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## Alternative Income Opportunities: Needs of County Agents and Foresters in the Mid-Atlantic Region

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## Alternative Income Opportunities: Needs of County Agents and Foresters in the Mid-Atlantic Region

### Abstract

County Extension agents and professional foresters in four Mid-Atlantic States were surveyed to determine the types of requests they receive for specific alternative income opportunities, their clientele demographics, the types of information they need, and how they would like to receive it. A significant percentage of county agents received requests in the areas of forest farming and utilization and recreational access enterprises. They also expressed a greater interest in gaining more knowledge in the area of recreational access compared to foresters. While both audiences preferred printed media to gain this knowledge, county agents had a greater interest in electronic media.

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## Introduction

Rapid changes in land use in the Northeast and Mid-Atlantic region have resulted in increasing numbers of small farmers and forest owners with diverse objectives seeking information on alternative income opportunities to enable sound decision-making (Birch, 1997; USDA Census of Agriculture, 1997; Kays, 1998a; Kays, 1998b). County agricultural Extension agents ("agents") and professional foresters ("foresters") are a first point of contact for many landowners and commonly receive requests for information on alternative income opportunities related to agriculture and natural resources with which they may or may not be familiar. While agents are commonly more aware of income opportunities related to agriculture, their ability to provide natural resource information compared to foresters was the target of the study reported here.

## Purpose and Objectives

Agents and foresters may need additional education to help them prepare for questions involving the range of alternative enterprise options. The purpose of the study was to develop a survey instrument that would provide the information needed to make recommendations for educational programming. The specific objectives of the survey were to determine:

1. The types of requests received by agents and foresters for specific alternative income opportunities,
2. The demographics of the clientele served by each profession, and
3. Which alternative income opportunities the professionals would like to learn more about and through which media they would like to receive it.

## Methodology

A one-page, double-sided survey instrument with 10 questions was developed and field-tested. Initial questions asked what kind of information clientele requested. This included a question on the number of requests over the last year for information on 27 specific income opportunities in

the four broad areas of forest farming and utilization, recreational activities, alternative agriculture, and forest management. A few questions focused on demographic characteristics of those requesting information. Other questions focused on the type of information professionals want to learn more about and by which media they would prefer to receive it.

To help organize the range of potential alternative enterprise options into groupings characteristic of the professionals, they were divided into four broad categories for the survey:

1. Managing forest resources using a forest stewardship plan
2. Forest farming and utilization enterprises
3. Recreational access and tourism enterprises
4. Traditional and alternative agricultural enterprises

A cover letter was sent with the survey instrument to 821 county agricultural Extension agents, state foresters, and consultant and industrial foresters in Maryland, West Virginia, Virginia, and Pennsylvania. Mailing lists were collected from state Extension and forestry organizations and entered into a database, with each record having an identifying number to register survey receipt.

A three-mailing survey technique was used (Dillman, 1978). The first mailing on May 15, 2001 included a cover letter, numbered survey, and postage paid return envelope with 2 weeks to respond. A reminder postcard followed 5 days after the initial mailing. After responses were tabulated, those who did not return a survey were sent another complete survey packet. Of the 821 surveys mailed, 503 or 61% were returned. However, only 415 or 51% of the surveys were completed, with an additional 98 indicating they did not want to participate.

The overall return rate varied by the group. Statistical Analysis System (SAS) software was used to determine significant differences on the 415 completed surveys. The 415 respondents comprised county Extension agents (158), consultant foresters (124), and state foresters (98), with only a handful of industrial foresters (12). Only 23 respondents acknowledged their occupation as "other," and they were not included in the analysis. The number of professionals by state and occupation provided a diverse and balanced sample.

## **Results & Discussion**

### **Audiences Requesting Information**

There were significant differences in the audiences seeking information from foresters and agents. Agents and foresters received about 50% of their requests from traditional clientele, with 56% of requests to agents received from traditional and part-time farmers and 43% of requests to foresters from forest landowners (Table 1).

Roughly one-third of their respective audiences were composed of landowners lacking general farming knowledge and/or experience, but seeking to establish an income opportunity on their farm or forest--27% for foresters and 35% for agents. This can be considered a crossover audience, and agents had a significantly higher percentage of their requests from that audience.

Almost three-quarters (73%) of requests to agents were from landowners who lived on the property (resident landowners), compared to only 43% for foresters. Foresters received almost twice as many requests from absentee landowners (41%), compared to agents (23%). This may reflect the changing demographic of forest landowners who tend to buy forestland as an investment and for recreational purchases, not necessarily to live on the property. It may also reflect a lack of awareness by absentee landowners about the services an agent can, or should, provide.

Overall, agents tend to serve a resident community that is made up of traditional or part-time farmers, while foresters tend to serve an absentee audience of largely forest landowners. However, a large crossover audience of landowners lacking general farming knowledge exists, and agents served a larger percentage of this audience compared to foresters.

**Table 1.**  
Percentage of All Clients Seeking Income Opportunity  
Information by Landowner Category

<b>Audience</b>	<b>Foresters</b>	<b>Agents</b>
Traditional farmer whose principal source of income is from the farm	12%*	21%*
Part-time farmer whose principal	15%*	35%*

source of income is not from the farm		
Landowners lacking farming knowledge and/or experience but seeking to establish an income-opportunity on their farm or forest	27%*	35%*
Primarily a forest landowner whose main interest is in forest & wildlife management	43%*	6%*
Other	3% *	3% *
Total	100%	100%
* Denotes Statistical Difference at p<0.05 Between Foresters & Agents		

## Number of Requests Received

Overall, 29,671 requests for information were received by the respondents counted in this survey (Table 2). This was an average of 77 total requests for each of the 233 foresters and 75 total requests for each of the 158 agents. As might be expected given the traditional areas for each profession, agents received more than 92% of the 7,460 requests related to alternative agriculture, and foresters received 91% of the 14,855 requests related to forest management.

**Table 2.**  
Number of Request Received by County Educators and Foresters for Each Income Opportunity Category

Category	Foresters (233)	Agents (158)	Total
Forest Farming & Utilization	2,382	2,615	4,997
Recreational Access	1,034	1,325	2,359
Alternative Agriculture	577	6,883	7,460
Forest Management	13,582	1,273	14,955
Total	17,575	12,196	29,771

However, 46% of agents did receive surveys on marketing forest products, although the number of requests were much lower compared to foresters. Agents appear to be a source of information on forest harvesting, at least for the clientele they serve. In contrast, the percentage of foresters receiving requests for information on alternative agriculture was negligible, indicating their clientele do not see them as able to provide this information.

Of interest in this study was requests for information in the newer areas of forest farming and utilization and recreational access. Only 19% of the requests to foresters were for information in these two newer areas, compared to 32% of the requests to agents. When you consider that there were one-third (32%) fewer agents than foresters, the number of requests per agent was 60% higher for forest farming and utilization and 90% for recreational access enterprises.

### Forest Farming & Utilization

Agents received a significantly higher percentage of requests for information on agroforestry and specialty mushrooms. While the percentage of respondents indicating requests for ginseng was higher among agents than foresters, the difference was not significant (Table 3).

**Table 3.**  
Requests Received for Forest Farming & Utilization

	<b>Foresters (233)</b>		<b>Agents (158)</b>	
	<b># Requests</b>	<b>% of Surveys</b>	<b># Requests</b>	<b>% of Surveys</b>
Christmas trees/wreaths	570	53	839	59
Agroforestry	949	26 *	511	42 *
Ginseng	164	29	444	55
Specialty mushrooms	76	19 *	260	43 *
Maple syrup	83	19	125	21
Custom sawmill	278	38 *	98	23 *
Drying lumber	128	26 *	90	16 *
* Denotes Statistical Difference at $p < 0.05$ Between % of Surveys for Foresters & Agents for that Enterprise				

About 55% of agents and foresters received requests for information on Christmas trees; however, the number of requests per agent was almost double that of foresters. It appears clients see county agents as a source of information for these high interest areas that are usually associated with forestry enterprises. Foresters did receive a significantly higher percentage of requests for more traditional forestry enterprises of custom sawmilling and drying lumber.

### Recreational Access

Agents received a significantly higher percentage of requests for horseboarding/trailriding, agritourism, fee fishing and bed 'n breakfast, compared to foresters (Table 4). The number of requests per agent for horseboarding, agritourism, fee hunting, and bed 'n breakfast was 6 to 21 times compared to foresters. Foresters and agents both had a high percentage of requests for fee hunting, which reflects the popularity of this enterprise among forest and farm landowners as a means to reduce overabundant deer populations and produce income. While the percentage of requests for information on vacation cabins and fee fishing for foresters was low compared to agents, there was a high number of requests from this small audience. Overall, agents serve as a major source of information for many recreational enterprises compared to foresters.

**Table 4.**  
Requests Received for Recreational Access

	<b>Foresters (233)</b>		<b>Agents (158)</b>	
	<b># Requests</b>	<b>% of Surveys</b>	<b># Requests</b>	<b>% of Surveys</b>
Horseboarding/Trailriding	62	9 *	322	48 *
Agritourism	28	3 *	400	37 *
Fee Hunting	56	42	239	35

Fee Fishing	510	7 *	126	25 *
Bed and Breakfast	12	3 *	96	23 *
Campground	48	9	23	8
Vacation cabins	214	6	23	6
* Denotes Statistical Difference at $p < 0.05$ Between % of Surveys for Foresters & Agents for that Enterprise				

### What Kind of Knowledge and Resources Do Professionals Want to Answer Questions by Clientele?

In the areas of forest farming and utilization, there was no significant difference in the percent of foresters and agents requesting knowledge and resources they would like to receive to answer questions by clientele for ginseng, agroforestry, specialty mushrooms, Christmas trees and wreaths, and maple syrup (Table 5). For most enterprises, except maple syrup, more than a third of the agents and foresters expressed an interest in more knowledge and resources. Only in the traditional forestry areas of custom sawmilling and drying lumber was the percentage of foresters interested significantly higher than that of agents.

**Table 5.**  
Percent of Professionals Requesting More Knowledge and Resources to Adequately Answer Questions About Forest Farming and Utilization Enterprises

	Foresters (233)	Agents (158)
Ginseng	42	42
Agroforestry	41	44
Specialty mushrooms	35	32
Custom sawmilling	31 *	20 *
Christmas trees/wreaths	30	27
Drying lumber	24 *	14 *
Maple syrup	16	11
* Denotes Statistical Difference at $p < 0.05$ Between Foresters & Agents		

In the area of recreational access, a significantly higher percentage of agents wanted to receive more knowledge and resources in the areas of fee fishing, horseboarding/trailriding, agritourism, and bed 'n breakfast, compared to foresters (Table 6). A high percentage of both agents and foresters (37%) requested more knowledge and resources about fee hunting, which may reflect the concern over the impacts of deer on both farm crops and forest regeneration in the four-state region. Many foresters and county agents may see fee hunting as an opportunity to provide income to landowners while helping to reduce the damage done by deer.

**Table 6.**  
Percent of Professionals Requesting More Knowledge and Resources to Adequately Answer Questions About Recreational Access Enterprises

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	<b>Foresters</b>	<b>Agents</b>
Fee hunting	37	37
Fee fishing	14 *	27 *
Campground	12	8
Vacation cabins	9	15
Horseboarding/Trailriding	7 *	29 *
Agritourism	6 *	48 *
Bed and Breakfast	3 *	16 *
* Denotes Statistical Difference at $p < 0.05$ Between Foresters & Agents		

### **Media Preferences of Foresters and Agents to Acquire New Information**

County agents had a significantly greater preference for electronic media to acquire new information on income opportunities compared to foresters, including Web-based resources, email consultation, and satellite videoconference (Table 7). This may reflect the efforts of land-grant universities to equip county Extension offices with computer technology to improve their educational mission, compared to private, state, and industrial foresters who are more focused on one-to-one technical assistance.

**Table 7.**

Media Preferences of Professionals for Acquiring New Information on Income Opportunities. Ranking of Media Choices in ( ) for Foresters and County Agents

	<b>Foresters</b>	<b>Agents</b>
Printed publications	91% (1)	94% (1)
Seminars/workshops	85% (2)	79% (3)
Web-based resources	68% (3) *	87% (2) *
One-on-one	65% (4) *	43% (6) *
Prefer to refer to another knowledgeable person	55% (5)	50% (5)
E-mail consultation	39% (6) *	57% (4) *
Satellite videoconference	14% (7) *	34% (7) *
* Denotes Statistical Difference at $p < 0.05$ Between Foresters & Agents		

A high percentage of agents and foresters preferred to acquire new information by printed publications as their first choice, but secondary sources of information differed between these

audiences. Foresters' second choice was a more traditional source of delivery, seminar and workshops, which was then followed by Web-based resources. Agents' secondary preference was Web-based resources, followed by seminars and workshops. The preference of agents for electronic media compared to foresters was substantiated by the choice of email consultation as a fourth choice by 57% of agents. Only 39% of foresters chose email consultation as a desired method, and it was their sixth choice overall. The preference for electronic media may change as Internet access and email becomes more widespread.

The last choice of acquiring information for both professionals was the satellite videoconference, although 34% of agents preferred this media, compared to only 13% of foresters. There is push to utilize this media to reduce costs and travel, but it was the least preferred in this survey. This may be due to the variation in quality of these programs, lack of familiarity, and recognition of its limitations, but the lack of face-to-face contact and networking is another likely cause.

## Conclusions & Recommendations

This study verifies the role of the Extension agent as a credible source of information in the four main income opportunity areas. Other studies have highlighted a lack of interest in forestry issues by county agricultural agents (Schneider & Smallidge, 2000), but this survey indicated that more than a third of agents received requests on marketing forest products and a similar number were interested in more information on this topic.

Requests by clientele and knowledge preferences of foresters tend to focus on forest management opportunities and other enterprises related to forest farming and utilization and recreational access that deal directly with traditional forestry. However, agents had significantly more requests for information for most enterprises in the three income enterprise categories outside that of alternative agriculture.

Agents are well situated as a first point of contact to provide clientele with the full range of income enterprise information, are interested in gaining more knowledge, and appear willing to use more progressive technology, compared to foresters. However, there is a need to actively reach out to forestry professionals and ensure that traditional forestry clientele have access to all information. The diversification of income for forest and farm landowners can help improve long-term land stewardship.

The interest of forest landowners, full- and part-time farmers, and newer landowners in learning about alternative income opportunities provides an opportunity for training to better coordinate the delivery of information and communication between agents and foresters. While agents may serve their traditional clientele well, the challenge remains to ensure that traditional audiences reached by foresters (forest landowners and absentee landowners) have access to the full range of income enterprise information.

The following recommendations are suggested.

- Help foresters understand the changing needs of many landowners, providing an opportunity to learn about income enterprises other than timber. The expanded opportunity should allow foresters to adjust their marketing strategies and provide services to a new suite of clientele.
- Organize regional Cooperative Extension training for county agents, state, consultant, and industrial foresters, to share and develop information sources and improve communication so that individuals with expertise in different enterprise areas are identified and utilized. This would enable the first point of contact (whether county agent or forester) for the landowner to provide meaningful referrals on information with which they may not be familiar.
- Encourage coordination among the various partners to make sure that accurate and up-to-date information is available to all professionals either electronically or in hard copy, so that clientele can access the best available on a timely basis. The capabilities of Web-based resources by cooperative extension can be a major advantage.
- Make sure programs on alternative enterprises are a coordinated effort between foresters and agents and are marketed effectively to their clientele. While programs may focus on specific enterprise opportunities, access to information on the range of alternative enterprises should always be emphasized.

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