Small Sprayers Showing More Utility Than Ever

Whether pulled by truck, tractor or ATV, small sprayers are carving out a valuable niche among no-tillers and strip-tillers for performing timely and sensitive fieldwork quickly and efficiently.

By Mark Parker, Contributing Editor

uge self-propelled sprayers can cover lots of ground in a hurry, but many no-tillers are finding a useful and productive niche on their farms for smaller sprayers.

Pull-type and ATV sprayers are showing up on more small- to medium-sized farms, as well as in large notill operations where they're used to complement large sprayers or custom application.

Whether it's burning down cover crops, accessing wet ground or staying on top of invasive weed threats, notillers and strip-tillers are using small sprayers to address a myriad of application needs.

And with AGCO's decision to cease production of the storied SpraCoupe small self-propelled sprayer (parts will still be made), the role of small sprayers still being manufactured could see some expansion as well.

finding the small units come in very handy.

"A large percentage of our customers have large, self-propelled sprayers," says Jeff Mick of JM Innovations of Edwardsville, Ill., which specializes in ATV sprayers. "They're finding that there's a place for small sprayers in all operations.

"It seems like the bigger sprayers get, the more small sprayers we sell. There is no silver bullet out there no one sprayer is the best choice for every spraying job."

Light Weight, Low Cost

Near Dana, Ind., strip-tiller Josh Bishop recently purchased a JM ATV Mini Floater sprayer with a 200-gallon tank and 60-foot-wide self-leveling

For most spraying jobs, he relies on saddle tanks and 60-foot, 3-point booms mounted on a John Deere 4430 tractor, as well as custom applications.

the soil," says Bishop, who grows 1,000 acres of corn and soybeans with his father and brother. "Another big reason was that this is our first year with cover crops, and we have about 750 acres of cereal rye to burn down this spring.

"We thought the small sprayer would be an economical way to do that, even if it did take a little longer.

"I expect it to take about twice as long to spray the cereal rye, but we'll be able to do it on our schedule. And we should be able to spray in wetter conditions if we need to — the actual spraying time will be more, but we may be able to get it done on a more timely basis, compared to having to wait for drier conditions."

Although most ATV-type sprayers are actually pulled with an ATV, Bishop purchased a used Geo Tracker that will be fitted with a 2-inch-ball gooseneck hitch and dedicated to sprayer use.

"We wanted a cab for drift protection, and the Geo Tracker is pretty fuel



have to consider the cost of the vehicle you're pulling it with, as well as the sprayer. But this is still a pretty economical choice."

The Bishops farm a lot of clay soils, and rutting can be an issue when it's wet. Because of that, they bought a set of wide tires for wet conditions, and more narrow tires for later in-season herbicide applications.

The other reason the Bishops chose the ATV sprayer is one to which many no-tillers can relate.

"Cost," Josh says. "The ATV sprayer is an economical starting point for us. It has some other advantages, like lighter weight, but it's also a fraction of the cost of a big sprayer — and there are times when you don't want that big, heavy sprayer out on your field, but you still do need to spray.

"If we want to move to something like a light SpraCoupe later, we can always do that. But we think this is going to be a pretty useful implement."

Stopping Weed Escapes

For Larry Tombaugh of Streator, Ill., a 650-gallon Hardi pull-type sprayer is the "heart and soul" of his 480-acre cornand-soybean operation, but a smaller sprayer proves to be useful as well.

"It's amazing how weeds pop up in spots, and you want to get out there and take care of them quickly," says Tombaugh, whose farming schedule has to work around other business interests. "We have a 60-gallon Demco



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FLEXIBLE LINEUP. Greensburg, Ind., no-tiller and strip-tiller Roger Wenning uses a SpraCoupe 230 with a 60-foot boom for most of his spraying, but also utilizes a smaller sprayer with a 45-foot boom, pulled by a 19-horsepower tractor, for early burndown if a field is very wet. "This is very critical for burning down annual ryegrass," he says.

12-volt sprayer mounted in the box of our John Deere Gator, and we'll use that in fence rows, fields, or in hard-to-get-to spots whenever we have a weed flush or escape. The wheels are a little tight in 30-inch rows, so you have to take care. But it gets a lot of use."

The sprayer has a 10-foot boom and a hand wand for spot spraying.

Tombaugh's burndown and pre-emergence herbicide applications, such as spraying Verdict and glyphosate on corn right after planting — as well as some foliar feeding treatments — are made with the Hardi pull-type.

He also uses it to kill cover crops and to apply a fall stalk desiccant. A custom sprayer with 120-foot booms steps in to take care of insecticide and fungicide applications, when crops get too tall for the pull-type sprayer.

Relatively light compared to large self-propelled models, the Hardi sprayer also has narrower tires, so less of the crop is driven over if it's used for fungicide or pesticide applications when soybeans begin to canopy over. Lighter weight also means less ground damage.

Having access to both sprayers is important to Tombaugh.

"With the trend toward conservation tillage, owning your own sprayer is more important than ever," he says. "Everything has to be done in such a timely manner that you must be able to respond quickly.

"For us, the sprayer doesn't have to be huge, but it does have to do a good job. A sprayer has become one of the most significant pieces of equipment on our farm."

Death To Weeds

Near Jefferson, Iowa, James Andrew has had a particular passion against weeds, going back to when he was walking soybean fields and killing the invaders by hand.

These days, the no-tiller has what he calls an "air force"-ready to attack.

"We have a 3460 SpraCoupe that I've always thought looked like a small fighter plane, and that's what we do with it — we fight weeds. When I want to get into a small-scale dogfight, though, I go to the ATVs."

Andrew has a small Polaris ATV with a Fimco-type, 20-gallon sprayer skid-mounted on the back. It's a tool that has proven so useful that he bought another setup just like it so he could have a unit at each of his farms.

He also has a slide-in pickup-mounted sprayer with handgun that he uses primarily for road ditches.

"The ATV sprayers are used to go around the edges of fields and catch "I've seen a lot of cases when I could be out spraying several days sooner than neighbors with large sprayers..."

any problems," he explains, "but we also use it in fields if we have some escapes, because the bigger sprayer shuts off or for any other reason. If we see we have some weed pressure out in the south 40, off we go with the ATV sprayer and we take care of it.

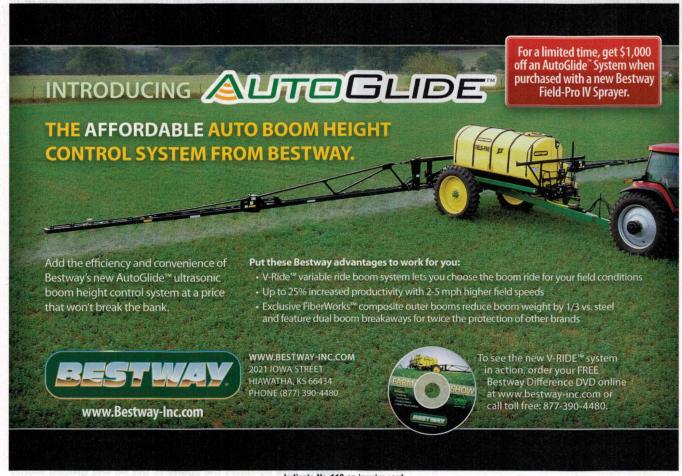
"We can catch 6 rows — 180 inches — with the boom and, of course, for spot spraying we just use the hand boom."

The ATV sprayers are also useful for weed control around bins, buildings and fencerows, he says. The caveat for operating a sprayer from an open ATV is to be mindful of the wind and the potential for drift, especially agrichemicals that can drift back on the operator, he says.

"It's not real efficient, I suppose, compared to the really big sprayers," Andrew continues, "but a lot of times you just have small weed-infested areas and taking a big sprayer out to handle those isn't very efficient.

"Controlling those small areas is still pretty important because you don't want a bigger problem next year, and you don't want to spread weed seed across the whole township."

For small flushes, Andrew prefers not to fill up the SpraCoupe and take it out to the field, so the ATV sprayers are convenient. He uses a tank cleaner and



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MORE EFFICIENCY. Egon Zunckel, who no-tills corn, soybeans, wheat and canola near Rustenburg, Bergville, South Africa, has used Jacto trailed sprayers several times a year to perform numerous spraying tasks, from burndown to fungicide applications.

just mixes up a small batch of whatever herbicide is needed so there's no waste.

Of course, the SpraCoupe, with its 300-gallon tank and 60-foot boom width is small and light by today's standards, but Andrew says it really fits well with his 1,350-acre no-till corn and soybean operation.

"The combination of no-till and a light sprayer is wonderful for getting on wet fields," he says. "I've seen a lot of cases when I could be out spraying several days sooner than neighbors with large sprayers.

"I'm pretty serious about not compacting my soil, but with the firm base that no-till provides, and the lighter sprayer weight, I've gone through standing water without causing any ground damage — the sprayer just slides right across."

All of the sprayers are important to Andrew's weed-fighting arsenal. He plants Roundup Ready soybeans and LibertyLink corn, rotated 50-50. He also applies residual herbicides. No-till, he adds, is an excellent anti-weed tool, but somehow the weed battle never quite ends.

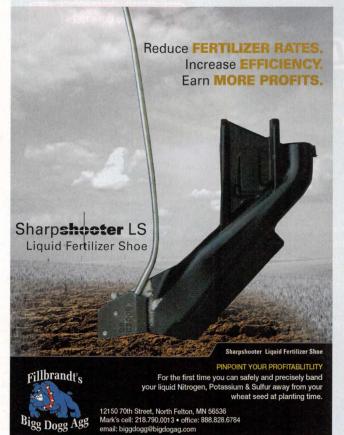
"Weed seed comes in from water flow, birds and animals—and neighbors, too," he says. "Having the SpraCoupe and the two ATV sprayers gives me the equipment to control them in a timely way, and we can do it on our own schedule. If you have to wait for the co-op or a custom applicator—and then wait for just the right conditions—you're in trouble.

"Owning this equipment has allowed us to maintain an extremely weed-free environment, and with no-till farming techniques not bringing weed seed into the top soil layer, we have virtually eliminated weed pressure in our operation — and now I have absolutely no excuse for having weed problems."

Small Sprayers, Big Capabilities

In eastern Pennsylvania, where most farms are relatively small, spraying equipment reflects the size of the operations.

CropCare in Lititz, Pa., manufactures and markets 3-point, pull-type and ATV sprayers. The company makes



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LIGHT FOOTPRINT: ATV sprayers, like this JM Innovations Mini Floater, give no-tillers the ability to get on wet ground sooner in the spring.

sprayers with tanks up to 1,000-gallon capacity, but most primary-use sprayers are in the 300- to 750-gallon range.

But buying a small sprayer doesn't mean no-tillers have to compromise on capability, says Eric Burkholder of CropCare.

"For a fraction of the cost of a large, self-propelled model, farmers can get a smaller sprayer that's equipped with a lot of the same technology," he says. "Precision-agriculture tools have become very affordable, and you can outfit a small sprayer to achieve many of the same benefits as the very large sprayers — you don't have to sacrifice those capabilities in that lower price range.

"In our area, being efficient and precise is very important to farmers from a stewardship standpoint, as well as an economic one," he adds.

Burkholder says CropCare models in the 300- to 1,000-gallon range can be equipped with an electronic-control setup to match the farmer's needs. A CropCare SC400 control offers the option of solenoid valves or 450 Series TeeJet Flow Back for \$650. Hydraulic fold-boom options are also available. For 300-gallon Ag Trailer Sprayers, boom widths range 20 to 60 feet.

On CropCare sprayers — as well as other quality small sprayers — there is also a wide range of nozzle types to deliver a broad spectrum of droplet sizes and patterns at different pressures.

"Having the right nozzle for a particular job — from herbicides to insecticides to fertilizers — is important to get the most out of any sprayer but that's something else you don't have to sacrifice on," Burkholder says. "I think the important thing to consider is that a smaller sprayer doesn't have to mean less performance.

"If a small sprayer fits the job or the situation, you can find one that delivers everything you need at an economical price."

Growing Popularity

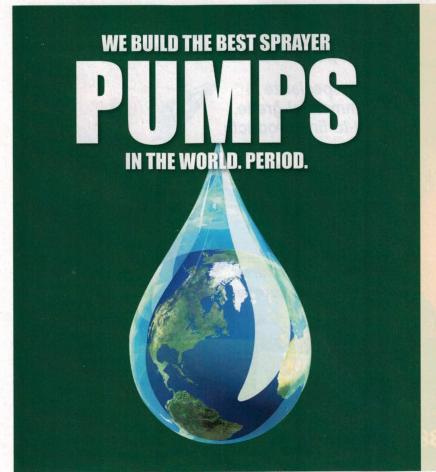
Mick of JM Innovations says the No. 1 reason his customers buy one of his ATV Mini Floater sprayers is to get on wet ground a little earlier in the spring than a larger sprayer would allow.

"Nobody wants to damage their ground and leave big ruts in the field, but timing is so critical for many of these operations," he says. "Burndown herbicide application is probably the biggest use, but they get used for just about everything."

Although farmers want the lighter weight of an ATV sprayer, that doesn't necessarily mean they don't want to cover as many acres as possible.

"Even with the ATV sprayers, they want them bigger, wider, faster," Mick says. "The market for me is field work. I'd say the majority of my customers have a big sprayer, and they want the ATV sprayer to supplement that.

"For a lot of farmers who have in







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the range of 600 to 1,800 acres, though, they're using these as their main machines."

JM makes several different models of Mini Floaters, and hydraulic-fold booms are available in 32½-, 50- and 60-foot widths. A 200-gallon tank mounted on a 4-wheel trailer is standard, but other sizes are also available. Booms are adjustable from waist- to chest-high, Mick says.

Although it varies with field conditions, he says on a day-in, day-out basis, an operator can cover 200 acres per day with 32½-foot booms, 300 acres per day with 50-foot booms, and 400 acres per day with 60-foot booms. Travel speed can be up to 15 mph, depending on the field and the setup.

"A lot of farmers use these spray-

ers for the smaller jobs, but for others they are their main sprayer," Mick says. "And they're finding that they can get quite a bit done with the right kind of small sprayer."

Choose The Right Sprayer

The important thing, Mick says, is matching up what farmers need with the models and options available, including the type of tires, frame style, axle, boom, hitch, plumbing, markers, guidance and nozzles. Guidance-system capability is also available.

Other options to consider include an acre calculator and digital speedometer for measuring true ground speed to improve rate accuracy, and 15-inch wide rubber belted tracks to increase the sprayer's footprint. "I try to spend some time with the farmer and figure out what would work best for what he wants out of the sprayer," Mick says, "There are a lot of choices and every farm is different. If you're going to use it to topdress wheat, for example, you need high-volume plumbing."

Although they're called ATV sprayers, Mick says they're pulled by a wide variety of vehicles, including small tractors, Jeeps, and pickups. He's even outfitted an ATV-type track vehicle.

"Farmers are pretty innovative, so we try to respond to that," he says. "There are considerations for matching the sprayer and trailer to the towing vehicle so that's another thing to keep in mind when looking at ATV sprayers."



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