

SPRAYING EQUIPMENT

by TERRY McIVER / Managing Editor

A wide variety of accessories, brands and models of spray equipment are available for use in large and small turf and ornamental applications.

The head horticulturist/grounds supervisor for the Pinehurst Resort Country Club says the resort's grounds and golf course crews use all kinds of spray equipment, from a Cushman 100-gallon tank with a six-foot boom, to Spray Hawks, Flood Jets and Monsanto's Expedite sprayer for small spot treatments.

"My emphasis is on ornamentals—trees, shrubs and flowers," explains John Clark. "The superintendents are set up for a larger area."

Clark says new equipment purchases are made "only if it's something we think will make the job more efficient, easier or safer."

"We're pretty intense about grounds care, and the superintendents are more intense," says Clark. All Pinehurst crews share a concern for spraying application safety and efficiency. Clark says the crews are always careful about what materials are applied, when they applied, and how the job is done.

"We're very conscientious about the weather," says Clark. "We watch the elements and spray when it's calm. If it's too windy, we shut down and wait for a better day."

Spraying Systems, Inc., says to delay spraying if wind speeds exceed 7 mph or temperature is above 85 degrees and relative humidity is less than 50 percent.

Safe and 'on the spot'

Accuracy and safety should be your two biggest concerns whenever you use spray applicators. These factors determine how much product you use, the future condition of the turf-grass, and whether or not you operate within established regulations and guidelines.

"Drift" is defined as the movement of spray droplets outside the intended target, and is a major concern to applicators. The smaller the droplet size, the more prone to drift the product will be in windier climates. Different-sized spray tips produce different-sized droplets under varied degrees of pressure. A nozzle might produce medium droplets at low pressures, while produc-



Echo's MS-5 is a 5-gallon tank with interchangeable pump handle for left- or right-hand operation.



The Cushman 5th Wheel Sprayer contains six Venturi Jet agitators.



Jacobsen Division of Textron SV trucks offer a choice of three spraying attachments.



Agri-Fab's 15-gallon towable sprayer comes with a 12-foot handgun.



Solo sprayers are equipped with easy moving pumps with large cylinder capacity.

ing fine droplets as pressure is increased.

When using a boom sprayer, speed is an important factor in establishing accuracy. Sprayer calibration prepares your sprayer for operation and diagnoses tip wear.

Each nozzle must be checked for accuracy. Variations in sprayer output can be caused by mismatched nozzles or nozzles that have worn unevenly. There may also be some plumbing clogs to clear, or screens may be plugged or partially plugged.

Consult with manufacturers or distributors to learn the appropriate calculations for nozzle output.

Spray nozzles: easy to damage

Don't overlook the importance of spray tips to proper pesticide application. The goal is to get the largest droplets without losing good target coverage. Today's advanced tip designs produce larger droplets less prone to drift, while maintaining a high quality spray pattern. In applications where maximum coverage is critical, higher carrier volumes may be necessary when droplet sizes are very coarse.

Watch for wear. Finely-machined edges on most tips are delicate and easy to damage. When the tips become damaged or worn, they often let more material through and over-apply product, or put product down unevenly.

These guidelines will help protect spray nozzles:

- 1) **Select** tips made of long-lasting material, or replace them often.
- 2) **Use** recommended strainers to reduce tip clogging.
- 3) **Clean** nozzles with a soft-bristled brush. Even a wooden toothpick can damage the orifice and cause uneven spray patterns.

The naked eye can't see tip damage, so you have to compare each tip's flow rate to the flow rate of a new tip of the same size and type. If flow rates from two or more tips on the boom differ by 10 percent, replace the entire set.



Tuflex truck-mounted spray systems range in capacities from 300 to 2000 gallons.

Tanks for different jobs

Spray tanks are made of either stainless steel or fiberglass, with polyurethane enamel for chemical and impact resistance.

Tank sizes range from about 5 gallons to small trailer models, to 3000 gallon, truck-mounted units.

If you need a larger tank, be sure its capacity is sufficient to cover the proper-

ties in one trip. Smaller, compact models may be designed for a van or pick-up truck bed. Features include diaphragm pumps, hose and applicator gun.

High-volume trigger sprayers can be used on a variety of containers. Adjustable sprayers can shoot 30 feet or more and also be dialed down to an ultra-fine mist.

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SPRAY EQUIPMENT FOR PROFESSIONAL USE

AGRI-FAB **(217) 728-8388** **Circle No. 280**

Sprayers for spot weed control to large-area fertilization have 15- to 25-gallon capacity tanks. They are available as hand-held, push models or tow and tractor-mounted units. All have easy-to-grip handgun hoses.

BROYHILL **(402) 987-3412** **Circle No. 281**

Sprayers for a variety of product applicators: Terramaster pin-mounted sprayers for turf vehicles; AccuSpeed walk-behind booms; 200-gallon Hydramaster tanks; a Fairway LX 3000 series; and Mini-50 and Stadium-80 units. Accessories include low-profile booms; spray gun kits; hose reel assemblies; electric lift actuator; and foam markers.

hoses and console mounting stand. Boom sprayers are available with 200- and 300-gallon tanks.

DYNA-FOG **(317) 896-2561** **Circle No. 283**

Dyna-Fog plastic sprayers use UV-stabilized polypropylene tanks and fiberglass-reinforced wands. Nozzle wear is reduced by using polyacetal, a material with the characteristics of stainless steel and four times the nozzle life of brass, according to the company. Knapsack sprayers, trigger sprayers and pump sprayers are available. Tanks hold 1½, 3 and 4 gallons. The knapsack sprayer is made of a one-piece plastic tank with enclosed pump and no seals to wear out. Larger riding units are available for broadcast fogging against flies and mosquitoes.

FRIEND MFG. **(716) 772-2622** **Circle No. 285**

Commander Sprayers have a wide range of accessories, such as mechanical and hydraulic spray booms, hose reels, spray guns, Kohler and Honda engines, sprayer computers and monitors. They are available as trailer models or utility vehicle-mounted, with an engine drive or PTO drive.

GREGSON **(716) 768-7035** **Circle No. 286**

Gregson makes truck-mounted sprayers from 500 to 800 gallons; and van, pick-up truck and trailer sprayers from 100 to 500 gallons. The Eco-500 is a 25-gallon stainless steel or poly tank used for blanket application from a main tank (typically fertilizer) and on-demand spot treatment from an auxiliary tank (typically herbicide). By installing the Eco-500 on existing sprayers, you are able to blanket-apply fertilizers and selectively apply pesticides by pulling a second trigger on the spray gun. Distributed in the U.S. through Rhett M. Clark, Inc.

HANNAY REELS **(518) 797-3791** **Circle No. 287**

The 1000 Series hose reel was designed to be strong, lightweight and suitable for various pest control and lawn care applications. The reel is also suitable for all power cleaning applications, including washdown, in-plant cleaning and degreasing. It is made to handle ½- and ¾-inch I.D. hose from 50 to 175 feet long, and will handle product temperatures from 20° F to 400° F. The Series 1500 handles ¾- through 1-inch I.D. hose with either a direct-crank rewind or a chain and sprocket drive powered by electric or compressed air motor. The reel is a direct crank rewind. A removable crank is also available.

JACOBSEN **(414) 637-4465** **Circle No. 288**

The SV-3422 and SV-2322 system vehicles offer a choice of three spraying attachments. Truck-mounted sprayers are available in 125-gallon and 20-gallon models.

Both sprayers have a working width of 20 feet for fast coverage,

and remote electronic controls for easier hook-up and cleaner operation. For really big spraying jobs, use the fifth-wheel attachment 300-gallon sprayer.

KROMER **(612) 472-4167** **Circle No. 289**

The Kromer AFM is a multiple purpose unit for spraying weed and insect control products. It can also be used to water down baseball in-fields. The tank has a 50-gallon capacity. Attachments are available for other maintenance duties: a spring tooth harrow, leveling blade, broom, line painter, line cutter, utility box and draw bar.

LESCO **(800) 321-5325** **Circle No. 290**

Choose from a complete line of poly tank sprayers, from 50 to 300 gallons. These high-quality spray units can be mounted in a pickup truck, van or truckster-type maintenance vehicle (50- and 100-gallon models only). Running gear assemblies are available that allow sprayers to be towed. These sprayers are ideal for use by professional turf managers, landscapers and tree and ornamental specialists. Backpack sprayers, poly sprayers, spray wands and spray guns are also available.

MACKISSIC **(610) 495-7181** **Circle No. 291**

The Mighty Mac PS350T-10 sprayer is a 50-gallon power sprayer. Spray tall trees up to 35 feet high with 300 lbs. pressure at 10 gallons per minute. The sturdy tank is non-corroding, 200-mil polyethylene and has a large 10-inch fill opening with twist-on lid. The large opening allows easy interior access for thorough, reach-in cleaning. Flow bypass return line provides liquid agitation that keeps wettable powders in suspension. Other products range in size from 12½ to 50 gallons.

PARKER HANNIFIN **(216) 943-5700** **Circle No. 292**

The company's Hose Products Division offers a new catalog describing its varied assortment of hose, fittings and equipment. An appendices section offers informa-



Broyhill's walking boom features an Accuspeed speedometer and an optional, 'see-through' drift cover.

CUSHMAN **(800) 228-4444** **Circle No. 282**

The Cushman Turf Master by SDI (Spraying Devices, Inc.) offers the ultimate in spraying technology along with proven benefits of the Cushman Turf-Truckster. The Turf Master features ground pressure of 11 psi on the rear wheels at full capacity. Tanks are 125- to 160-gallon. SDI's electronic boom spray control console includes pressure gauge, pressure adjustment switch, master and individual on/off switches, electric pressure regulator, three solenoid valves, boom feed

ECHO **(847) 540-8400** **Circle No. 284**

The MS-5 manual backpack sprayer features a five-gallon, high-density polyethylene tank for long-lasting use and fewer stops between refills. A 24-inch brass lance has an adjustable nozzle and an oversized actuator with lock-on feature, for commercial users with lots of spraying to do. All seals and O-rings are made of chemically-resistant Viton.

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tion for working with Parker hose products, including chemical resistance information, standards and specifications for hose, pressure rating tables and charts, metric conversion information, hose installation tips, a safety guide and more.

RAVEN IND.
(605) 336-2750
Circle No. 293

The company manufactures sprayer flow control systems, chemical injection systems and an automatic liquid/dry control system for agriculture, turf and roadside applications.

SDI/SPRAYING DEVICES
(209) 734-5555
Circle No. 294

Vehicle-mounted models can be quickly pinned onto Jacobsen, Toro and Cushman Turf Vehicles for dedicated spraying. Trailer-mounted models can be pulled by most any tractor or turf vehicle by simply hooking up to the sprayer drawbar when ready to spray. Other attach-

ments include 15-, 20-, and 25-foot "Equal Flow" stainless steel spray booms, electric "motor driven" boom control systems, hose reels, spray hoses, spray gun, walking spray booms and "Quick Foam" foam marker systems.

SHINDAIWA
(503) 692-3070
Circle No. 295

The SP415 sprayer features a high-efficiency piston pump with built-in agitator to minimize operator effort. Viton seals are chemical resistant. An in-tank pump system means a reduced chance of leaks during operation. The flat bottom tank resists tipping, and a concave tank contour fits the operator's back for maximum comfort. Standard equipment includes four nozzles, field service kit and tools for normal periodic maintenance requirements.

SOLO
(804) 225-4228
Circle No. 296

Sprayers feature ergonomically-

designed pump and carrying handle, comfortable backpack carrying frames and large openings for easy filling. Complete emptying and cleaning of the pressure sprayers is easy. The sprayers are equipped with easy moving pumps with large cylinder capacity for extended but comfortable operation. Lightweight shut-off valves and rugged spray tubes fit nicely in the operator's hand.

SP SYSTEMS
(310) 449-1492
Circle No. 297

The SP0 four-gallon Knapsack Sprayer comes equipped with a new, patented triple function pump. The pump—with piston/diaphragm agitation—offers incredible spraying pressure, safety from leaks and the ability to agitate wettable powders all at the same time. The unit is easy to use, simple to maintain.

SPECTRUM ELECTRO-STATIC SPRAYERS
(210) 822-8479
Circle No. 298

The Spectrum 3010 Electrostatic Spray Head converts motorized backpack mistblowers to electrostatic operation. According to the company, advantages are significant increase in spray deposition, uniform coverage on both the top and undersides of leaves, and reduced chemical requirements, worker exposure, drift and run-off.

SPRAYING SYSTEMS
(708) 665-5000
Circle No. 299

The makers of TeeJet products supply a wide variety of spray tips, nozzle bodies, pressure regulating valves, spray guns and sprayer control, calibration and adjustment accessories. Regional offices are located across the U.S.

TUFLEX
(800) 327-9005; (305) 785-6402 in Florida
Circle No. 306

Tuflex makes handcrafted fiberglass tanks for the lawn care and pest control industries. Truck-mounted spray systems range in capacities from 300 to 2000 gallons. Trailer units include a 30-gallon en-

closed system, a 100-gallon nursery sprayer and a 400-gallon two-compartment system. The Injecto-Matic chemical injector system is a 600-gallon seamless fiberglass tank with dual reels for turf, trees and shrubs; tip-n-pour containment; tool racks; handwash port; dry product storage; an external tank fill port and other features. Tank mix systems with auxiliary pumps and engine are also available.

WESTHEFFER
(800) 362-3110
Circle No. 307

This distributor offers parts and repair kits for "just about everything" related to spray systems. A BF 12-volt sprayer unit is a compact,



The SP0 from SP Systems has a triple function pump.

quiet and cost-effective herbicide and pesticide sprayer. A 200-gallon poly tank has a D30 Diaphragm Pump, Honda 5.5 engine, Hannay electric reel, 300-foot, half-inch 600 psi hose and ChemLawn spray gun. Other units available.

WYLIE
(800) 722-4001
Circle No. 308

The Wylie Road-way Spray System is an affordable solution to right-of-way weed control for roadways and waterways. Designed to adapt to most any flatbed vehicle, with a one-ton capacity, the 500-gallon unit is durable dependable and simple to operate. The SK-110 Sprayer is assembled with a 5 hp Briggs & Stratton engine and comes with a high-pressure spray hose.

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WAIT UNTIL YOU DON'T HEAR

WHAT'S NEW FROM ECHO

Ask Any Pro!

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