



Jar with graduated markings and a watch are needed to check the flow rate of nozzles on sprayer boom.

May is time to check power spraying equipment



Following a test run over a measured course, refill the sprayer tank with a bucket having graduated markings to determine amount of liquid used.

COLLEGE PARK, Md. — May is a good time for Mid-Atlantic area crop farmers to check out their power spraying equipment, says Donald E. Osburn, Talbot County extension agricultural agent on Maryland's Eastern Shore.

Osburn notes that heavy seasonal use of field sprayers starts in June for both weeds and insects in corn and soybean fields.

He points out that nozzle output can vary as much as 50 to 100 percent from tip to tip on a spray boom. So it's important to run a calibration test on your sprayer ahead of time to insure uniform application rate—and worthwhile results.

Procedures for calibration of power sprayers are contained in two publications available free from county Extension offices throughout Maryland. They are "Broadcast

Spraying" (Extension Bulletin 229) and "Know Your Sprayer Equipment" (FACTS 99).

The latter publication also contains tips for calibrating hand sprayers. It is authored by Gary L. Smith, an Extension agricultural engineering specialist at the University of Maryland in College Park. Smith offers the following pointers on calibrating power sprayers and selecting proper spray nozzles.

First, on calibration: Make sure that spray rig is in good operating condition.

Fill the tank with clean water. Start up sprayer and watch for leaky hoses or hose connections. Continue operating spray rig for several minutes to flush out tank and hose lines before starting calibration test.

Use a bottle or jar, with graduated markings, and a timing device, such as a watch with a sweep second hand.

Placing evenly spaced markings on a fruit jar will suffice as a homemade container. With sprayer in operation, make sure that container is held for exactly one minute under each nozzle. Replace nozzles which give a flow rate more than 10 percent different from the volume produced by other nozzles on the spray boom.

Next, it's important to run a measured course.

Perform this test on type of soil where you will be spraying—not on a driveway or other hard surface. If you intend to use surfactants or emulsifiable oils with your spray, include these in the test. They can significantly affect the rate of flow through spray nozzles. Note exact level of liquid in tank before beginning test run.

To determine distance to drive, divide number of square feet in one-fourth acre (10,980) by effective width of sprayer boom in feet. Example: With a 30-foot boom width, drive 363

feet. Drive measured course at normal speed for field spraying. Keep track of exact time required for the test.

Then, refill tank to level at which test run started.

Use a bucket with graduated markings to measure exact amount of liquid expended during the test run. Note: You can make your own graduated bucket with a marking pen and gallon jug.

Multiply quantity of liquid expended times four to get rate per acre. Example: If 5 gallons are used in test run, rate per acre is 20 gallons. Dividing 120 by the time in seconds will give speed in miles per hour used during the test. Mark throttle setting used so that speed may be duplicated in the future.

As a note on measuring effective boom width, the Maryland specialist suggests adding 1½ feet to actual boom length when flat fan nozzles are being used.

Other information on the four basic types of spray nozzles includes:

A hollow cone nozzle bears the Whirchamber trademark. It is used for applying most insecticides and fungicides—sometimes for herbicides, too. It gives a circular pattern of fine spray droplets, with most of the spray concentrated on the perimeter of the circle.

A flat fan nozzle is recommended for pre-emergence and post-emergence application of herbicides. Gives fan-like pattern of medium-sized droplets; permits overlapping of adjacent patterns to give uniform distribution.

This nozzle comes with an interchangeable tip which gives a tapered flat fan pattern for pre-emergence band application of her-

bicides over a row, as when planting. But don't mix the two types of sprayer tips, or you'll have gaps in your spray pattern.

The solid cone makes a solid-circle pattern on ground, as opposed to hoop pattern of the hollow cone nozzle. Used most often in hand-held sprayers for garden and nursery application. Often adjustable for spraying fine mist in a wide pattern, close up, or narrow stream of coarse droplets for more distant application.

The flooding flat nozzle has larger orifice than other types; doesn't plug up easily. Gives a fan-like pattern of coarse droplets. Useful for applying liquid fertilizer or for pre-emergence and post-emergence of herbicides where drift control is essential. Use plenty of liquid. Not recommended for applying insecticides.

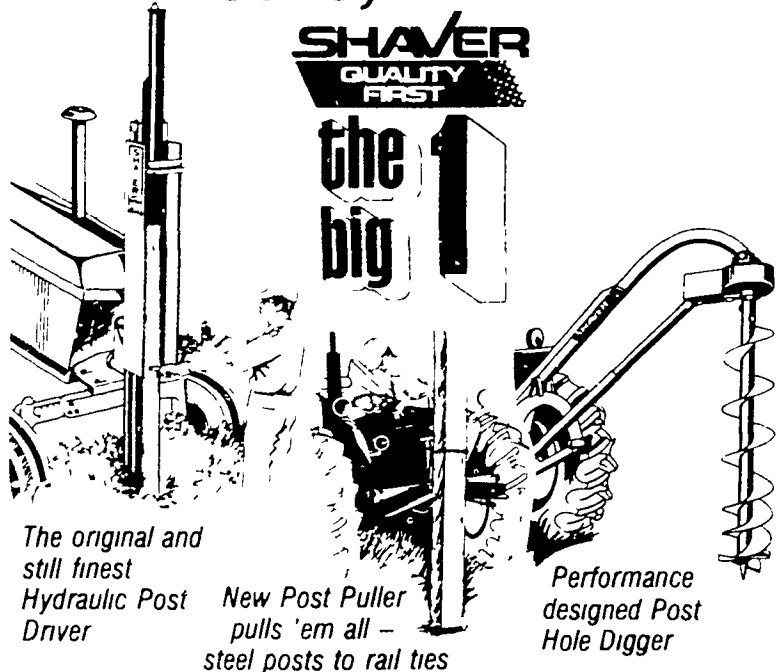
**REGISTERED
BELGIAN
STUD SERVICE**

Excellent Size
& quality
With White Mane
& Tail.
(Also White face)

Stud **\$40**
Fee
w/return
privilege

Lancaster Co.
EDWIN REIFF
PH: 717-656-6801

For ALL your fencing needs, Think...



FOR YOUR NEAREST DEALER PLEASE CONTACT:
HAMILTON EQUIPMENT, INC.
WHOLESALE DISTRIBUTORS
567 South Reading Road, Ephrata, Pennsylvania 17522
Phone (717) 733-7951
Exit 54 on Interstate 81, Raphine, Virginia 24472
Phone (804) 377-2628

Stauffer Diesel Inc. DEUTZ-DIESEL-SALE

Rebuilt and Used Diesel Clearance

- (1) FIL-210, 1 cyl, 12 HP @2400, 200 lbs #523 **\$800**
Rebuilt. 12V starter & fuel tank No gen Bare flywheel 6 mo written warranty
 - (1) FIL-310, 1 cyl, 8 HP @2300 245 lbs #537 **\$875**
Rebuilt. Starter & generator. SAE flywheel & housing, muffler, instrument panel 6 mo written warranty
 - (1) FIL-812, 1 cyl, 10 HP @1800, 400 lbs.. **\$950**
Rebuilt Starter & generator, muffler, 6 mo written warranty
 - (1) F3L-912, 3 cyl., 50 HP @2300 700 lbs #844 **\$2898**
Rebuilt 12V starter & alternator SAE housing & flywheel, muffler, safety shutoff, mtg feet 6 mo. written warranty
 - (1) FIL-511, 1 cyl, 15 HP @2400. 245 lbs. #845 **\$1850**
Demonstrator, 12V starter & alternator SAE housing & flywheel, muffler New warranty
 - (1) F6L-912, 6 cyl., 94 HP @2300 900 lbs. #902 **\$2950**
Reconditioned. 12V starter, alternator SAE housing & flywheel, 6 mo 50/50 warranty
- ★ All our rebuilt Deutzs are a good investment - we guarantee it. Rebuilding records available.
- ★ Terms: 25% Down Payment, 30 - 60 - 90 day payment terms on balance to buyers with our credit approval.

Must mention this ad.

Mechanics Specials

- (1) FIL-712, 1 cyl 10 hp @1800 475 lbs #848 **\$150**
Used, poor condition 12V starter & gen, muffler, control panel and twin disc Clutch As is
- (1) FIL-712, as above but w/o control panel #923 **\$125**

Stauffer Diesel Inc.
312 W. MAIN ST., NEW HOLLAND, PA. 717-354-4181