SOME people buy Falcons; some buy Thunderbirds. Probably fewer purchase the higher priced automobile than the other, but those who do are seeking quality. And they are willing to pay for it!

The same principle holds true in the sod industry. At least, according to John Nunes, President, Nunes Turfgrass Nurseries, Patterson, California, and he’s aiming for the “Thunderbird” market.

“Anyone can raise sod—anyone can raise hay,” Nunes states. “But quality and service has been the basic concept of this nursery since it started. And I feel that in the long run it’s the only way to win out.”

In striving for quality, Nunes, the first sod producer in Northern California, emphasizes several important practices in his nursery: deep well irrigation rather than open water to eliminate foreign seeds; soil fumigation; regular mowing, sweeping and vacuuming; electronic moisture control; and test plots.

To check the resultant spiraling costs as much as possible, Nunes has learned to be more conservative in other areas—mainly manpower. He constantly searches for new methods of mechanization.

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Mechanizing efficiently to meet their needs might be a real problem for some sod producers as there are few major manufacturers of sod harvesting equipment as such.

But here NUnes Turfgrass Nurseries have an asset. Nunes is well-equipped with an inventive mind and spends a great deal of time tinkering in his welding shop, developing his own specialized equipment.

The NUnes Sod Harvester, now commercially produced right in the nursery, is one result of that tinkering. With the harvester, three men can harvest 100,000 square feet of sod in one day easily, whereas in the earliest days of his operation Nunes employed 15 to 20 unskilled laborers on a day-to-day basis.

Nunes also has developed a self-powered vacuum sweeper for his own use. This sweeper does three times the work of commercial pieces, and requires only one operator. Additionally, he has adapted a pipe mover and a sprinkler setter to fit his nur.
sery's particular needs. All are manpower saving features.

"To be successful in the sod industry you must mechanize," Nunes stresses.

In the matter of service, all Nunes Turf is delivered in the nursery's own trucks.

"This is extremely important," Nunes said. "You're dealing with a perishable, and your product is only as good as your service. You can have the best product in the world and if you can't service it, what value is it?"

Nunes Turf truck drivers are highly skilled, not only in delivery and handling, but in all phases of the sod growing operation. Often, they are the only contact between Nunes Turf and the contractor, and must be able to answer most any question asked of them.

To foster a good first impression in the customers' minds—and a lasting one—Nunes insists on a strict code of dress for his truck drivers.

"They arrive in white shirts and clean slacks, with shoes polished. Even though they might not return that way, the customer will remember us as a professional outfit rather than a ratty one," Nunes insists.

The truck driver is responsible for unloading the material, too. He tows a forklift—equipped with wide flotation wheels to prevent grade damage—behind the delivery truck to the unloading site. He spots the pallets for the customer, thus rendering further service, and sod protection.

Nunes's entrance into the sod industry was a deliberate one. His nursery is ideally situated in the Central San Joaquin Valley, 90 miles distant from 4 large cities—San Francisco, Sacramento, San Jose, and Fresno. Also, at the nursery location the soil is good sandy loam, Nunes has a 200-foot well for irrigation.

Previously, he farmed very specialized vegetables for seed and market here. But regardless of quality, he always found himself at the mercy of the buyer, forced to accept what was offered for his product.

He determined to get into something where he could have more say-so over his margin of profit, and learn the overall business—market, cultural practices, and sales.

He felt sod growing was the answer. For here was a new industry, specialized, one few growers might attempt, and with good management, it conceivably would offer more profit and reasonable control.

Nunes made his first planting in June 1962, putting 18 acres into bluegrass, 3 varieties of hy-

Land leveler is used to float soil base, knocking off the high spots and filling low areas for level seedbed.

Special vacuum sweeper developed by Nunes is equipped with flotation wheels and own power plant for hydraulic and vacuum.

Nunes sod harvester is produced for sale. Developed by John Nunes, it allows three men to harvest 8000 square feet per hour.
Turbine booster pump is one of three used by Nunes. Sprinkling system opens off 8-inch mainline with 3- and 4-inch laterals.

This diversification is unusual compared to some nurseries that grow straight bluegrass or other varieties. But California's climatic changes, ranging from coastal, to mountainous, to inter-vallies, necessitate it.

Today, besides still maintaining his vegetables and orchards, he is cultivating 160 acres planted in bluegrass mixtures, hybrid bermudas, and dichondra.

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Now, let's look at the image. The text mentions a turbine booster pump, which is used for a sprinkling system that opens off an 8-inch mainline with 3- and 4-inch laterals. This is unusual compared to some nurseries that grow straight bluegrass or other varieties. California's climatic changes, ranging from coastal to mountainous to inter-vallies, necessitate this diversification.

Today, besides still maintaining his vegetables and orchards, he is cultivating 160 acres planted in bluegrass mixtures, hybrid bermudas, and dichondra. Nunes Turfgrass Nurseries operate 5 diesel delivery trucks and maintain a stable workforce of 35, including office staff, a sure measure of Nunes's conviction that the sod industry will grow.

He has one constant competitor, though, which bids to keep him in check—the weather. California's mild, year-round growing season encourages homeowners and prospective contractors to plant their own seed.

"Practically anyone can buy a package of lawn seed and plant it here almost any day of the year and get something green," Ed Mutoza, Sales Manager and Vice President of Nunes Turfgrass Nurseries states. "And that's my job—to educate the public on the benefits of sod, and increase our sales."

In doing this, Mutoza, who joined Nunes in 1963, and previously spent 16½ years in agriculture banking, travels many miles, speaking at public meetings, attending conventions, participating in county fairs, trade shows, extolling the virtues of instant sod.

"Merchandising or marketing would not be a big problem," Nunes says, "if I wanted to stay where I am at 160 acres the rest of my life. But I desire a healthy growth for my company, and the industry. And to have growth, we must go out and develop the market."

The greatest percentage of Nunes Turf sod is sold directly to professional landscape contractors. Nunes Turf does no installations itself.

"If we did," Nunes explains, "we'd be competing with our biggest customers."

Credit problems? A few. Again Ed's job. All new orders are C.O.D. until credit is checked, then accounts are followed closely even after credit is established.
better penetration for nutrients and moisture, and aids in disease prevention. There is little room for fungus breeding in clean turf.

While Nunes has eliminated fungus problems, he still has an insect one. Crews spray regularly in the summertime to control sod web moths. A commercial chemical is applied with a ground spray boom.

Weed control is taken care of before all seeding. Crews fumigate every square foot of the sod ground. Menthyl bromide is injected into the soil under controlled moisture and temperature conditions with a Tri-Cal fumigator. The soil is then covered with a plastic tarp and left a minimum of 48 hours. Fumes kill all fungus, weed seeds, anything that might be in the soil.

Fumigating is an expensive operation—$400 an acre—but again (Continued on page 38)

Although his acreage is small compared to some Eastern sod farms, Nunes is quick to point out his dollar value is that of a 1,000-acre farm.

The year-round growing season has its benefits as well as drawbacks. Nunes gets double use from his land. He can harvest a crop every 12 months, compared to 18 to 24 months in some areas. And by planting at the proper time, he can sometimes even make good sod in 9 months.

To achieve this, NUmes Turf must push their crop heavily with fertilizers. They use some organics, a lot of nitrogen, phosphate, and some potash, programming them upon the type of sod and growing season.

This heavy fertilizing produces an abundant upright growth. Mowing must be done regularly every 5 days, and clippings are cleaned up each time with the special self-powered sweeper Nunes has developed. If clippings were left lay, the turf would smother, and the customer would end up with a thatchy sod.

Regular sweeping also gives
Nunes feels it is superior to herbicides in the production of quality sod.

Equally important in Nunes's opinion is the proper amount of irrigation water. NUtes Turf grass crews carry an Aquatron Moisture Meter to eliminate the guesswork from this chore.

Presently, the DuMel Company, manufacturers of Aquatron equipment, is experimenting on the NUtes nursery with a new concept in controlled irrigation—an automatic aquatron programmed so the water will turn on and off at a precise percent of moisture.

Nunes holds the exclusive U.S. franchise for this device. He is excited over its future potential as well as the sod industry as a whole.

"The prospects are unlimited," he states, "but the key to the whole business is still quality and service. Everybody wants a good lawn, and few know how to get one or keep it."

**AAN Convention (from page 24)**

Horticulture with journalism is evident in his activities: Sigma Delta Chi, national journalism fraternity; Alpha Gamma Rho, agricultural fraternity; the Chicago Regional Rose Society; the Garden Writers' Assn. of America; and the Chicago Press Club.

Also presented at the convention, for the first time, were Retail Advertising Awards to 16 garden center firms.

Aside from the National Trade Show exhibits, an advertising workshop, various committee meetings and discussions on timely horticultural matters, the convention agenda also included a tour of Grant's Farm, a trip to the Municipal Opera and to a Cardinals-Giants game, and a tour of St. Louis homes of early 1900 vintage.

**Bigger Trees For Parks.** Vandalism is universal in their wanton destruction of park plantings, especially newly planted trees. Theodore Haskell, of the Lansing, Mich., Parks and Recreation Commission, believes the best solution is use of bigger trees. Vandals normally don't saw or chop down a new tree, but merely snap it off. They can't do this with 4-inch trees so usually leave them alone. Heavy equipment and trained men prove their worth with a planting program which specifies the larger sized trees.

**Entertainment Or For Real?** A real ESP (extra sensory perception) expert entertained arborists at the recent International Shade Tree Conference at Chicago. She predicted a sure cure for Dutch elm disease within 2 years. "Not necessarily a drug," she said, "but a means of control which already exists," implying a method undergoing trial. This proved to be quite a session for ISTC'ers, with some believers. Big majority of the group we talked with seemed as skeptical as we were.

**New Hercules Service.** Hercules has put together a division of environmental services. The new service unit offers coordinated efforts in three segments of the water management field—process water treatment, waste water treatment, and consulting services. The idea is excellent and will be especially helpful to town and city departments who are troubled with a combination of corrosion, scale, fouling, and algae. Problems are related and service can be received for both industrial and effluent water problems. Help in the entire field has been difficult to obtain because of the many phases of technology applicable to the problem.

**WTT in Growth Phase.** WEEDS TREES AND TURF magazine has now surpassed the 35,000 mark in circulation. Besides 3012 tree care companies, WTT now reaches all municipal arborists, more than 7000 custom spray operators, almost 800 sod producers, 2000 aerial applicators, 2000 irrigation contractors, more than 10,000 rights-of-way maintenance, cemetery, airport, park, athletic field, hospital, college, and general vegetation care supervisors, and 6056 golf course superintendents.