Mum's the word in greensmower R&D

By MARK LESLIE

LAS VEGAS — Silence is golden. That's the rallying cry of the newest trend in golf course greensmower manufacturing. With more and more communities enacting noise laws that otherwise force superintendents into later mowing schedules, electric greensmower is one answer finding favor.

Enter Jacobsen and Ransomes.

Ransomes has been touting its E-Plex for a year. Meanwhile, production is set to begin the first week in April, with May delivery, on Jacobsen's new Greens King Electric, according to John Mielke, manager of communications & promotions. Both units are triplexes.

The main target, according to Jacobsen Product Manager Terry Herlihy, is "golf courses where there are noise-pollution restrictions."

Noise, Herlihy said, is the number-one driving reason behind the research into and development of electric-powered mowers. Second is that electric units have no hydraulic leaks.

Jacobsen's Greens King Electric joins ranks of "quiet" machines.

Lack of pollution is third.

Superintendents in California, especially, may be interested in this new technology because of the state-appointed "brown days" when combustion systems are restricted.

Ransomes' E-Plex sports a 48-volt electric motor and 62-inch cutting width that allows it to cut nine to 18 greens,

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Manufacturers pledge technology to cut air pollution

WASHINGTON, D.C. — Pledging to reduce air pollution through technology improvements, the federal Environmental Protection Agency (EPA) and manufacturers representing more than 90 percent of the industry that makes engines used in lawn and garden equipment have signed a Statement of Principles (SOP) to establish framework for Phase 2 emission standards.

A Proposed Rule is expected in the fall, following public comment. If adopted, the standards are expected to reduce hydrocarbon plus nitrogen-oxide emissions by approximately 40 percent from the Phase 1 levels, which became effective with the 1997 model year.

This category of non-road engines (at or below 19 kilowatts) is sorted into non-handheld Class 1 engines, which are used primarily

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It is 'good for the operator, good for the golf course and good for the environment.'
— Terry Herlihy Jacobsen product manager

Quiet time

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depending upon application and terrain. Design engineers added such elements as a swing-out rear center reel, which is very easy to maintain, as well as interchangeable cutting heads and an optional tournament bedknife. Choice of reels: nine or 11 blades. Height-of-cut range: from 1/10 to .56 inch high.

Jacobsen's 1997 response, revealed at the International Golf Course Conference and Show here in February, can cut 15 to 20 greens, depending on terrain, green size and temperature, and it recharges in eight to 10 hours. It offers seven- or 11-blade-reels and it cuts from 5/64- to 7/16-inch high.

The selling points of the GreensKing Electric, according to Herlihy, are that the unit's speed is controlled to maintain a constant cut, it has regenerative braking, it is all solid-state, and "flash-attach reels" that can be changed in minutes without tools, simply by pulling a pin.

The eight 6-volt batteries on the Jacobsen mower are in a tray that can be lifted out of the unit for recharging while another tray of batteries replaces it.

Also, when the battery charge goes below 20 percent of maximum, the reels shut down so that the cut is consistent, Mielke said, and there is enough power to return to the shop.

"At the moment it's a specialized market," Mielke said.

But manufacturers feel that market will only grow with environmental restrictions — and even superintendents' desires.

Ransomes even claims its E-Plex is more economical to operate than comparable gas and diesel units, and because it is electric, there are fewer moving parts and no engine, pumps, oil filters, spark plugs, radiators, or ignition components to maintain.

The bottom line, Herlihy said, is that people who have driven the electric mower "have commented on how quiet and easy it is to operate, and how it cuts down on fatigue. That and its other features make it good for the operator, good for the golf course and good for the environment."

Companies, EPA agree on emissions

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for residential applications, and non-handheld Class 2 engines, used primarily for commercial applications. Together they contribute about 7 percent of ozone-forming pollutants from mobile sources, the EPA said. The program for Class 1 engines would become effective in 2001 and Class 2 standards would be phased in between 2001 and 2005. The program will not cover existing lawn equipment.

The parties are putting a special emphasis on cleaner, more durable engine technology, such as overhead valves (OHV) with superior combustion chamber and cylinder-head design which would help ensure that emission reductions continue for the useful life of the equipment.

Manufacturers of Class 2 engines are expected to shift their production completely to OHV, or comparably clean and durable technology as a result of these standards.

To determine the feasibility and marketability of using OHV for Class 1 engines, EPA has entered into separate Memoranda of Understanding with Briggs & Stratton Corp. and Tecuemsh Products Co., calling for an OHV demonstration program.

The signatories also agreed to work on a voluntary fuel spillage-reduction program to educate consumers about the significant contribution to air pollution from fuel spillage and to encourage development and use of technology to reduce spills by users.