

Sprayers in East Texas – Part I

Spraying is the most effective way to control weeds in hayfields and pastures. While mowing has its place in any operation, better control can be achieved, usually for a lower cost, by spraying rather than mowing pastures. Mowing many weeds just makes them come back thicker the following season. It's too bad this doesn't work with haircuts, because I've shaved my head for years, and I can tell you, it ain't gettin' any thicker! All joking aside, if you haven't had your pastures and hayfields on a spraying program, you're missing out on a great method of weed control.

Once you've decided you want to spray, you've got a decision to make. You can either hire a custom spraying company to do it or you can buy a sprayer and do it yourself. There are some very good custom spraying companies in our area, and most of them do an excellent job. However, if you decide to purchase a sprayer and handle it yourself, there's some things you need to know.

When you're looking for a sprayer to pull behind a farm tractor, there are two basic types to choose from: three-point hitch and pull-type. A three-point hitch mounted sprayer works well for smaller tank sizes. Since water, the most common herbicide carrier, weighs just north of eight pounds per gallon, this becomes our biggest limiting factor in a three-point sprayer. Our most popular three-point sprayers are in the 55 to 200 gallon range. Sprayers of this type work well behind most tractors in the 30 to 60 horsepower range. The larger the tractor, the larger the three-point sprayer can be, but you'll reach a point where going to a pull-type sprayer will make more sense.

Let's say you've got a 70 horsepower tractor and you want to buy a 300 gallon sprayer. At 8.35 pounds per gallon, this sprayer will hold about 2,500 lbs of liquid. When we add in the physical weight of the spray rig itself, we would be approaching the 3,000 pound range. Now, most 70 horsepower tractors will lift this amount of weight without much trouble – but just because you can, doesn't mean you should! A good amount of front ballast will be necessary to make the tractor steer properly, and even with ballast added, such a heavy load can make the tractor feel “doggy” and sluggish to drive due to the rear tires being forced to carry such a load. The tractor will probably try to “walk” from side to side and be a bear to handle. This is why, in our area, most sprayers upwards of 200 gallons are sold as pull-type units. Pull-type units have the tank mounted on a trailer, typically with either a single or tandem axle with smooth implement tires. Specialty models are available for row-crop and rough ground applications with large tractor tires mounted on a single axle. Common tank sizes for pull-type sprayers in East Texas are 300, 500, 750, and 1000 gallons.

Next thing, we need to look at how we want to outfit the sprayer. Let's first look at the boom-style applicator. Benefits of traditional booms are better accuracy and less wind drift. This can be important, particularly if you have neighbors growing crops that could

potentially be harmed by whatever chemical you're spraying. Booms are typically in the 25'-40' range, with many nozzles spread down the boom. They are adjustable up and down, and fold for transport. They should have a break-back feature so they'll fold back if they hit an obstruction. Booms, however, also have some serious drawbacks. For fields that are less than smooth, booms can hit the ground at the tips when one of the trailer wheels rolls into a hole. Hog wallows can make this a very serious concern. If you have a really rough field, you may have to raise a boom so high to keep it from hitting the ground, your accuracy may be diminished and your drift may become unmanageable. If you have lots of trees to spray around, you'll soon find that booms can become a serious liability and make your job much more difficult, or impossible. Booms also have many tips that will need to be serviced. Each tip has a filter screen behind it that needs to be kept clear of debris to keep it working correctly.

The other popular application option is the boomless nozzle. The boomless nozzle simply sprays the solution outwards from a central point (usually directly behind) on the sprayer. Boomless nozzles can have as few as one nozzle to as many as five or more. There are various types of nozzles available with varying degrees of accuracy. It's usually worth it to spend a little more for better tips up front, since the slightly higher initial cost will be quickly offset by the savings on chemicals due to increased accuracy. You've got to be more careful with these nozzles with regards to spray drift – often the early morning and late afternoon will be the best time to spray due to less wind. They also tend to be less accurate than boom-type sprayers. However, the better boomless nozzle designs now rival boom-type setups in the area of accuracy. The big advantage of the boomless is that rough pastures and trees aren't a big concern. The boomless design also has a lower initial cost and lower maintenance costs throughout the life of the sprayer. –Greg Beaver