## NURSERY BIRD CONTROL THROUGH COVER CROPS

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Each spring most southern nurserymen try to induce birds to eat something besides pine seed. They attain various degrees of success. Most articles dealing with this subject mention noisemakers, unarmed patrols, armed patrols, seedcoatings, etc.; all of these items are expensive, and some are dangerous. Based on our experience, perhaps all one needs to do is to keep a few acres out of seedling production for 2 years, and to plant a cover crop on this site.

In the summer of 1963 it was decided to plant a cover crop consisting of a mixture of soy beans and sorghum on an 8-acre section at our Rose Island Nursery in Vonore, Tenn. This mixture was to serve as a cover crop and as feed and cover during the winter for pheasants that had become established following their experimental release 2 years earlier by the Tennessee Game and Fish Commission.

The growth of the mixture was excellent; the seed of both soy beans and sorghum reached maturity. As the winter progressed, it fell over considerably, but it was up enough to be available to the birds even when snow was on the ground. The pheasants used it as expected, and the doves flocked in by the hundreds when there was snow--an estimated 1,500 or more doves were there during several severe periods. Some ducks also used it.

During April 1964 the mixture was chopped with an ensilage cutter and blown back on the ground. It was to be plowed under, but since it was unusually wet, other work took priority. Despite continued heavy use by the doves, some of the seed germinated and a fine stand of both soy beans and sorghum was established. Therefore, fertilizer was applied and the decision to plow was abandoned.

By mid-May an unusually high number of doves were nesting close to the nursery because of the available food, and we expected them to abandon the cover crop and descend upon our seeded beds. In the past it had always been necessary to keep a shotgun patrol on duty until seedling germination was complete, with doves the chief offender, so we had mixed feelings about the situation the weather had created.

The seedlings came up, and not a single bird bothered them, even though the beds were planted in the section next to the cover crop.

Establishment of this cover crop has saved us more than \$600 (in labor, vehicle, and supply costs, etc.). It has eliminated the need for more than 150 man-hours of overtime and has freed a man to do other work during regular working hours. It has also helped, game birds to survive during the season with, the shortest food supply and has made it: unnecessary to destroy these birds during; their nesting season.

This year we have again planted our cover crop for the game birds; this time we intend] to leave it until the pine seedlings are up next spring.