

# Choosing a Sprayer for Your Small Farm Needs

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On our small farm we needed a sprayer for multiple uses, including several acres of food plots, an acre of orchard and the capability to correctly spray herbicides, fungicides and insecticides in field and orchard conditions. You will not find this type of sprayer at your local supplier and may have to special order such a sprayer. These sprayers will also cost about five times more than an inexpensive herbicide sprayer. This additional cost can be justified if the versatility is required for your operation.



Hardi BNL 50 Estate Sprayer

If you are only spraying herbicides or other products that do not need high pressure and high water volume per acre, an inexpensive boom type sprayer is all you need. Some systemic insecticides or fungicides could also be applied with this type of sprayer. Today a lot of food plot sprayers are mounted on the the back of ATVs and UTVs for this purpose. However, if you need to apply contact fungicides, insecticides, miticides or other products that need to be applied with high water volume and high pressure to obtain thorough coverage, you will need a more sophisticated sprayer to achieve this goal.

For spraying a small orchard it will require high water volume and high pressure to get up into the trees and achieve complete coverage of all the leaves, fruit and branches. This requires either an air-blast sprayer or a high pressure gun sprayer. The air-blast sprayer is the most efficient choice, but requires purchasing a completely separate piece of expensive equipment. A high pressure gun sprayer can be added to a boom sprayer as an accessory for a small orchard. With a gun sprayer your mobility is limited by the length of the hose that is attached to the sprayer.

For spraying small fruit crops like strawberries, or low height vegetable crops like broccoli, pumpkins, potatoes, etc., a high water volume, high pressure sprayer is required in order for the spray material to penetrate the leaf canopy and undersides of the leaves of these crops. Products such as fungicides, insecticides, miticides require high water volume and high pressure. Herbicide products do not require high pressure or high water volume. You will need to understand the capability of the available pumps that can be mounted on your sprayer and choose the proper pump to supply the water and spray pressure you will require.



Adjust your boom height so the spray pattern achieves good coverage

If simply spraying pre-plant, pre-emergence, or post applied herbicides or other products that require low pressure and low

water volume a basic boom sprayer is all you need. These sprayers are available normally from local suppliers and are relatively inexpensive. They usually come with flat fan nozzles for applying herbicides.



Adjust your pressure to meet the needs of your situation

Maintenance for sprayers is relatively simple. Keep the sprayer inside, if possible. Storing the sprayer inside helps reduce exposure to moisture and sunlight. Sunlight will fade the paint and will contribute to the gradual degradation of the hoses. Moisture encourages rust. Keep any mechanisms that require lubrication greased or oiled at least annually. When overwintering in climates with freezing temperatures, the water in the sprayer pumps and lines should be replaced with an antifreeze mixture as required by the manufacturer.

There are a variety of nozzles that are available for sprayers, depending on what you need to spray. For herbicides, the flat fan nozzles that come with the sprayer are probably all you will need. If you are applying other products, hollow cone nozzles or other types of nozzles may be required. Accessories are also available such as a diaphragm check valve for drip free shut off, which shuts the nozzle off at below 10 PSI (pounds per square inch). This feature stops the nozzle from dripping once it is shut off.



Choose nozzles that fit your needs

Most boom sprayers have folding booms and this is a great feature for storing the sprayer. The outside booms fold up and criss-cross on the back of the sprayer.



Features: Orchard Spray Gun, High Pressure & Folding Booms

When you add additional equipment like a sprayer, disc, or bush hog to the back of a sprayer it adds weight to the back which must be counter balanced on the front. We have added weights to the front bumper of our tractor. Other options are to add a fluid inside the front tractor tires or add weights to the front tractor wheels. If you choose to add fluid to the tractor tires, a qualified tractor tire dealer can do this.



Adding weight to the front  
of the tractor

Always read agricultural chemical labels, tractor owners manuals and equipment manuals prior to attaching and using an agricultural sprayer.