Comparative Differences in Ontario Farmers' Environmental Attitudes

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Abstract This paper provides an analysis of a 1991 survey of the views of a stratified random sample of 1,105 Ontario farmers. Factor analysis, Kruskal—Wallis one-way ANOVA, chi-square and correlations were used to identify differences in farmers' attitudes toward rural environmental issues as a function of their demographic and farm characteristics. Younger, well-educated farmers, especially if female, were most concerned about the seriousness of rural environmental degradation. The largest operators expressed the greatest support for the use of agricultural chemicals, were most opposed to government conservation regulations and were least environmentally oriented. Such differences between Australian and Ontario farmers as the former's greater cautiousness about governmental regulation and receptivity to the Green Movement are a function of differing demographic and farm characteristics between Australia and Ontario.

Keywords: land degradation, Ontario farmers' attitudes, environmentalism, conservation orientation, agricultural sustainability.

Preface

This paper describes the results from Ontario of a comparative survey of farmers' attitudes toward the rural environment conducted in conjunction with Alan Black and Ian Reeve of Australia. Questions about the rural environmental issues component of the agricultural sustainability survey were developed by Black and Reeve working with farmers in New South Wales, Australia. A few of their questions were dropped due to lack of relevance to Ontario. Pollution Probe was substituted for Australian Conservation Foundation and Ontario farmers were also asked to react to the statement that "Modern agriculture transforms fossil fuels into energy." Assuming that these questions were appropriate with respect to the determination of environmental attitudes, the findings and conclusions which follow provide a sense of some of the differences and

similarities between Australian and Ontario farmers, on the one hand, and among different types of Ontario farmers on the other.

**Introduction**

Growing environmental concerns (Reid, 1990) and increasing dissatisfaction with expensive cash outlays for inputs (Buttel et al., 1986) are important reasons why more Canadian farmers are purchasing fewer fertilizers, herbicides and insecticides (Statistics Canada, 1992). There has also been a noticeable shift toward the adoption of increased crop rotation, greater use of clover, alfalfa, winter cover crops and grassed waterways (Statistics Canada, 1992: p. 7). Still, 69% of Canadian farms practice conventional tillage, 24% use conservation tillage and 7% use no till (Statistics Canada, 1992).

Policy makers still know little about the demographic and social factors influencing farmers to become concerned about environmental degradation (Van Liere and Dunlap, 1980; Reeve and Black, 1991). Buttel et al. (1990: p. 515) have also pointed out that little attention has been devoted to understanding the degree to which rank-and-file [North] American farmers now prefer or can, at some future point, be motivated to prefer lower input, more sustainable agricultural production systems.

This study attempted to analyze demographic and economic factors associated with Ontario farmers’ views about rural environmental degradation. It is based on a survey of 1,105 Ontario farmers conducted during 1991. The survey examined differences in farmers’ attitudes as a function of their age, education, sex, social class, farm size, income, and the commodities they produce. Factor analysis was used to subdivide the issues into their principal components and the degrees of their association with demographic and farm characteristics were determined.

**Framework**

While farmers’ environmental orientation has been increasing, rural people are usually less environmentally inclined than urbanites (Lowe and Pinhey, 1982) and are “among the most anti-environmental of major social groups in the U.S. (Buttel et al., 1981; Buttel and Murdock, in press)” (Buttel et al., 1986). Recent surveys of Canadian farmers have shown that most farmers are much more concerned about their economic survival than they are about the environment (Reid, 1990; Filson, 1992).

Buttel et al. (1990) found that among New York farmers’ preference for low input production practices was inversely correlated with total acreage, number of hired workers, farm income, assets, net worth, age, profit orientation, support for commodity programs and agricultural research. Positive correlations