NURSERY SEEDING MACHINE

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In an effort to reduce seeding costs and extra labor involved in rolling broadcast sown seed and covering them with sand or sawdust, we have designed a broadcast seeder combination which seems to do as good a job as any we have seen. Future modifications may improve the quality of the sowing.

The rig is designed for use on an Allis-Chalmers Tractor hydraulic lift mechanism but could be easily designed to fit other types of hydraulic lifters.

Essentially it consists of a frame upon which is mounted a roller made from an old water tank. In front of the roller, mounted in such a manner as to be free floating, is a Gandy Nursery Special Fertilizer Spreader and Seeder. The frame is constructed so as to permit removal of either the Gandy (if one just wants to roll an area) or the roller (if one wishes to sow fertilizer on growing stock without rolling the stock down)(figs 1-3).

Bed preparation consists of forming the bed with a tractor-drawn bed shaper behind which is dragged a scratcher to loosen the top 1/8 - ¼" of soil. A board filled with nails served us well as a scratcher; a section of Page fence also serves very well. We also propose to try mounting a roller with small discs just ahead of the Gandy to do the scratching. The action of the roller behind the Gandy moves enough soil to cover the seeds with about 1 /8 - 1/4" which in our sandy soil is sufficient. On heavy soils, this might be too much of a covering, in which case it might be better to not use the scratcher and cover the seeds with sand or sawdust.

The frame and roller was constructed by a local welder at a cost of about $150.00, for all labor, material and parts except for the Gandy.

In the first season of operation, the cost of sowing seed in the nursery using this piece of equipment resulted in a saving in labor costs compared to the old method equal to the cost of construction and materials. The end of the second season should see the entire cost liquidated.

When the soil is moist, it is necessary to have the roller filled with water, but where the soil is dry, the weight is so great as to cause a rolling or piling action in front of the roller composed of loose soil particles and tree seeds.

The machine still needs improvement - the roller could be modified or replaced by a double roller mounted in tandem constructed similar to the roll on a Brillion seeder, also it might be advisable to mount some sort of rig in front of the splash tray of the seeder to make a better seed bed condition for the seed to insure more complete covering of the seed.

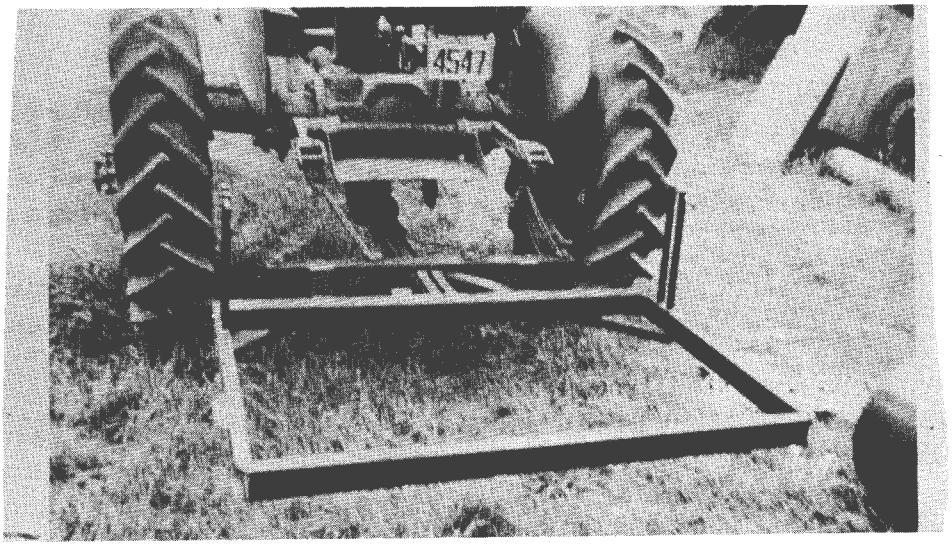

Figure 1. The frame alone. Note uprights to hold axles of Gandy, and flange and holes to hold bushings of roller axle.

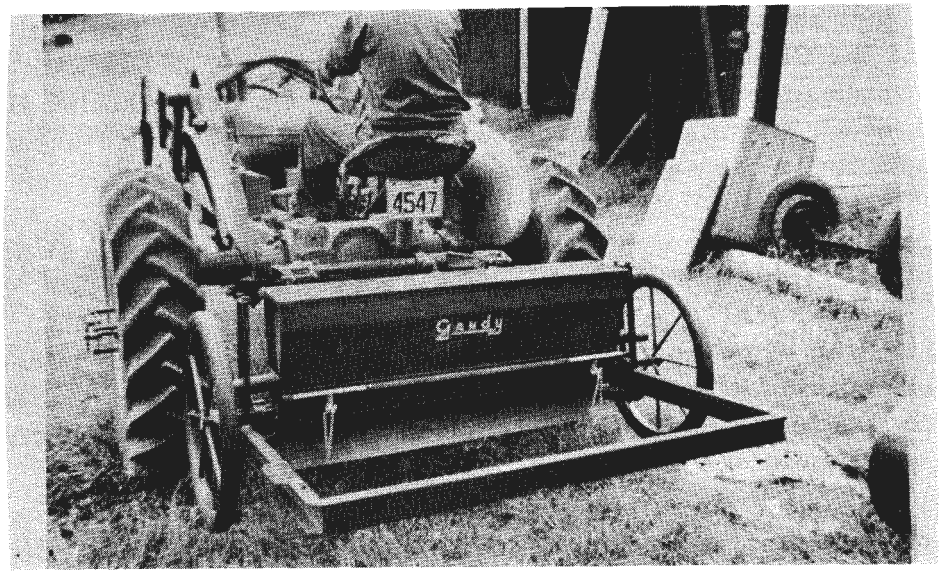

Figure 2. Gandy seeder set in place.

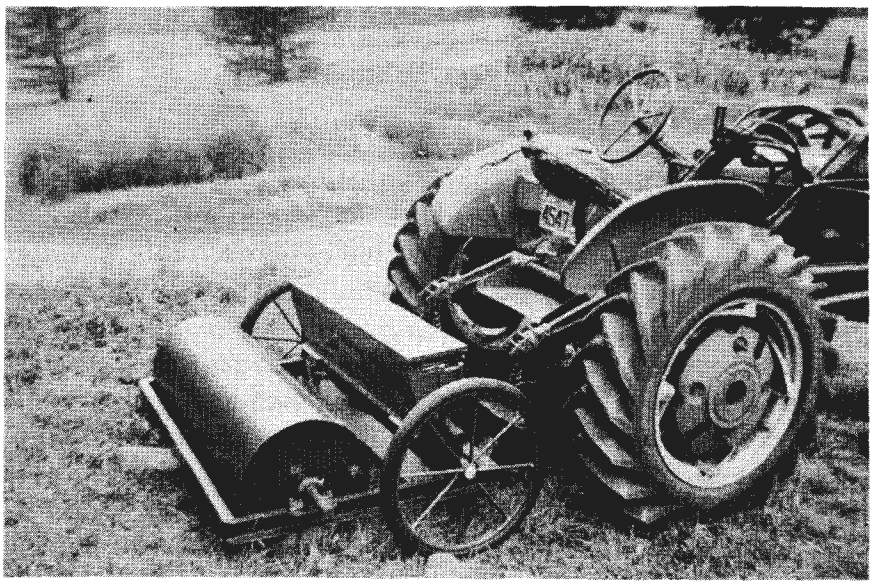

Figure 3. Gandy and roller in place.
(A 2" block of wood between the frame and the roller bushing was required to insure that the Gandy's wheels were always on the ground even though uneven bed surfaces raised the roller and frame a little higher than normal.)