

## How do farmers who adopt multiple conservation practices differ from their neighbors?

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### ABSTRACT

Wind erosion is a serious environmental problem in the inland Pacific Northwest, US. In addition to on-farm damage to soil and crop quality, it causes off-farm damages including human respiratory illness, traffic accidents and diminished recreational values. Three key practices for effectively controlling wind erosion in eastern Washington are reduced tillage, continuous spring cropping and vegetative wind strips. Although these are effective in controlling wind erosion, their adoption by farmers in the region has been slow. Technology adoption theory has been classified into three paradigms: income, utility and innovation-adoption. This study on adoption of wind erosion control practices draws from all three paradigms. However, unlike most past research, this study distinguishes between single practice adopters and multiple practice adopters, and compares single practice adopters with zero practice adopters. Data were obtained from a random sample survey of 266 farmers in six semiarid counties in a wind erosion prone region of east-central Washington State. Statistical results revealed (1) that adopters of multiple conservation practices contrast more sharply with non-adopters than do adopters of a single conservation practice, and (2) adopters of a single practice differ more from zero practice adopters than they do from all other farmers (including adopters of other practices). More specifically, this study recognizes heterogeneity among “adopters” in erosion control, and suggests that there may be some hierarchy among adopters in strength of innovation. It also supports earlier findings by sociologists that early adopters have more financial resources or larger farms and that education may aid adoption. Adopters were more aware of an erosion control educational program. Multiple practice adopters are a distinct identifiable group, who may play a key role as innovators who can influence neighbors to adopt effective conservation practices. These individuals also possess unique information on the comparative cost, yields, and technical challenges of alternative conservation practices that could be used on farms with similar soil and climatic conditions. Knowledge of the attributes associated with innovative multiple practice adopters may permit soil conservation policymakers and field staff to target educational programs more accurately during the early stages of technology dissemination. Conservation practice dissemination strategies may benefit by including innovative farmers in leadership roles in the initial stage of conservation education programs.