SCREENING FOR SEEDBED PROTECTION AGAINST BIRDS

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Several species of birds, especially doves, are notorious for their damage to seed and seedlings in forest tree nurseries. Seedlings are particularly vulnerable until the seed coats have dropped from the cotyledons. The seed is eaten and the newly germinated seedlings are clipped below the adhering seed coats and are often pulled out of the soil. Bird activities are greatest at dawn and dusk. The authors have observed the consumption of 67 slash pine seed by a single dove in less than one minute. This was confirmed by an analysis of stomachic contents. Where relatively small numbers of valuable seed from selected parent trees are available, the mischievous activities of birds can often be disastrous to a tree improvement program. To allay the destructiveness of their feeding habits a framed screen has been devised to fit over permanent type seedbeds (fig. 1) .

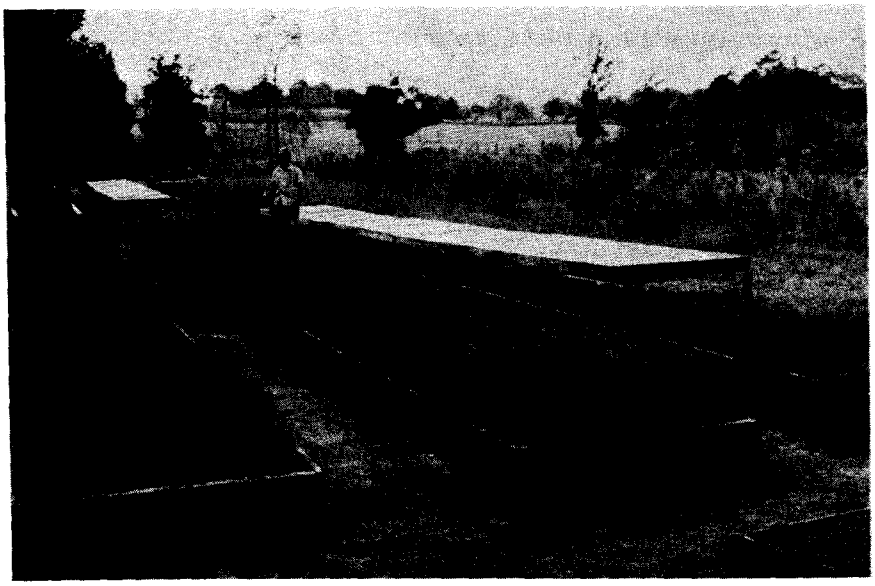

Figure 1. - Screened frames in elevated position providing shade for permanent type seedbeds below.

Subsequent to sowing and mulching with pine straw, the framed screens are placed directly on the seedbeds. Their construction allows sufficient headroom for seedlings to grow until they shed their seed coats and protection is no longer the major objective. The screens are then raised to a higher level where they continue to provide shade. During the early growing season, the screens serve effectively, both as a means of warding off birds and rodents, which can also cause severe damage, and as a means of shading seedling beds to prevent heat injury or sunscald. The value of shade becomes particularly important when growing shortleaf pine and many exotic species. Seedbeds can be watered through the screens, which in effect cuts down the eroding force of water as it comes from a nozzled hose. Damping off has been no problem where normal applications of fungicides are made.

The framed screens are 4 feet wide and 6 feet long, the width of the frame coinciding with the width of the seedbed. The length of the frame was dictated both by the ease of handling and by the length of seedbed, 10 such sections covering seedbeds 60 feet long. The interior frames are made of two 5'10" lengths of 1" x 2" 's with wood blocks for corner bracing. The end frames have the same-dimensions and are generally of the same construction except that one end piece is a 1" x 4". This allows for complete enclosure of the beds. Fiber glass screening is then stapled to each frame.

These screens are not necessarily designed for a large nursery. They are ideal for small experimental ones such as the Tree Improvement Nursery at the University of Georgia, Athens, Ga. This nursery has a capacity of 50, 000 to 100, 000 seedlings. At the cost of present day labor necessary to patrol a nursery during the critical period, the screens will pay for themselves in two to three planting seasons.