SAWMILL DISPOSAL POLLUTION PROBLEMS
A Study of Attitude and Knowledge Change
in 35 County Agents from Ohio
by Garry Domis

Forestry 593
Honors Project
Winter 1977
Mr. Robert Touse
Honors Advisor
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction and Background Information</td>
<td>1</td>
</tr>
<tr>
<td>Methods of Research and Procedure</td>
<td>5</td>
</tr>
<tr>
<td>Limitations</td>
<td>6</td>
</tr>
<tr>
<td>Purpose</td>
<td>7</td>
</tr>
<tr>
<td>Data</td>
<td>8</td>
</tr>
<tr>
<td>Discussion of the Data</td>
<td>22</td>
</tr>
<tr>
<td>Conclusion</td>
<td>31</td>
</tr>
<tr>
<td>Bibliography</td>
<td>34</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>34</td>
</tr>
<tr>
<td>Sample Questionnaires</td>
<td>35, 36</td>
</tr>
</tbody>
</table>
INTRODUCTION AND BACKGROUND INFORMATION.

During the late 1960's an upsurge in the Environmental movement spawned a great deal of public reaction to the increasing amount of pollution, overpopulation, and other related problems. Coming out of this movement was the establishment in the early 1970's of the National Environmental Protection Agency. Since the inception of the EPA, many Ohio sawmill managers have found themselves confronted with a new problem - the efficient disposal of their excess wood residue (bark and sawdust) in a non-polluting manner. Many managers used to burn the excess in tepee shaped burners, but their use has been outlawed in recent years due to the air pollution problems they were causing. As a result, many sawmill managers are faced with huge piles of bark and sawdust that continue to collect in their mill yards, and create water, air and visual pollution which the EPA forbids. The disposal problem is not getting any better, and the EPA is not getting any more lenient, and in the long run the sawmill industry may be hurt in Ohio if a solution is not found.

In early December of 1975, Mr. Touse, my advisor, and I took several trips to sawmills in Ohio that might have been having problems. Our first visit was to the Smith and Hopkins mill in Highland County. We found that a water pollution problem had developed in the city reservoir behind their mill. Rainwater would drain off of their log yard, which had accumulated a large amount of sawdust and bark, into the water supply of Hillsboro. When townspeople complained about the 'funny taste in the water', the EPA man promptly visited the mill.

In order to meet the specifications of EPA in this case, Smith had to construct catch ponds behind the mill that would prevent water from draining into the reservoir. The water in these ponds was then pumped back across the road to a sprinkler system on a nearby farm. Mr. Smith belatedly told us that a good deal of time, effort, and money were expended on the project.

Travelling toward Portsmouth, we noticed another sawmill that appeared to be having problems. Near McDermott in Scioto County is located the Taylor Lumber Co.
managed by Mr. Robert Graf. The tepee burner, now out of use, was surrounded by a pile of sawdust and bark that was about 50 feet high and a good 30 feet at the base. If not taken away on a regular basis, this pile illustrates the large amount of residue that can and will build up. Mr. Graf told us that he had tried to market and sell the sawdust, but that he'd been unsuccessful and had given up. He also had been visited by the EPA because the ugly pile was quite visible from Route 73 and was causing visual pollution. Fine dust was also settling on a nearby stream creating water problems as well. He told us that he felt the EPA was unreasonable, and had become so upset during one encounter with them that he shut the door in their face. This only creates bigger problems between the agency and the mills, and they are not likely to look favorably upon his situation.

Our final visit that day took us toward Cuba, Ohio in Clinton County. A visit around the Suggs and Katter mill there revealed an interesting sight. There was only a minimal pile of sawdust- the mill yard was very clean. Evidently, the people here had solved their excess wood residue disposal problem.

Since Clinton County is heavily farmed, and supports a good many dairymen, such as the Lawrence - Dean Dairy Farm, we found that the sawmill manager has many outlets for his excess. Dry sawdust is an excellent bedding material for cattle, and readily absorbs and mixes with the animal's waste. This mixture can then be composted and used for fertilizer. Evidently, the farmers and dairymen carry the sawdust away from the Suggs mill as soon as an appreciable pile is accumulated.

The Ohio Feedlot located near South Charleston in the same county also uses the sawdust for bedding material. On a visit there we discovered five huge processing pens where the cattle were fed and kept in large stalls. A layer of sawdust was used to mix with the excrement. When a considerable amount of the mixture was produced, a scooper comes into the stalls, loads the mixture, and deposits it on a huge compost heap nearby. After the material is broken down by bacterial action, it is bagged and sold as fertilizer.

The next day we visited Mr. Ed Fladt, the County Extension Agent for Clinton County,
hoping to find out why Sue was having no problems with disposal. We had speculated that it was being used as bedding material, but we hadn't had concrete proof. ( we hadn't visited the Ohio Feedlot before we talked with Mr. Fladt ).

He told us that he knew of no farmers personally who were using it, but did direct us to the Lawrence-Dean Dairy Farm where we did observe firsthand the use of sawdust as bedding material.

After our visit with Mr. Fladt we also formulated an approach to my research project - to study the problem through the County agents. We( Mr. Touse and I ) began to compose a questionnaire that would try to find out how much the County agent knew about the problem of disposing of excess wood residue, how they felt about the situation with the EPA and the sawmills, and what they saw as their responsibility to help solve the problem.

Trying to get more of a handle on the problem, we visited another mill the next day in Mount Vernon, Knox County, managed by Mr. Perry Brenneman. Concerning disposal of his excess, he related that during the spring and summer he had no problems. However, during the rest of the year it tended to accumulate around the mill yard.

His problem with the EPA arose, as many do, when a citizen living near his mill complained about the dust in the air around his house. The EPA man came out to investigate, but, according to Mr. Brenneman, he didn't know what he was looking for. Thinking that the air pollution problem was being caused by the use of a burner, the agent soon found out that Brenneman's tepee hadn't been used for months. Nonetheless, when he found the problem to be fine dust material, he warned the sawmill man to correct the situation. Brenneman complied and installed a cyclone to collect the dust. He also informed us that the EPA had been tough with several of the older sawmill managers around Knox County, and that some had shut down rather than bother with trying to meet EPA's regulations. Once again we encountered an individual who had dealt with the EPA and had found them to be quite unreasonable.
There was no doubt that a problem between the sawmills and the EPA definitely existed for several of the sawmill managers in Ohio.

That same day we travelled to the Stone Container Corporation, a paper mill in Coshocton County. Our purpose there was to talk with the manager whom we had learned was looking into the possibility of using wood residues to fuel their boilers, and cut back on the use of natural gas. Natural gas is the more efficient fuel, but in recent years this resource has become more scarce and costly, and this prompted Stone to look for a more abundant and cheaper source of fuel. He told us that surveys were sent to area sawmills in order to find out what kind of wood residue supplies were available. Stone was willing to travel as far as an 80 mile radius from Coshocton to get 90% of their projected needs. Figuring 700 tons per day would be needed, they figured they would receive 400 tons from sawmill suppliers, and 300 tons from metropolitan waste per day. The sawdust would have to be under 40% Moisture content. This seemed to be the logical solution to the problem, but a closer look reveals many factors that would stand in the way of this solution.

First off, the transportation costs involved with such a system would be large. Several truckloads at least would be needed each day, and with the ever increasing cost of gasoline, the price would run quite high.

The very nature of the sawmill industry in Ohio would prevent many people from unloading their excess. In order to supply 400 tons per day, it would be necessary to aggregate the supplies from many mills in a given area. This would prove to be difficult because the sawmill people in Ohio are known to be disorganized, and quite individualistic men. To aggregate a large supply would require a lot of co-operation among these people to bring their excess to a central point where it could be loaded. As they have not worked together in the past to solve their problems, it would seem unreasonable to expect a complete turnaround. However, with time and education, I believe these people could finally work through their problems together. Nonetheless, if Stone, and some of the other large industries in central Ohio, do go to
using wood residue as a source of boiler fuel, they would surely find an ample supply at the sawmills in central Ohio, and this would help solve the disposal problem in an efficient, pollution-free manner.

The last sawmill we visited was managed by young Lynn Downey. Surprisingly, we found that he was still burning his excess in the tepee burner at his mill. He told us that EPA had granted him an extension for using the burner until he could install the boiler he planned to use at his mill. Mr. Downey had contracted with a Columbus firm to sell some of his excess sawdust as activated carbon. He would have to dry the sawdust down to 10% M.C., and this was to be done with the boiler which would be fueled by excess bark, wood scraps, and leftover sawdust. This was very encouraging in two ways, (1) here was a man who was willing to solve his own disposal problem, and had actually done something about it. (2) Here the EPA was willing to extend their deadlines as to the shutdown of all burners, and were very reasonable to a man who was trying to help himself. This shows that when both the sawmill man and the EPA work together, a better solution can be reached.

METHODS OF RESEARCH AND PROCEDURE.

I decided to conduct my research through the County Extension Office. Mr. Jack Hill, a Vice-president at the Farm Bureau in downtown Columbus, promised any support that he could give. Since I could have the use of the Watts line and could call anywhere in the state, I decided to choose 35 counties from the forested section of Ohio where sawmill operations were likely to be happening. The counties chosen stretched from the southwest portion of Ohio on a diagonal toward the northeast section, but not including the heavily populated and industrial counties of northern Ohio. All counties to the south and east of the diagonal were included in the survey.

I obtained a list of all the County Agents along with their phone numbers, and proceeded to conduct an interview by phone with each of the agents from the
35 counties.

The telephoning was conducted at the Farm Bureau in February and early March of 1976. The questionnaire was composed of seven questions, and the responses, plus comments were noted on a mimeographed sheet. The name of the Agent, the date, the amount of time spent on the phone, and my own comments were also recorded on each questionnaire. This same procedure was used approximately one year later in January of 1977 with the same agent using the same questionnaire.

The questionnaire was written up by myself with help from Mr. Touse, and was designed to find out how much the County Agent knew about the sawmill situation, the resultant EPA action against some of these sawmills, how the County Agent felt about the problem, and how he viewed his own responsibility toward the sawmill people in trying to help solve the problem. Questions 1, 2, 3, 4, and 6 were aimed at discovering the Agent's knowledge about the situation. Questions 5, 5a, and 7 were used to uncover the attitudes the Agent had about the problem. (see sample questionnaire - Table 1)

The data was then tabulated according to each question, and the results will be discussed later.

LIMITATIONS.

The first problem involved contacting all the County Agents. In 1976 I was able to contact 33 of the 35 Agent's. In 1977 I contacted 31 of 35. Since Coshocton was the only county to have a different agent in '77 versus '76, that leaves 28 that can be used for comparison purposes. Nonetheless, during both interview periods, I was able to contact every agent at least once.

Another limitation deals with the type of data obtained. Since this kind of "people research" is not concrete like tree measurements, it is subject to a good deal more variation. For instance, the particular mood of the Agent must be considered. Suppose that when I called him in '76 he had been upset, and really did n't
feel like answering the questions at that particular time. He may have answered the questionnaire hurriedly in order to "get it over with", and may not have really told me all that he knew. Some agents did ask how long the questionnaire would take, and commented that they had about 10 minutes before they had to be off. This also could encourage the agent to give incomplete, and quick answers.

The mood, the voice, and the attitude of the interviewer could also lead to variance. If, for instance, I would be talking to someone, and from their responses could tell that they really didn't feel like talking about it, I may have tended to hurry through the interview to "get it over with".

Finally, people are very complex, and things may have happened to them, or me, that could change their outlook on life, their jobs, etc. In essence, though this type of research is very interesting, there are inherent variances that make comparisons over a year quite unreliable in some instances.

PURPOSE.

In our discussion with Mr. Fladt, we discovered that he knew very little about sawmills, or the forest industry of his county. In such a rural county this can be expected, and I mean to find no fault with him. His specialty is in the agricultural, farm related field, and one can't expect him to have a lot of knowledge about forestry.

We suspected that many of his colleagues were in the same situation as to having a general lack of knowledge about the problem, and the questionnaire seemed a good tool to show the County Agent what he may not know about the situation. So, one of the main purposes of the research was to confront the County Agent with his own lack of knowledge, and hopefully stimulate him to do a little research on his own to find out about the sawmill-EPA problem if one existed in his county. By conducting the same interview a year later and comparing the responses, I hoped to learn whether or not the Agent did find out more about the situation.
Mr. Touse also worked on several articles and radio releases discussing the situation. This, we hoped, would also stimulate the County Agent to find out more about what was going on, as well as give him handy information about the problem.

DATA.

I have decided to compile my data in tabular form for each question in the survey. This allows a discussion of each question, and more clearly indicates and relates the responses given by the Agent.
TABLE 1
Sample Questionnaire

First get name, when called (date, time); How long you talked

1. How many sawmills are located in your county?
   (0 - 5) (5 - 10) (more than 10) (don't know)

2. How many of these sawmills are having difficulty meeting EPA standards?
   (0 - 5) (5 - 10) (10+) (don't know)

3. Do you know what these problems are about?
   (a) air pollution from smoke
   (b) air pollution from dust
   (c) water pollution from drainage
   (d) noise pollution
   (e) visual pollution
   (f) don't know

4. What agency enforces EPA standards in your county?
   (a) State of Ohio
   (b) County Health Dept.
   (c) Don't know

5. What is your personal reaction to any difficulty identified above?
   (a) the sawmill is a polluter nuisance and needs to be policed
   (b) the enforcement has been too vigorous
   (c) the enforcement has been too lenient
   (d) no opinion - don't know

5(a) What would be your reaction if a sawmill in your county went out of business?

6. How good are the marketing opportunities for bark and sawdust in your county?
   (a) animal bedding and mulch sales could be expanded by the sawmill
   (b) animal bedding and mulch sales are at a maximum now
   (c) there is a possibility of wood residue being used as boiler fuel by some industry
   (d) don't know that anything has been done
   (e) don't know anything about this

7. How effective do you think the Extension Office can be as a catalyst to help this situation?
   (a) very helpful
   (b) moderately helpful
   (c) no opportunity to help
TABLE 2

QUESTION 1) How many sawmills are located in your county?

(0 - 5) (5 - 10) (more than 10) (don't know)

<table>
<thead>
<tr>
<th>County</th>
<th>1976</th>
<th>1977</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams</td>
<td>0 - 5</td>
<td>0 - 5</td>
</tr>
<tr>
<td>Athens</td>
<td>0 - 5</td>
<td>5 - 10</td>
</tr>
<tr>
<td>Belmont</td>
<td>0 - 5</td>
<td>0 - 5</td>
</tr>
<tr>
<td>Brown</td>
<td>0 - 5</td>
<td>0 - 5</td>
</tr>
<tr>
<td>Carroll</td>
<td>0 - 5</td>
<td>don't know</td>
</tr>
<tr>
<td>Clinton</td>
<td>0 - 5</td>
<td>0 - 5</td>
</tr>
<tr>
<td>Columbiana</td>
<td>5 - 10</td>
<td>0 - 5</td>
</tr>
<tr>
<td>Coshocton</td>
<td>0 - 5</td>
<td>don't know</td>
</tr>
<tr>
<td>Fairfield</td>
<td>0 - 5</td>
<td>don't know</td>
</tr>
<tr>
<td>Fayette</td>
<td>0 - 5</td>
<td>0 - 5</td>
</tr>
<tr>
<td>Gallia</td>
<td>0 - 5</td>
<td>0 - 5</td>
</tr>
<tr>
<td>Guernsey</td>
<td>0 - 5</td>
<td>0 - 5</td>
</tr>
<tr>
<td>Harrison</td>
<td>0 - 5</td>
<td>0 - 5</td>
</tr>
<tr>
<td>Highland</td>
<td>0 - 5</td>
<td>5 - 10</td>
</tr>
<tr>
<td>Holmes</td>
<td>more than 10</td>
<td>more than 10</td>
</tr>
<tr>
<td>Jackson</td>
<td>5 - 10</td>
<td>*</td>
</tr>
<tr>
<td>Knox</td>
<td>0 - 5</td>
<td>0 - 5</td>
</tr>
<tr>
<td>Lawrence</td>
<td>0 - 5</td>
<td>*</td>
</tr>
<tr>
<td>Licking</td>
<td>0 - 5</td>
<td>0 - 5</td>
</tr>
<tr>
<td>Madison</td>
<td>0 - 5</td>
<td>0 - 5</td>
</tr>
<tr>
<td>Mahoning</td>
<td>0 - 5</td>
<td>0 - 5</td>
</tr>
<tr>
<td>Meigs</td>
<td>0 - 5</td>
<td>5 - 10</td>
</tr>
<tr>
<td>Monroe</td>
<td>0 - 5</td>
<td>5 - 10</td>
</tr>
<tr>
<td>Morgan</td>
<td>0 - 5</td>
<td>0 - 5</td>
</tr>
<tr>
<td>Muskingum</td>
<td>*</td>
<td>0 - 5</td>
</tr>
<tr>
<td>Noble</td>
<td>0 - 5</td>
<td>*</td>
</tr>
<tr>
<td>Perry</td>
<td>0 - 5</td>
<td>0 - 5</td>
</tr>
<tr>
<td>Pickaway</td>
<td>0 - 5</td>
<td>0 - 5</td>
</tr>
<tr>
<td>Ross</td>
<td>more than 10</td>
<td>more than 10</td>
</tr>
<tr>
<td>Scioto</td>
<td>don't know</td>
<td>don't know</td>
</tr>
<tr>
<td>Stark</td>
<td>0 - 5</td>
<td>0 - 5</td>
</tr>
<tr>
<td>Tuscarawas</td>
<td>more than 10</td>
<td>more than 10</td>
</tr>
<tr>
<td>Vinton</td>
<td>*</td>
<td>more than 10</td>
</tr>
<tr>
<td>Washington</td>
<td>don't know</td>
<td>*</td>
</tr>
<tr>
<td>Wayne</td>
<td>5 - 10</td>
<td>more than 10</td>
</tr>
</tbody>
</table>

* Indicates county in which I was not able to get ahold of the County Agent
**TABLE 3**

**QUESTION 2)** For many of these sawmills are having difficulty meeting EPA Standards?

<table>
<thead>
<tr>
<th>County</th>
<th>1976</th>
<th>1977</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(0 - 5)</td>
<td>(5 - 10)</td>
</tr>
<tr>
<td>Adams</td>
<td>don't know</td>
<td>don't know</td>
</tr>
<tr>
<td>Athens</td>
<td>0 - 5</td>
<td>0 - 5</td>
</tr>
<tr>
<td>Belmont</td>
<td>don't know</td>
<td>don't know</td>
</tr>
<tr>
<td>Brown</td>
<td>0 - 5</td>
<td>0 - 5</td>
</tr>
<tr>
<td>Carroll</td>
<td>don't know</td>
<td>don't know</td>
</tr>
<tr>
<td>Clinton</td>
<td>0 - 5</td>
<td>0 - 5</td>
</tr>
<tr>
<td>Columbiana</td>
<td>0 - 5</td>
<td>don't know</td>
</tr>
<tr>
<td>Coshocton</td>
<td>0 - 5</td>
<td>don't know</td>
</tr>
<tr>
<td>Coshocton</td>
<td>don't know</td>
<td>don't know</td>
</tr>
<tr>
<td>Fairfield</td>
<td>don't know</td>
<td></td>
</tr>
<tr>
<td>Fayette</td>
<td>don't know</td>
<td></td>
</tr>
<tr>
<td>Gallia</td>
<td>don't know</td>
<td></td>
</tr>
<tr>
<td>Guernsey</td>
<td>0 - 5</td>
<td>0 - 5</td>
</tr>
<tr>
<td>Harrison</td>
<td>don't know</td>
<td></td>
</tr>
<tr>
<td>Highland</td>
<td>0 - 5</td>
<td>0 - 5</td>
</tr>
<tr>
<td>Holmes</td>
<td>5 - 10</td>
<td></td>
</tr>
<tr>
<td>Jackson</td>
<td>don't know</td>
<td></td>
</tr>
<tr>
<td>Knox</td>
<td>don't know</td>
<td></td>
</tr>
<tr>
<td>Lawrence</td>
<td>don't know</td>
<td></td>
</tr>
<tr>
<td>Licking</td>
<td>don't know</td>
<td></td>
</tr>
<tr>
<td>Madison</td>
<td>don't know</td>
<td></td>
</tr>
<tr>
<td>Mahoning</td>
<td>don't know</td>
<td></td>
</tr>
<tr>
<td>Meigs</td>
<td>don't know</td>
<td></td>
</tr>
<tr>
<td>Monroe</td>
<td>0 - 5</td>
<td>0 - 5</td>
</tr>
<tr>
<td>Morgan</td>
<td>don't know</td>
<td></td>
</tr>
<tr>
<td>Muskingum</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Noble</td>
<td>don't know</td>
<td></td>
</tr>
<tr>
<td>Perry</td>
<td>0 - 5</td>
<td></td>
</tr>
<tr>
<td>Pickaway</td>
<td>0 - 5</td>
<td></td>
</tr>
<tr>
<td>Ross</td>
<td>don't know</td>
<td></td>
</tr>
<tr>
<td>Scioto</td>
<td>0 - 5</td>
<td></td>
</tr>
<tr>
<td>Stark</td>
<td>0 - 5</td>
<td></td>
</tr>
<tr>
<td>Tuscarawas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vinton</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Washington</td>
<td>don't know</td>
<td></td>
</tr>
<tr>
<td>Wayne</td>
<td>0 - 5</td>
<td></td>
</tr>
</tbody>
</table>

* Indicates county in which I was not able to get ahold of the County Agent
TABLE 4

QUESTION 3) Do you know what these problems are about?

<table>
<thead>
<tr>
<th>County</th>
<th>1976</th>
<th>1977</th>
<th>Comments of County Agents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams</td>
<td>c</td>
<td>no answer *</td>
<td>Sawmills are out away. People not exposed to pollution.</td>
</tr>
<tr>
<td>Athens</td>
<td>a,c</td>
<td>c</td>
<td>Location of mills is away from people.</td>
</tr>
<tr>
<td>Belmont</td>
<td>c</td>
<td>c</td>
<td>No pollution problems. Rural county.</td>
</tr>
<tr>
<td>Carroll</td>
<td>no answer</td>
<td>no answer</td>
<td>Sawmills are out of the way.</td>
</tr>
<tr>
<td>Clinton</td>
<td>a</td>
<td>a,c</td>
<td>Would be drainage if a problem.</td>
</tr>
<tr>
<td>Columbiana</td>
<td>c</td>
<td>a,b</td>
<td>Rural county—most mills are out of way.</td>
</tr>
<tr>
<td>Coshocton</td>
<td>c,e</td>
<td>f</td>
<td>Ugly pile near the high school. People won't accept zoning—shouldn't complain.</td>
</tr>
<tr>
<td>Fairfield</td>
<td>f</td>
<td>a,b</td>
<td>Mills are out in country. The people don't complain.</td>
</tr>
<tr>
<td>Fayette</td>
<td>f</td>
<td>f</td>
<td>No pollution problems.</td>
</tr>
<tr>
<td>Gallia</td>
<td>c</td>
<td>c</td>
<td>No knowledge</td>
</tr>
<tr>
<td>Guernsey</td>
<td>c</td>
<td>c</td>
<td>Rural county. No great concentration of people</td>
</tr>
<tr>
<td>Harrison</td>
<td>f</td>
<td>f</td>
<td>Haven't been any problems.</td>
</tr>
<tr>
<td>Highland</td>
<td>c</td>
<td>c</td>
<td>Mills are out away from people — no problems.</td>
</tr>
<tr>
<td>Holmes</td>
<td>a,b,c</td>
<td>a,b,c</td>
<td>Had just talked with three millers—they'd mentioned no problems.</td>
</tr>
<tr>
<td>Jackson</td>
<td>f</td>
<td>+</td>
<td>Far out in country—no problems.</td>
</tr>
<tr>
<td>Knox</td>
<td>b,d</td>
<td>b</td>
<td></td>
</tr>
<tr>
<td>Lawrence</td>
<td>f</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Licking</td>
<td>no answer</td>
<td>c</td>
<td></td>
</tr>
<tr>
<td>Madison</td>
<td>no answer</td>
<td>c</td>
<td></td>
</tr>
<tr>
<td>Mahoning</td>
<td>no answer</td>
<td>f</td>
<td></td>
</tr>
<tr>
<td>Meigs</td>
<td>a,b,e</td>
<td>a</td>
<td></td>
</tr>
<tr>
<td>Monroe</td>
<td>c</td>
<td>c</td>
<td></td>
</tr>
<tr>
<td>Morgan</td>
<td>f</td>
<td>c</td>
<td></td>
</tr>
<tr>
<td>Muskingum</td>
<td>+</td>
<td>no answer</td>
<td></td>
</tr>
<tr>
<td>Noble</td>
<td>c</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perry</td>
<td>c</td>
<td>no answer</td>
<td></td>
</tr>
<tr>
<td>Pickaway</td>
<td>no answer</td>
<td>no answer</td>
<td></td>
</tr>
<tr>
<td>Ross</td>
<td>c</td>
<td>a,b,c</td>
<td></td>
</tr>
<tr>
<td>Scioto</td>
<td>a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stark</td>
<td>a,c</td>
<td>no answer</td>
<td></td>
</tr>
<tr>
<td>Tuscarawas</td>
<td>a</td>
<td>no answer</td>
<td></td>
</tr>
<tr>
<td>Vinton</td>
<td>+</td>
<td>a,e</td>
<td></td>
</tr>
<tr>
<td>Washington</td>
<td>f</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Wayne</td>
<td>no answer</td>
<td>no answer</td>
<td></td>
</tr>
</tbody>
</table>

* no answer means that the response the County Agent gave was not one of the six choices given in the question.

+ Indicates County Agents not reached in that particular year.
Question 4) What agency enforces EPA standards in your county?

- a) State of Ohio
- b) County Health Department
- c) Don't know

<table>
<thead>
<tr>
<th>County</th>
<th>State</th>
<th>County</th>
<th>Other</th>
<th>Don't know</th>
<th>1976</th>
<th>1977</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Athens</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belmont</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brown</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carroll</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinton</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Columbiana</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coshocton</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fairfield</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fayette</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Gallia</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guernsey</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harrison</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Highland</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Holmes</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jackson</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knox</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lawrence</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Licking</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Madison</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mahoning</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meigs</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monroe</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morgan</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Muskingum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Noble</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perry</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Pickaway</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Ross</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scioto</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stark</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuscarawas</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Vinton</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Washington</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wayne</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
QUESTION 5) What is your personal reaction to the difficulty identified above?

- a) the sawmill is a polluter nuisance and needs to be policed
- b) the enforcement has been too vigorous
- c) the enforcement has been too lenient
- d) no opinion - don't know

<table>
<thead>
<tr>
<th>County</th>
<th>1976</th>
<th>1977</th>
<th>Comments of the County Agents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams</td>
<td>d</td>
<td>N.A.*</td>
<td>Sawmills have no problems.</td>
</tr>
<tr>
<td>Athens</td>
<td>N.A.</td>
<td>N.A.</td>
<td>No problems yet.</td>
</tr>
<tr>
<td>Belmont</td>
<td>N.A.</td>
<td>d</td>
<td>No complaints.</td>
</tr>
<tr>
<td>Brown</td>
<td>N.A.</td>
<td>N.A.</td>
<td>Sawmills are not a nuisance.</td>
</tr>
<tr>
<td>Carroll</td>
<td>d</td>
<td>d</td>
<td>Most mills are small - not affected by EPA.</td>
</tr>
<tr>
<td>Clinton</td>
<td>N.A.</td>
<td>N.A.</td>
<td>Sawmills haven't been bothered yet.</td>
</tr>
<tr>
<td>Columbiana</td>
<td>d</td>
<td>d</td>
<td>Sawmills have created no problems yet.</td>
</tr>
<tr>
<td>Coshocton</td>
<td>c</td>
<td>d</td>
<td>No problem in his county.</td>
</tr>
<tr>
<td>Fairfield</td>
<td>d</td>
<td>N.A.</td>
<td>There has been no problem.</td>
</tr>
<tr>
<td>Fayette</td>
<td>d</td>
<td>d</td>
<td>Not an immediate concern in his area.</td>
</tr>
<tr>
<td>Gallia</td>
<td>no answer</td>
<td>no answer</td>
<td>Sawmills are creating no problems.</td>
</tr>
<tr>
<td>Guernsey</td>
<td>no answer</td>
<td>d</td>
<td>In 1976 he said this was an unfair question. In 1977 he said that the enforcement had been unreal.</td>
</tr>
<tr>
<td>Harrison</td>
<td>d</td>
<td>d</td>
<td>No problem in his county.</td>
</tr>
<tr>
<td>Highland</td>
<td>b</td>
<td>b</td>
<td>No need for enforcement in his county.</td>
</tr>
<tr>
<td>Holmes</td>
<td>c</td>
<td>a,c</td>
<td>People haul it away. No problem there.</td>
</tr>
<tr>
<td>Jackson</td>
<td>b</td>
<td>+</td>
<td>No pollution problems.</td>
</tr>
<tr>
<td>Knox</td>
<td>no answer</td>
<td>d</td>
<td>No problems.</td>
</tr>
<tr>
<td>Lawrence</td>
<td>no answer</td>
<td>+</td>
<td>Hasn't heard any reports of any pollution problems.</td>
</tr>
<tr>
<td>Licking</td>
<td>b</td>
<td>b</td>
<td>Millers have been supplying sawdust for strip areas.</td>
</tr>
<tr>
<td>Madison</td>
<td>no answer</td>
<td>c</td>
<td>No mills have been complained about. They are more scared of OSHA.</td>
</tr>
<tr>
<td>Meigs</td>
<td>c</td>
<td>c</td>
<td>Hasn't been a problem. The difficulty at McDermott - Mr. Graf's mill was taken care of.</td>
</tr>
<tr>
<td>Monroe</td>
<td>N.A.</td>
<td>d</td>
<td>The EPA has not been overzealous. Does recognize the need for concern of our environment.</td>
</tr>
<tr>
<td>Morgan</td>
<td>d</td>
<td>d</td>
<td>Good market to the dairymen - no problems.</td>
</tr>
<tr>
<td>Muskingum</td>
<td>+</td>
<td>b</td>
<td>No good answer to the sawdust problem.</td>
</tr>
<tr>
<td>Noble</td>
<td>d</td>
<td>+</td>
<td>Four large mills might present problems.</td>
</tr>
<tr>
<td>Perry</td>
<td>b</td>
<td>d</td>
<td>Hasn't faced the problem - yet.</td>
</tr>
<tr>
<td>Pickaway</td>
<td>N.A.</td>
<td>N.A.</td>
<td></td>
</tr>
<tr>
<td>Ross</td>
<td>no answer</td>
<td>d</td>
<td></td>
</tr>
<tr>
<td>Scioto</td>
<td>N.A.</td>
<td>d</td>
<td></td>
</tr>
<tr>
<td>Stark</td>
<td>no answer</td>
<td>N.A.</td>
<td></td>
</tr>
<tr>
<td>Tuscarawas</td>
<td>no answer</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Vinton</td>
<td>+</td>
<td>no answer</td>
<td></td>
</tr>
<tr>
<td>Washington</td>
<td>no answer</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Wayne</td>
<td>N.A.</td>
<td>no answer</td>
<td></td>
</tr>
</tbody>
</table>

* N.A. This stands for "not applicable" which many County Agents responded for their county. They had experienced no problems, or had any contact with EPA, and thus really didn't have an opinion concerning EPA enforcement.

* no answer This means that the answer given did not correspond to any of the four lettered responses.

+ Indicates County Agents that were not reached at that particular time.
**Question 6** How good are the marketing opportunities for bark and sawdust in your county?

a) animal bedding and mulch sales could be expanded by the sawmill  
b) animal bedding and mulch sales are at a maximum now  
c) there is a possibility of wood residue being used as boiler fuel by some industry  
d) don't know that anything has been done  
e) don't know anything about this

<table>
<thead>
<tr>
<th>County</th>
<th>1976</th>
<th>1977</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams</td>
<td>e</td>
<td>b</td>
</tr>
<tr>
<td>Athens</td>
<td>b</td>
<td>b</td>
</tr>
<tr>
<td>Belmont</td>
<td>b</td>
<td>a</td>
</tr>
<tr>
<td>Brown</td>
<td>b</td>
<td>b</td>
</tr>
<tr>
<td>Carrol</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>Clinton</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>Columbiana</td>
<td>b</td>
<td>a</td>
</tr>
<tr>
<td>Coshocton</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>Fairfield</td>
<td>b</td>
<td>a</td>
</tr>
<tr>
<td>Fayette</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>Gallia</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>Guernsey</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>Harrison</td>
<td>e</td>
<td>b</td>
</tr>
<tr>
<td>Highland</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>Holmes</td>
<td>b</td>
<td>a</td>
</tr>
<tr>
<td>Jackson</td>
<td>c</td>
<td>*</td>
</tr>
<tr>
<td>Knox</td>
<td>b</td>
<td>b</td>
</tr>
<tr>
<td>Lawrence</td>
<td>b</td>
<td>*</td>
</tr>
<tr>
<td>Licking</td>
<td>a</td>
<td>b</td>
</tr>
<tr>
<td>Madison</td>
<td>b</td>
<td>b</td>
</tr>
<tr>
<td>Mahoning</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>Meigs</td>
<td>a</td>
<td>b</td>
</tr>
<tr>
<td>Monroe</td>
<td>b</td>
<td>a</td>
</tr>
<tr>
<td>Morgan</td>
<td>a,d</td>
<td>b</td>
</tr>
<tr>
<td>Muskingum</td>
<td>*</td>
<td>b</td>
</tr>
<tr>
<td>Noble</td>
<td>a</td>
<td>*</td>
</tr>
<tr>
<td>Perry</td>
<td>a</td>
<td>b</td>
</tr>
<tr>
<td>Pickaway</td>
<td>a</td>
<td>b</td>
</tr>
<tr>
<td>Ross</td>
<td>b,c</td>
<td>a</td>
</tr>
<tr>
<td>Scioto</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>Stark</td>
<td>a</td>
<td>b</td>
</tr>
<tr>
<td>Tuscarawas</td>
<td>b,c</td>
<td>b</td>
</tr>
<tr>
<td>Vinton</td>
<td>*</td>
<td>b</td>
</tr>
<tr>
<td>Washington</td>
<td>a</td>
<td>*</td>
</tr>
<tr>
<td>Wayne</td>
<td>b</td>
<td>b</td>
</tr>
</tbody>
</table>

* Indicates the Counties in which I was not able to get in touch with the County Agent.
QUESTION 5(a): What would be your reaction if a sawmill in your county went out of business because the EPA shut them down?

<table>
<thead>
<tr>
<th>County</th>
<th>1976</th>
<th>1977</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams</td>
<td>Would evaluate the health hazard first, and if the sawmills were creating health problems, then shutdown would be justified.</td>
<td>Would have to know more facts. He finds EPA unreasonable at times, but questions sawmiller's responsibility toward the environment.</td>
</tr>
<tr>
<td>Athens</td>
<td>No different than what EPA does in other areas. Would be justified if they can show damage. Would create unemployment, and would make people very upset.</td>
<td>Suggests the industry postpone compliances as long as possible.</td>
</tr>
<tr>
<td>Belmont</td>
<td>Employment and local timber and wood products industry would be hurt alot.</td>
<td>It would be unnecessary.</td>
</tr>
<tr>
<td>Brown</td>
<td>Must live with the law if in violation. The law must be realistic, and it is not for some farmers in his county who aren't allowed to spread manure on frozen ground which is ideal.</td>
<td>Would depend on the reason. Must live with and respect the law.</td>
</tr>
<tr>
<td>Carrol</td>
<td>Would hate to see small business forced out of business by an agency like the EPA.</td>
<td>Not sure - depends on the reason for the shutdown.</td>
</tr>
<tr>
<td>Clinton</td>
<td>Must let private enterprise survive. Maybe rules have been too strict. Some operations have gone out of business to meet regulations - this is no good.</td>
<td>Depends upon the charge for shutdown. Should be corrected if they are serious water and air polluters.</td>
</tr>
<tr>
<td>Columbiana</td>
<td>Would be an injustice - he has a &quot;certain feeling&quot; about EPA.</td>
<td>Warnings should be given before a mill is closed. Give them time to make improvements to meet specs.</td>
</tr>
<tr>
<td>Coshocton</td>
<td>Would have to know the circumstances, but if the guy was polluting he wouldn't object.</td>
<td>Would be too bad. Maybe Extension isn't doing enough to help EPA set standards.</td>
</tr>
<tr>
<td>Fairfield</td>
<td>Doesn't think the farmers should be shut down - they saw so little. Allow them to correct situation.</td>
<td>Should use discretion. Problem not serious enough to shut them down.</td>
</tr>
<tr>
<td>Fayette</td>
<td>Doesn't have a reaction. No major effect on the economy. Would not affect his county that much.</td>
<td>Would not be a big economic sacrifice as it is not a major industry in his county.</td>
</tr>
<tr>
<td>Gallia</td>
<td>Would not like it too well - unless the mill was a big nuisance.</td>
<td>Would go along with it. Feels there is a need for some type of policing.</td>
</tr>
<tr>
<td>Guernsey</td>
<td>Correction, not punishment, is needed. EPA should get Federal funds to develop other sources.</td>
<td>He would be critical of the EPA.</td>
</tr>
<tr>
<td>County</td>
<td>Response</td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>Harrison</td>
<td>Would cause economic loss - timber market loss. Wouldn't feel good about it. Feels regulations should be worked out, and the person given time to adjust.</td>
<td></td>
</tr>
<tr>
<td>Highland</td>
<td>It would be a liability to the county.</td>
<td></td>
</tr>
<tr>
<td>Holmes</td>
<td>Takes people off payroll - would be an economic loss.</td>
<td></td>
</tr>
<tr>
<td>Jackson</td>
<td>Would have a great effect on the economy of the county.</td>
<td></td>
</tr>
<tr>
<td>Knox</td>
<td>Severe reaction. Would have large economic repercussions at the mill by putting people out of work. They would be out of line.</td>
<td></td>
</tr>
<tr>
<td>Lawrence</td>
<td>Unfortunate - small peckerwood mills wouldn't really contribute to the gross economy that much.</td>
<td></td>
</tr>
<tr>
<td>Kicking</td>
<td>Would be too bad. The pollution problems seem insignificant in the natural resources field, and he hates to see harsh action. It would be an overreaction in our attempt to clean up the environment.</td>
<td></td>
</tr>
<tr>
<td>Madison</td>
<td>Kind of difficult on farmers who sell logs to the mill. Local farmers would be affected most. Kind of bad - a lot of people work there. Hurts local market as many farmers buy rough cut lumber.</td>
<td></td>
</tr>
<tr>
<td>Mahoning</td>
<td>Unanswerable - no one likes to see people forced out of business. Must strike a happy medium. This is an open-ended question. Unanswerable - must get involved with the circumstances. Insignificant problem in his county.</td>
<td></td>
</tr>
<tr>
<td>Meigs</td>
<td>Wouldn't like to see it generally. Would like to see some improvement on the part of the sawmill. Would hurt the people that work there. Probably couldn't get other jobs.</td>
<td></td>
</tr>
<tr>
<td>Monroe</td>
<td>Thinks EPA has been overcontrolled. At the aluminum plant, they did not do the job tactfully - they antagonized the industry. Not right to shut them down. Agriculture &amp; Industry must live side by side. Would be too bad. Doesn't have much industry in his county. Would be less jobs than there already is.</td>
<td></td>
</tr>
<tr>
<td>Morgan</td>
<td>Negative attitude.</td>
<td></td>
</tr>
<tr>
<td>Muskingum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noble</td>
<td>Depends upon circumstances. Wouldn't be happy about it.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wouldn't like it too well, but doesn't think he could do anything about it.</td>
<td></td>
</tr>
<tr>
<td>Region</td>
<td>Statement</td>
<td>Response</td>
</tr>
<tr>
<td>-------------</td>
<td>---------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Perry</td>
<td>Would be a sad situation. The sawmills serve the people, and buy local timber. Would lose 20 jobs.</td>
<td>Wouldn't like it - hurts timber buyers.</td>
</tr>
<tr>
<td>Pickaway</td>
<td>Doesn't really have a reaction. Not much of an economic concern in his county so it wouldn't concern him that much.</td>
<td>MAD—can't imagine the sawmill being a polluter.</td>
</tr>
<tr>
<td>Ross</td>
<td>Depends upon the situation. If the miller has a good record, he'd be bitter. If he is a slipshod operator who causes water pollution, he should be dealt with.</td>
<td>Depends on why they were shut down. Would be unfortunate.</td>
</tr>
<tr>
<td>Scioto</td>
<td>Lots of sawmills have been forced out, not always good. Many Federal agencies are overprotective.</td>
<td>Would have to see the problem on an individual basis.</td>
</tr>
<tr>
<td>Stark</td>
<td>Extremely negative reaction.</td>
<td>He'd hit the ceiling. Not really a problem as far as pollution goes.</td>
</tr>
<tr>
<td>Tuscarawas</td>
<td>If they set good regulations, the man would probably change, and correct the situation because getting rid of the excess is profitable. Not a major part of the economy in his county.</td>
<td>If they have a good reason, shut them down. There is no need at present in his county. The big mills are successful—could sell out and do well.</td>
</tr>
<tr>
<td>Vinton</td>
<td>Would have to know the circumstances before commenting.</td>
<td>Would't like it. Is a major industry and he'd fight it hard.</td>
</tr>
<tr>
<td>Washington</td>
<td>Would have to know the circumstances before commenting.</td>
<td>Would have to look at the individual merits of the case, but feels enforcemnt needed if the mill was warned and did not do anything about it. First, awareness through education, then enforcement.</td>
</tr>
<tr>
<td>Wayne</td>
<td>Would question why. Are they a real pollutant? Were they given enough time to comply. Must know the circumstances.</td>
<td>Would have to know the circumstances before commenting.</td>
</tr>
</tbody>
</table>
Table 9

How effective do you think the Extension Office can be as a catalyst to help the situation?

<table>
<thead>
<tr>
<th>County</th>
<th>1976</th>
<th>1977</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams</td>
<td>no answer</td>
<td>b</td>
<td>76-Sawmills are insignificant in his county. One-half of one percent of business in the county. 77—Should educate EPA, millers, and public about the effects of pollution.</td>
</tr>
<tr>
<td>Athens</td>
<td>no answer</td>
<td>b</td>
<td>76-Extension office has not been successful in past in working with EPA. 77—Have been ineffective in dealing with EPA. They have been thought of by some people as helping EPA with their enforcement.</td>
</tr>
<tr>
<td>Belmont</td>
<td>a</td>
<td>b</td>
<td>76-In a communication-type way, they could be very helpful in expanding industry to get rid of excess. 77—More abrupt. Have dealt with some in the past concerning marketing aspects.</td>
</tr>
<tr>
<td>Brown</td>
<td>a</td>
<td>no answer</td>
<td>76-Can be effective. 77—Would work with the involved parties; the EPA, sawmills, and farmers.</td>
</tr>
<tr>
<td>Carroll</td>
<td>no answer</td>
<td>b</td>
<td>76-Extension agent could be instrumental. 77—Could be an educational source. Liaison between the EPA and the sawmills.</td>
</tr>
<tr>
<td>Clinton</td>
<td>b</td>
<td>b</td>
<td>76-Not a lot of opportunity to help now, but maybe if a problem arose. Mainly, they help through communications services. Suggests building a particle-board mill to solve the problem. 77—Normal education job. Maybe Mr. Touse could come down to help.</td>
</tr>
<tr>
<td>Columbiana</td>
<td>a</td>
<td>b</td>
<td>77—Would work on an individual basis as an educational tool.</td>
</tr>
<tr>
<td>Coshocton</td>
<td>c</td>
<td>b</td>
<td>77—Public education depending on where the Extension Office gets involved.</td>
</tr>
<tr>
<td>Fairfield</td>
<td>a</td>
<td>b</td>
<td>77—Educational tool—surely not enforcement.</td>
</tr>
<tr>
<td>Fayette</td>
<td>c</td>
<td>c</td>
<td>76—Couldn't provide assistance unless they came to ask for it. They have enough to do as is. 77—Couldn't be much help at all.</td>
</tr>
<tr>
<td>Gallia</td>
<td>c</td>
<td>b</td>
<td>76—More help could be given at the state level. Not much can be done at the local level.</td>
</tr>
<tr>
<td>County</td>
<td>Letter</td>
<td>Type</td>
<td>Comment</td>
</tr>
<tr>
<td>--------------</td>
<td>--------</td>
<td>------</td>
<td>----------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Guernsey</td>
<td>b</td>
<td>b</td>
<td>76-Limited did help organize a loading service. The Forest Industry should more to help itself, than rely on the Extension Office. 77-Local office not much help. Need more research about total use of the tree.</td>
</tr>
<tr>
<td>Harrison</td>
<td>b</td>
<td>b</td>
<td>77-Could help in directing Extension specialist who might be able to help.</td>
</tr>
<tr>
<td>Highland</td>
<td>b</td>
<td>c</td>
<td>77-EPA won't listen to us—not much can be done.</td>
</tr>
<tr>
<td>Holmes</td>
<td>b</td>
<td>b</td>
<td>76-I need it like I need another hole in my head. Presenting educational info could be a help. Would look bad if they were to ride around with the EPA man, and would put him on bad terms with farmers and sawmill men. 77-Doesn’t want to get involved with enforcement. Would lose credibility if were snooping around with the EPA man.</td>
</tr>
<tr>
<td>Jackson</td>
<td>b</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knox</td>
<td>a</td>
<td>b</td>
<td>76-they have rapport with the sawmills, and would be willing to help. 77-Would be helpful in any way to keep sawmill in business.</td>
</tr>
<tr>
<td>Lawrence</td>
<td>a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Licking</td>
<td>b</td>
<td>a</td>
<td>76-Education-calling public awareness to the problem. 77-Would help as an educational arm of the university.</td>
</tr>
<tr>
<td>Madison</td>
<td>b</td>
<td>c</td>
<td>76-Mainly as a communication service. 77-He couldn’t do much, but the Specialists in Columbus could. Not familiar with Forestry practice—no help at local level.</td>
</tr>
<tr>
<td>Mahoning</td>
<td>b</td>
<td>c</td>
<td>76-Laughed at this question. No comments. 77-Depends upon the willingness to cooperate. Transanswerable.</td>
</tr>
<tr>
<td>Meigs</td>
<td>b</td>
<td>c</td>
<td>77-Not knowledgeable enough now. Would help if he had the information.</td>
</tr>
<tr>
<td>Monroe</td>
<td>c</td>
<td>b</td>
<td>76-Research should find a use, then maybe the Extension Office could help. 77-Doesn’t work closely with the sawmills. Specialist would be needed to come in.</td>
</tr>
<tr>
<td>Morgan</td>
<td>a</td>
<td>b</td>
<td>76-If the need arose. 77-Strictly educational. Would point out the rules and regulations.</td>
</tr>
<tr>
<td>Muskingum</td>
<td>b</td>
<td></td>
<td>77-Sees role as the educator and arbitrator. Couldn’t be too helpful.</td>
</tr>
<tr>
<td>County</td>
<td>Score</td>
<td>Comment</td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>-------</td>
<td>-------------------------------------------------------------------------</td>
<td></td>
</tr>
</tbody>
</table>
| Noble     | b     | 76-Hasn't been involved enough with the situation. If someone in the wood products industry would develop a fiberboard mill, there would be a solution.  
77-Hasn't experienced anything with the situation. Somewhat helpful. |
| Perry     | c b   | 76-We pledge 100% co-operation.  
77-Will help all we can if the need arises. |
| Pickaway  | a no answer | 76-Educational tool. Hasn't worked with sawmill people—would not touch EPA with a 10-foot pole.  
77-Not an enforcement agency. Would refer people to specialists—can't be an expert in all areas. Educational tool. |
| Ross      | b little opportunity to help | 76-Extension agent can't do much—the sawmill people should solve problem themselves.  
77-Must get the millers out, and in for a meeting. This may help. |
| Scioto    | c b   | 76-Help operator change to comply with EPA.  
77-From a management standpoint, very effective. Helps with right education. |
| Stark     | b no answer | 76-Could be helpful through education. A specialist needed also.  
77-Would consult the Farm Forester(specialist) |
| Tuscarawas| no answer b | 76-Could be helpful through education. A specialist needed also.  
77-Would consult the Farm Forester(specialist) |
| Vinton    | a     | 76-Help through education just like they educated farmers about new pesticide use.  
77-Education is their whole business. |
| Washington| b     | 76-As an educational tool. |
| Wayne     | a a   | 76-Help through education just like they educated farmers about new pesticide use.  
77-Education is their whole business. |
Discussion of Question 1

Eight of twenty-eight people had different responses in '76 vs. '77. This is about 28% of the total, and represents a rather significant amount of people who really didn't know the total number of sawmills in their county. With such broad categories as (0-5), (5-10) and so on, I would think that this would be a very easy answer to get right if the Agent were the least familiar with the sawmills in his county.

I also noticed a large amount of (0-5) replies that suggest counties that are more farm-oriented, or heavily industrialized and populated. In 1976 the Agents replied that 25 of 33 counties had from (0-5) sawmills, and if this is taken for fact, I would suspect that the problems with the EPA would be minimal for these people as there are hardly enough sawmill operations going on that would warrant EPA scrutiny.

Another interesting, but discouraging observation is that in 1977 the number of (don't know) answers went from two to four. Since it was one of my purposes to help stimulate the County Agent to look into the situation, this is disheartening as some obviously did not.

For those that did change their reply from, for example, (0-5) to (5-10), could indicate that the Agent did some research and found that he was in error the first time.

Discussion of Question 2

In 1976, 18 of 33 agents answered that they did not know whether any sawmills in their county were having problems with EPA. This number became 15 of 31 in 77, not necessarily the same 15 though. This represents a large percentage, averaging 51% for both years. The point to note here is that, once again, the Agents who did not know did not try to find out in the course of a year. Three people went from a reply of, say (0-5), to a (don't know) response which would indicate that
they did not really know for sure in '76.

Seven of twenty-nine Agents had different replies in '77 vs. '76. Three people that didn't know in '76 gave (0-5) responses in '77 that may indicate that they looked into the situation and gathered some information. However, the man from Fairfield county, who was one of the three mentioned above, had gone from a figured response in Question 1 to a (don't know) reply in '77. So, to say that he researched the problem would be an inaccurate observation. However, the man from Meigs County was consistent in changing his answer as he changed for both Question 1 and 2. To say that he may have looked into the problem would be a definite possibility.

One can see here the difficulty involved with analyzing this data. Not only are the Agents inconsistent from year to year, but some are inconsistent from Question to Question, and to say either that they researched the problem, or plain didn't know anything about what was going on, is difficult to conclude.

Out of the 64 total responses, there was only one Agent that said more than five sawmills were having problems with the EPA. This man from Holmes County then changed his response in '77 to (0-5). If we suppose that the Agents were giving accurate figures, then we could conclude that there really is not much of a problem at all, and the people that Mr. Touse and I talked with were the exception, and not the rule.

Discussion of Question 3

On this Question, 15 of 29 were consistent from '76 to '77. They were considered to give consistent answers if one of the lettered responses matched from year to year. For instance, if the Agent gave "a,b,c" responses in '76, and "a,b" in '77, this was consistent even though the two responses didn't exactly measure up. This was done to yield better comparisons, and to account for the possibility that cer-
tain pollution problems may have been taken care of, or come up, in the course of a year. Two of the sixteen who didn't know in '76 had the same response in '77: This means that about 50% of the county Agents had some knowledge about the pollution problems in their County. The Agents from Coshocton and Scioto Counties said that they knew what kind of pollution existed in '76, but did not know in '77. This is very surprising for the Scioto Agent because, in '76 he told me that there was some air pollution from smoke which is partially correct. Our visit to Mr. Graf in late '75 indicated that there were some air pollution from dust problems. Then, in '77, he told me that he didn't know, but also said that Taylor Lumber Co. (Mr. Graf's mill) used to burn their excess. This is very inconsistent, and hard to explain. Possibly, he did not know that Graf's burner had been shut down in '75, and still thought it was going in February of '76 when I first called him. Then, during the year, he found out that the burner had long since been out of use, and when I called back in '77, he did not know of any other problems. If this be the case, then it is a good sign that maybe he did go over to the mill to check out the situation.

On this question, some of the Agents did not give one of the lettered responses, but told me that there was no pollution problems in their county, or if there were any, the mills were so far out in the county and away from people that no one complained. With these counties, it would be safe to say that the EPA would be quite reluctant to carefully scrutinize the sawmill people "way back in the woods".

Of the three Counties that I visited (Scioto, Highland and Knox) where we were certain that the EPA had met with sawmill people, these County Agents did not say that there were no pollution problems. The Agents from Highland and Knox gave accurate answers in that they enumerated exactly the type of problems that we discovered on our visits. This may indicate that in the Counties where there has been EPA action,
the County Agents are fairly cognizant of the situation.

There were only two Agents that said they didn't know in '76 who changed their answer in '77 to enumerate certain problems. This may indicate that the men in Fairfield and Morgan Counties did some research during the year. The one from Morgan County has been consistent in Questions 1 and 2, and would suggest that he has some idea of the situation, but not complete knowledge, and when he ran into a Question that he did not know about, he found the answer. The man from Fairfield County was inconsistent in his responses to 1 and 2, and it may be inaccurate to say that he researched the problem.

Discussion of Question 4

This question strictly analyses what the County Agent knows about the Agencies that enforce EPA standards in his County. In some of the Counties that are not heavily populated, the EPA may not even visit, but the County Health Department would surely regulate if there were serious problems. The question does not include a category for other types of Agencies that may regulate the polluter such as the Fish and Game Warden, so I included this category in my tabulation of the data.

Inconsistency from one year to the next may indicate that the C.A. really does not know who enforces the standards, but it could also show that maybe a different Agency came in the next year to enforce the standards. Fifteen of twenty-nine Agents were inconsistent from one year to the next. Assuming that the same Agency was enforcing the standards, this large percentage, more than 50, would indicate that the C.A. is not very attuned to the "goings on" concerning sawmill people in his county.

The men from Scioto and Highland Counties said they did not know who does the enforcement, but the man from Scioto did know what the problem was about. I know for fact that it was the EPA that had visited the sawmill people in Scioto, Knox and Highland. Speaking for Highland County, I would conclude that the C.A. knew there was a problem, but he did not
talk to Mr. Smith at the sawmill because, if he had, he would have surely known that it was the EPA who came around.

The man from Knox County said that he did not know in '76, but that it was the County Health Dept. in '77. If I had not known otherwise that it was the State office of the EPA who had visited Brenneman's mill, I may have said that he had looked into the situation. That he may have done, but he obviously didn't talk to Mr. Brenneman because, if he had, he would have known for sure that it was the EPA.

Discussion of Question 5

This question is more a measure of the C.A.'s attitude about the problem. It does require a little knowledge, but could be easily answered even if the C.A. knew very little about the situation. If I were to change any question this would be the one. For a good many of the Agents, the situation, they said, did not apply to them. Either the sawmills were creating no pollution problems, or the EPA had not even come around to their county. Thus, they would have little basis for saying that the EPA had been too vigorous, or too lenient in their enforcement. Nonetheless, I felt that the Agent would be able to give more definite responses than they did. I would suggest that to improve the question, there should be added two new categories:

1) does not apply to our situation
2) the enforcement has been adequate.

Of the 64 total responses, 28 Agents either said they had no answer to the question, or that the situation was not applicable to them. In addition there were 19 of 64 Agents who said that they had no opinion, or did not know enough to give a response. This makes 47 of 64, or 73%, who gave responses that told very little about the severity of the enforcement in the Counties contacted. Only 12 of 64 gave a response of a, b, or c, and this was surely not expected by me. I had thought that,
after visiting the sawmill people and had found vigorous enforcement, many more Agents would have answered with (b).

The Agents from Scioto and Knox counties said either the question does not apply to them, or they had no opinion. In '76, the man from Scioto said that the situation was not applicable there, but we knew this to be true because we had just witnessed vigorous enforcement at Graf's mill. This appears to be very inconsistent, and may indicate that the Agent was not very aware of the problem there.

The Agent from Highland County, though, replied that the enforcement had been too vigorous, and this we found to be true after visiting the Smith mill. However, the Agent there did seem to change his attitude in the period of a year because in '76, he said the enforcement had been "unreal", but in '77, he said that this was an unfair question— the EPA was trying to do the best they can. His response was still (b). This may indicate that after looking into the situation, he found that the sawmills were indeed polluting more than they should have been, and the action of the EPA, though vigorous, was still needed.

Nineteen of twenty-five noted in their comments that there were no problems with pollution in their counties. This would make this question seem out of place in the questionnaire, but it really is not. We saw mills where there were serious problems, and it's very unlikely that we visited the only ones in the state that had problems. The Agents in Knox and Scioto said there was no need for enforcement in their county, and that there were no problems. The Agent from Scioto said that the problem at Graf's mill had been taken care of. Both of these responses came in '77 a full year after we had talked with Smith and Graf. According to their responses, the situation with the sawmills seems to be alleviating, and this is an encouraging sign.
Discussion of Question 5a

The purpose of this question was solely to measure attitude change from one year to the next. The Agent needed no knowledge about the problem to answer the question which was put on a purely hypothetical basis for those people in a county where the situation did not apply.

Eleven of the 64 total responses said that their reaction really depended on the circumstances surrounding the shutdown. Though I did not figure this would be a major response, I can see how these people had a valid point. This points to one of the weaknesses of my questionnaire—not having questions that get at real concrete, objective results. As I said before, though, this type of research does not lend well to concrete data.

In '76, eleven Agents said that the shutdown would cause economic loss to the County. Most of these 11 felt that the sawmill was such an insignificant part of the total County's economy that it would not make much difference to him, or that it would be any great concern. These responses were merely stating the obvious—surely when a business closes down people are put out of work, and the total economy drops off. This was another aspect of the question I was not prepared for. I was hoping to get more of a "gut reaction", but most people seemed to tread lightly on the subject. What I now realize, though, is that these men are public officials who must be very careful what they say, even though it may only be to a "college kid" working on a Project.

There are five particular Counties in which the Agent seemed to have a different reaction in '77 vs. '76. The most striking is Gallia's Agent who said in '76 that he "would not like it too well", but in '77 said that he "would go along with it as there is some type of policing needed". What could happen in a year to make him change his mind completely? I would suppose that during the year he must have looked into the situation and found some serious problems, but looking at his response in '77 to Question 5, I find that he still doesn't think a problem exists there.
Maybe during the year he observed sawmills in other counties that were creating serious problems and felt more enforcement was needed.

The Agent in Coshocton County gave an interesting response in '77. He had said in '76 that it depended on the circumstances, but if the sawmill was polluting then he wouldn't object to shutting them down. In '77 he said that it would be too bad - maybe the Extension wasn't doing enough to help EPA set more reasonable standards. This is very encouraging in the way that maybe the questionnaire stimulated his research that may have found the EPA a little too harsh.

On the whole most of the County Agents seem sympathetic to the sawmill person when the EPA comes around. They feel that he is a small businessman trying to earn a living, and would think it unfortunate for them to be shut down by an Agency like the EPA. I could go on for many pages discussing the trends in this question, but that could be a Research Project in itself.

Discussion of Question 6

Since this question dealt mainly with the Agricultural aspects of the problem, the County Agents seemed to know far more about this facet of the situation than anything else. Of 64 possible responses, only 2 said that they didn't know that anything had been done, or didn't know anything about this. This question prompted quite a bit of comments probably because the County Agent was in familiar ground when talking about the bedding uses of sawdust by farmers. Most of the counties surveyed were mostly rural and farm-oriented.

Eighteen of thirty-three Agents said that in '76, the animal bedding and mulch sales could be expanded by the mill-eleven said that the maximum amount had been reached. This suggests to me that in the more rural counties where bedding sales or give-aways are not at a maximum, the County Agent could be a great help in notifying the farmer that their is
available sawdust that would fit the need. In '77, six C.A.s changed their response to (a) which may indicate that the Agent became aware of the problem in early 76, found out that there was excess sawdust at the mill which is usually given away, and alerted the farmers in his County that bedding material was available who subsequently went to the mill and picked up a truckload. Surely this may not have happened in each of these counties, but if only one person (farmer) did this, then I would feel that the Questionnaire did some good in stimulating the County Agent to get around the County and visit the sawmill man, and try to help him solve his problems.

There was 8 people who changed their response from (b) to (a), and this is questionable. If the sawmill was disposing of his excess, and bedding sales were at a maximum, it would seem unlikely that during the year something would happen that would force him to expand his bedding sales (give-aways). Especially since the EPA has been active, I don't think the saw miller would take on more excess. The possibility does exist that he may have expanded his operations and was cutting more, or that some of the people who were taking the sawdust away decided that they didn't want to use it any more.

Finally, it was interesting that in 64 responses, only one person mentioned using the material for boiler fuel. The Agent from Coshocton county, where Container Corp. is located, must not have known that the Paper mill there was considering using excess wood residue as fuel.

Discussion of Question 7

The final question was aimed at trying to discover the responsibility the C.A. had toward the problem. Of 64 responses, 11 people said that they had no opportunity to help. There were 6 Agents who felt that way in '76 and 5 in '77, not necessarily the same people. The Agents from Meigs, Madison, Mahoning, and Highland Counties went from (b) to (c) dur-
ing the year. This is especially unfortunate for the sawmill people in Highland County who were having difficulty with the EPA. Evidently, sometime during the year the Agent (Highland) had some contact with the EPA and must have found them quite unreasonable because he said that the "EPA won't listen to us.", and this prompted the response in '77.

Comparing '76 to '77, I found that 23 of 28, or 82%, changed their response. This is a large percentage of attitude changes, and this suggests that during the year something may have happened to change their minds.

The basic trend I noticed was that most of the Agents felt they could help mainly through an education-type program, or some other communication process. One Agent likened the situation to the Pesticide education program they ran when new regulations as to use were specified.

About 25% of the Agents felt that they really couldn't do much themselves to help, but felt that a specialist, the Farm Forester for instance, would be a much better source of aid. Several said that nothing could be done at the local level, and that it would be necessary to call in help from the State level.

CONCLUSION.

When we were visiting the sawmills in Scioto, Highland, and Knox Counties, we noticed a problem. It was impossible to gauge the magnitude of the problem, or how many people were affected, but there were definitely some people very much involved. However, in my survey, I was given the impression that this was hardly any problem at all. According to the County Agents, the sawmills were out of the way and weren't really creating any problems. This leaves me very confused, and a follow up Research Project may provide the answer.

Looking at the three Counties mentioned above, the Agents seemed to know that there were some problems, but their responses seem inconsistent.
The Agent from Knox County is a good example. To Question 5 he said that there was no need for enforcement in his county, yet it was the complaint from a citizen that brought the EPA knocking at Breeneman's door. Scioto's Agent responded that the problem does not apply to his county, yet the situation with EPA was very real to Mr. Graf of Taylor Lumber Company. Obviously, there is a lack of communication between the sawmill and the County Extension Office.

The Agent from Highland County was consistent, in a way. In '76 he said that it was an unfair question (no. 5), and that the EPA was doing the best they could. In '77, he felt the enforcement had been unrealistically harsh. This Agent replied that in Question 7, he really didn't think the Extension office could be much help. This is unfortunate, and hopefully not typical. He also mentioned that the EPA won't listen to him. If the EPA has been so unreasonable with these men, then maybe a thorough examination of the effectiveness of their action with respect to sawmill pollution problems is needed. (my thought)

The Scioto Agent didn't know in either of '76 or '77 about the number of mills in his county. Concerning enumeration of pollution problems, he cited air pollution from smoke in '76, but that he did not know in '77. He did not know about the enforcement in his county either, and said the situation did not apply. His most curious response was that in '77 he said the problem at McDermott had been resolved - this is where Graf's mill is located. The most encouraging response came to Question 7 in which he gave a completely different response. He had felt that the sawmill people should take care of their own problems, and that the Extension office couldn't do much to help. However, the next year he said that the Extension Office must get the sawmill people in for a meeting, and work together to solve the problems.

I believe he has hit the solution on the head. Before anything can
be done, it is important to get the parties involved, so that they can use whatever knowledge, or tools available to solve the problems. It would be quite helpful and necessary to get the EPA people at these meetings so they could explain their positions. There really is no villain in this problem, especially if those involved would work together toward a solution with a little giving on the part of the sawmill and the EPA. As we saw in the case of Lynn Downey's mill, an individual who is willing to solve his own excess disposal problems, the EPA is willing to "stretch" their regulations for those willing to solve their own problems.

If it was the Questionnaire that helped change the Scioto County Agent's mind concerning the role the Extension Office can play in solving the problem, then I feel that this Research Project was more than just a learning experience for me, and maybe did Society some good.
As this is a new area of research with no written articles about this specific topic, I was forced to rely on my conversations with my advisor, the sawmill men we talked with, the County Agents of the 35 counties, and the manager of the paper mill in Coshocton.

1. Mr. Robert Touse, Faculty and Honors Advisor, School of Natural Resources.
2. Dr. John Disinger, Professor in the Dept. of Environmental Education, School of Natural Resources.
3. Mr. Earl Smith, Manager of the Smith and Hopkins Sawmill near Hillsboro, Ohio.
4. Mr. Robert Graf, Manager of the Taylor Lumber Co. near McDermott, Ohio.
5. Mr. Perry Brenneman, Brenneman's Lumber Co. in Mt. Vernon, Ohio.
6. An employee of the Ohio Feedlot at South Charleston, Ohio who gave us a tour, and explained the method of composting using sawdust.
7. Mr. Lynn Downey, Sawmill Manager of Sherwood Forest Products near Waverly, Ohio.

Acknowledgements

I would like to thank Mr. Touse for the help he gave me on this project. He expended a lot of his valuable time to take me to these mills, and put a lot of miles on his car in so doing.

I also appreciate the assistance given by Mr. Jack Hill and the secretaries down at the Farm Bureau Office in Columbus. They provided me full use of the Watts line, as well as desk and office space.

Dr. John Disinger was also a great help in the write-up of the report. He gave me some ideas as to how to go about analysing the data which were very helpful to me.
First get name, when called (date, time); How long you talked

1. How many sawmills are located in your city?
   - 0 - 5
   - 5 - 10
   - (more than 10)
   - (don't know)

2. How many of these sawmills are having difficulty meeting EPA standards?
   - 0 - 5
   - 5 - 10
   - (10+)
   - (don't know)

3. Do you know what these problems are about?
   - (a) air pollution from smoke
   - (b) air pollution from dust
   - (c) water pollution from drainage
   - (d) noise pollution
   - (e) visual pollution - out of view
   - (f) don't know.

4. What agency enforces EPA standards in your county?
   - (a) State of Ohio
   - (b) County Health Dept.
   - (don't know)

5. What is your personal reaction to any difficulty identified above?
   - (a) the sawmill is a polluter nuisance and needs to be policed
   - (b) the enforcement has been too vigorous
   - (c) the enforcement has been too lenient
   - (d) no opinion - don't know

5(a) What would be your reaction if a sawmill in your county went out of business?

6. How good are the marketing opportunities for bark and sawdust in your county?
   - (a) animal bedding and mulch sales could be expanded by the sawmill
   - (b) animal bedding and mulch sales are at a maximum now
   - (c) there is a possibility of wood residue being used as boiler fuel by some industry
   - (d) don't know that anything has been done
   - (e) don't know anything about this

Please use 7. How effective do you think the Extension Office can be as a catalyst to help this situation? If it were a significant problem, put agricultural parity or dairy sales.

   - (a) very helpful
   - (b) moderately helpful
   - (c) no opportunity to help

   (very helpful)
   - (low parity)
   - (20-40 people)

   (moderate helpful)
   - (200-300 farmers)
   - (200,000,000)

   (no opportunity to help)
   - (200,000,000)

5(b) Evaluate health hazard - could justify the closing down if it were a problem
   - (very helpful)
   - (moderate helpful)
   - (no opportunity to help)

   (very helpful)
   - (20-40 people)

   (moderate helpful)
   - (200-300 farmers)
   - (200,000,000)

   (no opportunity to help)
   - (200,000,000)
Mr. White
- a talk
- tried to answer as best as possible
- seemed to fudge,
  but tried to give a good answer.

ADAMS COUNTY
3:50
4:00
2/4/76