms |
| 7. <input type="checkbox"/> Industrial Parks | 23. <input type="checkbox"/> Irrigation and Water Drilling Contractors/Consultants |
| 8. <input type="checkbox"/> Shopping Centers | 24. <input type="checkbox"/> Chemical Dealers/Distributors |
| 9. <input type="checkbox"/> Hospitals, Nursing Homes, Schools, Colleges and Universities (Grounds maintenance personnel only) | 25. <input type="checkbox"/> Equipment Dealers/Distributors |
| 10. <input type="checkbox"/> Athletic Fields | 26. <input type="checkbox"/> Other (Specify) _____ |
| 11. <input type="checkbox"/> Race Tracks | _____ |



STANDARD
GOLF *Pro-Line*

Compare... cup for cup you'll buy Standard!

First of all compare the **quality** of Standard cups with any other cup. Then compare the **price**.

You'll easily see why Standard cups have been **the** big sellers through the years!

Standard cups are available in plastic (Cycolac®)—or high-grade aluminum.

Standard Cycolac® cups combine strength with an unusual ability to resist soil chemicals. Tapered sides for easy removal from ground.

Standard aluminum cups are extra easy to set and lift. Built rugged — resist rust and corrosion.



This cut-away of a Standard Golf aluminum cup shows how ruggedly it is built — making it almost unbreakable.

Why not order new Standard cups, flags and poles for your greens today?

Contact your local Standard Distributor. Or write: **Standard Golf Company, 220 East Fourth Street, Cedar Falls, Iowa 50613 (319/266-2638).**

Maintaining California's gemstone—Bel Air Country Club

by Harold LeSieur



Players arrive at 10th green, after tee shots across canyon and walk over fabled suspension bridge. Vistas of magnificent trees abound and frame each hole at Bel Air.

Architecture of the famous Bel Air golf course, located in one of the most affluent sections of California, began 50 years ago and has culminated today in one of the show place courses in the nation. Site of the 76th Amateur USGA Championship tournament in 1976, this proud club boasts some of the biggest names in the Hollywood entertainment industry and Los Angeles business world as regular players and members.

Hardly discernible from well-known Sunset Boulevard, and near Beverly Hills and the University of California at Los Angeles (UCLA), this course of over 100 acres lies nestled in the steep terrain of the Santa Monica mountains, the exclusive Bel Air section. With elevations varying from a high of 662 feet

to a low of 429 feet above sea level (not very far away), layout of some tees (such as the fabled 10th, across a broad canyon) presented special challenges. To illustrate the magnificent vistas possible from this course, from the 17th tee, Bel Air golfers can view distant snow-covered San Bernardino mountains in the winter. Fewer than 600 families can be members of this exclusive club and enjoy such privileges, and there is said never to be an opening which is not immediately filled.

To maintain this gemstone in Southern California's hillsides at the peak of its natural beauty requires a staff and golf course superintendent with a high experience level, a sizeable investment in equipment, and a cooperative management — all of which the Bel Air Country Club has

in abundance.

Focus for the model Bel Air maintenance program is 38 year veteran Ardyce Twombly, who received a 1976 Citation of Performance Award from the GCSAA in recognition of his superior job in course preparation at the club. Although he now enjoys conveniences unknown in his earlier golf course maintenance days, Twombly and his assistant superintendent Charles "Bud" McDonald still report to work often near dawn, to ready the course for early players. Together they supervise a crew of 2 foremen, 6 section men responsible for three greens apiece, a mechanic, an equipment operator, 2 clubhouse gardeners and a labor gang of 6 "all-around" hands. Unusual to many maintenance crews, management attention at Bel Air results in a noticeable spirit of pride, and is reflected in course and maintenance center cleanliness. Few scraps of paper escape the watchful eyes of Art Twombly and his helpers!

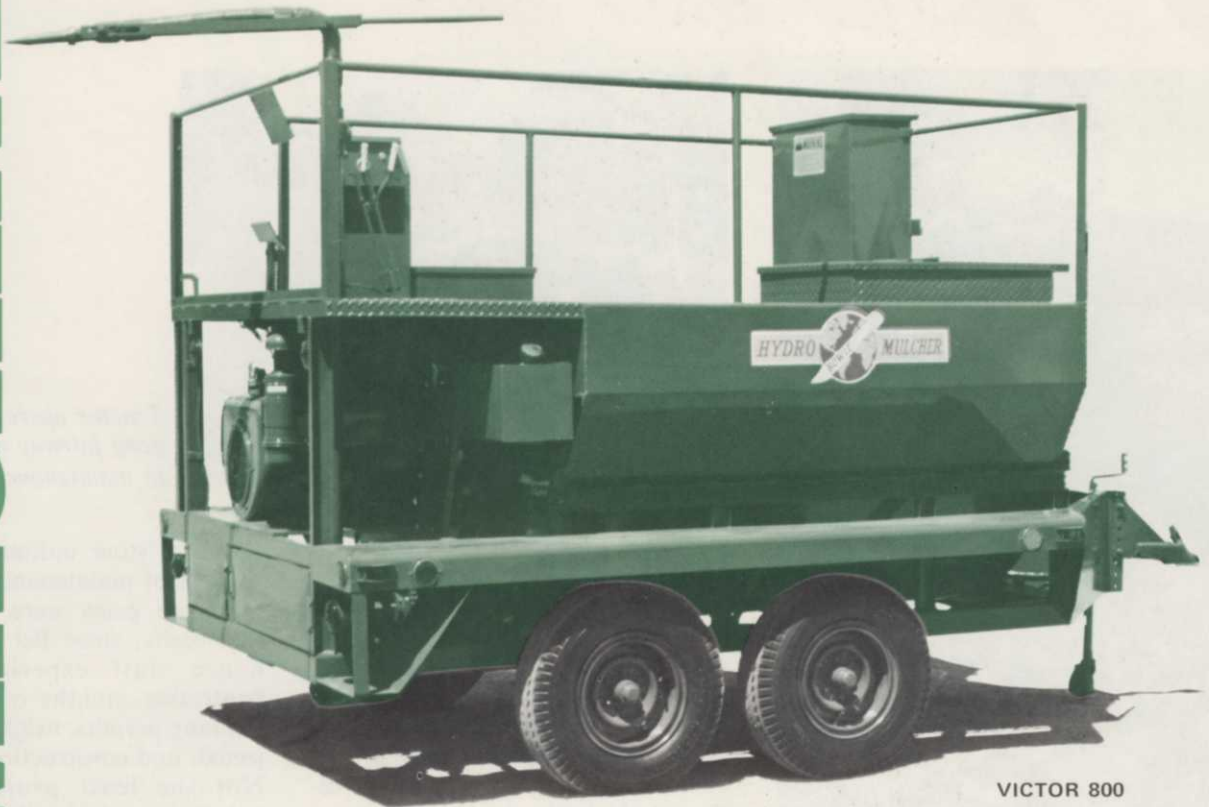
Modern maintenance center saves money

The golf course maintenance center has finally graduated from the "barn" designation to the status of control center for an important part of total club management. Not at all clubs yet, but surely at the Bel Air Country Club, strong Board of Governors' support was extended to Twombly's plans for a modern maintenance control area. "I knew what I wanted for a new building since my experience at my other three positions told me exactly what I did not want", says Twombly.

Twombly came up the "hard

Continued on page 28

THE GREEN MACHINE



VICTOR 800

This is the machine that revolutionized the turf industry ... the machine that seeds or sprigs, fertilizes, waters, sprays, and mulches in one easy operation ... the Bowie Hydro-Mulcher.

Its performance and reliability are unequaled. Its capabilities have created a whole new industry of lawn and turf, ground cover and erosion specialists. The Bowie Hydro-Mulcher is the daddy of them all ... the green machine.

EXCLUSIVE BOWIE HYDRO-MULCHER FEATURES:

- Only proven unit for both sprigging and seeding with cellulose fiber mulches.
- Can mulch, fertilize and seed or sprig half an acre in eight minutes.
- Has enclosed shredder bar for shredding full bales of cellulose fibers.
- Has centralized tower control with no hoses.
- Has triple agitators for faster mixing and eliminating sediment build-up.
- Uses pump only for spraying, so pump lasts longer.
- Slurry passes through pump only once, thus reducing seed damage and clogging.
- Has spray mist and other accessory nozzles for such uses as insect control, tree spraying and fire fighting.
- Six models — from 350 to 3,000 gallon capacity.

CALL OR WRITE FOR COMPLETE DETAILS:



LANCER 350



WINDSOR 1000



IMPERIAL 1500, 2500 & 3000

HYDRO



MULCHER

BOWIE INDUSTRIES, INC. / P. O. BOX 931 / BOWIE, TEXAS 76230 / (817) 872-2286



Pot nursery sits near maintenance center allowing easy access for transplanting flower flats into 4-inch pots.



Tractor operator tows 9 gang fairway mower on way to maintenance center.

Bel Air *continued*

way" in golf course maintenance, during days when maintenance was relegated to repairs in the snow because there was no room in the "shacks". Today he basks in the reflected glory of a handsome course and enjoys the conveniences of a well-equipped 50 x 250 foot maintenance center. On first view, one sees massive counterbalanced truck doors, adequate carload lot storage space, separate mechanic's area and double locked chemical and seed rooms, plus locker and lunch rooms for workers and a spacious office for the superintendent. Room is pro-

vided to store indoors an impressive list of maintenance equipment.

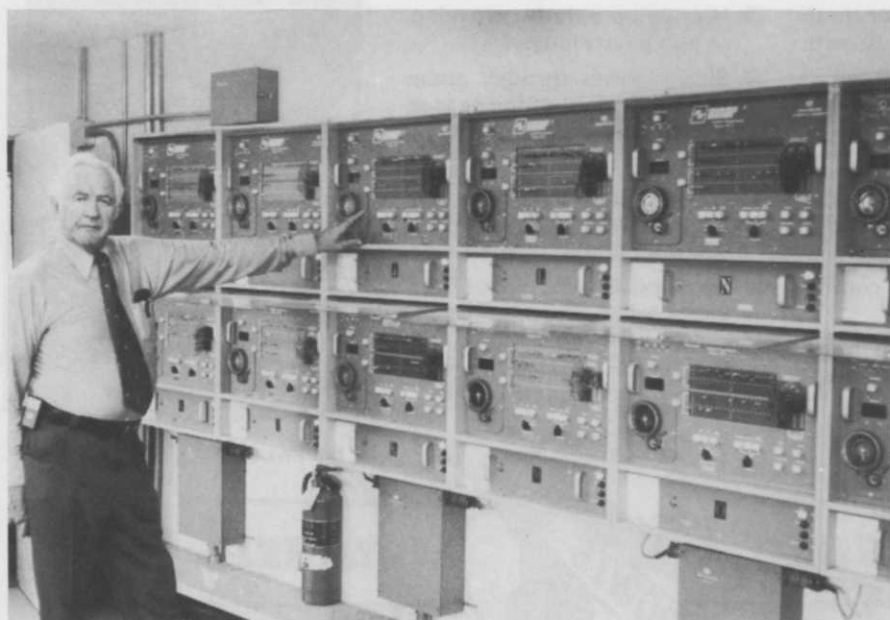
These gains were not won all that easily, since Bel Air's maintenance staff experienced many frustrating months of hassles over building permits, neighbors who objected, and construction difficulties. Not the least project was the installation of 25 miles of irrigation piping, over a course which spans one mile and over 100 acres of hilly terrain. Today, this remarkable system is controlled automatically from the superintendent's office.

Twombly observes that no one plans the maintenance center nor thinks about equipment storage and repair, usually looking at this as a good place to save club money. Accordingly, he says, the superintendent must take the lead to show the cost savings possible. "When building a new club I strongly suggest that the superintendent, club officials, the golf course and club house architect, and the maintenance building designer work together on the master plan before it is submitted for final approval," is Twombly's sage advice.


Plantings beautify hillsides

A tour in Art Twombly's golf cart can be both a pleasant and unexpected experience. Pleasant is the enjoyment of flowering plants of diverse colors, unobstructed by preoccupation with making a satisfactory golf course. Unexpected? A sudden meeting with entertainer Lawrence Welk! Returning from a brisk game, Welk is a member and regular player at Bel Air, along with a Hollywood directory of famous

Continued on page 32



Superintendent Art Twombly explains operation of Binar Control system, installed in his office to permit easy automated operation of 25-mile sprinkler irrigation system.



**How to avoid paying for
more than you need.
Or getting less than you want.**

A tractor that's too big for the job is an unnecessary waste of capital.

While one that's too small ends up wasting time and costing money.

The secret is selection. And that's why John Deere provides a range of tractors and options that lets you match the equipment to the task.

The John Deere 2040 Tractor is powered by a 40-hp diesel engine with an 8-speed constant mesh transmission and the hydraulic power to handle most any attachment.

Designed for golf-course maintenance and other similar large-acreage mowing jobs, the 2040 is probably more than you need for most residential lawn work.

So we offer the 10-hp 210 Tractor. Plus 12-, 14-, 16-, and 19.9-hp models

to give you a choice and the exact power size you need.

Which means there's a John Deere Tractor just right for the job you have to do.

You also get fast parts availability, flexible financing, and the value of reliable quality that's been a tradition at John Deere for more than a century.

All reasons why "Nothing Runs Like a Deere."

In any size you need.



Nothing Runs Like a Deere®



WIPE OUT WITH BANVEL[®] 4S...

Banvel herbicides are broadleaf weed "specialists" designed for professional turf programs.

As a professional turf man you have a reputation to be proud of. And, rightly so! Your skill, knowledge and effort shows in the beauty and quality of your turf. So why take chances with understrength herbicides? Herbicides that get some broadleaf weeds but leave you with repeated deep-rooted problems—such as dandelions and plantain. Banvel 4S and Banvel +2,4D control all the major broadleaf weeds, and most of the time with just one application. Check the chart and compare your weed problems with the herbicides available.

Here's why Banvel herbicides are the professionals' choice for weed control

- When used as directed Banvel will not harm trees, ornamentals or grass—it just eliminates weeds.
- No season restrictions. Lay down Banvel from early spring to late fall—all through the growing season.
- Rain will not affect Banvel. It keeps working because it translocates—penetrates leaves and is absorbed through roots to attack every part of the weed.
- Banvel is not a soil sterilant. There is no residual reaction from Banvel as it is broken down in the soil by bacterial action. It is biodegradable.
- No special spraying equipment necessary. It is easy to clean out of equipment after use.
- Mixes readily with hard or soft water.
- Easily stored through winter months without losing potency.