lowing day. After the 21 days on ronphagrass these two wethers were fed normal diets, but after six weeks there was no improvement in their condition.

Van Der Merwe stated that according to Australian research workers, this condition was caused by a toxic substance in Phalaris which affected the central nervous system if adequate supplies of Vitamin B₁₂ were not available, and that a ruminant needs a regular supply of cobalt for the synthesis of this essential vitamin. Preliminary research now in progress at Florida indicates that this condition can be prevented with cobalt supplementation as was reported by Van Der Merwe.

A more thorough chemical analysis of ronphagrass is in progress to study the toxic nature of this grass.

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A GRASS SEED NURSERY HARVESTER

PROBLEMS associated with the harvest of grass seed production research plots have not been solved by the numerous small-plot machines available. Many grasses begin to shatter seed with a moisture content above 35%. Such a shattering characteristic necessitates harvesting before the seed is dry enough to thresh. The normal harvest period of a given variety or species is usually only 2 or 3 days, the period between morphological and physiological maturity and the time shattering starts. Thus, efficient small-plot equipment that makes it possible for a small work crew to harvest a large number of plots in a short time is required.

The writers have designed and constructed a harvester attachment which has been used successfully for three years in grass seed production investigations in Washington. The basic unit of the harvester is a farm tractor with a side-mount mower (Figures 1 and 2). The mower bar was reduced to approximately 20 inches in length to facilitate row harvesting. The harvester attachment was built as a unit and welded or bolted to the cutter bar. This arrangement allows the entire unit to be raised or lowered by the use of the "touch control" hydraulic system of the tractor. The cutter bar can be made to operate at a level position at various heights above the ground by adjusting the lifting mechanism.

Specially designed floating lifters were constructed and attached to the guards on each end of the shortened cutter bar (Figure 3). These lifters pick up the lodged stems on each side of the row when the grass is in rows. In solid stands, the lifters perform the additional function of separating the swath to permit the cutting of a constant width.

Figure 1—Front view of grass-plot harvester showing some of the details of construction.

Figure 2—Side view of the grass-plot harvester.