



## Farmers' Risk Management Information Preferences: What are the Lessons for Risk Management Educators?

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One of the key characteristics of agriculture is the high level of production, market and financial risks faced by producers. The presence of these risks has spurred development and availability of different agricultural risk management tools that help provide an income safety-net for U.S. crop producers. To reduce production and/or marketing risks, for example, a producer has the option of using several risk-reducing instruments or strategies such as yield- or revenue-based crop insurance, futures hedging, and forward contracting. Each of these risk management tools has inherently different characteristics that make it more suited for particular crops, particular geographical areas, and/or particular farm business situations. Given the variety of risk-management tools available, it is important, from a management perspective, for farmers to be aware of and understand the attributes of those alternative risk-reducing instruments. A better understanding of the different risk management tools available allow producers to more effectively choose the most appropriate risk management strategy for their own business situation.

Given producers' need to learn about alternative risk management tools, understanding the information sources that they rely on for learning is important. In particular, investigating the factors that affect farmers' preference for different risk management information sources would help various institutions involved in risk management education in agriculture, such as the USDA's Risk Management Agency and the Cooperative Extension Service. These agencies can utilize this type of information to

more effectively tailor their risk management outreach and educational programs for better education delivery to their farmer clientele. This issue of the *NC State Economist* discusses the findings from a recent study that examined the following questions: (1) What do farmers consider their most important information source in order to know more about crop risk management tools? (2) Which producer characteristics influence the degree of preference among the different information sources?

### What Risk management Information Source Do Farmers Prefer?

In recently published research, data from a mail survey administered to cotton and soybean farmers in Mississippi, cotton and sorghum farmers in Texas, and corn and soybean farmers in Indiana and Nebraska were used to examine preference for various risk management information sources (Rejesus, et. al 2008). The risk management information sources ranked by the surveyed farmers included: (1) in-depth training by risk management experts; (2) in-depth materials to study on their own time; (3) popular press outlets like farm magazines or newsletters; (4) internet or other computer based education modules; and (5) marketing clubs or other groups of producers. Farmers were asked to rate each of these information sources on a scale ranging from 1 (*low preference*) to 5 (*strong preference*).

Figure 1 depicts the average preferences indicated by the survey respondents. These indicate that in-depth materials to be studied on their own time, popular press, and in-depth training by risk management experts have the highest mean preference scores. Information from marketing clubs or other groups of producers and information from the internet or other computer-based education modules received the lowest mean preference scores among the five sources considered. Moreover, the information sources that had the largest proportion of farmers giving a preference ranking of three or better are: information from popular press (74%), in-depth materials to be studied on their own (72%), and in-depth training from risk management experts (66%). On the other hand, the information sources that had the smallest proportion of farmers giving a preference ranking of three or better are: the internet or other computer based education modules (43%) and mar-

keting clubs or other groups of producers (52%). Overall, these results suggest that information from risk management experts, in-depth materials (studied on his/her own), and farm magazines/newsletters tend to be preferred by the surveyed producers.

### What Factors Affect Preference for a Risk management Information Source?

Using the same farm-level survey data, additional statistical analyses were used to investigate how farm and farmer characteristics affect the preference ranking given to a particular risk management information source. One farmer characteristic that has a consistent effect across all information sources considered is age. This is fairly consistent with results from previous studies (Gloy, Akrdige, and Whipker 2000; and Knight et al. 2003). The

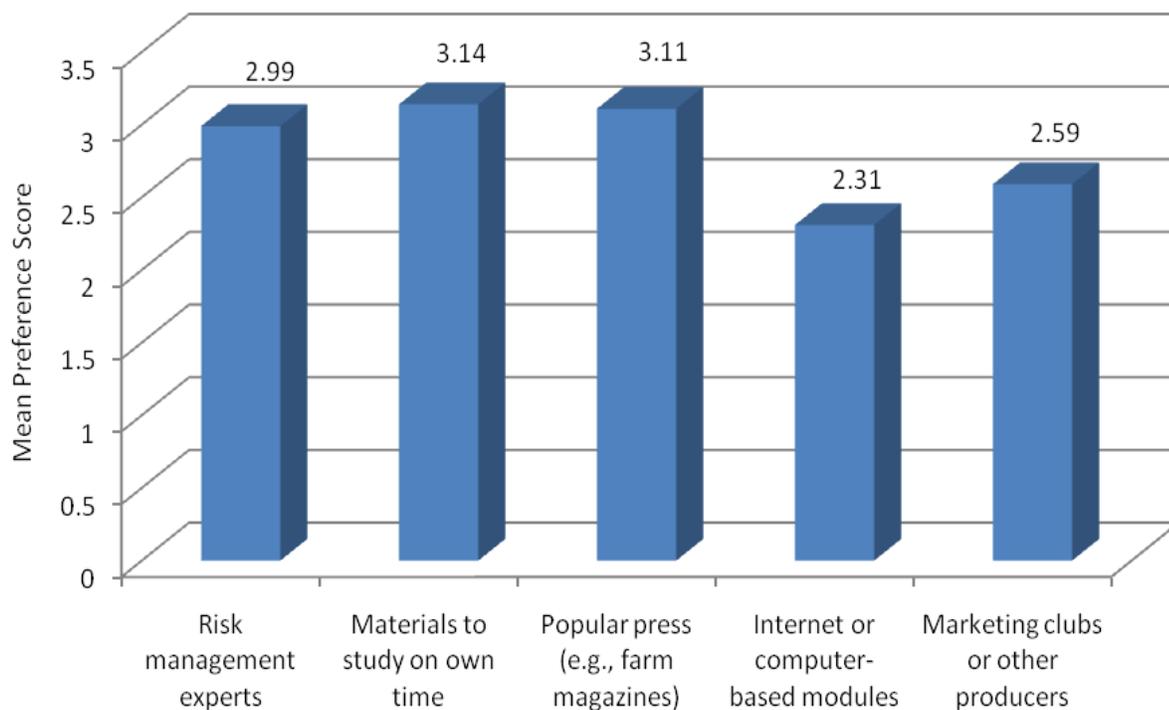


Figure 1. Mean Preference Scores for each Risk Management Information Source

analysis indicates that age has a statistically significant but modest negative effect on the preference for any information source. This suggests that older producers do not seem to value any source that gives information about risk management tools. This makes sense since older producers tend to have more experience and more skills in managing the risks in their farms, and they also have a shorter time horizon in which to capture the benefits of an enhanced knowledge base. In general, this result suggests that extension and outreach programs on risk management may be better targeted for younger, less experienced producers. Extension personnel interested in developing risk management education programs would probably be better off targeting young, new, and beginning farmers.

The statistical results also suggested that farmers with college degrees, high leverage, large asset base (i.e., > \$1 million), experience utilizing professional services (i.e., use of marketing consultants), or are more inclined to take risks, are the ones who tend to prefer information from risk management experts, the internet (or other computer-based modules), and marketing clubs (or other producer groups). On the other hand, farmers with lower leverage levels or farmers who have used less professional services in the past tend to be the ones who prefer self-study of in-depth risk management materials and popular press sources. College-educated farmers preferring in-depth information from risk management experts and the internet is consistent with the idea that these type of farmers are more receptive to learning more complex/specialized information and are more comfortable with using computer-based resources.

### **What are the Lessons for Risk Management Extension Educators?**

From an extension program delivery perspective, these results suggest that younger, better-educated farmers with larger operations (i.e., highly leveraged and with a larger asset base) and farmers who are more willing to take risks will be more responsive to the typical delivery mechanisms currently being used by many risk management extension educators around the country –

in-depth training by risk management experts and internet delivery of educational materials. On the other hand, the analysis also indicated that younger producers with smaller operations may tend to prefer self-study of educational materials and popular press outlets.

Given these results, risk management extension educators and/or county extension agents tasked with delivering risk management education can feasibly structure their program by using in-depth training and internet delivery mechanisms to provide information to younger farmers with larger operations and higher education levels. The traditional one-day, risk management training modules that cover detailed information about various agricultural risk management tools – crop insurance, forward contracts, and futures hedging – will have more impact if they are targeted to these younger farmers with larger operations and higher education levels. To supplement this type of in-depth training, extension educators can also post the training materials on the internet for download by this group of producers. Distance risk management education delivery through internet webcasts may also be more suited for younger farmers with larger operations and higher education levels.

On the other hand, the results from the study also indicate that using popular press outlets and mailing of educational materials (for self-study) can better serve farmer clientele with smaller operations. Farmers with smaller operations who do not attend the in-depth training sessions can then be better reached by mailing some of the materials to them. Publishing risk-management topics in farm magazines that are of interest to farmers with smaller operations will probably have more impact. Overall, if used and targeted properly, the different risk-management information sources available to risk-management educators and county extension personnel can be utilized to more effectively tailor delivery of risk management information to farmers.

## Resources and Further Information:

Gloy, B.A., J.T. Akridge, and L.D. Whipker. 2000. "The Usefulness and Influence of Information Sources on Commercial Farms." Selected Paper Prepared for presentation at the AAEA Annual Meeting, Tampa, FL, July 30 - August 2, 2000.

Knight, T.O., Coble, K.H., G.F. Patrick, and A.E. Baquet. 2003. "Risk Management Education: An Examination of Crop Producers' Participation in Recent Programs and of Their Desire for Additional Training." *Journal of Agricultural and Applied Economics*, 35(3): 571-587.

Rejesus, R.M., T.O. Knight, M. Jaramillo, K.H. Coble, G.F. Patrick, and A. Baquet. 2008. "Preference for Risk Management Information Sources: Implications for Extension and Outreach Programming." *Agricultural and Resource Economics Review*. 37(1): 106-116.

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