

EVALUATING THE PECAN AND SWEET POTATO PILOT INSURANCE PROGRAMS: A CASE STUDY IN THE APPLICATION OF UTILIZATION-FOCUSED CLIENT-BASED METHODOLOGY

TERRENCE W. THOMAS and BENJAMIN GRAY, JR.

NORTH CAROLINA A&T STATE UNIVERSITY

ABSTRACT

The purpose of this paper is to demonstrate the application of qualitative evaluation techniques to generate information for decision making in a field setting. To achieve this goal, the paper presents a brief review of the epistemology of the qualitative technique of participatory action research and use focused evaluation. This is followed by an analysis of the results of the evaluation of the Pecan and Sweet Potato Pilot Insurance Programs to demonstrate the application of these qualitative techniques to generate information for decision making in a complex social milieu.

The results of this case-study demonstrate the utility of qualitative techniques to produce credible and reliable information to decision makers.

Risk has always been an important factor in agriculture. The business of agriculture, however, has changed dramatically over the past few years. Farmers are now operating in a new environment where opportunities have increased, as have the risks associated with these opportunities. In this new environment, the changing role of government in agriculture has led to the elimination of ad hoc disaster payments and deficiency payments to farmers during years of crop disaster and price support during years of low prices. This has led to increasing risk exposure for farmers (United States Department of Agriculture 1997).

In this volatile environment crop insurance has become an important risk management tool. Crop insurance not only protects the farmer against losses, but it also ensures a reliable level of cash flow and allows the farmer more flexibility in marketing his products (United States Department of Agriculture 1997).

As part of the USDA's effort to make crop insurance available to more farmers, the Board of Directors of the Federal Crop Insurance Corporation (FCIC) approved the Pecan Revenue Pilot Insurance Program and the Sweet Potato Pilot Insurance Program for the crop year 1998. The Pecan Pilot Revenue Insurance Program provides protection against an unavoidable decline in revenue due to adverse weather, fire, insects, earthquake, volcanic eruptions, failure of the irrigation water supply, decline in market prices, and disease. The Pecan Revenue Pilot Insurance Program is available in the following states and counties: Dougherty, Lee and Mitchell counties in Georgia; Dona Ana County in New Mexico and Culberson, El Paso, and Pecos counties in Texas. The Sweet Potato Pilot Program is an Actual

Production History (APH) program based on the grower's actual production records. The pilot provides protection against adverse weather, fire, insects, wildlife, earthquake, volcanic eruption, and failure of irrigation water supply. The Sweet Potato Pilot Insurance Program is available in the following states and counties: Baldwin County, Alabama; Merced County in California; Avoyelles, Morehouse, and West Carol counties in Louisiana; Johnston and Columbus counties in North Carolina and Horry County in South Carolina.

After four years of implementation, the Risk Management Agency (RMA) decided to evaluate both pilot programs. The evaluation exercise included obtaining feedback from farmers and others upon whom these projects have had an impact. The evaluation will be used to determine if the Pecan Revenue Pilot Insurance Program and the Sweet Potato Pilot Insurance Program should be converted to permanent programs, modified and continued as pilots, or be ended.

The purpose of this case study is twofold. First, it applies qualitative evaluation principles to explain the application of the listening session technique and utilization-focused evaluation to evaluate the Pecan and Sweet Potato Pilot Insurance Programs. Second, the paper checks the credibility of the comments collected in the listening sessions from farmers using verification techniques drawn from the qualitative evaluation literature. Our analyses will demonstrate the utility and application of the participatory action research and utilization-focused evaluation models in generating information for decision making in a complex technical socioeconomic milieu.

Data and Methods

Listening sessions were conducted in the pilot counties to solicit information from farmers and stakeholders about whether the pilot program was meeting their risk management needs. In this context, a listening session is a meeting with farmers in a comfortable, nonthreatening atmosphere that promotes free expression and discussion of concerns that are so important to them. Initially, investigators met with RMA program leaders to be briefed on the purpose of the operation and pilot programs, and to discuss methodology and the end use of the data to be gathered. Comments were solicited and classified based on issues identified by the RMA, farmers and stakeholders. The RMA provided a list of informants and potential contacts and assisted the investigators with selecting convenient and comfortable venues for conducting the listening sessions. All venues were in the counties where pilots were being carried out. Venues included private facilities – meeting rooms in local restaurants and hotels, and Cooperative Extensions offices.

Key informants provided by the RMA and those developed by the investigators aided the investigators in identifying and selecting a group of farmers and industry stakeholders that represented the widest possible cross section of views. This is similar to Lincoln and Guba's (1985) maximum variation sampling, which aims to capture participants' views across a wide variation of program themes. This type of purposive sampling enables the investigator to identify information rich cases that can be studied in depth; this is the preferred mode of sampling in qualitative enquiry (Patton 1990). Informants were briefed on the purpose of the listening sessions and the kinds of information needed. Stakeholders included representatives from RMA, the Farm Service Agency (FSA), Cooperative Extension, farmers' organizations, Farm Credit, bankers, insurance agents, insurance adjusters, packers, and shellers. Besides contacts made by informants, the sessions were advertised in the local media in the pilot counties. Because of the difficulty experienced in establishing initial contact with informants and the time lag involved in locating suitable venues, there were a few instances in which the advertisements did not appear in the local media.

Participants were assured that their comments would be handled with strict confidentiality. Comments were only recorded and classified using group membership as an identifier, for example, "farmer," "adjuster," or "banker." This approach essentially guaranteed a similar level of anonymity as that which would be achieved in a face-to-face interview. Two listening sessions, one for farmers and another for stakeholders, were held in each of the pilot counties, except El Paso, Texas, where only one listening session was held with producers and stakeholders. Table 1 shows attendance level for the pecan and sweet potato listening sessions. Often, additional information and clarification of issues were obtained from individual farmers and stakeholders (after the sessions) via telephone follow-up interviews.

Epistemological Foundations

Tweeten and Zulauf (1998) and Boehlje (1995) describe a new climate in agriculture where the application of new concepts of management, strategic thinking, and technology has transformed agriculture into a complex operating environment. As noted above, this environment provides many opportunities for farmers, but it is also fraught with uncertainties that increase risk for farmers and create the need for insurance. Given the complexity of the context in which the Pecan and Sweet Potato Pilot Insurance Programs were implemented and their relatively short operational history, listening sessions seem an appropriate method

by which to collect the information the RMA needed to support its decision. The listening session format allowed the investigators to collect “rich data” from knowledgeable participants who were purposively selected for their range of knowledge and experience with the pilot insurance programs. Listening sessions allowed investigators to tease out and capture the complexities inherent in the implementation of these pilot programs. As Cronbach (1975) notes, the qualitative approach enables the investigator to take account of the many interactions that occur in social settings. Consistent with this view, Hoepfl (1997) observes that qualitative enquiry accommodates the complex and dynamic quality of the social world. Additionally, Guba and Lincoln (1989) argue for a responsive constructivist approach to evaluation, which accords importance to the context of the evaluation and the interaction among context, the pilot programs, farmers and stakeholders in creating reality.

The power of qualitative data to provide a more detailed description of a phenomenon that is rich in participants’ insights and experiences (Hoepfl 1997) is important to RMA. Considering that there is no precedent to draw on in these two specific cases, and bearing in mind that the RMA needs rich data to decide to modify, end, or make the pilot programs permanent, the listening session format that fully engaged farmers and stakeholders was an appropriate approach.

Generally, there was very good representation of stakeholders at the listening sessions concerning the number of different stakeholders represented. In the pecan sessions in Georgia and New Mexico, stakeholders were represented in all but two categories. In Texas, however, only two categories were represented. This lack of wide representation among stakeholders in Texas may be explained by the fact that farmers reported that very few of them knew of the pecan pilot insurance program. Texas Extension agents also reported that they had no knowledge of the pecan pilot insurance program.

In the sweet potato sessions (See Table 1), both Louisiana and North Carolina had a wide spectrum of stakeholder representation; stakeholders were represented in all categories but one. California had three categories represented and Alabama only two. Stakeholder representation at the listening sessions in both pilot programs may be linked to farmer participation in the programs, which in turn is linked to the level of perceived risk exposure. (Participation rates for 2001 are shown in Tables 2 and 3). The lone exception to this general pattern is Texas where there were only 25 farmers in the program compared with 102 and 84 respectively for Georgia and New Mexico. Although Georgia, Texas, and New Mexico experience a similar level

Table 1. ATTENDANCE LEVELS FOR EACH LISTENING SESSION PER STATE

STATE	GOV'T					FARM				TOTAL
	FARMERS	GROWER COMMISSION	POLITICAL OFFICE	RESEARCH/ RMA	INS. EXTENSION	AGENTS	SERVICE BANKS	FARM AGENCY	CREDIT	
Pecan										
Georgia ...	19	6	2	2	3	3	0	0	0	35
New Mexico	9	1	0	1	1	2	0	1	1	16
Texas	12	0	0	0	4	1	0	0	0	17
Sweet Potato										
Louisiana ..	22	1	0	0	1	17	7	3	0	51
N. Carolina	9	1	0	4	2	2	0	1	1	20
S. Carolina	0	0	0	0	0	0	0	0	0	0
California ..	7	2	0	0	1	2	0	0	0	12
Alabama ...	5	0	0	1	2	0	0	0	0	8
Total	83	11	2	8	14	27	7	5	2	159

of risks, Texas has fewer farmers participating in the pilot program primarily because of a lack of knowledge about the program. With respect to sweet potatoes, Louisiana and North Carolina have a higher risk exposure than California due primarily to differences in growing conditions (threat from hurricanes, higher incidence of disease and pests, and dependence on natural rainfall). California farmers explain that sweet potatoes are grown in an exceptionally favorable climate where the risk of loss from natural hazards is very negligible. Farmers reported that the pilot program is not needed because it does not meet their risk management needs as it is currently designed; it is not likely that they will suffer any loss of production from natural hazards. In Alabama too, farmers do not perceive a high level of risk exposure since they report growing a variety of sweet potato that is less susceptible to the natural perils that would put them at risk. Note that the participation level (Table 3) in Alabama and California was just six and seven farmers respectively, while in Louisiana and North Carolina there were 119 and 52 farmers respectively. Thus, greater risk exposure seems to elicit higher levels of farmer and stakeholder participation in both programs.

Table 2. LEVEL OF FARMER PARTICIPATION IN PECAN PILOT INSURANCE PROGRAM

	50%	60%	65%	70%	75%	
STATE	2001	2001	2001	2001	2001	TOTAL
Georgia	67	1	15	8	11	102
New Mexico . .	59	1	17	2	5	84
Texas	22	0	2	0	1	25
Total	148	2	34	10	17	211

Engaging a wide spectrum of representation, especially, of stakeholders is a critically important feature of this case study since it enables the investigator and users of the evaluation report to apply the principles of structural corroboration and inductive plausibility to validate the findings of the evaluation.

Listening sessions are facilitated informal meetings with stakeholders knowledgeable about a subject to collect their comments and opinions on the particular subject of interest. The technique draws from Krueger's (1994) methodology for conducting focus groups and from the principles of participatory action research described by Small (1995). These methodologies are based on the principle that humans have the capacity to know and understand others through reflection and detailed description collected through in-depth interviewing, focus

Table 3. LEVEL OF FARMER PARTICIPATION IN SWEET POTATO PILOT INSURANCE PROGRAM

STATE	50% 2001	60% 2001	65% 2001	TOTAL
Alabama	3	2	1	6
California	1	0	0	1
Louisiana	67	8	44	119
N. Carolina	7	0	45	52
S. Carolina	1	0	21	22
Total	79	10	111	200

groups, listening sessions and case studies (Patton 1997). In addition, these methodologies create a permissive nonthreatening atmosphere that nurtures different perceptions and perspectives without pressuring participants to vote or reach a consensus.

Utilization-focused evaluation is mindful of the needs of the end-user and the end use of the evaluation. Patton (1997) suggests that important components of utilization-focused evaluation are: a situational sensitive approach to evaluation, identifying the end-user of the information, and the intended use of the evaluation results. He notes further that engaging the intended users in decisions about approaches enhances the attainment of the goal of utilization-focused evaluation that is to provide useful information for intended users. The listening session format fosters the attainment of this goal as it engages both farmers, the targets of the pilot programs, who can provide a rich cache of data from experience, and the RMA, the user of the evaluation results, that defines the information it needs to make decisions regarding the pilots as indicated above.

From the perspective of Small (1995) the target group of farmers and stakeholders are equally important in this evaluation process. The listening session design acknowledges this by fully engaging the farmers in the process. Small indicates that there is growing interest in research methods that can better inform policy and practice. He argues that action-oriented research involves collaboration between investigators and the target groups involved in the investigation. In this collaborative process target groups are treated as equal partners in the process and the process values and draws on their unique knowledge. He suggests that this collaborative process is more likely to produce relevant information and the type of changes that will be supported by the target community.

Because qualitative enquiry involves a transactive experience (Eisner 1991), which is the result of interaction among the mind, the subjective, and the objective perspectives, to judge qualitative work solely from objective or subjective standards would be inadequate. What is required is that the full range of “transactive experiences” be evaluated (Eisner 1991) by those with an interest in the process and outcome of the evaluation, in this instance, farmers, stakeholders and the RMA. Eisner further contends that “There are no operationally defined truth tests to apply to qualitative research and evaluation, but there are questions to ask and features to look for and appraise” (p.53). He suggests that reviewers (RMA, farmers and stakeholders) should consider the following three features of qualitative research in judging its merit: coherence, consensus, and instrumentality.

In qualitative inquiry, coherence indicates support for conclusions, the extent to which multiple data sources have been used to give credence to conclusions. Related to coherence is the concept of structural corroboration. It is the convergence of multiple data sources of evidence or repeated occurrences of particular instances that support a conclusion. Consensus is the extent to which stakeholders reading the investigator’s work agree that the findings or interpretations reported by the investigator are consistent with their own experience or with the evidence presented. Instrumental utility is the usefulness of the study.

The concept of structural corroboration mentioned above is similar to the concept of triangulation as described by Bogdan and Biklen (1998). It can also be thought of as one component of the composite concept of critical multiplism, which Dunn (1994) describes as a synthesis of a broad range of research and analytic practices that include multiple stakeholder analysis, multiple perspective analysis, and inductive plausibility. The concept of critical multiplism is of particular relevance to this study since it embodies several other techniques described above. Because critical multiplism uses a comprehensive synthetic approach in analyzing qualitative inquiry, it provides a more robust analysis of the evidence generated in application of the qualitative investigations. In critical multiplism, inductive plausibility is the key feature of knowledge, not certainty. Dunn suggests that identifying, evaluating, and eliminating or synthesizing rival theories, perspectives, and hypotheses that challenge the analyst’s conclusions establishes inductive plausibility, which is the standard for naturalistic inquiry such as this case study uses. Inductive plausibility may be thought of as reasoned arguments supported by the evidence in the data that establish the believability of a statement (a knowledge claim) in the face of criticisms, challenges or rebuttals (Dunn 1994). To establish inductive plausibility,

the investigator must rule out all rival explanations or alternative views challenging a particular proposition. This is done through detailed analysis of the arguments and the assumptions that warrant the arguments proffered in support of a rival issue. Thus, inductive plausibility (or believability of the evaluation report prepared for the RMA) is not established by listing cases that support or confirm the analyst's conclusions, but by pitting rival explanations against each other to select the one that is most acceptable.

Analysis of Findings: The Application of Qualitative Principles

Since there are no empirically defined truth tests to apply to qualitative research, users of results such as the evaluation report of Sweet Potato and Pecan Pilot Insurance Programs must be provided with other reasonable means to assess the credibility of qualitative inquiry. The methodological precepts reviewed above can be drawn on to construct a standard for assessing the credibility of information generated by qualitative methods. To recap, Eisner suggests that reviewers of qualitative work should consider the following features: coherence, consensus and instrumental utility. Critical multiplism embodies these principles. Therefore, it offers a comprehensive approach for evaluating the credibility of data produced via qualitative studies. The following section illustrates the application of selected qualitative principles in the evaluation of the Pecan and Sweet Potato Pilot Insurance Programs.

Structural Corroboration: Checking the Credibility of Comments on Issues

Including multiple sources of data (farmers, banker, insurance agents, and packers etc.) in the listening session samples made it possible to corroborate or triangulate the data, which, in turn, facilitates what Patton (1991) calls pragmatic validation of the results of the evaluation exercise. From the perspective of critical multiplism, as described by Dunn (1994), multiple stakeholder analysis strengthens inductive plausibility. In practical terms, this means that a preponderance of support from many different sources strengthens and elicits confidence in the veracity of the report; in other words, it makes the report more believable. Table 4 presents information on the range of data sources, a list of selected issues, and the pattern of agreement among the various data sources (farmers, bankers, insurance agents and adjusters, processors, cooperative extension and farm organization representatives) on the selected issues. Note that there is a convergence of opinion among farmers and stakeholders across the issues identified in Table 4; farmers and stakeholders agreed on the issues there were no dissenting opinions.

Table 4. RESPONSE TO ISSUES FROM PECAN AND SWEET POTATO FARMERS AND STAKEHOLDERS

QUESTIONS/ ISSUES	FARMERS' RESPONSE	STAKEHOLDERS' RESPONSE		
		RMA Representatives	Bank Representatives	Insurance Representatives
How did you learn about the program?	Farmer organizations and other farmers		RMA	RMA
Major reason for using the program	Provides protection		Provides protection	Provides protection
Did the program meet your risk management needs?	Yes			
Is there need for more education? . . .	Yes	Yes	Yes	Yes
Is there a need to review program policies?	Yes	Yes	Yes	Yes
Are you concerned about fraud in the program?	Yes	Yes	Yes	Yes

Further, the data shown in Tables 5 and 6 below support several farmers' comments and also serve as corroborating evidence for others. For example, in Georgia, farmers insisted that they should be given a discount on their premium rate, given the small number of claims made compared with the number of policies held by growers. Farmers in New Mexico and Texas indicated that the program was a very good one but that they had very little experience in making claims. Except the case of Georgia in 1998, when 20 claims were made at the 50% coverage level, very few claims were made at the 50%, 60% or 65% coverage levels for the years 1999, 2000, and 2001 in either Georgia or New Mexico, and none was made in Texas.

Texas farmers present at the listening session reported that many farmers knew very little or were not aware of the pecan pilot insurance program; they added that more farmers would purchase insurance under the pilot program if they had knowledge of the program. Extension officers at the meeting also said they were not aware of the program. The data on participation rates in Table 5 show that participation rates for Texas farmers range from about 19% to 42% of participation rates in New Mexico and from 19.6% to 41% of participation rates in Georgia. The relatively low participation rates observed for Texas farmers seem to support farmers' claim of poor dissemination of information about the pecan pilot insurance program and acknowledgment of Extension agents that they were unaware of the pecan pilot insurance program. Clearly, these data in Tables 5 and 6 both corroborate the comments of farmers.

Instrumental Utility: Credibility of Information for Decision Making

In the case under review, the application of the listening session technique made possible the full engagement of farmers and stakeholders in a facilitated, collaborative, interactive process that encouraged participants to reveal their perspectives on the pilot programs. The collaborative and interactive listening sessions enabled investigators to "tease-out" detailed information in issue areas not previously envisaged, as seen, for example, in the complete lack of knowledge of extension personnel regarding the program, and the lack of knowledge of insurance personnel regarding the provisions of the pilot programs' insurance policies. Most striking was the lack of relevance of the provisions of the Sweet Potato Pilot Insurance Programs to the risk management needs of California farmers, and the lack of harmony between the crop cycle and the insurance cycle in pecans. These unexpected findings will provide useful information for modifying the pilot

Table 5. CLAIMS HISTORY OF PECAN PILOT PROGRAM BY LEVEL OF INSURANCE COVERAGE.

	YEAR	STATE			TOTAL
		GA	NM	TX	
Farmers at the 50% Coverage Level	1998	51	52	10	113
	1999	80	57	22	159
	2000	61	53	21	135
	2001	67	29	25	121
Farmers at the 60% Coverage Level	1998	0	0	0	0
	1999	1	1	0	2
	2000	1	1	0	2
	2001	1	1	0	2
Farmers at the 65% Coverage Level	1998	8	18	2	28
	1999	12	18	2	32
	2000	18	17	1	36
	2001	15	17	1	33
Farmers at the 70% Coverage Level	1998	1	3	0	4
	1999	3	3	0	6
	2000	5	2	1	8
	2001	8	2	1	11
Farmers at the 75% Coverage Level	1998	0	5	1	6
	1999	2	5	1	8
	2000	7	5	1	13
	2001	11	5	2	18

Table 6. HISTORY OF PARTICIPATION IN PECAN PILOT PROGRAM BY LEVEL OF INSURANCE COVERAGE

	YEAR	STATE			TOTAL
		GA	NM	TX	
Claims at the 50% Coverage Level	1998	20	0	0	20
	1999	6	0	0	6
	2000	7	0	0	7
	2001	0	1	1	2
Claims at the 60% Coverage Level	1998	0	0	0	0
	1999	0	0	0	0
	2000	1	0	0	1
	2001	0	1	0	1
Claims at the 65% Coverage Level	1998	1	1	0	2
	1999	0	0	0	0
	2000	3	2	0	5
	2001	4	5	0	9
Claims at the 70% Coverage Level	1998	1	0	0	1
	1999	2	0	0	2
	2000	2	0	0	2
	2001	2	1	0	3
Claims at the 75% Coverage Level	1998	0	1	0	1
	1999	0	0	0	0
	2000	0	2	1	3
	2001	3	3	2	8

programs to make them more efficient in meeting the risk management needs of pecan and sweet potato farmers. The subsequent acceptance of the report and the enactment of several recommendations is a positive indication of the report's utility. Preliminary and feedback discussion with the RMA (end-users of the data) ensured that useful data would be collected and the results would be used. The interactive process of the listening sessions, follow-up phone calls and feedback from RMA, as well as the analysis of quantitative data to provide corroborating evidence that would engender confidence in the credibility of the information generated improved the usefulness of the results.

Inductive Plausibility: Checking the Credibility of Farmers' Claims for Losses

In Louisiana, Table 7 shows sweet potato farmers have made many claims. Initially, it was believed that the high number of claims was due to fraudulent practices. However, the farmers insisted, with support from bankers, farmers' organizations, insurance agencies, and extension agents, that unusually severe weather was the reason for the claims.

Table 7. Claims History of Sweet Potato Pilot Program by Level of Insurance Claims

	YEAR	STATE					TOTAL
		AL	CA	LA	NC	SC	
Farmers at the 50% Coverage Level	1998	2	3	53	7	0	65
	1999	5	4	56	22	0	87
	2000	5	3	60	13	1	82
	2001	3	1	67	7	1	79
Farmers at the 60% Coverage Level	1998	0	0	0	0	0	0
	1999	0	1	1	0	0	2
	2000	0	0	2	0	0	2
	2001	2	0	8	0	0	10
Farmers at the 65% Coverage Level	1998	0	0	0	82	44	126
	1999	0	0	20	59	27	106
	2000	1	0	27	73	39	140
	2001	1	0	44	45	21	111

Besides information from different sources (bankers, farm organization and adjusters, and extension agents) supporting farmers' claims, additional corroborative evidence was produced from analyzing their claims and comparing them with the weather conditions of the period. The results confirmed that farmers' claims were indeed related to inclement weather conditions. Simply listing multiple sources supporting a particular proposition provides only tentative support for that proposition. That is, triangulation or corroboration may not provide the strongest possible support for a particular interpretation in a qualitative evaluation exercise. On the other hand, applying inductive plausibility, which pits rival explanations against each other through detailed analysis of arguments and assumptions, can provide strong evidence in support of a particular proposition, thus allowing the analyst and decision maker to reject other rival claims. This scenario demonstrates the application of inductive plausibility to select from among rival theories or explanations of a particular event or phenomenon, which is the relatively high indemnity claims made by Louisiana farmers; or to eliminate as plausible, as happened here, a proffered explanation, which was the fraudulent conduct of farmers.

Another example of using the principle of inductive plausibility—multiple data sources combined with analysis of arguments and assumptions underlying these sources—to eliminate or support rival theories or explanation is the case of the Carolinas. In Table 7, at the 65% level of insurance, claims have been very high—more than 50% of active policies (shown in Table 8) in each year, reaching as high as 93% of active policies in 1999 for North Carolina, and 96% of active policies for South Carolina. Note too, that in Table 8 active policies in North Carolina at the 65% level of coverage were 82, 59, 73, and 45 for the period 1998 to 2001. For South Carolina, active policies were 0, 20, 27, and 44 for the same period and coverage levels. The initial explanation offered by farmers was that inclement weather was responsible for losses in the field. Given that there were episodes of bad weather affecting production of sweet potatoes in these two states, farmers' initial explanation seemed to have face validity. However, information gleaned from insurance adjusters and extension agents on planting and reaping dates revealed that the failure of farmers to follow strict planting and reaping times were mainly responsible for the high rates of claims and indemnity payments.

In summary, the above scenarios demonstrate that interactive qualitative techniques can generate rich data that can help us understand situations that would otherwise be unknowable and confusing (Eisner 1991). Qualitative approaches have

Table 8. HISTORY OF PARTICIPATION IN SWEET POTATO PILOT PROGRAM BY LEVEL OF INSURANCE COVERAGE

	YEAR	STATE					TOTAL
		AL	CA	LA	NC	SC	
Claims at the 50% Coverage Level	1998	0	0	24	0	0	24
	1999	0	0	12	7	0	19
	2000	1	0	32	0	1	34
	2001	1	0	14	1	1	17
Claims at the 60% Coverage Level	1998	0	0	0	0	0	0
	1999	0	0	1	0	0	1
	2000	0	0	2	0	0	2
	2001	0	0	1	0	0	1
Claims at the 65% Coverage Level	1998	0	0	0	42	21	63
	1999	0	0	17	55	26	98
	2000	0	0	24	44	25	93
	2001	0	0	22	31	12	65

their epistemological roots in phenomenology, which focuses on the individual as an interpreter of reality in his/her particular situation. Thus, reality is socially constructed.

Therefore, the individual and his context are essential for developing insights into social behavior and other phenomena. This being the case, methods of naturalistic inquiry, like qualitative evaluation, are effective tools for gathering useable information.

Implications

The usefulness of theories and models depend on their ability to explain and predict phenomena and to serve as frameworks for organizing and planning a course of action. A case study such as this one demonstrates the application of qualitative principles (such as corroboration and inductive plausibility) to support novel problems that could not be anticipated without complete immersion of the investigators in the context of farmers and stakeholders. An example of this was

recognizing the disharmony that existed between crop and insurance cycles in the Pecan Revenue Pilot Insurance Program. The case of Louisiana and the Carolinas demonstrated the use of multiple sources of data (inductive plausibility) to explain difficult problems. The qualitative approach also serves to uncover tacit knowledge that can improve the explanatory power of theories and our skill in applying them to solve practical problems. This case study reaffirms the utility of qualitative evaluation approaches in unraveling data embedded in complex social settings. The findings of this case study in qualitative evaluation should bolster the confidence of practitioners in the power of this method to produce credible results.

References

- Boehlje, M. 1995. "The New Age Agriculture." *Choices* 11:30. Retrieved December 15, 2002 (<http://0-web7.epnet.com.sheba.ncat.edu/citation.asp?>).
- Bogdan, R.G. and S.K. Biklen. 1998. *Qualitative Research in Education: An Introduction to Theory and Methods*, 3rd ed. Needham Heights: Allyn & Bacon.
- Bogdan, R.G. and S.J. Taylor. 1975. *Introduction to Qualitative Research Methods*. New York: John Wiley & Sons.
- Dunn, W.N. 1994. *Public Policy Analysis: An Introduction*. Englewood Cliffs: Prentice Hall Inc.
- Eisner, E.W. 1991. *The Enlightened Eye: Qualitative Inquiry and the Enhancement of Educational Practice*. New York: Macmillan Publishing Co.
- Fraser, M. and M.J. Taylor. 1991. "Social Work and Science: Many Ways of Knowing". *Social Work Research and Abstract* 27. Retrieved December 15, 2002 (<http://0-web7.epnet.com.sheba.ncat.edu/citation.asp?>).
- Guba, E.G. and Y.S. Lincoln. 1989. *Fourth Generation Evaluation*. Newbury Park: Sage Publications Inc.
- Hoepfl, M.C. 1997. "Choosing Qualitative Research: A Primer for Technology Education Researchers." *Journal of Technology Education* 9. Retrieved December 15, 2002 (<http://scholar.lib.vt.edu/ejournals/JTE/v9n1/hoepfl.html>)
- Patton, M.Q. 1997. *Utilization-Focused Evaluation*, 3rd ed. Thousand Oaks: Sage Publications Inc.
- Small, S.A. 1995. "Action Oriented Research: Models and Methods". *Journal of Marriage and the Family* 57:941. Retrieved December 15, 2002 (<http://0-web7.epnet.com.sheba.ncat.edu/citation.asp?>).
- Tweeten, L. and C. Zulauf. 1998. "Post-industrial agriculture." *Choices* 13:30. Retrieved December 15, 2002 (<http://0-web7.epnet.com.sheba.ncat.edu/citation.asp?>)

United States Department of Agriculture. 1997. "Risk Management Agency."
Retrieved December 15, 2002 ([http://www3.rma.usda.gov/apps/sob/
state.cfm?CFID=2547824&CFTOKEN=73228122](http://www3.rma.usda.gov/apps/sob/state.cfm?CFID=2547824&CFTOKEN=73228122)).