

# Diffusing New Knowledge among Farmers: The Role of Opinion Leaders

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**To bring about broader gains in farmers' knowledge through opinion leaders, they should be selected so as not to be too superior in socioeconomic status**

Opinion leaders, people respected as knowledgeable about matters important to others, can influence the decisions of community members. In a study using data from rural Indonesia, Feder and Savastano explore what role opinion leaders can thus play in the diffusion of new knowledge—and how relative socioeconomic status affects the extent of their influence.

The literature of agricultural economics shows that rural opinion leaders tend to have higher social status than average community members, are wealthier and better educated, and are better connected with the world outside the community. But the literature is not in agreement about how the social distance between opinion leaders and the rest of the community affects the diffusion of new knowledge. Indeed, three different propositions emerge from the literature:

- Farmers are more likely to seek and acquire information from those with similar socioeconomic attributes, because communication networks are often made up of people with similar socioeconomic profiles.
- Farmers are more likely to seek information from those who have a higher status as opinion leaders and thus have superior socioeconomic attributes.
- Farmers tend to obtain information from opinion leaders whose socioeconomic status is somewhat superior but not so different

that their advice and knowledge are not quite relevant to the situation faced by most community members.

Which of these propositions is valid? Feder and Savastano examine this question through empirical work focusing on the gains in knowledge about integrated pest management in a sample of Indonesian farmers over the period 1991–98. During those years a special program, the Farmers Field School, provided training on integrated pest management for selected groups of farmers in many villages across Indonesia.

Farmers were selected for participation in the program with the expectation that they would become a source of knowledge for other farmers in their community. Data relating to the training program allow the authors to estimate the link between socioeconomic indicators characterizing opinion leaders (wealth, education, and the like) and the selection into the program. That link, estimated through a probit equation, facilitates the calculation of imputed selection probabilities for all farmers in the sample.

These probabilities serve as an index of socioeconomic status in the context of opinion leadership. Farmers with a low index (low probability of selection) are less likely to have been opinion leaders. Using these imputed probabilities, the authors calculate an average socioeconomic index of all the sampled trained farmers in a given village. A subsequent calculation indicates, for each nonselected farmer, his or her socioeconomic distance from the average profile of the trained group in the village.

Feder and Savastano then test the three hypotheses by relating the changes in knowledge of integrated pest management among untrained farmers between 1991 and 1998—established through interview questions—and the socioeconomic distance between the respondent

and the average trained farmer in the village. They also incorporate other variables, representing individual and community characteristics, into the analysis. The three hypotheses can be subjected to a test because each one implies a different specification for the way the socioeconomic distance variable is introduced.

The results show that the gains in knowledge of integrated pest management among farmers who did not receive training depend positively on the extent to which opinion leaders' socioeconomic status is superior to that of their would-be followers. That is, the greater the socioeconomic distance, the larger the gains—but only to a point. If the opinion leaders' status is too superior, their effectiveness diminishes at the margin. Indeed, they may become essentially irrelevant to the diffusion of knowledge beyond a small circle of the higher-status people closely associated with them.

These findings have implications for extension and information programs seeking to spread new knowledge widely across large populations, particularly in areas where most people lack access to mass media sources.

Striking the right balance in the selection of program participants is conceptually appealing but not easy to do. A mix of attributes (with unknown aggregation weights) matters, and some of the traits may not be readily observed by outsiders and researchers, though often known to members of the community. Involving the community in selecting those to be targeted for roles as opinion leaders can overcome some of these difficulties.

**Farmers will seek information from those with a higher socioeconomic status**

Gershon Feder and Sara Savastano. 2006. "The Role of Opinion Leaders in the Diffusion of New Knowledge: The Case of Integrated Pest Management." *World Development* 34(7): 1287–300.