

Climate Change in the Classroom: A Survey of Iowa Agricultural Educators

This report presents results for questions related to climate change from a survey of Iowa agricultural educators. The survey was conducted at the annual Iowa Association of Agricultural Educators (IAAE) summer conference in Ankeny, Iowa on Wednesday, June 29, 2011. The questions were included in a larger survey that focused primarily on evaluation of integrated pest management (IPM) curricula and materials. One-hundred twenty-five agricultural educators who attended the event completed the survey. Ninety-six percent of those surveyed taught at the middle or high-school level.

The questions about climate change were included in the survey to with three objectives in mind. The first was to develop an understanding of agricultural educators' beliefs about climate change. The second was to learn whether or not they discuss climate change in the classroom. The third was to assess their perceived need for curricula and other classroom materials that focus specifically on climate change and agriculture.

Beliefs about climate change

Participants were provided with five options that measure both belief in climate change and its causes. The following introductory text was provided: "There is increasing discussion about climate change and its potential impacts on agriculture. Please select the statement that best reflects your beliefs about climate change." Overall, 87 percent of agricultural educators indicated that they believe climate change is occurring (table 1). The remaining 13 percent believed that there is not enough evidence to know with certainty whether climate change is occurring or not.

Among the educators who believed that climate change is occurring, 59 percent indicated that it is equally attributable to both natural changes in the environment and human activities (table 1). Eighteen percent believed that natural changes in the environment are the primary drivers of climate change, and 10 percent implicated human activities as the primary source.

Table 1. Beliefs about climate change

a. Climate change is occurring, and it is caused <u>mostly</u> by natural changes in the environment	18.1%
b. Climate change is occurring, and it is caused <u>mostly</u> by human activities.....	10.3%
c. Climate change is occurring, and it is caused <u>equally</u> by natural changes in the environment and human activities.....	58.6%
d. Climate change is not occurring	0.0%
e. There is not sufficient evidence to know with certainty whether climate change is occurring or not.....	12.9%

Climate change in the classroom

Two questions focused on teaching about climate change. The first asked agricultural educators if they discuss climate change in their classrooms. Three-quarters of participants indicated that they do (table 2). The second measured interest in curricula and materials specifically focused on climate change and Iowa's agriculture. Ninety-two percent indicated that they would be interested in such materials.

A single open-ended question was provided to gather suggestions for "incorporating climate change information and materials into agriculture education." The predominant theme of the suggestions was a need for factual, non-politicized, objective educational curricula and materials on climate change.

Comparisons by beliefs

Analyses were conducted to determine whether or not discussion of climate change in the class-

room or interest in climate change curricula varied according to differences in belief in climate change. No statistically significant differences were detected.

Conclusion

These survey results represent a first attempt to learn what Iowa's agricultural educators think about climate change and to assess their need for educational materials. While these data are very limited in scope, they show that most agricultural educators believe that climate change is occurring. Agricultural educators also address climate change in the classroom. Importantly, over 90 percent of agricultural educators would welcome curricula and other materials related to climate change and agriculture. Taken together, the survey data indicate a clear need for agriculture-related climate change information for classroom use.

Table 2. Climate change in the classroom

	<u>Yes</u>	<u>No</u>
Do you discuss climate change in the classroom?	74.6%	25.4%
Would you be interested in educational curricula and other materials that focus specifically on climate change and agriculture in Iowa?.....	91.6%	9.4%

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