TILLAGE AND HERBICIDE MANAGEMENT OF TWO VARIETIES OF PEANUT

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INTERPRETIVE SUMMARY

In 1997, total Florida land area devoted to peanut *(Arachis hypogaea)* production was about 84,000 acres with a farm gate value of over $54,000,000. The real economic value to Florida and the US economy would have been over $160,000,000 due to the multiplier effect. The value of Florida's 94,000 acres of harvested peanuts in 1999 was even greater than in 1997. Peanut research is needed that leads to improved competitiveness and to help improve grower's financial condition. The objective of this research was to determine pod and seed yield and seed quality of two peanut varieties ('Georgia Green' and 'Andru 93') under five tillage and two herbicide management programs, double-cropped following a winter cover crop of rye *(Secale cereale).* Overall pod yield for the five tillage treatments was 5,862 lb/A at 10%moisture . Pod yield was 6,136 lb/A for Georgia Green compared with 5,612 lb/A for Andru 93, a 9.3% advantage for Georgia Green. Herbicide management using Starfire plus Storm gave significantly higher pod yield (5,983 lb/A) compared with management using Cadre (5,785 lb/A). On the other hand, the most troublesome weed, fall panicum *(Panicum dichotomiflorum),* was controlled best using Cadre. Data from this experiment provides further proof that strip-till (in-row subsoil no-till) management in Florida's sandy soils can be equal to conventional tillage in-row subsoil management, thus providing savings in soil, water, energy, and equipment conservation. If rye is not needed for cattle grazing, the ground cover by rye straw would provide significant reduction in wind and water erosion and provide numerous conservation and environmental benefits characteristic of utilizing a mulch without sacrificing yield.

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