

SEEDERS AND GRAIN DRILLS

Two General Classes of Seeders; Considerations Met With in Their Operation; Why It Pays to Drill Instead of Broadcast Seed

By E. F. Cauthen, Auburn, Ala.

THE planting of small seed can be done more uniformly with the aid of seeders and drills than by hand. Especially is this true if the farmer has had little experience in hand-sowing. There are on the market many good, simple and inexpensive machines.

Machines for planting small seed may be divided into two general classes: broadcasting and drilling machines. To sow very small seed, like clover and grasses, the broadcasting method seems to give better results; but to sow grain, like wheat, oats and other cereals, experimental data seem to favor drilling in narrow rows.

Broadcasting of small seed can be well done with a small hand machine that costs only \$3 or \$4. The chief parts of such a machine are a bag to hold the seed, a rapidly revolving wheel with fan-like spokes or cup-like rim to scatter the seed, and a crank to operate the wheel. The bag is attached to the top of the machine and strapped over the shoulders of the operator. The rate of seed is controlled by a small gauge that regulates the flow of seed from the sack into the revolving wheel. If the sower walks slowly the seeding will be thicker, and vice versa.

There are some good seeders that can be attached to grain drills, but they are more expensive and are needed only when large areas are to be planted.

Drills for Grain

THERE are many kinds of drills made to meet the varying needs of the farmer. A good machine should be easy to operate, simple, inexpensive and efficient.

The advantages of sowing in drills over broadcasting are shown by many experiments. A good drill plants the seed at a uniform depth and at a regular rate per acre, and does not require as much seed as broadcast sowing. It greatly economizes time, in that it sows the seed, distributes the fertilizer and covers them—all at one operation.

Grain drills may be divided into two general classes: those leaving the surface nearly level and those leaving it in ridges. The latter class is meeting general favor where the farmers wish to employ the open-furrow system of planting. The ridges between the rows of plants protect the plants from winter-killing by preventing them from being lifted out of the ground during alternate freezing and thawing.

The essential parts of a drill are a feeding device, the openers of the furrows, and a device to cover the seed, with or without a fertilizer attachment.

A Good Feed Is Necessary

THE feeding device consists usually of a box with holes in the bottom, a stirring wheel or rod over each hole to keep the seed from clogging the opening and to pass them into it gradually. The best drills are provided with a forced feed attachment, which consists of a circular box attached to a revolving shaft. The seed are caught in the little pockets of the box and dropped into the mouth of the tube which conveys them to the ground in a little stream just behind the opener.

Of the different kinds of openers the single and double disk seem to give the greatest satisfaction. The hoe or shovel drill catches and clogs where there is much grass or stalks or other litter on the land; while the disk openers ride over the small obstructions and plant satisfactorily, if the soil has been well plowed. The disk drills tend to pulverize the surface and leave it in good tilth.

The disks are set at an angle so that they move the dirt slightly aside

and open a shallow furrow. The grain and fertilizer fall through a tube just behind the disk or opener. If the disks penetrate the soil properly, sufficient soil falls behind them to cover the seed. Some machines have short chains dragging in the furrow behind the opener to cover the seed deeper.

Most drills are provided with a fertilizer attachment, which drills in the fertilizer with the seed. The fertilizer should be dry and free from lumps. If it becomes damp it clogs the feeders and tubes and cannot be evenly distributed.

All fertilizer should be promptly cleaned out of the drill, especially if it is rich in acid phosphate, to prevent the corroding of the iron. In fact, it is an excellent farm practice to clean all machines, and make the necessary repairs just as soon as a piece of work is finished, and not to wait until the machine is to be used again.

The width between the rows of plants varies from six inches to 18 inches. The usual width where the ground is to be left smooth is eight inches, and where it is to be left in the open-furrow, is usually from 15 to 18 inches. The common two-horse seeder is usually six feet wide and plants eight rows at the time or five rows in the open-furrow system.

The one-horse open-furrow drill has a small shovel or scooter plow to open the furrow; the seed are dropped just behind the plow in the furrow and a small part of the soil moved by the plow falls on the seed and covers them lightly. With the use of this drill it is not necessary to plow the land before planting, unless the land is very compact and has a great deal of litter on its surface. The chief objection to it is the slowness of seeding.

A very good three-row open-furrow drill has recently been put on the market. It fits in the three and three and a half foot cotton middles and plants the entire middle at one trip. With it one man and two mules plant about three times the area that a one-horse drill plants, and does as efficient work and with more ease. Indeed this three-row machine is easy to operate in cotton land, even before all cotton has been picked, and affords the farmer an opportunity for early fall planting, which often insures a good crop of grain. Late planting often means a poor crop or a failure. The cotton stalks are cut with a stalk cutter during the winter while they are brittle. Where there is not much grass or litter or stumps, this drill does beautiful work.

The Power Hay Press

A NEIGHBOR farmer last year decided to buy a hay press with a gasoline engine attached, as he had quite a large hay farm, and always lost more or less hay from rain and other damages because of the slow work of the horse power press. The power press cost no more than the old horse press, except the engine, and considering the manifold uses this engine is put to, I think it a fine investment for any farmer living where there is a great deal of hay to be put away.

This power press does three times as much baling in the same length of time as the old horse press, and with the same number of workmen. My neighbor has not lost any hay since he bought this press, because he puts it up too quick.

Then, with the engine, he grinds feed, pumps fresh water, saws wood, and does many other chores about the farm with the little giant, thereby saving money and many hours of time. CHAS. W. CASTNER, Lavon, Texas

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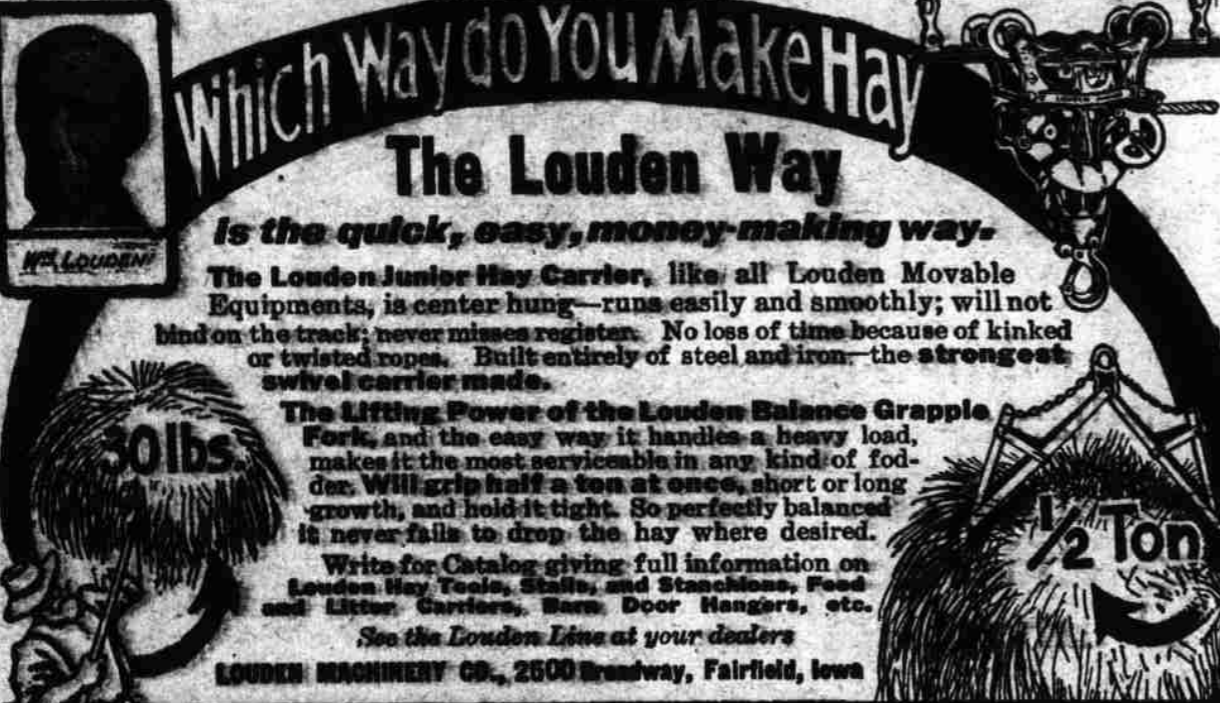
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