

Horticultural Department

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Spraying Machinery and Accessories

While spraying has not been a general practice in many of the orchards of Western Washington in the past, it is becoming more so each year. Many of the old home orchards are being cut out or "cleaned up" and a demand for spraying machinery is increasing.

"What kind of a sprayer is best for my orchard?" is a question that often comes to me.

The selection of a sprayer is much like the selection of other farm machinery. Several things are to be considered, such as the size of the orchard, amount of money that can be expended and the amount of work for a gasoline engine on the farm.

HAND SPRAYERS.

The man with only a few trees would not care to invest two or three hundred dollars in a power sprayer and he would hardly be justified in doing it. A good barrel sprayer or tank pump would serve his purpose very well with considerable less expense.

BARREL PUMPS.

Barrel pumps fitted with good hose and nozzles will discharge 50 to 60 gallons of spray per hour at a pressure of 75 to 100 pounds. One lead of hose and a single large nozzle can be successfully used with such a pump. Pumps of this type are: Gould's "Pomona," Morrill and Morley "Eclipse" and Hardie "No. 6."

It Pays To Fertilize

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Such sprayers usually sell at from \$20 to \$30 complete with hose, nozzle and extension rod.

TANK PUMPS.

Tank pumps will give greater pressure and discharge more spray in a given time than barrel sprayers. These pumps are so constructed that the handle is operated with a forward and backward stroke instead of an up and down stroke as in the barrel pumps. Tank pumps are usually not provided with agitators and the spray must be kept stirred in the spray tank by hand. The Bean, Friend, Deming, Gould, Myers, Morrill and Morley, and Hardie companies all have satisfactory tank pumps.

POWER SPRAYERS.

Some growers are trying to make a barrel sprayer do the work of a power machine. The grower with 200 or more fruit trees to spray, wood to cut and feed to grind, will often find it economy to invest in a power sprayer with a gasoline engine that can do all of such work. Some sprayers are so built that by means of an extra belt and pulley the engine may be used to furnish power for much of the heavy work about the farm.

Besides being suitable to the orchard or farm, the sprayer should be efficient. Its efficiency depends upon the construction and assembling of the important working parts. The engine and pump of a power sprayer should be as simple as possible with accessible parts so that they may be easily repaired and cleaned. They should both be made of strong and durable material but not heavy enough to be cumbersome.

In choosing an engine for a sprayer the grower cares very little whether it is of the upright or horizontal type; if it is a two-cycle or four-cycle engine. He does, however, want an engine that is easy to start, easy to operate, and one that is dependable under all kinds of field conditions. He wants to start it and know that it will run. He cannot afford to buy an engine that will require all of his time or the time of one of his men to keep it working. Capacity is an important factor in an engine. While it is not best to have an engine so large that it is cumbersome compared with the rest of the rig, it is better to have it with a greater capacity than is necessary, than less. An overworked engine like an overworked animal becomes weak and not dependable. The pump of a power sprayer should have all the good qualities of the engine. It should be light in weight, simple in construction and durable. In general a duplex or triplex type of pump is considered most desirable for this work. There are, however, on the market, power sprayers with one-horse power engines, single cylinder, double acting pump and 100 gallon tank that do excellent work. One good strong horse can easily pull such a rig and with one lead of hose, one man can easily do all of the work. I have used such

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a power sprayer during the past year made by the Hardie Manufacturing Company. The rig is guaranteed to maintain a pressure of 200 pounds when using one lead of hose and a large nozzle. On several occasions two leads of hose were used and two large nozzles with very little noticeable difference in pressure. I have also used a sprayer very similar in size and efficiency manufactured by the Bean Spray Pump Company. Both of these machines, though too small for large orchards, will give excellent satisfaction to the growers of Western Washington. They are light, durable, cheap and reliable. It is not my purpose to advocate the use of one make of sprayer over another but it is my desire to advise the readers of these columns to the best of my knowledge and if possible aid them in securing the most practicable spraying outfit for their use. Besides the two makes of small power sprayers mentioned, are the makes of other sprayer companies. Some of these companies are as follows:

American Sprayer Company, Minneapolis, Minn.
Barnes Manufacturing Company, Mansfield, Ohio.
Bateman Manufacturing Company, Greenloch, N. J.

Bean Spray Pump Company, Cleveland, Ohio, San Jose, Cal., Kansas, Mo.

Brown E. C. Company, Rochester, N. Y.

Crown Specialty Company, Chicago, Ill.

Cushman Sprayer and Engine Company, St. Joseph.

Dayton Supply Company, Dayton, Ohio.

Deming Company, Salem, Ohio.

Douglas, W. & B., Middleton, Pa.

Deyo-Macey Engine Company

Binghamton, N. Y.

Fairbanks, Morse & Company, St. Louis, Mo.

Field Force Pump Company, Elmira, N. Y.

Friend Manufacturing Company, Gasport, N. Y.

Goulds Manufacturing Company, Seneca Falls, N. Y.

Gilson Manufacturing Company, Port Washington, Wis.

Hardie Manufacturing Company, Hudson, Mich., and Portland, Ore.

Hayes Pump and Planter Company, Galva, Ill.

Horticultural Chemical Company, Philadelphia, Pa.

Hurst Manufacturing Company, Canton, Ohio.

Illinois Melats Company, Chicago,

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