

Reseeding Methods of 'Meechee' Arrowleaf Clover in No-Till Grain Sorghum.

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A limiting factor in the wide spread use of cover crops in the southeastern US is the cost of annual establishment. 'Meechee' arrowleaf clover (*Trifolium vesiculosum* Savi) is a cool season legume producing seed yields of 225 kg ha⁻¹ with approximately 75% hard seed. Meechee can produce volunteer stands for 1 to 5 years if allowed to reseed periodically. Objective of this study was to determine the influence of soil disturbance in a no-till grain sorghum [*Sorghum bicolor* (L.) Moench ssp. *bicolor*] production system on the reseeding of arrowleaf clover. Tillage treatments included; paratill to a 35.5 cm depth, shallow cultivation prior to shredding stalks, shallow cultivation after shredding stalks, hipping rows prior to shredding and shred stalks with no soil disturbance. Meechee was planted 10 September 1995, allowed to mature seed (523 kg ha⁻¹), clipped and incorporated. Clover yields were significantly higher in tilled treatments. However, there was no significant difference between tillage treatments. Without soil disturbance, percent clover stand decreased to 51%. Clover stands with minimum soil disturbance had significantly higher percent canopy cover than plots without soil disturbance. It appears that Meechee arrowleaf clover requires minimum soil disturbance to maintain adequate volunteer stands if grown in a cropping system.

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