



BY LARRY AYLWARD, EDITOR IN CHIEF

# Get In the Know

Your knowledge of  
**hand-held** equipment could  
help your maintenance  
operation on  
several fronts

**W**hat do you know about outdoor power hand-held equipment?

A little? A lot? Nothing?

If you don't know much, you might want to try and educate yourself a tad on the basics of hand-held equipment, including weed eaters, blowers, chain saws and other items. What you know about hand-held equipment could help you save some money on new equipment expenditures and your overall maintenance budget, among other things.

Echo Inc.'s Andy Kuczmar recently conducted a day-long seminar with the Turf Equipment Technicians Association (TETA), an organization comprised of professional turf equipment industry technicians. What Kuczmar, Echo's senior director of product training and product support, learned from the TETA members is that golf course superintendents and their maintenance crews don't know much about hand-held

technology. "There seems to be a lot of misunderstanding out there," Kuczmar says.

The seminar focused on the latest technology in the hand-held equipment sector, including emission-certified equipment. The technicians told Kuczmar that one reason superintendents don't pay attention to what's going on with hand-held technology is because they view less-expensive items such as weed eaters and blowers as less important than more expensive items such as greens mowers and topdressers.

"But usually these golf courses will have 10 pieces to 12 pieces of hand-held equipment," Kuczmar points out. "When you add it up, that's a lot of money."

And a good reason for superintendents to care.

Being in the know is not just about economics. It's about safety, too. Superintendents and their employees should know that the lighter a hand-held product, the more safe it is.

"People get tired when they use heavy equipment," Kuczmar says. "When they get tired, they get careless and fatigued. That's when accidents happen."

Hence, manufacturers strive to make equipment that's lighter. Kuczmar says two-stroke engines are 25 percent lighter than many four-stroke engines because they don't have as many moving parts.

Safety goes hand in hand with comfortability, manufacturers agree. Jay Larsen, North American marketing manager for Shindaiwa in Tualatin, Ore., says his company emphasizes operator comfort, ergonomics and aesthetics when designing products. For instance, Larson says all Shindaiwa backpack blowers feature comfortable back pads made of "breathable" nylon, which help keep the operator cool on hot days and allows for long hours of performance with minimal fatigue.

There are environmental components associated with hand-held equipment of which superintendents should be aware. Kuczmar says it's important for superintendents to understand the difference between two-stroke and four-stroke technology especially as they relate to emissions, which is an ongoing and important environmental factor facing manufacturers and users.

Five years ago the two-stroke engines put out about 185 grams to 200 grams of emissions per horsepower hour.

Today, under the Environmental Protection Agency (EPA) and California Air Resources Board (CARB), the emission regulations are 37 grams per horsepower hour.

"The big challenge has been how to comply with emission regulations," says Tommy Tanakal, vice president of marketing for Norcross, Ga.-based Red Max, whose Strato-Charged technology is in reaction to stringent CARB and EPA emission standards.

Kuczmar says today's two-stroke engines aren't as dirty as they were six years ago. Many two-stroke engines also use less fuel. "The engines we make today vs. five years ago are 35 percent to 37 percent more fuel efficient," Kuczmar says.

Some manufacturers sell hand-held equipment powered by mini four-stroke engines. Shindaiwa offers products featuring its C4 Technology, which the company says is a cross between two-cycle and four-cycle and combines the best features of the two-cycle engine (compactness, power to weight ratio, minimum-moving parts), and the 4-cycle engine (precise metering of combustion gases). C-4 stands for compression-charged clean combustion.

Tanakal says customers continually seek products that are more productive but cost less. While end-users are demanding, manufacturers have no choice but to try and meet their needs, Tanaka adds. ■