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### NU nes Slab Sod Harvester . . .

lifts, cuts, and conveys slabbed sod to loading platform. Handlers can load directly on to pallet as tractor moves.

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- The basic power train is a Ford LLG-2110 wheel tractor. The sod harvester can travel at speeds up to 17 MPH for quick transportation between plots.
- The efficiency of this all-mechanical operation has been proven on Cal-Turf Farms in Patterson, California, and it can solve the problem of quick and economical harvesting of sod for all turf farmers.

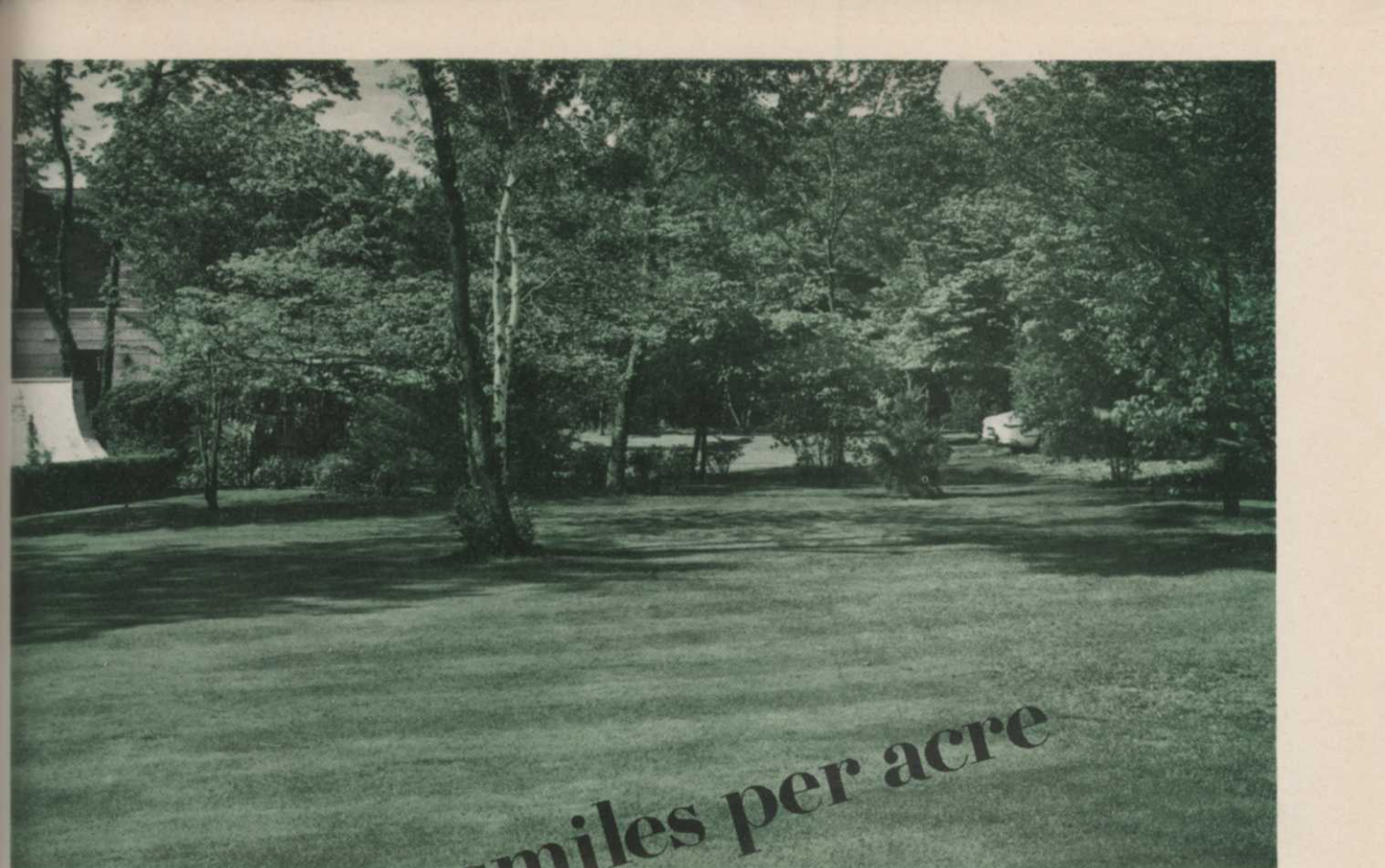
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Write for Velsicol Turf Chemicals Catalog:  
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## The Cover

Irrigation installation at new Calabasas Golf Course in Southern California was integral part of design of this \$350,000 course. Automatic irrigation system is capable of irrigating entire 150-acre course within a 10-hour period. (See story on page 8).

## WTT Mailbox

### We are Honored

I am most impressed with your magazine. It is in my opinion, one of the best I have read relative to the horticultural field. The articles are clear and well written and the illustrations are excellent . . . inasmuch as I work with a cross-section of people in the country, a great many see and read your magazine. A magazine of value, such as WEEDS TREES AND TURF, is not made available everyday . . . and when one does appear on the market I feel people should be made aware of it.

Lawrence D. Stouse

Extension Horticultural Agent  
Johnson County, Kansas

### Thank You Mrs. Ensor

We certainly have received many favorable comments on the fine article you wrote on Green Valley Turf in the February issue of WEEDS TREES AND TURF. The cover picture is very beautiful and a very true color. The rest of the photography is excellent and very descriptive. We have had many inquiries and wonder if you could send us extra copies.

Mrs. K. C. Ensor

Green Valley Turf Co.  
Littleton, Colorado

### Certainly Sir

I was pleased to note the feature story on one of our members, the Smith Tree and Landscape Service, Lansing, Mich. . . . if possible, I would like to borrow the photos for our monthly newsletter . . .

Harry J. Lambeth

Executive Director  
Associated Landscape Contractors  
of America, Inc.

# WEEDS TREES and TURF

FORMERLY WEEDS AND TURF

April 1968  
Volume 7, No. 4

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**Credibility Gap?**

Pesticide use continues to grow. We are in a period when the well-being of society depends on chemicals, both for food and non-crop uses. Yet public opinion is largely suspicious of the pesticide industry. Society generally believes a credibility gap exists in statements made to allay the fears of chemical use. More legislation and government regulations are demanded.

Yet pesticides today are efficient. Used according to label instructions, they constitute little hazard. Recommended rates coupled with safe handling can help improve the public attitude. But this is not enough.

More stringent methods are required. Manufacturers and formulators cannot be expected to bear the entire cost of a public relations program to educate the public. This is a job which requires effort by everyone in the industry. Every employee, regardless of his place in the peck order, must be made aware of the need to develop public understanding.

Employers can start this trend first by a company safety program. Safe storage and careful labeling of chemicals is a major step. Wall posters, placards which promote safe handling, and regular safety instructions to employees can prove helpful.

More important, however, is training of employees who either handle or use chemicals. They must understand the product, and its effect on either vegetation or insects. And they must know its effect on people. In the event of accident, they must know precisely how to administer first aid.

Employers, however, must extend their influence well beyond company personnel if the public attitude toward pesticides is to be improved. Of major importance is regular contact with local news people. Spray operators can do much to sell the value of chemicals in roadside beautification, clearing inland water, preserving street trees, and a myriad of other benefits which the public enjoys daily. These same operators are also in a position to point out that only pesticides found to be safe by careful research and registered for use by government are ever used.

Another step for employers will be active community participation in civic programs. Guest speakers who can discuss methods for improving city parks and highways are always in demand. Spray operators are fully capable of selling their industry. They must devote some time and real effort in this direction.

Society needs the information and the industry stands to benefit from greater public understanding.

# Open Burning Vs. Pollution

By William H. Bartles

W. H. Bartles Tree Service  
Hyde Park, New York

Open burning of any kind is now prohibited in New York State. The state has passed an Anti Air Pollution ordinance which is being enforced.

At present, Municipalities are generally allowed to open burn on their respective dumps on a daily basis. However, they must cover the burned refuse with earth each day. This is a costly method of solid waste disposal. I can see it for garbage and general refuse, but not for leaves, wood, or brush.

Government constantly seeks to improve the living conditions of everyone. In my present position as Majority Leader of the Dutchess County Board of Representatives, and in past public positions, I, along with my colleagues who also serve, recognize this fact. But we are also aware that there has to be a point where simple economics must be reckoned with. Our goal is to eliminate air pollution insofar as possible. At the same time we cannot agree to a major expenditure of money and effort which does very little to create clean air.

As an operator of a tree service business, I face rising costs. These costs must be passed on to the customer. Removing wood and brush other than by burning when working in rural areas and along utility rights-of-way is very costly. It means that we must charge the utility companies more for the work. They in turn must pass this extra cost on to customers. Customers continue to pay more and more for the goods and services they buy.

Elm trees along highways and on private property are a major concern at this time. Eliminating burning in New York State has both raised the handling cost of these, and has contributed to the spread of Dutch elm disease. Wood which was formerly burned is now left along rights-of-way or relegated to a Town dump where it becomes a prime breeding place for the carrier of this disease, the elm bark beetle.

Accumulations of leaves on home lawns presents a removal cost. It is fine to suggest that they be used for compost heaps, but few town residents know how to handle these. Nor do they need them. If the Town removes leaves, operation costs of Town maintenance increase. This extra expense must be met by new taxes. For myself, I personally mourn the passing of

the pungent odor of burning leaves. To me, it was one of the pleasant experiences of our crisp fall season. It has been replaced by the soggy leaf problem. Many citizens who cannot or will not bear the expense of removal let them accumulate in gutters or in unsightly piles.

State highway jobs which are let for bid, now have an added cost factor. Rather than burning brush on cleared land, it is now necessary to load such material onto trucks for removal. Brush refuse has to be trucked to some dumping area or ravine and covered. Result is higher costs of highway construction which are passed on to the taxpayer.

At the same time that such added costs are being passed on to the taxpayer, legislators who passed the Anti Air Pollution ordinance are telling constituents back home that they are taking "a long, hard look" at the problem of rising costs. In my opinion, unless we graduate from the "long, hard look" to the "short, sensible action" we will have further increased costs.

In summary, I believe that the idea behind the anti pollution program is commendable, both in New York State and across the nation. If we don't take steps to purify the air we breathe, we may suffer lung ailments and other types of associated illnesses. But since motor vehicles and industrial stack wastes contribute many of the known pollutants, and certainly the most toxic materials, I feel that there is much to be done before we worry about wood, brush, and leaf burning.

My opinion is that burning of wood, brush, and leaves in a sensible manner should be permitted. By the time wood smoke is dissipated into the air, its pollutant effect is only a tiny fraction of the total air pollution problem. Its toxic effect on the lungs of the citizenry is infinitesimal when compared to the smoke inhaled into the lungs by cigarette smoking.

*(Editors note: Mr. Bartles formerly served as Supervisor of the Town of Hyde Park, N. Y., and is presently serving as Majority Leader of the Dutchess County Board of Representatives. This board has recently passed a resolution asking the state to rescind that section of the ordinance which prohibits burning of leaves, wood, and brush. WEEDS TREES AND TURF carries this editorial because of the industry's need to remain alert to this type of restrictive legislation.)*



Laying 1½ inch pipe during installation of Calabasas Golf Course. Contract for entire course design, construction, and irrigation totaled more than \$350,000.

# Calabasas Course

## Exemplifies Design and Installation Technology

**G**OLFERS hitting into the rough at Calabasas Golf Course in Southern California should keep a look-out for Cowboys, Indians or possibly even Robin Hood and his Merry Men.

The Calabasas Golf Course, scheduled to open in early summer this year, is located on the scenic, 3000-acre Warner Brothers Studio Ranch. The former filming locale of many westerns and swashbuckling Robin Hood adventures, now called Calaba-

sas Park, is nestled in the Santa Monica Mountains north of Los Angeles.

Today's Men of the West, designers, contractors and irrigation experts have transformed 150 acres of native Calabasas Park scenery into a gourd-green championship golf course.

The course, part of a large development of fine homes and recreational facilities is a project of Calabasas Park Company, a partnership of Associated South-

ern Investments and Bechtel International.

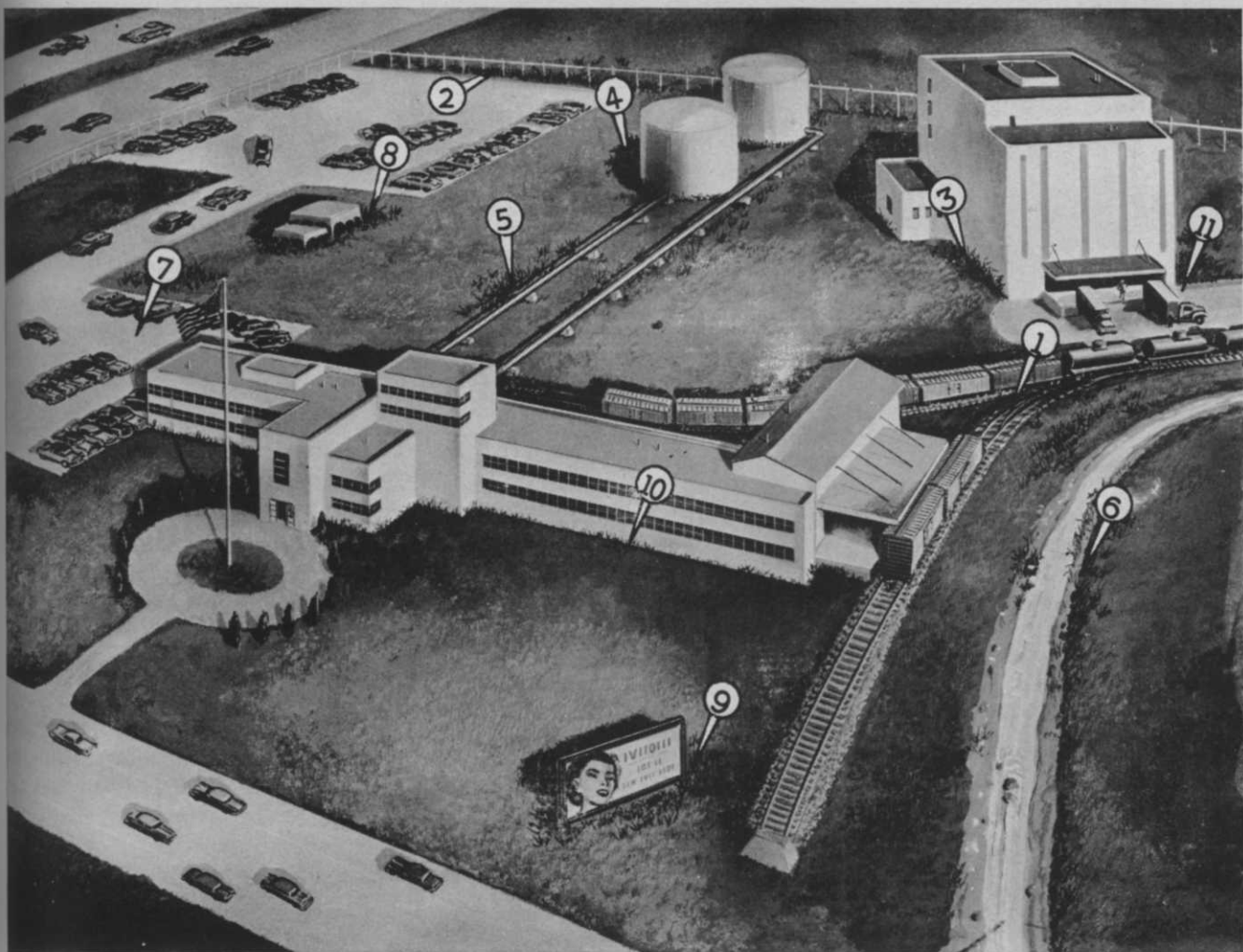
It was constructed on rolling hills covered with virgin vegetation that included holly oak, white oak, mesquite, thistle, poison oak and a great deal of rock.

The native ground cover is picturesque from a distance, but comes-up lacking as a championship golf course fairway. A major objective of the course designer Robert Trent Jones, Inc. Palo Alto, Calif., was to retain

Automatic irrigation system is set to operate during all summer daylight hours. Superintendent John Little irrigated 2 minutes per hour with misting throughout the germination period.







Railroad sidings (1) and security fences (2) are among the many locations where you can control unsightly vegetation with Du Pont "Hyvar" X and "Hyvar" X-WS. Take advantage of this great profit opportunity by basing your weed control service on these Du Pont herbicides. Other locations in and around a typical plant where they can stop potential trouble are warehouses (3) tank areas (4) pipelines (5) ditches and roadsides (6) parking lots (7) storage areas (8) signs (9) around buildings (10) loading docks (11).

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More than 100 miles of control wire was laid to provide the automatic control between pressure regulator control valves and controllers.

the wild-west flavor and beauty of the surroundings, while creating a controlled beauty of fairways, greens, tees and roughs.

Irrigation technology played a highly important part in the development of the construction plan and the ultimate maintenance plan for the course.

#### Course Can Be Irrigated In 10-Hour Period

The irrigation system for the 6,600 yard par 72 course was designed by Robert Trent Jones Irrigation Consultant John A. McPherson. His ultimate irrigation objective was to have a system capable of automatically irrigating the complete 150-acre course

Typical end of line is this 3-inch main line and valve. From the main lines, 15 miles of lateral line pvc pipe was pulled into place by Lowe Hydro crews using a vibratory plow.



within a single 10-hour period.

Intermediate steps along the way called for planned stages of installation of the irrigation system so that germination of the turf could be handled by quarters of the course at a time.

The complex contract, which totaled more than \$350,000 was concluded successfully through careful advance planning and continual communication between McPherson, Lowe Hydro of La Habra, Calif., the irrigation contractor-installer, and the major equipment supplier Buckner Sprinkler Company of Fresno, California.

Following rough and final grading, a total of five miles of transite main line 6 inches in diameter was trenched in. These traverse the course and run to the pumping station. The station is capable of supplying 1800 cpm from three 550 gpm pumps and one 150 gpm pump. The pumping units operate on a pressure call or demand system, and are fed from two lakes constructed on the golf course. The system operates at 150 psi.

Water is supplied by a 16-inch main from the Los Virgines water district to the two lakes. The water supply is automatically controlled to keep a constant lake elevation, an approximate 3 million gallon reservoir.

From the main lines, 15 miles of lateral line pvc pipe were

pulled into place by Lowe Hydro crews using a vibratory plow. These service a total of 800 large area pop-up sprinklers and 400 bank erosion control or landscape bank heads. All area pop-up heads on the course were Buckner #1371 sprinklers with 13/32 x 7/32 nozzles.

The carefully planned erosion bank heads were Buckner #860 G full circle and Buckner #560 G part circle heads. The banks were programmed so that adjacent laterals operate alternately to prevent erosion.

More than 100 miles of control wire was also laid and pulled into place to provide the automatic control between 300 Buckner #152 GER pressure regulator control valves and 66 Buckner #611 E controllers.

The basic layout placed the fairway sprinklers in a triangulated pattern 90 feet on center. One canyon at a higher elevation was spaced 80 feet on center. There is an average of 5 heads on each green and an average 4 to 5 heads irrigate each tee. A single controller operates the sprinklers at each green and adjacent tee, and 2 automatic controllers operate each typical fairway system. A Buckner pressure regulator control valve under each head provides uniform coverage and flow regardless of position on the line. All the sprinklers operate at 75 psi at the nozzle.

The controllers and the entire system are very adaptable to changing irrigation needs, according to John Little, superintendent of Calabasas Golf Course. "With the controllers placed as they are, we can vary our area control precisely and easily," Little said.

#### Greens Built Up With Sand Base

After sectional installation of the irrigation system, the greens were built up using 12 inches of sand on a graded base. Three inches of loamite (lignified wood shavings) were rototilled into