

Buying the best sprayer

■ Before the new spraying season begins, you should do a complete evaluation of your equipment.

"Each year, more applicators find that either their equipment isn't up to the task, or they can save time and money by outfitting their sprayers with new technology before the season starts," says Rich Gould, ag marketing specialist at Spraying Systems Co.

If you're in the market for a new sprayer, check out possible choices with questions like these:

1) How well is it constructed? Is the tank made of stainless steel? Is the piping molded? Is it coated with polyurethane enamel for chemical and impact resistance? Does it have all Viton seals? Is the packing gland rustproof?

2) Does its size meet your needs? If you need a large spray tank, does it have a 900-gallon or more tank? Can it service your estimated number of accounts in a normal season? Can the unit slide into your flatbed truck?

If you need a smaller unit, is the model compact? Is it designed for a van or pick-up truck? Does it have special features such as two 100-gallon rectangular tanks, a diaphragm pump, approximately 300 feet of hose, and a lawn or ornamental gun?

3) Does it have other special features? Don't insist on versatile features if you're not going to use them. But be aware of these "extras:"

- ✓ a high-volume continuous trigger sprayer which adapts easily to a variety of containers;

- ✓ versatility: to shoot a stream 30 feet or more but, after adjustment, be able to deliver an ultra-fine mist;

- ✓ a universal adapter, a triggle bottle adapter and a fully-adjustable nozzle with shutoff;

- ✓ a reel that allows the operator to rewind the hose conveniently; and/or

- ✓ single or dual injection pumping.

4) How well does it handle treatment agents? Does it allow fertilizers and chemicals to be sprayed either separately or as a mix? Does it permit the selective use of expensive chemicals in lawn areas that require spot treatment? Are there separate polyethylene tanks which can be used for spraying herbicides, insecticides, soil conditioners and other similar solutions?

5) Are options available? Such as a variety of hoses, trailers and spray booms, which can be purchased later. This is important, especially if you feel that you only need a single-purpose sprayer now, but that you'll eventually branch out into other more lucrative work that will require a more sophisticated machine.

Some popular options, according to Spraying Systems Co., include:

- ✓ sprayer control kits, which allow applicators to control boom sections from the vehicle's cab;

- ✓ clean water tanks, which can be used in the field to rinse hands or equipment;

- ✓ diaphragm check valves, which eliminate drips after the

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Photo courtesy of Lesco, Inc.

Parker

POWER RAKE

for dethatching, verticutting
and renovating

Parker Thatch-O-Matic Power Rakes are designed to dig out matted grass clipping, leaves and other organic matter.

- Each are powered by a 5 hp engine and cut a 19" swath thru built up thatch.



3 Reel Options:



Tine Reel for digging heavy thatch with minimal damage.



Knife Reel for digging out thatch and verticutting soil.



Flail Reel for digging out heavy thatch with optimum durability.

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P.O. Box 1728
Springfield, Ohio 45501



Deere's boom sprayer has a 200-gal. tank and 21-foot chain-supported boom.

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boom shuts down;

- ✓ three-way solenoid valves, which bypass boom flow to keep pressure constant when one or more boom sections are shut down;

- ✓ triple nozzle bodies, which hold up to three nozzles, allowing applicators to switch nozzles in the field in seconds; and

- ✓ drift-reducing nozzles, which are engineered to produce larger droplets that are less likely to drift.

6) If you plan to purchase an electric-powered sprayer, is the diaphragm pump protected with a fuse and an automatic

pressure-sensing switch? Is there a rechargeable battery pack available for easy hook-up to the truck's electrical system? Is there protection via a circuit breaker? Is there a wiring kit, complete with instructions for making connections to your truck's alternator?

7) If the sprayer is designed to fit in a truckster-type maintenance vehicle, is its size suitable for the vehicle? Will it be mounted there permanently, or will you use the truck for other work?, asks Bob Riley of Green Pro Cooperative Services. How much weight will the vehicle accommodate?

8) Is the new unit completely assembled? Or will you have to put it together yourself? If so, are the directions really clear and specific? Are well-drawn diagrams included?

9) Is the manufacturer reliable? How long has it been in business? To find out comprehensive answers, contact your local Better Business Bureau, the local branch of your trade association, and friends in the business.

—Bess Ritter May, author of this article, is a freelance writer based in Philadelphia, Pa. She is a frequent contributor.

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SPRAYER EFFICIENCY

■ An efficient sprayer will earn profits for many years if you operate it sensibly and treat it kindly, says agricultural engineer Erdal Ozkan at Ohio State University. He makes these tips:

- **Always calibrate carefully.** If you don't, you'll waste expensive chemicals and cash. When a sprayer is over-supplying chemicals by as little as 16 percent, it can translate into a loss of approximately \$1200 per year.

- **Understand the factors that influence application rate.** These include shape and size of nozzle orifice, pressure at the nozzle, spacing, travel speed, concentration of active ingredient in the solution, and the uniformity of distribution. Check them routinely.

- **Remember that how the chemical is deposited is as important as the amount applied.** Check the nozzle's output periodically for clogging and whether the patterns are overlapping to ensure complete coverage.

- **Use the right nozzle.**

- **Move the sprayer in a uniform, calibrated speed.** (Moving faster cuts the application rate.)

- **Avoid chemical drift.** Remember that there is usually less drift in the morning and late afternoon.







- **Carry spare parts with you.** These should include extra nozzles, washers and repair tools.

- **Never use a pin, knife or similar object to unclog the nozzle,** because it changes the spray pattern or flow rate.

- **Clean the sprayer after each use,** and use only clean water.

—B.R.M.

SPRAYING SYSTEMS

MANUFACTURER		TYPE	NOTES	CIRCLE NO.
B&G Equipment Plumsteadville, Pa.		BACKPACK SPRAYERS: KP-4	holds 4 gal. (as large a volume as practical to carry); adjustable nozzle for close-in or distance spraying; provides hands-free operation	300
Broyhill Dakota City, Neb.		BOOM SPRAYERS: Terramaster	Terramaster fits turf trucksters; tanks from 120- to 160-gal., polyethylene and fiberglass, and electronic console controlled sprayers; three-point and skidded sprayers and turf booms and accessories also available	301
Danville Express Danville, Kans.		BOOM SPRAYERS: No-Drift sprayers	system releases chemicals through rollers for no drift during windy days; tank capacity is 12 gallons with roller widths 48, 60 and 72 inches; walk-behind DEX 30 also available	302
Deere & Company Moline, Ill.		BOOM SPRAYER: 1800 Sprayer	for use with 1800 Utility Vehicle, this Accumaster sprayer has 200-gal. polyethylene tank, Ace centrifugal pump to 100 psi, and 21-foot chain-supported boom	303
Land Pride Assania, Kans.		BOOM SPRAYERS: Chem-Pro Turf Sprayers	stainless steel tanks, sizes 100 to 370 gal. with WhirlFilters, level float boom, electric control console and metered manifold; also, the Wilker Walker, with speedometer, for walking applications	304
Lesco Inc.		TANKS, SPRAY UNITS	complete line of poly tank sprayers, 50 to 300 gallons, with gear assemblies, accessories; also available: nozzles, hoses, other parts	305
Maruyama U.S. Redmond, Wash.		BACKPACK SPRAYERS: Models MS056, MS056E, MO046	features Maruyama's duplex piston pump #056 with stainless steel wetted pump parts; 1.3 gpm maximum, up to 356 psi, dual-head nozzle; engine is Maruyama 19.8 cc two-cycle	306
Master Mfg. Sioux City, Ia.		TANK SPRAYERS: Dobbins brand	sizes range from 8 to 150 gallons with pumps from 60 to 550 psi	307
Micro-Trak Systems Mankato, MN		SPRAY MONITORS: MT-3000	MT-3000 is an electronic monitor/controller for pre-determined rate with digital readouts; Nitro-Trak is an electronic monitor/controller for anhydrous ammonia application with a liquid crystal display	308
Mid-Atlantic Systems Elkton, Md.		BOOM SPRAYER: Turf Runner	ground-driven, variable-stroke metering pump for constant accurate volume (not pressure); sprayer equipped with 300-gallon polyethylene tank, 25-foot spray boom; rates available from 8 to 60 gallons/acre	309
Milliken Chemicals Inman, S.C.		PATTERN INDICATOR: Blazon	blue colorant applied at 1/2 to 3/4 oz./1000 sq. ft.; non-staining and non-toxic; can help identify clogged nozzles	310

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Ransomes boom sprayers have tank capacities off 160-300 gallons.

Toro's InJector Pro mixes chemicals at the last moment.



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MANUFACTURER	TYPE	NOTES	CIRCLE NO.
Nomix Inc. Smyrna, Ga.	BACKPACK SPRAYER: Expedite	complete closed system backpack/wand sprayer for treating up to 47,000 sq.ft.; herbicides available are Grass & Weed I, Grass & Weed II, Grass & Weed Plus and 3-Way Broadleaf	311
Professional Tree & Turf Golden, Colo.	 SPRAYING SYSTEM	herbicide sprayers with 14 to 200 gal. tanks, 12-volt pump with agitation option; \$195 and up	312
Ransomes America Lincoln, Neb.	BOOM SPRAYERS: Cushman Turf Master, 5th Wheel	low ground pressure for reduced soil compaction with tank sizes 160 to 300 gal. on Turf Master; 300-gal. tank on 5th Wheel with six Venturi Jet Agitators and 20-foot wet boom	313
Rogers Innovative Saskatchewan, Canada	 BOOM SPRAYER Windfoil 3500	sprayer mounts on front-deck riding mowers; 5- to 12-foot booms, covered for less drift; can spray right to the edge of flower beds, etc.	314
Solo, Inc. Newport News, Va.	 BACKPACK SPRAYERS: Models 425/435	4- or 5-gallon capacity with piston pumps produce pressure up to 90 psi; polyethylene tank, viton seals. Also available: 475/485 with diaphragm pumps	315
Spraying Devices Visalia, Calif.	 BOOM SPRAYERS: Turf N'Trees	Equal-Flow all stainless steel wet boom with break-away hinges, easy height adjustment, drip-free nozzles and stainless steel tips; tank capacities 100 to 300 gal.; 20 gpm, 250 psi	316
Spraying Systems Wheaton, Ill.	NOZZLE: Quick Turbo Floodjet	design increases droplet size and distribution uniformity for drift control using special turbulence chamber; sizes from 1.5 to 12 gpm at pressures of 10 to 40 psi	317
Toro Company Minneapolis, Minn.	METERING SYSTEM: InJector Pro	water and chemicals kept separate until moments before mixture is injected into spray booms; can apply two chemicals at same time	318
Tuflex Pompano Beach, Fla.	 TANKS, SPRAY UNITS	one of the most complete lines of fiberglass tanks, hoses, valves, guns, wand, pumps, etc. on the market	319
United Hort. Supply Salem, Ore.	 BACKPACK SPRAYERS: CP3 Outlaster	contoured polypropylene tank with no exposed parts; tank capacity is 4.2 gallons with diaphragm pump; accurate at 15, 30 and 45 psi	320

ED. NOTE: Space precludes the inclusion of all spray systems and components. Please consult our September 1993 Buyer's Guide for complete listings.

Source: LM phone survey, March 1994