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#### **ABSTRACT**

The Waste Management Institute provided in-service training to interested County Extension agents in North Carolina to enable them to provide leadership in developing and delivering a comprehensive county-level waste management program. Training included technical, economic, environmental, social, and legal aspects of waste management presented in five sessions. Specific objectives of the Institute were for participants to: (1) become knowledgeable about local conditions in waste management, including identifying problems and issues that need attention; (2) review and assess potential programs and strategies available for addressing the identified problems and issues; (3) develop an action plan that focused on a major program in waste management; and (4) develop and integrate a system of evaluation throughout the process. Participants were encouraged to select specific issue areas, such as recycling programs or household hazardous waste, for development of their individual educational plans. Each participant developed a plan of action that included types of educational activities, as well as dates and specific communication techniques to be used in delivering the planned educational messages. While 37 communication techniques were identified, traditional extension delivery methods were most frequently chosen. It is suggested that extension agents select a proper mix of communications techniques to reach broader audiences. (KS)

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## Building Staff Competencies and Selecting Communications Methods for Waste Management Programs

#### **Abstract**

The environmental issue of waste management has broad dimensions that require skill and expertise in developing relevant educational programs on the specific issues associated with this latest Extension System initiative. In recognition of the need to provide educational programs to its publics, an intensive waste management training program was initiated in 1990 by the North Carolina Agricultural Extension Service for 50 of its County Extension Agents. The setting for this special training was a Waste Management Institute, developed specifically for conducting the specialized in-service training.

Institute participants were asked to integrate the technical knowledge acquired into action plans-of-work for a specific educational program. A component of the plans-of-work was to identify specific communication methods to be used in conducting waste management educational programs. Extension's traditional methods of communicating educational programs were most often selected for use by Institute participants. Newspaper articles, meetings. newsletters, radio, and personal consultation were chosen most often from among 37 communications methods.



# Building Staff Competencies and Selecting Communications Methods for Waste Management Programs

waste management is definitely a publicly recognized issue, as exemplified in the constant media reports of health concerns that are being identified as a result of exposure to wastes from years ago, as well as those currently produced. Acronyms such as NIMBY (not in my back yard) or NIMET (not in my elected term) are in common usage among the public and its elected representatives as they struggle to deal with the environmental, psychological, social, and economic issues of waste management.

Regardless of the type of waste produced, the complexities involved are profound. A plethora of laws and regulations abound in response to waste management needs, requirements, and issues. To provide information on municipal solid waste management alone, the SWICH (Solid Waste Information Clearinghouse) library contains 5,000 holdings in the areas of source reduction, recycling, composting, planning, education, training, public participation, legislation, waste combustion, collection, transfer, disposal, landfill gas, and special wastes (GRCDA, 1990). At the federal level, environmental regulations total more than 8,000 pages (Hackett, 1990).

In dealing with the broad spectrum of issues involved in waste management, the Cooperative Extension System must use a wide variety of communications techniques and educational programs to effectively interpret and implement waste management programs. As an educational organization, the Cooperative Extension System is described as "a nationwide network of educators who serve in the national interest by extending research-based knowledge and technology from the laboratory to the community" (Extension Service, 1988). In determining public needs, the Extension System strives to



concentrate its resources and to provide educational programs on issues that are important to the economic, social, and environmental progress of its various publics (Extension Service, 1988).

During the period 1986-1988, Extension identified nine specific initiatives that helped to focus the organization's resources. Two of those initiatives had a direct environmental focus--(1) Water Quality and Conservation and (2) Management of Natural Resources. The other seven initiatives were: Alternative Agricultural Opportunities; Building Human Capital; Competitiveness and Profitability of American Agriculture; Family and Economic Well-Being; Improving Nutrition Diet and Health; Revitalizing Rural America; and Youth at Risk (Extension Service and ECOP, 1989).

While those nine selected initiatives were Extension's focus in previous years, assessment of the continuously changing needs of society resulted in shifting the System's emphasis to other initiatives. Indeed, in describing Extension's mission, Boone (1985) stated that "our concern is to alter or change, through an educational program, the behavioral patterns of our clientele to the extent that they become increasingly better equipped to cope with and adapt to the almost daily changes that occur within their environments." Because of such emphasis on relevance of programming, some of the previously identified national initiatives were integrated into ongoing educational programs, while some pressing issues remained and others, such as waste management, were added for special program emphasis or attention (Extension Service, 1990).

Altering the behavioral patterns of Extension's clientele through educational programs requires a process of program planning or planned change (Mustian, Liles, and Pettitt, 1988). As a component of the planned change



process, the multiple County Extension Agent role of change agent and programmer requires process skills as well as other competencies necessary for effective linkage of the Extension System to relevant publics in analyzing learner needs and in demonstrating cutting edge leadership in providing relevant educational programs to those publics (Boone, 1985). From the competency needs perspective, the North Carolina Agricultural Extension Service recognizes that, in this rather new issue, current staff do not possess those technical competencies that are needed for effective planning and conducting educational programs in most areas of waste management.

While waste management is one of Extension's national initiatives, other initiatives also are considered to be important. Further, many ongoing traditional Extension programs receive considerable support from the clientele whom they serve (Swope, 1978; Warner and Christenson, 1984; Richardson, 1987).

As an ongoing public agency with a broad educational mission, a summary change of personnel assignments and positions to accommodate a major programming thrust in waste management was considered to be both inappropriate and unfeasible. Thus, increasing the competencies of current Extension staff to meet the goals of providing sound knowledge—based waste management programs to North Carolinians was deemed to be more appropriate.

In planning and conducting soccessful efforts toward planned change by increasing the competencies of its personnel. Hall (1988) explained that a commitment on the part of administration is a necessary component. Such commitment by the North Carolina Agricultural Extension Service was made, and an in-service training class was put in place for introducing and assimilating the new information. An Institute form of staff training was chosen to effect the dual purpose of introducing the new information and Institute participants



integrating that information into viable educational program plans. London (Knowles, 1960) defined an institute as "a series of meetings for a group of individuals to receive instruction and information in a particular field of work, and undertaken by a planning staff with the assistance of consultants in particular areas being focused upon in the session."

The overall objective of the Waste Management Institute was to provide in-service training to interested County Extension agents to enable them to provide leadership in developing and delivering a comprehensive county-level waste management program. Training included technical, economic, environmental, social, and legal aspects of waste management, presented in five sessions: four 3-day sessions and one 2-day session. Sessions one, two, and four were primarily lectures conducted in a classroom setting. Session three was a tour of model waste management systems in some areas of North Carolina. Session five (2 days) consisted of group and individual reports related to program development and analysis.

As a component of the Institute, a program-planning process was implemented whereby the information gained could be effectively assimilated and integrated into a viable educational plan for County Extension programs. The specific objectives of the Institute were for participants to:

- Become knowledgeable of local conditions on waste management, including identifying problems and issues that need attention;
- Review and assess potential programs and strategies available for addressing the identified problems and issues;
- 3. Develop an action plan(s) that focused on a major program in waste management; and
- 4. Develop and integrate a system of evaluation throughout the process.



Since waste management encompasses such a broad array of issues, Institute participants were encouraged to select specific issue areas, such as recycling programs, household hazardous waste, agricultural waste management, or others, for which they had the greatest interest in the development of their individual educational plans.

As a component of the educational plan, each participant developed a plan of action that included types of educational activities, as well as dates and the specific communication techniques to be used in delivering the planned educational messages (Table 1). While 37 communication techniques were identified, those techniques named most frequently were characteristic of traditional Extension delivery methods regularly used by County Extension agents and that are preferred by many clientele groups (Richardson, 1989; Bovare and Bowen, 1990). For example, each of the seven participants who developed agricultural waste management programs selected the traditional onfarm tests by Cooperative Extension as a teaching tool.

For those issues selected by Institute participants for program focus, a broad range of public awareness and action perhaps can be quite well met through newspaper articles, public meetings, newsletters, and radio as reflected by the agents' primary communications choices. Yet, considering the wide television coverage that waste management issues tend to attract, perhaps a reassessment of levision as a viable teaching tool should be considered by the North Carolina County Extension Agents. Also, as an added component of electronic media, perhaps increased use of videotapes could be made as compared to the planned use of slide/tape sets, which usually are more cumbersome to use when working with small groups or on an individual basis. In considering the complexity of many of the issues associated with waste



management, the use of fact sheets as well as other printed materials appears to also be somewhat overlooked as a means not only for exposing publics to an educational message, but as a viable means for those publics to follow-up with self-study and analysis as needed for clarification or understanding.

While cutting edge initiatives and technical competencies are vital for constructive educational programming to broader audiences, even though many traditional methods may be appropriate. Extensionists also must reach to the cutting edge in selecting the proper mix of communications techniques to reach those broader audiences with educational messages that have the desired impact.



Table 1. Communications methods selected for waste management educational programs by Institute participants (N=45)

Communications method	Number selecting
Newspaper articles	22
Meetings	20
Newsletters	16
Radio	16
Personal consultation	13
Slide/tape	10
Organized groups	9
Printed materials	9
Videotapes	8
Workshops	8
Leaflets-brochures	8
Civic and community club presentations	8
On-farm tests	8
Tours	7
Demonstrations	6
Volunteer leader training	5
Seminars	5
4-H, Youth, EH, school group discussions	5
Sample analysis (data)	4
Survey	4
4-H curriculum special programs	4
Group coordination	4
Mini demonstration models	4
Forum for county governments	3
Networking	3
Exhibits	2
Letters	2
Television	2
Informational notebook	1
Church bulletins	1
Field day	1
Fact sheet	1
Field test	1
Symposium	1
Cable TV	1
Telephone	1
Computer data base	<b>.</b>



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