

Perceptions about Hoop Structures for Swine Production in Iowa: Selected Results of a 1997 Survey



Hoop structures are low-cost housing systems used primarily to grow and finish hogs. They rely on bedding for heat and natural air flow for ventilation. Because of their low construction costs and different method of manure management, hoop structures are being considered as an alternative to large-scale confinement structures for swine production.

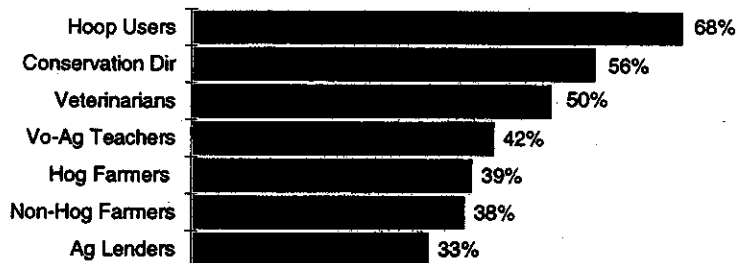
In October and November 1997, the Department of Sociology at Iowa State University conducted a survey of 2,635 swine industry stakeholders in Iowa to determine their opinions on the potential for hoop structures in Iowa. A total of 977 mailed questionnaires were returned for a response rate of 37 percent.

The study includes random samples or complete counts of a selection of farming and non-farming groups in Iowa. Therefore, the findings reported here cannot be generalized to all residents of Iowa.

Agricultural practices and technologies are important to many Iowans. Because trends in the swine industry concern many Iowans beyond those directly raising hogs, this survey sought the opinions of a variety of respondents who might have views about the use of hoop structures in Iowa. The survey covered a range of topics including impacts on farm management, consumer concerns, the pork industry, rural quality of life, and the environment. The results below indicate that respondents in various occupations hold different perceptions about the potential impacts of hoop structures.

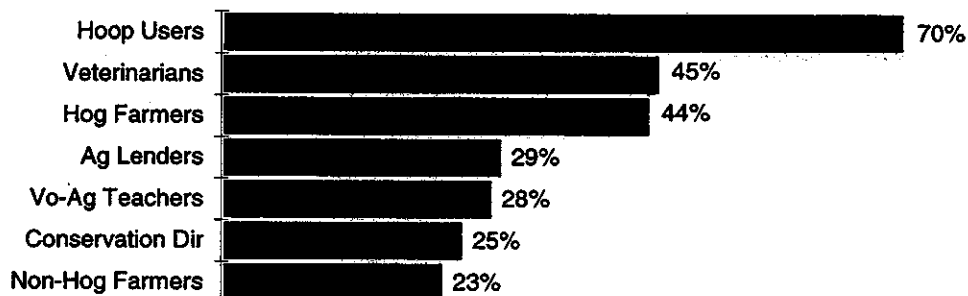
For any new management system to be successful, it must be profitable. Therefore, the potential of hoop structures to contribute to farm profit is important. The following chart shows the percentage of different respondent groups saying **farmers' profits will increase** when they use hoop structures. Hoop users were most likely to see an increase in profits, followed by county conservation directors and veterinarians. Agricultural lenders were least likely to see an increase in farmers' profits with the use of hoop structures.

Percent saying farmers' profits will increase



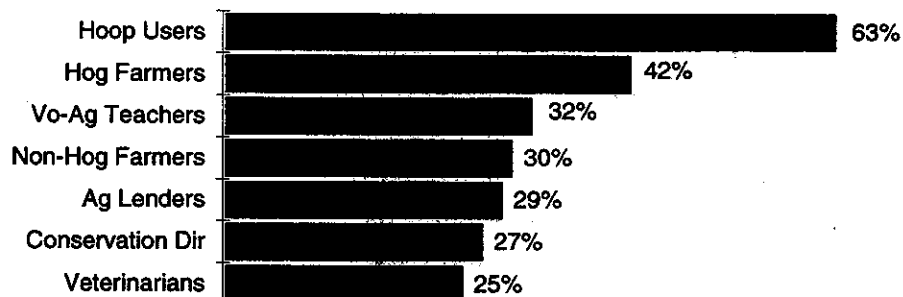
Animal welfare has become an area of growing contention in debates about swine production. Consumer perceptions of hog welfare in different types of housing systems have the potential to affect demand for pork products. The following chart shows the percentage of respondents who said **public concern about animal welfare will decrease** with more use of hoop structures in Iowa. Those directly involved in hog production or administering care to livestock were most likely to see public concern about animal welfare decreasing. Direct experience and observation of hog production may contribute to these assessments. Seventy percent of hoop users themselves saw greater use of hoop structures leading to a decrease in public concern about animal welfare.

Percent saying public concern about animal welfare will decrease



Livestock housing systems affect more than farm profits or public attitudes concerning animal agriculture. Different systems can play a part in the experiences and interactions of people in livestock producing households. Also, the desire of future generations to continue livestock production may depend on how they feel about the day-to-day aspects of farming. The following chart shows the percentage of respondents who said the **quality of life on hog farms will increase** with more use of hoop structures in Iowa. Sixty-three percent of hoop users saw quality of life on hog farms increasing. Slightly more than 40 percent of hog farmers not using hoop structures at the time of the survey saw quality of life on hog farms increasing with more use of hoop structures. Hoop users' assessments concerning quality of life may be based on their own positive experiences, but other hog farmers also identify the potential enhancement of quality of life.

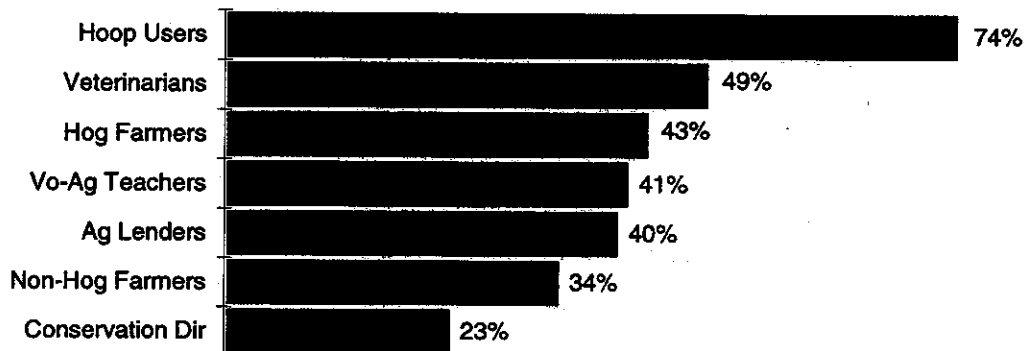
Percent saying the quality of life on hog farms will increase



Differences in livestock housing systems also have impacts beyond the farm gate. To the extent that hoop structures use locally-produced inputs, such as bedding, they may contribute to the local economy. The following chart shows the percentage of respondents who said the

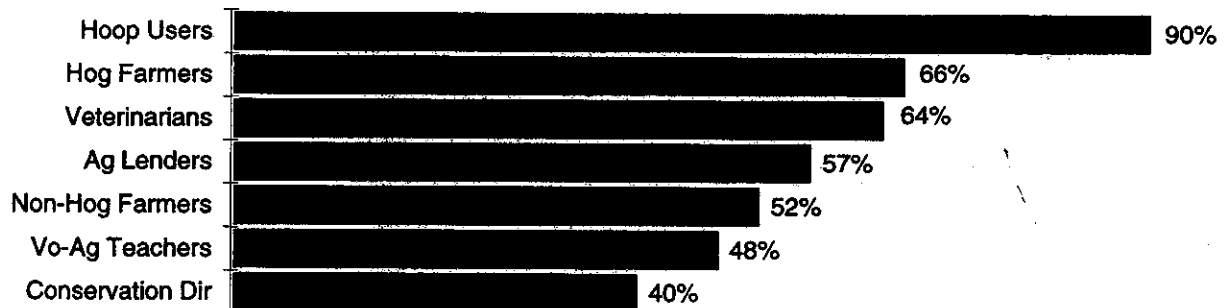
economic vitality of locally-owned rural businesses will increase with more use of hoop structures in Iowa. Hoop users had the largest percentage of respondents saying economic vitality will increase, followed by veterinarians and non-hoop using hog farmers.

Percent saying the economic vitality of locally-owned rural businesses will increase



Different hog management systems may have different impacts on the environment. An area in which hoop structures may have some advantages over large-scale confinement facilities is the protection of water resources. The following chart shows the percentage of respondents who said the **risk of pollution to streams, rivers, and lakes will decrease** with more use of hoop structures in Iowa. A very strong majority of hoop users saw a decrease in the risk of water pollution, while almost two-thirds of hog farmers and veterinarians also saw a decrease. County conservation directors were least likely to see positive benefits in hoop structure use. Because the survey did not ask respondents *why* they predicted certain impacts, the directors' answers could be related to a variety of factors: the directors' actual belief that hoop structures will not decrease risks of water pollution, the directors' belief that all systems of hog production have equal risks of water pollution, or the directors' lack of knowledge about hoop structures.

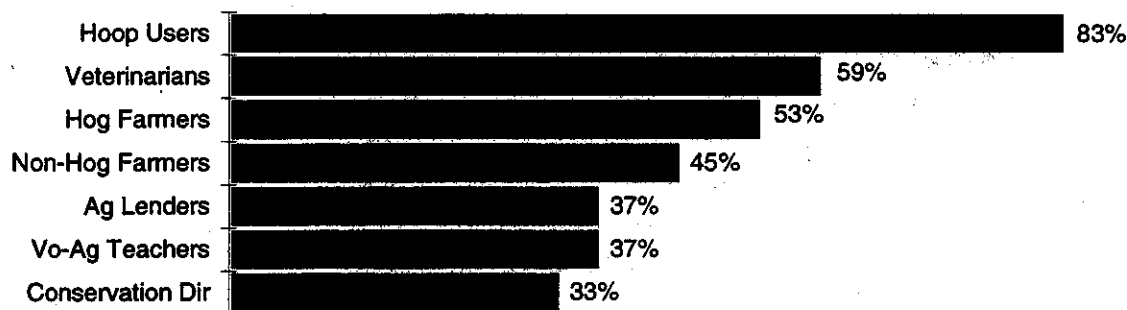
Percent saying the risk of pollution to streams, rivers, and lakes will decrease



Because of the bedding system and solid nature of the manure, hoop structures may also produce fewer or different odors than other hog production systems. The following chart shows the percentage of respondents who said **odor from manure will decrease** with more use of hoop structures in Iowa. A strong majority of hoop users said odor will decrease, followed by a majority of both veterinarians and hog farmers. Respondent groups less directly involved with

farming or livestock as a daily requirement of their jobs were less likely to expect a reduction in odor with hoop structures.

Percent saying odor from manure will decrease



In Summary...

Not surprisingly, those who raise hogs in hoop structures themselves see the most positive impacts from this new management technique. After hoop users themselves, veterinarians and hog farmers were most likely to predict positive impacts of hoop structures use. These groups are in regular, direct contact with hogs and thus have a solid base of experience and observation for their mostly positive assessments. Economic and quality of life impacts got mixed assessments, except from hoop users who were more likely to see these impacts positively. Water quality and odor control were areas where all groups were more likely to see positive impacts with hoop structure use. Because of the importance of water quality and odor control in current debates about swine production, these positive assessments suggest that more effort should be put into the research, development, and evaluation of hoop structures for Iowa swine production.

The sample was comprised of the following groups:

Hoop Users	N=57	Farmers who raised hogs in 1996 and used at least one hoop structure
Hog Farmers	N=322	Farmers who raised hogs in 1996 but did not use any hoop structures
Non-Hog Farmers	N=218	Farmers who raised crops or livestock in 1996, but did not raise hogs
Ag Lenders	N=82	Agricultural loan officers
Veterinarians	N=80	Large Animal Veterinarians
Vo-Ag Teachers	N=71	High School vocational agriculture instructors
Conservation Dir	N=48	Directors of County Conservation Boards

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This report was prepared by Julie Tranquilla, Clare Hinrichs, Steve Padgitt, and Paul Lasley (Sociology), Mike Duffy (Agricultural Economics), Mark Honeyman (Animal Science), and Tom Richard (Agriculture and Biosystems Engineering) at Iowa State University. April 1998.

For a more detailed report of survey results or for more information about the project, please contact Clare Hinrichs, Assistant Professor of Sociology, 310 East Hall, Iowa State University, Ames, Iowa, 50011.