

**The Agriculture Angle: Effect of Framing Agricultural Biotechnology Messages on
Attitudes toward Argument Quality**

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Abstract

Today, the media serve as the primary source of scientific information, but do not frequently address agricultural topics, including those that involve controversial science and technology applications, such as biotechnology. Agricultural biotechnology is an area of agricultural science that has garnered a great deal of public and media attention and has often been framed in negative terms. Communications practitioners utilize message frames to shape public opinion through media coverage; however, no empirical research has been conducted regarding the influence of positive message frames on communicators' reactions to agricultural biotechnology news messages. The purpose of this study was to examine the effect persuasive communication message frames have on attitudes toward argument quality in regard to agricultural science information, specifically agricultural biotechnology. Using the Elaboration Likelihood Model and framing theory, persuasive communication was achieved through the use of three positive message frames. The study used a quasi-experimental design to test the persuasive effects of the framed messages with a sample of communicators in science and agricultural content areas.

Results indicated that the message frames did have some influence on attitudes toward argument quality, but not when issue involvement and preexisting attitudes were also taken into account. This study also introduced a potential new index to measure attitudes toward argument quality as perceived by those in the media. The theoretical contribution of this study provides support for connecting framing and the ELM.

Keywords: elaboration likelihood model, agricultural biotechnology, framing, agricultural communication, persuasion, media, argument quality