

## **Use of Winter Grains as a Cover Crop to Suppress Plant Parasitic Nematodes in Peanuts and Cotton in Southern Alabama and to identify the Root-knot Nematode Species on Corn**

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We continued studies at Wiregrass Research and Extension Centers (WREC), EV Smith Research Center (EVSRC) and in Huxford, AL (with Brewton Research and Extension Center, BREC). At EVSRC, we have planted the winter grain cover crops on the plots where an aggressive root-knot species has been identified. We followed the cover crops with cotton at that location. The fields used in the other locations were replanted in peanuts or cotton after the winter cover crops. Treatments in the winter crop trials included three wheat cultivars, two oats, two ryes and a fallow, in eight replications. Due to the extreme drought, the data was inclusive. However, we have observed better germination of peanut with some cover crops and differences in numbers of root-knot nematodes under different cover crops over the winter months. Rye and Oats appeared to support less nematodes than any wheat cultivar or fallow though not significantly different.

Populations of the root-knot nematode from corn are now in root-explants cultures. Studies are still underway to utilize the isozyme patterns of both esterases and malate dehydrogenase will be used to determine isozyme profiles of the nematode. The host preference tests indicate the the EV Smith population of root-knot nematode was *M. incognita* race 3 however isozyme patterns have not been analyzed to determine if any variability exists at this time.