Garden Tillage Techniques. (A04-mitchell090737-Oral)

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Abstract:

Sandy soils of the Coastal Plain and Sandstone Plateau of the southeastern U.S. can develop traffic pans or hardpans from some conventional garden tillage practices. These problems and techniques for disrupting these traffic pans are well documented for field crop production. However, gardeners and small-scale vegetable producers can experience the same problems when using garden tillers. Techniques such as double-digging by hand, slit tillage either by hand or by using a modified, 5-hp, garden tiller, and subsoiling with a tractor have produced the highest yields of sweet corn, beans, peas, and okra in sandy, Coastal Plain soils (fine-loamy, siliceous, thermic Typic Kandiudults). Rototilling either with a tractor or with different types of garden tillers and disking produced the lowest yields due to soil compaction. Results were less dramatic on a loamy, Sandstone Plateau soil in North Alabama (fine-loamy, siliceous, thermic, Typic Hapludults). These experiments were conducted with the help of Master Gardeners in Cullman and Lee Counties in Alabama.

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