NOTES

Results of this preliminary study indicate that proper fertilization, when practiced annually, may reduce the amount of velvetgrass in a pasture stand, but fertilization alone is probably inadequate for complete control.—

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A VERSATILE SMALL GRAIN NURSERY PLANTER

The necessity for adapting nursery planters for planting specific crops has resulted in numerous planter innovations in the last 20 years. Several planters have been described in the Agronomy Journal and in state agricultural experiment station publications. This paper reports a versatile nursery planter that has been used successfully since 1954 for seeding nursery plots of rice, oats, barley, wheat, and flax. It was first assembled in 1954 by H. M. Beachell and J. T. Henderson at the Rice-Pasture Experiment Station, Beaumont, Texas. Slight modifications were made and are included in this report. This nursery planter or some variation thereof might be useful to plant breeders who undertake to plant similar experimental nurseries.

A Bolens Huski Ridemaster (Model 35AB) tractor was adapted for the power source of the planter. The tool bar, seat for the operator, clutch, throttle, and steering mechanism were modified to provide space for mounting the sliding seed tray (Figure 1). This planter was designed to plant 4 rows spaced 12 inches between rows; however, number of rows and row spacings may be varied within the limits of the 48-inch tool bar. A row marker is mounted in front of the motor (Figure 2).

The sliding seed tray is a modification of the one described by Rea and Meek and has been adapted to several other tractors for planting and fertilizer application. The seed tray is without top or bottom and is divided into four or more separate compartments. A seed belt (made of 1/16-inch rubberized fabric) that traverses around 2 rollers forms a false bottom to the seed tray which is mounted inside a metal tray-rack frame which is attached to the front edge of the seed tray and is pulled around the rear roller by a drive pinion when the tractor is in motion. When seed are placed on the belt inside the seed tray and the tractor is activated, the seed tray and seed belt move to the rear of the tractor together. The seed tray is driven by a pinion attached to the left front edge of the seed tray and the drive pinion is chain-driven by sprockets mounted on the left rear ground wheel. The seed tray is equipped with a throw-out device, a front lever which disengages the seed tray at a predetermined plot length. The number of teeth on the drive sprocket determines the speed at which the seed tray moves to the ground speed of the tractor. Different shoes can be used to accommodate the different desired.

The planter shoes are regular John Deere drill spear point openers MD 624 D. The planting is controlled by a conveniently located lever which also functions to raise and lower. Regular Planet Junior covering plows are mounted behind each opening shoe (Figure 2).—G. W. Rivett.

BEACHELL, Research Agronomists, Crops Research Station, ARS, USDA, College Station and Beaumont, Texas. A VERSATILE SMALL GRAIN NURSERY PLANTER

EFFECT OF AMMONIUM SULFATE ON INFILTRATION RATE OF HESPERIA SANDY LOAM SOIL

LONG-TERM rotation plots were established at the U. S. Cotton Research Station, Shafter, California, for three crop rotations (replicated three times): (1) alfalfa 2 years, cotton 2 years; (2) corn 1 year, cotton 1 year; and (3) continuous cotton. Each of the 3 phases appeared each year. The whole plots received 2 rates of nitrogen, 0 and 80 pounds per acre. Nitrogen was applied as ammonium sulfate. Each rotational phase was subjected to 3 factors: (1) nitrogen, (2) irrigation, and (3) plant growth regulator. Irrigation was controlled by furrow irrigation, and the plant growth regulator was ethrel.