

THE COOPERATIVE PROVISION
OF ECOSYSTEM SERVICES IN AGRICULTURE

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ABSTRACT

Managing agricultural lands to provide ecosystem services (ES) may be essential for the long-term sustainability of agriculture. Most agricultural lands, however, are managed for the short-term production of food, fiber, and fuel, often at the expense of other ES. Cooperative solutions where stakeholders work together to provide ES may increase the provision of ES in agriculture. However, little is known about the cooperative provision of agricultural-related ES. This dissertation fills this research gap by answering three basic questions about cooperative ES provision: 1) Which agricultural-related ES are suited for collective management? 2) Are farmers willing to cooperate to provide the ES, pest control, and if so, what types of cooperation are they willing to consider and what determinants affect that willingness? and 3) What role do different types of trust play in farmers' willingness to cooperate to control pests? We find that natural pest control, pollinating services and water quality are the ES most suited to collective management. We find most Missouri farmers are willing to cooperate to control pests, and simple, local cooperative efforts may be more popular than more formal, regional efforts. In addition, the perceived benefit of cooperation, environmental concern, social capital, extension agent contact and farmer preference for group work, are more important than trust in determining farmers' willingness to cooperate. This dissertation is important because it may facilitate moving cooperate ES provision in agriculture from scholarly speculation to actual practice.