would keep land on the local tax roles, reinforce land stewardship as the purview of the American farmer, and avoid heavy public expenditures. In certain situations, however, acquisition or consultative land management via easements or lease agreements probably will be necessary. In such cases, the public must understand what they are buying and why.

4. Woodlot management and private forestry should be aggressively promoted and coordinated, at the landscape scale, to provide benefits to specific wildlife species. Current programs such as Forest Stewardship, the Tree Farm program, and differential property tax treatment of forested tracts could be greatly enhanced by efforts to help forest land owners obtain higher stumpage prices. Investment in forest management will follow if landowners are in a position to capture the value of their trees. However, forest cover is not universally compatible with all wildlife management goals and may not be appropriate under all circumstances.

5. Educational programming based on research must be made available to both urban and rural citizenry regarding the "wildlife connection." Practices that favor targeted wildlife species should be incorporated into State Cooperative Extension recommendations. Efforts to include wildlife management courses in the curricula of all students of natural resource disciplines should be continued.

The five items listed above represent the tools that are required to provide a place for wildlife in agricultural landscapes, but what about the process? To plan for wildlife in an agricultural landscape, I see the following steps as important:

We first need to know what we hope to accomplish. What species do we want to support?

Then we need to know how to attain this goal. What components of the environment should we manipulate? How much habitat, of what quality, will be needed? What types of Best Management Practices are likely to be compatible with the equipment, labor supply, managerial skill, goals, and values of land owners, while providing the essentials for animals to survive and reproduce?

We then will need a way of conceptualizing and predicting how manipulations we undertake will affect the environment and farm operations.

Finally, we should be prepared to monitor our progress and make changes to the program if indicated.

To portray wildlife as the beneficiary of reduced agrichemical usage and other changes in cropping systems represents a failure to capitalize on what I consider the strength of sustainable agriculture--cognizance of the interrelationships among technology, institutions, people, and the environment, and the ability to solve problems from such a position.

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Response:

Steven Wolf seems to be suggesting further examination of the institutional/sociological links between sustainable agriculture and wildlife. I do not view this as a refutation of my original discussion, but as complementary. In presentations and in other articles, I have made similar points, but in this article I chose a different focus. Nevertheless, I am wary of the underlying tone here. Some of these arguments sound much like those I have heard in the past from defenders of conventional agriculture, forestry, and wildlife approaches.

Mr. Wolf suggests the need to develop "farming systems (i.e., Best Management Practices) that are acceptable to producers and provide minimum threshold habitat requirements." The implications are that sustainable farming will not be acceptable or economically profitable, and that it will remove land from local tax roles, etc. I question such assumptions. Certainly, a growing body of research and demonstration indicates that sustainable farming (which goes beyond BMPs) is practical, profitable and offers many positive alternatives for farmers, communities, and consumers.

In addition, Mr. Wolf insists that in tracing the wildlife-farming connection, the first step "and most important goal" should be to identify which wildlife species one wishes to support. Of course, setting goals is important, since species have different habitat requirements and one must also decide the level of scale to target, whether it is the farm, the region, or the nation. However, the longtime practice of managing for one or a few species, usually "game" species, is rapidly going out of favor as being too limited. This approach has often led to a plethora of the managed-for animal, while all around, species filling other niches disappear. When this happens, landscapes become less resilient, less bountiful, and less beautiful. In place of an approach that targets species, many in the wildlife management community are moving towards methods that seek to foster biodiversity. Biodiversity depends on the restoration of functioning ecosystems that will once again support a wide variety of species that dwell in the soil, on the land, and in the water.

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