

# News

## ENERGY

### "No gas" engine rated at 525 HP

*Editor's note: Wendell Mathews, Editor of the American Sod Producers Association's "Turf News", attended a demonstration of this revolutionary new engine, and presented a one page article in the September/October issue of that publication. At present, there is an injunction against Magnatron, preventing them from releasing any new information about the new engine to the media (or anyone else). The injunction, brought by the Illinois State Attorney General, centers about the fact that the attorney general wants more information on who produces what parts for the engine, how they are made, etc. Magnatron has been advised by counsel not to provide that information. A hearing was held last week (September) by a panel of judges and Magnatron is awaiting their decision.*

An Illinois inventor, Rory Johnson, has built an engine that uses no gas, is noiseless, pollution-free, never shuts off, and is guaranteed to run the engine at least 100,000 miles before refueling is needed. The engine costs approximately \$4,000 including labor to install it. After 100,000 miles, the engine can be refueled for another 100,000 miles for about \$350. It uses Mobil 1 synthetic oil for lubrication. However, because there are no pistons, the oil does not become contaminated and does not have to be changed more than once every 100,000 miles.

The engine, said to be the first of its kind in the world, produces electrical energy generated by the combination of deuterium, a hydrogen product, and gallium, a heavy metal. The engine runs at a constant 114 degrees Fahrenheit, regardless of outside temperatures.

Johnson feels that his new motor is particularly suited for powering farm tractors, trucks, cars or combines. Although it generates 525 hp, it can be regulated for vehicles that won't handle that much horsepower. He pointed out, that as a rule of thumb, the engine would be compatible with most tractors 150 hp and larger.

## TURFGRASS

### Va. bermudagrass shows hardiness

Golf Course Superintendent T.H. Davis pointed out a vigorously spreading bermudagrass to Dr. A.J. Powell of Virginia Polytechnic Institute back in 1972. Dr. Powell took a sample back to the Turf Research Center in Blacksburg where it survived the winters of '76-'77 and '77-'78, when most bermuda in other test plots was killed. The strain was then designated VPI C-1 for testing purposes.

VPI C-1 is being compared with Midiron, Tufcote and Tifway for spread and rate of establishment, from sod, plugs and sprigs. It is also being included in an observational trial of 12 vegetatively established or seeded bermudagrass strains.

Professors L.H. Taylor and R.E. Schmidt have noted that VPI C-1

has outstanding vigor and an attractive medium-green color. It forms a tight sod and tends to remain weed-free. The new bermuda shows possible value for use on golf course fairways, according to Taylor and Schmidt. If the data continues to look good, the strain should be commercially available in Virginia soon.

## CONSTRUCTION

### Jones to design N. Cal's new course

Robert Trent Jones, Jr. has been selected to design the Northern California Golf Association's (NCGA) new championship golf course in Pebble Beach, according to Dr. George A. Swendiman, Jr., president of NCGA.

The NCGA property is in the Hilltop area of the Del Monte Forest. The site lies above the world famous Spyglass Hill, Cypress Point and Pebble Beach courses.

Jones was flattered by the selection. "An opportunity like this may present itself once in a lifetime, he said. "I have the same feeling my father had when he first saw the dunes and forest on which Spyglass now rests. I feel like I have been handed a rare piece of Carrara Marble and asked to sculpt it. I have an obligation to the members of the Northern California Golf Association and to the Game of Golf to design a unique golf course.

Jones went on to say that "I envision an NCGA golf course which will have the same feeling you get on several of the back or forest holes at Cypress Point and on the #2 course at Pinehurst. The NCGA course will definitely be of championship caliber, perhaps shorter than Spyglass, with an emphasis on strategically placed shots, rather than distance. Around the greens, emphasis will be on chipping, much like Pinehurst #2. Construction is expected to begin in 1981.

GOLF BUSINESS pulse report—second quarter*	% of sample	average expenditure	total expenditure within sample	total expenditure projected to universe**
dry turf fertilizer	96.6	\$ 3,308	\$476,000	\$ 39,300,000
liquid turf fertilizer	19.5	769	22,000	9,100,000
pre-emergence herbicide	61.7	891	82,000	10,600,000
post-emergence herbicide	61.7	687	63,000	8,200,000
aquatic herbicide	32.2	357	17,000	4,200,000
fungicides	81.9	2,311	282,000	27,500,000
turf insecticides	71.1	715	76,000	8,500,000
tree insecticides	26.2	193	7,500	2,300,000
seed	60.4	851	77,000	10,000,000
sod	19.5	1,418	41,000	16,900,000
tree fertilizer	19.5	214	6,000	2,500,000
trees	31.5	1,484	70,000	17,600,000
ornamentals	25.5	627	24,000	7,500,000
soil amendments	31.5	710	33,000	8,400,000
Tractors:				
less than 10 h.p.	7.38	2,235	25,000	26,600,000
10-20 h.p.	8.72	3,908	51,000	46,400,000
21-30 h.p.	10.7	5,532	88,000	65,700,000
31-50 h.p.	13.4	9,305	186,000	110,600,000
larger	6.71	16,643	166,000	197,800,000
Self-Propelled Mowers:				
rotary	27.5	1,719	70,000	20,400,000
reel	43.0	4,456	285,000	53,000,000
flail	2.68	1,400	6,000	16,600,000
Tractor-Drawn Mowers:				
rotary	8.72	2,178	28,000	25,900,000
reel	22.1	4,759	157,000	56,600,000
flail	4.03	1,320	8,000	15,700,000
Irrigation Equipment:				
pumps	20.8	4,643	144,000	55,200,000
sprinklers	57.0	7,839	666,000	93,200,000
pipe	37.6	5,058	283,000	60,100,000
controls	23.5	3,547	124,000	42,200,000

\*67 strategically located superintendents reported their expenditures for April, May and June, GOLF BUSINESS presents these figures as an ongoing effort to accurately picture the dollar volume in the golf market.

\*\*These figures are based on the assumption that what is true of the superintendents responding to the questionnaire is true of superintendents in general. A universe figure of 11,885 superintendents is used.