

1359 Fertilizing cotton with P recovered from swine wastewater

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A new treatment technology has been developed to recover soluble P from waste on swine (*Sus scrofa domesticus*) farms. Our objective was to compare this recovered P to triple superphosphate and broiler litter for soil availability, leaching, and cotton (*Gossypium hirsutum* L.) plant P concentration. A column (15-cm diameter X 76-cm height) study was conducted in a greenhouse with Uchee sand (loamy, siliceous, thermic, Arenic Paleudult) soil. Fertilizing cotton with recovered P resulted in the same plant P concentration as plants fertilized with broiler litter and with TSP. Significant movement of P below the fertilizer application depth (top 15 cm of soil) occurred only for triple superphosphate. Available P concentration in the soil within the first 22.5 cm from the soil surface was lower for broiler litter than the other two treatments, but concentrations did not differ among treatments below 22.5 cm depth. The data suggest the recovered P from swine waste water is less prone to leaching than triple superphosphate and can be used as a readily available P source.