

Final Report
for R. Shawn Maloney
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**Using Anthropology to Address Environmental and
Sustainable Development Issues in Rural Areas:
The Case of *Pfiesteria piscicida* on Maryland's Lower Eastern Shore**

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Fellowship Proposal

My fellowship project was conducted from May to October of 1998, in an area of the Chesapeake Bay called Maryland's Lower Eastern Shore. In general, the project was designed to assist the Pocomoke River Alliance (PRA), and the Anthropology of *Pfiesteria* Program in the Department of Anthropology at the University of Maryland, College Park, in determining stakeholder group interests and concerns around *Pfiesteria*, and in better understanding stakeholder belief systems of *Pfiesteria* and the environment.

The Pocomoke River Alliance is a non-profit organization incorporated by private citizens in 1992, and located in Pocomoke City on the Lower Eastern Shore of Maryland. The PRA seeks to form partnerships among stakeholder and interest groups within the Pocomoke River watershed, including landowners, developers, local users, elected officials, federal, state, and local government, businesses, visitors, etc., in order to address the conservation and utilization of the Pocomoke River and Sound. The Alliance provides a forum for the discussion

of watershed issues; helps to create an awareness of issues affecting the watershed; is a catalyst for developing and implementing watershed conservation plans; and is a vehicle for coordinating river and watershed activities, as well as making policy recommendations. In light of the Pfiesteria outbreak, PRA is interested in determining the biological, social, and cultural factors involved; disseminating information on local level impacts; and promoting dialogue that will help foster consensus-based Pfiesteria policy. Most importantly, PRA is concerned about restoring and maintaining the health of the Pocomoke river and its watershed.

Since the presence of Pfiesteria on Maryland's Lower Eastern Shore, numerous stakeholder groups (i.e., farmers, watermen, poultry industry, seafood industry, scientists, policymakers, government officials, tourism operators, environmental professionals, etc.) have been impacted by it. Because many of these stakeholder groups have diverse interests and experiences and are integrated at varied levels (i.e., local, state, regional, federal, etc.), they have shown different preferences for addressing the Pfiesteria problem, which have been based on their own perceived economic, social, cultural, and political priorities. These preferences have often put stakeholder groups at odds, resulting in controversial policy decisions designed to deal with the Pfiesteria problem.

In order to support stakeholder group collaboration in addressing the effects of Pfiesteria, my fellowship project, in conjunction with the work of the Anthropology of Pfiesteria Program, sought to inform PRA and other environmental decision makers about how stakeholder groups, specifically farmers, watermen, and environmental professionals, are using different sets of knowledge, beliefs, and values (i.e., their culture) as frameworks to construct their understanding and position on Pfiesteria. Information about the social and cultural factors that are shaping stakeholder groups' views and perceptions on Pfiesteria, as well as the degree to which their beliefs are shared, were to be used to facilitate a dialogue between groups. These inter-stakeholder group exchanges could significantly enhance present efforts to create and implement responsible and effective Pfiesteria policy, and would provide local stakeholder groups with a forum to better communicate their Pfiesteria concerns and interests.

Fellowship Objectives

My fellowship objectives were geared towards providing technical assistance to PRA and other environmental decision makers so that they could:

0. Better understand how social and cultural influences from both inside and outside the Pocomoke River watershed have impacted the debate over issues like nutrient management and environmental protection/restoration, as well as the Pfiesteria problem, which has also been a triggering mechanism that has highlighted older issues;

0. Determine the degree to which Lower Eastern Shore Stakeholder groups share similar or different cultural models of nutrient management, environmental protection/restoration, and Pfiesteria; and identify the common underlying beliefs, values, and dimensions;

0. More effectively communicate to a broader audience, local interests and concerns about nutrient management, environmental protection/restoration, and Pfiesteria;

0. Facilitate a dialogue among diverse local and regional stakeholder groups that would promote inter and intra-group collaboration in addressing interests and concerns around Pfiesteria, nutrient management, and environmental protection/restoration; and

0. Develop community-based environmental protection strategies in response to the Pfiesteria outbreak based on local level knowledge.

Background Information on Project Area

As indicated, my fellowship work was conducted in the Chesapeake Bay Area, which is the largest estuary in the contiguous United States. The Bay is fed in part by a 166,000 sq. kilometer watershed, and encompasses areas of six states and the District of Columbia (Maryland Cooperative Extension). The national/global significance of this environmental resource has been recognized by federal, state, and non-governmental organizations, who have initiated numerous environmental programs designed to improve Bay water quality (through nutrient reduction strategies) and restore threatened aquatic populations. Likewise, seafood and agricultural industries have also recognized the value of the Bay area, making seafood and poultry production an integral part of state and local economies.

Specifically, fellowship work took place in the area known as Maryland's Lower Eastern Shore, which is comprised of Wicomico, Somerset, and Worcester counties. The populations of these counties are estimated at 78,950, 24,280, and 39,830 respectively. In these counties, farming accounts for approximately three percent of all jobs, and perhaps no more than 200 to 300 watermen actively work the water (Maryland Office of Planning, 1998). Despite the small number of farmers and watermen, they significantly contribute to the \$1.8 billion poultry industry and \$400 million seafood industry on Maryland's Eastern Shore (U.S. Department of Commerce, 1996 and Department of Agriculture and Natural Resources, 1997).

Environmental professionals (i.e., members of federal and state environmental agencies, and non-governmental environmental organizations) motivated by mission statements, the Pfiesteria scare, and personal environmental beliefs, have sought to protect the Chesapeake Bay and its tributaries from excess nutrient loading, caused in part by agricultural run-off. This stance has directly impacted lower eastern shore farmers, who are faced with new nutrient management and waste management mandates to reduce nutrient run-off. For example, a farmer with a 1,000 acre farm and four chicken houses might expect a crop income reduction of \$22,500, due to the fact that inorganic fertilizer had to be substituted for organic ones because of excess nutrient levels. In addition, a poultry farmer who can no longer spread or sell his manure locally, and produces 792 tons of litter a year may realize manure transportation costs of \$25,340.

If farming costs rise in one region relative to others, it's competitiveness may erode. Thus, higher poultry production costs may result in less Maryland poultry production. "It is estimated that a four percent decline in Maryland's poultry production would result in an annual loss of \$74 million in economic output in the state, a \$29 million loss in personal income and business profits, and a loss of 880 jobs." (Department of Agriculture and Natural Resources, 1997)

Similarly, watermen and the seafood industry in general suffered from the Pfiesteria scare, and the associated publicity that politicians, environmental organizations, and the media added to it. For instance, after the Pfiesteria outbreak was linked to fish kills in Chesapeake Bay tributaries, consumers panicked and refused to buy seafood. Seafood sales declined by thirty to ninety percent, which prompted job lay-offs in all sectors of the industry. Chesapeake Bay seafood sales for 1997 were projected to be \$253 million. Due to the Pfiesteria impact, sales were estimated at \$210 million, a loss of over \$40 million. In turn, the decrease in demand for seafood resulted in lower prices being paid to watermen. (Maryland Department of Agriculture, 1997; Maryland Sea Grant, 1997; and Sieling and Lipton, 1988)

Project Status

My fellowship project was designed in conjunction with the Anthropology of Pfiesteria Program's research on Maryland's Lower Eastern Shore, so that resources and information could be better leveraged. Through this collaboration, both unstructured and structured ethnographic interviews were conducted. The information collected from these activities were shared across groups, enriching each other's work. My primary activities included conducting informal interviews with approximately 30 to 40 farmers (including 10 transcribed interviews), and supervising the collection of free list and triad exercises (structured interview methods) among approximately 70 to 80 farmers, watermen, and environmental professionals. Initially, my fellowship project was to be based off of data collected from structured interview activities. However, despite the success of this effort, more time has been needed to complete these activities, pushing back the time table to the first quarter of 1999. Due to this adjustment, I increased my informal interview efforts with one of the stakeholder groups (i.e., farmers), with the hope of collecting enough information to show how culture has played a significant role in the Pfiesteria problem. I chose to interview farmers in this limited time period, because they have been at the center of the Pfiesteria debate; being seen as both the problem and solution.

Focus of Final Report

Using ethnographic data collected from farmers on Maryland's Lower Eastern Shore from June through September of 1998, I will present information that reflects farmers' understanding of the environment and Pfiesteria; and information that details farmers' experiences in the poultry industry and their knowledge of being a poultry

grower. It is my hope that by providing a better understanding of how farmers relate to Pfiesteria and the environment, that environmental decision makers and legislators can create and implement policy to address Pfiesteria and other environmental problems that more adequately reflects farmer belief systems. In addition, it is also my intent to shed more light on various aspects of poultry growing and the poultry industry in general, so that organizations like Maryland's Agriculture Extension Service and Department of Agriculture might be better informed to address the interests and concerns of these groups. And as mentioned by most poultry growers interviewed, measures need to be taken soon to improve their economic standing, which threatens their ability to farm and quality of life on Maryland's Lower Eastern Shore.

The following sections will provide information that reflect farmers' belief systems and knowledge as recorded and interpreted from their participation in ethnographic interviews. When possible, direct quotes from farmers will be used to highlight points made. Pseudonyms are used to identify authors of passages so that individual identities are protected, and so that quotes maintain a "human-face." Interpretations made from field notes and transcribed interviews are not meant to represent a finite picture or understanding of all farmers on the Lower Eastern Shore, but instead suggest the existence of several social and cultural attributes, and the role that they play in some farmers' lives.

Farmers' Understanding of the Environment and Pfiesteria

Introduction

Some Lower Eastern Shore farmers' understanding of the environment and Pfiesteria may be heavily influenced by their farming occupation. In fact, much of the farmers' belief system may stem from their knowledge of how to successfully grow and harvest crops, and raise livestock, which has been passed down to them by several generations of family members and friends who have been a part of a community that has traditionally relied on farming as the major means of economic support. Thus, farmers' notions of Christianity, resource economics, personal property, agricultural complexity, risk, and give and take are imbedded in agricultural production, and help shape their views on the environment and Pfiesteria.

Influence of Christianity

In many rural communities throughout the U.S., Christianity plays a significant role in people's lives. Similarly, many farmers we interviewed indicated that they attended a Christian church, and that God was an influencing factor in their lives. For instance, Bobby Marshall indicated that:

"He (God) plays a part in all of our lives. He does mine everyday. Without Him we couldn't get up every morning. He sends rain when we need it, and sometimes when we don't need it. Sometimes we think He has forgot us, but I guess He hasn't. He knows when to send it and not

send it. But, no, I have a lot of faith in the Lord. No question about it. And I don't ever doubt his opinion. I question it sometimes on some things, (laughter by all) but I don't doubt Him because He knows best..." (P 1: BobbyM1.txt - 1:51 (878:897)).

For those farmers rooted in a Christian tradition then, it is conceivable that their understanding of and relationship to the environment (i.e., their land) stems in part from Biblical text; whereby man is to keep the land and have dominion over it, including the animals that reside there.

"And God said, Let us make man in our image, after our likeness: and let them have dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepeth upon the earth" (Genesis 1:26).

"And the Lord God took the man, and put him into the garden of Eden to dress it and to keep it." (Genesis 2:15)

"Thou madest him to have dominion over the works of thy hands: thou hast put all things under his feet: All sheep and oxen, yea, and the beasts of the field; The fowl of the air, and the fish of the sea, and whatsoever passeth through the paths of the seas. (Psalms 8:6-8)

To farmers, these Biblical passages might imply that they have the power and right to control their land (i.e., the environment) and livestock to their own use; insuring that the land is well maintained. In reference to this later point, farmers interviewed often mentioned that they were "stewards of the land." This was defined similarly in different passages:

Danny Leery: "Keepers of the soil! That's what we are...Keepers of the soil! It means you do your best as a farmer to utilize what is available in the soil and raise your crops so he can make a living. In other words, we're not going out here and doing stupid things. I'm not going out here and put a chemical on my soil that's going to kill the ground" (P 4: DLMF1.txt - 4:43 (602:625)).

Danny Leery: "...we're stewards of the land...We take care of it to the best of our ability. We don't go out here, like I say, and do anything detrimental that would hurt us or our neighbor" (P4: DLMF1.txt - 4:57 (995:1013)).

Earl Johnson: "Most farmers are dag-gone good stewards of the soil. If we wouldn't, we wouldn't be feeding about three fourths the world would we" (P5: EarlJ1.txt - 5:51 (291:294)).

Earl Johnson: (What does "steward" mean?) "The use of the land. The stewards of the land. I guess you could say that I am a steward of this deck. You keep it clean, you take care of it" (P 5: EarlJ1.txt - 5:52 (296:328)).

In general, a steward is someone who in the process of using their land, takes care of it. Moreover, the previous discussions suggest that farmers' understanding of the environment is use and care oriented. Meaning that the environment is to be used to support man, and that man is obliged to maintain it.

Concern For the Environment

Farmers, along with environmentalists, and perhaps the general populous, share a general concern for the health of the environment, and a need to protect it for future generations. The following statements by farmers reflect this sentiment:

Bobby Marshall: "We don't want to destroy the water" (P 1: BobbyM1.txt - 1:26 (542:543)).

Bobby Marshall: "I wish it would be all dead (the Pfiesteria problem). Because we don't want to endanger the environment for our kids down the road, and your kids either one. We want it to be a safe and healthy place to live" (P 1: BobbyM1.txt - 1:29 (571:575)).

Danny Leery: "And as I've told you, we don't want to pollute the water. And you'll find that we will be the first to say, I'll put up a buffer strip, and do this, and I'll do that. But you'll find that most of them are. Doing the job that they should be doing" (P 4: DLMF1.txt - 4:71 (1434:1440)).

Earl Johnson: (Are there any types of responsibilities that you feel you have toward the environment?) "Oh yes! We all, not just farmers, I think every livin person, know matter what kind of a line of work you are in, you definitely should be concerned with the environment..." (P 5: EarlJ1.txt - 5:53 (330:355)).

Earl Johnson: "Everybody should be concerned with the environment. Yeah because most of us, you know I got a couple of grand kids and I'd like to think that you know I contribute somethin to this, this is a great place and you know you want keep on being that way, you know what I mean. You don't want your kids livin in slime. I don't. Or grand kids or great grand kids or somebody way on down the line. You know I want them to benefit too" (P 5: EarlJ1.txt - 5:54 (354:364)).

Jerry Mathews: (How do you view the environment?) "Well, you know I have to live here. I don't do anything knowingly, as far as oil on the ground, antifreeze that kind of thing. You know, I mean I do the responsible thing. We recycle now. When you go to the dump it takes you a half hour to go do that. (Laughter) I do all the things you probably should. Like I said, I'm not going to do anything that's harmful" (P 7: JerryM1.txt - 7:28 (543:554)).

Jerry Mathews: "...I have to live here, and I know I don't like to do things to the land. And I certainly wouldn't want to put, I mean I got [X number of] acres up here of tillable land, to spread manure on. And if I really thought that I was doing something bad, I certainly wouldn't do it to my own home" (P 7: JerryM1.txt - 7:5 (55:62)).

Economic Attributes of Environmentalism

However, farmers' environmentalism, as suggested earlier, is couched in a conservationist strategy that promotes the productive use and maintenance of natural resources in a manner that ensures its productive capabilities for future generations. In other words, farmers' soil/land, trees, groundwater, streams, livestock, etc., have an economic value that they want to maintain. The healthier the natural resources are on a farmer's property, the more potential the land has to be productive, and the more economic value it holds for the farmer. Farmers look at their property as a long term investment that will hopefully provide for them in old age and support future generations of family members. Mike Williams, a Lower Eastern Shore farmer, echoes many

farmers' position on this issue:

“Well in a way it is, but it all goes back to what you are driven by. And the number 1 thing that everyone must be driven by is financially. And this is my environment, this square, this acreage we own is, can be looked at as my retirement. And if that piece of property is not environmentally sound, the value of that is downgraded very quickly. And the productivity of the land is downgraded. And your opportunities for that property go down...I'm a property owner. I own that land. That row of trees around it may increase the value. If it was all dead and fell over, the value may be less. I like plant life down near the stream. I want to keep the stream clean and keep the plant life there. I need good groundwater here. If anyone wants to buy this place, or I want to sell it and they have the water tested, and it fails the test, what marketable product do I have. So, you know, to a farmer who has, or to a logger or anybody who has financial risk involved in the land, to a point where they are an environmentalist...” (P 9: MikeW1.txt - 9:29 (704:752)).]

As Mike indicates, if a farmer wanted to sell his property, the overall health of his land would play a big role in the price he could command for it. If his soil was of poor quality, erosion was common place, groundwater contaminated, trees diseased, streams polluted, land poorly maintained, etc., the price for his property would dramatically decrease.

It is clear that farmers have an economic motivation to protect the environment. Farmers' understanding of the environment then is influenced by this motivation, and can be seen as an economic resource at their disposal. Likewise, farmers' perceptions of Pfiesteria can be viewed as an extension of the economic resource analogy. The existence of Pfiesteria has threatened the farmers' economic resource base by devaluing their property, and making it more expensive to do business. In an interview with Steve Fisher, poultry grower, he indicated that:

(Paraphrased) The whole manure problem has devalued the price of my farm. No one wants to buy into a growing operation if there is not a cost effective way of dealing with the manure. Particularly if there are fines levied against those who can't properly dispose of their manure and birds. The manure panic has even driven up costs of disposing of it. Also additional land control measures through regulation make farming and buying farms less attractive (P 2: Steve.txt - 2:31 (332:343)).

“Personal” Property

Farmers' have a dynamic relationship with their personal property (i.e., their land and livestock) that goes beyond economic measures. Personal property is often talked about as an extension of a farmer's home and family. The personalized care, attention, and concern given to home and family is often associated with that given to their property. The following two passages highlight the personal nature of property, and reflect the thoughts on private property of many of the farmers we interviewed:

Mike Williams: “People don't understand personal property rights. This whole farm to me is no different than your backyard...(Homeowners) Would (not) let people use their backyard for a sidewalk, or ride their bicycles through their backyard. I mean most home owners want to put up a fence so you can't see what is in their backyard. Well to me, this [100 or so] acres is my backyard, and I feel the same way. A homeowner will stand on the curve and say don't you step one foot on my grass, or you're on my property, but they don't have the same feeling for an open space that is owned

by someone. What's the same hard sweat and labor that they use to pay for their land, or their quarter acre, we use to pay for this, and we feel the same way about it" (P 9: MikeW1.txt - 9:31 (782:802)).

Tom Carter: (Paraphrased) A while back during the Pfiesteria episodes in 1997 and shortly there after, State teams of Department of Environment and Agriculture employees were going out to all the farms on the Lower Eastern Shore to check them for undefined problems. I did not like this at all. I felt that they had no right to come on my land. It was an invasion of my privacy. Tom quoted, "My farm is my home." My farm is just as much my home as somebody's house, apartment or backyard. You would not want someone entering your apartment without your permission, and I don't want someone messing with my farm without my consent (P13: TomC2.txt - 13:11 (138:164)).

As these passages indicate, farmers have a close attachment to their property, and are willing to protect it from outside threats (i.e., government regulators, environmentalists, flooding, Pfiesteria, etc.), as they would their home and family. All are central to the farmers' way of life.

In addition, farmers' understanding of personal property includes the right to exercise specific freedoms. Namely, the farmers' right to use and maintain their property as they see fit.

Farmers see little difference in the right of a homeowner to determine what they will do with their one acre yard, as they do with their 500 acre farm. In one example, farmers indicated that government should not be able to dictate land use restrictions:

Jerry Mathews: "That is another issue. I am glad you mentioned that. That is another thing they are trying to do around here is limit what you can do with your land. And if you sell parts of your land, it has to be in X amount of, 20 acres. I think that is crap. If they're going to limit the potential that my land holds for me, then they should also limit the taxes that they are taking from me for that land" (P 7: JerryM1.txt - 7:49 (1138:1173)).

In another similar example, farmers show concern that they should be able to determine the value of specific resources on their property in relation to their needs:

Mike Williams: (Differences between environmentalists and farmers) "I think sometimes, and we have talked about this 2 or 3 times, is that sometimes when they weigh the pros and cons of the situation, their scale is a little different than ours. This tree that I want to cut down has more value to them than the value they perceive of me making the land more suitable for my purposes. Or they may think that this endangered plant that I want to cover up with dirt to build this road is more important to the environment than me owning this land and paying taxes to make sure other environmental, to give the government an income for other environmental hazards and stuff. And that is, you have personal property rights is tough. I mean I own, I pay taxes on it. Within reason I can do what the hell I want to do with it" (P 9: MikeW1.txt - 9:30 (754:778)).

Finally, in a third example, farmers voice frustration in the fact that some small landowners believe they have the right to dictate land use measures to farmers, but farmers don't have the right to influence small landowner property decisions:

Tom Carter: "My father has dealt with, he told one of them down here, down the road, they were complaining about some old trucks that were sitting around. Not ours, they were somebody else's. You want to move out here and buy 2 acres or 3 acres, and you want to control 500 around you. Well I own the 500, to hell with you, I'm going to do what I want. I own 500, you own a quarter, you're going to tell me what I'm going to do on my 500, but you don't want me to tell you what you can do with your quarter" (Laughter by all) (P12: TomC1.txt - 12:33 (740:766)).

In terms of how farmers' personal property beliefs might influence their understanding of the environment, farmers are likely to consider the environment (i.e., their land) as an intricate part of their lives; without which they could not make a living. In this case, the environment is seen as something that is to be embraced, observed, and understood, so that appropriate action can be taken to interact with it effectively. One might even say that the environment represents some ultimate expression of freedom. A farmer explained his relationship to the environment in a similar discussion, which also reflects other farmers' sentiments:

Mike Williams: (How do you view your relationship to the environment?) "Probably as close to it as anybody. Because our environment, I guess we will get back to the perception of this, the environment is not a woods or a stream, the environment is the whole area. The environment is Baltimore City. That's their environment. They should try to do the best they can do for their environment...Our environment is what surrounds us. We are very aware and very conscious of what happens in my environment. More so than someone living in the city. Or someone living in the suburb, or someone that has moved to the country. Because I have grown up here, and I have seen the environment go through its cycles many times and, you know, if I see some trees dying in my environment here, I may have an idea of what is going on, or I may go survey the situation and see what's happening. A guy riding down the road in a car sees a dead tree and it is no big deal. We'll talk for instance ground water. I drink the ground water. I am concerned about what happens in my environment. The guy in the city or town water system doesn't care about the groundwater because he doesn't drink it. His well is 1,000s of feet deep. Mine may be 100 feet deep..." (P 9: MikeW1.txt - 9:28 (668:702)).

Complexity of Agricultural Production

Most farmers would agree that farming is a complex environmentally-based activity. Farmers have to be aware of the many variables that exist in growing agricultural products, so that they can apply the appropriate farming strategies. For starters, soil types may vary widely from field to field, and even within the same field. It would not be uncommon for a farmer to have four different soil types in one field.

Bobby Marshall: "Where as this farm over here is broken up, this lot is broken up in 4 different, what do you call it, 4 different sections...Well, he pulled 4 samples of this field right here. 39 acres there. He's got it marked off into 4 sections. So, each one of those sections, we go by his theory, or go different. This land is high, this land here on this side is heavy land, clay. That over there is sand. So that is why you got it split up" (P 1: BobbyM1.txt - 1:11 (319:334)).

Tom Carter: "...And see, if you'll go out here and look at this, and you go from that end of that field to this end, the soil changes at least 3 times. From down there to here. From that end of the field. It goes from a fairly high organic matter soil, dark soil right out in here, to a clay, and then comes back up to a like a sandy loam on the other end..." (P12: TomC1.txt - 12:19 (506:530)).

Each of these soil types will require different levels of nutrients to produce; will be more productive with some crops rather than others;

Bobby Marshall: "Some soils, some corn does better than others. Same with Soybeans. The weather

caps it all off. In other words that can vary still” (P 1: BobbyM1.txt - 1:21 (501:504)).

will more successfully grow some seed over others; and require different amounts of moisture to be productive.

Danny Leery: “...ours (our soil) is loomy. Our's is clay, like a loomy soil. Down in Delaware they've got sandy soil...over around Chestertown and around that way they've got a lot of sandy soil too. Because we can hold pretty well moisture, quite a while. We had an agronomist one time come around here, and we always like to, he always said that when you got east of (highway) 113, we could hold a little bit longer than what we could on the western side of 113. Because we are near the ocean, and our water, I guess the water don't go away as fast. The ocean sort of holds it back” (P 4: DLMF1.txt - 4:31 (360:393)).

In addition, some land is colder than others, requiring different planting times than land that is warmer.

Danny Leery: “...And we were always a little bit latter getting started planting than we were somewhere else, because our ground is always a little bit cooler. But when it is dry it's hard...” (P 4: DLMF1.txt - 4:31 (360:393)).

Danny Leery: “...My [relative] can't plant over at his place. I can have my grown up and he can't plant...because of cold, black rain, it's cold, the ground is cold.” Martha Fry: “Because he's got black rain.” Danny Leery: “Now this year we planted it first, because we couldn't get in to here, I don't know what it was. I hadn't had it straight...and come a cold spell and rained, and it wiped out half of it and so we had to replant it over. Well we waited just another week, or so, and I come over here and planted, and every bit of mine came up with no problem at all. We went back and planted his. Replanted where it didn't come up, and it came up. But his ground is colder. You can't plant right over there in that ground that's here...” Martha Fry: “When you have a cold wet spell you can't do it...” (P 4: DLMF1.txt - 4:69 (1301:1413)).

Not all farms drain similarly, which requires adjustments to be made in the direction one plows and plants. Also, the flow of underground water and nearby streams can affect land drainage, and other ground conditions. Wind conditions and local weather patterns also affect a farmer's ability to produce. In the case of chicken houses, local weather and wind conditions may require flexibility in the direction that houses and their windows face. Some farmers even indicated that their houses on the same property face different directions for weather and wind reasons.

Martha Fry: “Each farm drains different too. So it's kind of hard to say well you should always plow in this way and always plant in that way. Because your underground water is different, and everybody's ditches drain different. It's the same with the chicken houses, they can say why you ought to put every window this way, but each one of our chicken house is built at a different angle. And no matter which way the wind blows, it is different on everybody's farm. So you can't put everybody, and clump us together...” (P 4: DLMF1.txt - 4:69 (1301:1413)).

In general, farmers have to be very familiar with their land and the local environment in order to successfully produce. Familiarity with one's land includes having historical knowledge of how the land has produced and reacted to varying environmental and man-made influences.

Martha Fry: “...Well even our garden out here is a late garden. His mother's over there is earlier than mine.” Danny Leery: “We can't plant, I can plant my mother's garden and it would be up, and over here we can't plant nothing for 2 weeks after her's is up.” Martha Fry: “Mine is just about 2 weeks

late...” (P 4: DLMF1.txt - 4:69 (1301:1413)).

Tom Carter: (Product growing strategies) “...and you have to go by past experiences and that stuff, rather than somebody coming in and saying this is what you are going to do today” (P12: TomC1.txt - 12:19 (506:530)).

A farmer also has to have extensive knowledge about the type of product he is producing. For instance, the knowledge required to grow grain is considerably different than the knowledge needed to grow vegetables.

Tom Carter: “...Now there is a lot of things, corn, soybeans, wheat, they can get good at that because there's large number of acres grown, it's easy crops to grow. But when you start laying down guidelines for growing vegetables and things like that, your levels, your nutrient levels and that kind of stuff and your methods of application and that stuff change, and it really changes the whole thing. So you can't set the general guidelines. Again that is what I am seeing set...” (P12: TomC1.txt - 12:18 (476:504)).

Even with all this knowledge some farmers believe that, like nature, the more you think you know about farming, the less you find out you do know. This is evident by the fact that several farmers believed that they couldn't go to another farm in the area and be as productive on it because their farming knowledge is not specific to that land.

Danny Leery: “...Now I can't go up in Lancaster County and farm, because of the erosion problem. They got what they call a strip buffer, or strip farming they call it. They're planting corn here and then they skip and plant alfalfa, and then plant some more corn, and plant some more alfalfa, and then plant potatoes here, and plants some more.” Martha Fry: “We'd be wiped out the first year.” Danny Leery: “I'd have it all washed down in the road somewhere, and all the potatoes would be out in the middle of the road, and they would be rolling down the road” (Laughter by all) (P 4: DLMF1.txt - 4:69 (1301:1413)).

Because of the complexities surrounding farming, most farmers believe that it is unrealistic to make general agricultural policy for something that can change from season to season.

Tom Carter: (In reference to creating agricultural policy and regulations) “...It's hard to set things, it's hard to make policy, general policy, for something that can change...” (P12: TomC1.txt - 12:19 (506:530)).

Just as farmers view agricultural production as a complex enterprise, the environment or mother nature, which farming is beholden to, is seen as even more complicated, and less understood. However, despite nature's mystique, farmers hold several assumptions about it, including: the idea that it is not easily known or understood; that it does things with purpose; that it is always changing; that man can't control it; and that ecosystems are linked. As indicated in the first assumption, farmers believe that nature is unpredictable, and that one's knowledge of it will always be incomplete. Farmer Tom Carter phrased it this way when asked what role nature has played in the Pfiesteria problem:

“Oh yeah. Yes it does. It has too. That's the way things are. That's like farming (or nature), the more you think you know in farming (or about nature), the less you find out you do, about growing something...” (P12: TomC1.txt - 12:18 (476:504)).

Similarly, farmer Danny Leery speaks of how unknown, dormant Pfiesteria was brought to life by the right combination of weather conditions:

Danny Leery: (What might be responsible for fish kills?) “I have no idea. I think one thing is just the period of time. I think it was just a hot dry summer, and I think when the rain came, and I don't blame, it is not the run off. I really don't believe it is the run off. I think the thing lay dormant right there in that ocean that river, or any river. And when that rain come, and we'll say it's a 5 inch rain all at one time, in a 2 day period, that water goes in that stream and it works it over like, and I think that's what brought it to life” (P 4: DLMF1.txt - 4:42 (438:470)).

Some farmers interviewed also believe that nature may have a reason for everything that it does. For instance, if a grove of trees is burned to the ground, nature will restore it over time. In addition, Pfiesteria may be a natural occurrence that is designed to affect some other aspect of the environment. Farmer Jerry Mathews' comments express these beliefs:

Jerry Mathews: (What role do you think mother nature has played in the Pfiesteria problem?) “Well, you know, usually if left a lone, she takes care of her self, and she will heal herself. I think society is just putting too much on her. But whose to say that this isn't a natural occurrence that is needed to do something else. Everybody says look at that poor, I don't know, wolf, she killed her baby. Well the baby was sick. Well if she didn't kill it, then it would, you know. There is a reason for everything. Maybe, I don't know, I'm getting philosophical here, I mean maybe there is a reason for this to alleviate something else. Maybe this is a cleansing process that is needed before, you know, something else occurs. I don't know, you know” (P 7: JerryM1.txt - 7:27 (518:537)).

There was little disagreement among farmers about the extent to which the environment changes over time. The overwhelming response was that the environment is dynamic, constantly changing over time. These farmers' statements on this topic reflect the sentiments of most the farmers we interviewed:

Tom Carter: “I mean we had a situation over here on the other side of the river where we had a ditching project going with Soil Conservation. The 2 agencies get to arguing back and forth between Natural Resources and the Corp of Engineers. We had 4, 3 bulldozers sitting there and an excavator, and they're arguing for 3 weeks and can't make a decision. Who did it cost? It cost somebody. As these weren't rich people, they were, you know, fairly poor people, and their houses were being flooded. But the guy from the Corp of Engineers was worried about draining into the woods next to it. It might bother some species or something. Well you know species, I know they are going away, but they are also being created everyday. You can't freeze it. It's not going to stay here for ever. I'm not going to stay here, you're not going to stay here. And they, you know, the environmentalists think that, hey we're going to put a wall up here and a wall up here. And we're going to live in the middle. And that doesn't happen” (P12: TomC1.txt - 12:40 (921:945)).

Mike Williams: (What is your view on the environment?) “The environment will never be the way it was 100 years ago, and it will never be the way it was 50 years ago. I think it is a good thing to set aside acreage in different places to try to preserve what was there, but what was there will never be the same because the surrounding, it's surroundings and environment have changed. The Pocomoke Forest is not going to be the same 10 years from now as it was 50 years ago, if you haven't cut a tree down because of the 500 to a 1,000 cars that drive through there everyday. So, you know, it's not going to be, this is the way it was 50 years ago, pristine” (P 9: MikeW1.txt - 9:24 (577:596)).]

There also seemed to be considerable agreement over the idea that nature more or less controls man. Farmer Mike Williams uses the example of mosquitoes to specifically

demonstrate how vulnerable man is to mother nature in rural areas. Next, farmer Earl Johnson suggests that man can not alter the course of nature without affecting it in a negative manner.

Mike Williams: "... mosquitoes are a given here. Sometimes they are good, sometimes they are bad. You live with them. These people come in, oh my God they have these mosquitoes. They think that there is some secret spray the state can use or something that they can buy that will rid their property of mosquitoes. That doesn't happen. But, because they can control, or they felt like they had control of their little quarter acre in the city, they think they can control where they are now. In the city they are controlled by, the city is controlled by people. And here, the people are controlled by mother nature. Whether it is a flood, whether it's snow, or whether it's mosquitoes, whether it's rain, you know. We live with mother nature here. In the city they live with the people, because the people control. Here we have a traffic jam when a tree blows across the road. There they have a traffic jam everyday (laughter) because of people" (P 9: MikeW1.txt - 9:41 (1035:1069)).

Earl Johnson: “Well we can't turn back nature that's for sure. And man is his own worst enemy. The more we try to change nature, the more we are going to mess-up...” (P 5: EarlJ1.txt - 5:48 (254:270)).

Finally, many farmers believed that it was possible for events in one ecosystem to affect other ecosystems. This was popularly expressed when discussing how various forms of pollutants in the upper Bay Area could be responsible for Pfiesteria in the Pocomoke River area. In some manner, the ecosystems of the upper Bay are seen as linked to those of the lower Bay. Farmer Danny Leery gives his understanding of how Pfiesteria causing agents could migrate to and ultimately infest the Pocomoke River area: “...Many of these rivers start up in Delaware all the way up...Headwaters start waaay up there. Its not only in Worcester County. It can start waaay up somewhere. And all these little tributaries feed into it. And it is not only the Pocomoke, it's the Chesapeake Bay, all of them. And it's not a case of where by it happens here, it could have been something that happened north of here” (P 4: DLMF1.txt - 4:41 (543:564)).

Interestingly, farmers may transpose their understanding of the complexity of their farming environment, to that of river and stream environments, in an attempt to better understand how Pfiesteria operates in its watery domain. In the following example, a farmer explains how the differences between adjacent ecosystems within the same river, much like the differences between field soil types, may or may not account for a particular activity. In this instance, whether or not nutrients in an area where Pfiesteria was found, are actually being consumed by it.

Tom Carter: “...As they come upon that area where the Pfiesteria was, it (nutrient levels) drops. Well they said that Pfiesteria is consuming it. Now they have come back and that's not right. They said later on that we see this happening, but it may be for some other reason, maybe the Pfiesteria is not consuming, you know, the high phosphorous levels maybe they are not consuming. Again there is a change in that river and in that area. In that area of the river there is a significant change from the way it flows, the brackishness the saltiness...from one area to another there is a physical change in the ecosystem. You actually go from one ecosystem as far as I am concerned to another. And then you change to another. You are in stages there. And that river physically changes from a deep, fresh, fairly rapidly moving or flowing, it's a flowing river to one where its shallow...the sun can get to it, all the way down, and it turns brackish. That alone can trigger some things. And menhaden and that kind of stuff are sensitive, I mean I'm not a fisherman, but they are very sensitive to this stuff” (P12: TomC1.txt - 12:12 (291:333)).

Farming as a Risk-Based Occupation

Farmers' way of life is based on accepting certain levels of risk, and knowing that change and give and take practices are necessary in order to maintain their livelihood. For grain/vegetable farmers, there are many variables that the farmer can't control, which may have a direct bearing on his ability to make a living. For instance, numerous types of insects/animals/weeds, adverse weather conditions (i.e., hail, flooding, high winds, extreme temperatures, etc.), soil quality, quality of harvest, and market price can greatly affect farmers' bottom line. In the case of chicken growers, disease, extreme temperatures, integrator decisions (i.e., threat of no more birds, competition between growers, etc.), and high capital costs, can make or break growers' yearly economic

returns.

Insects destroying crops on the Lower Eastern Shore is a big problem. There is no guarantee that a farmer will be able to rid these pests from his crops before they do their damage. Every year a farmer takes the risk that his crops may be destroyed by insects. Bobby Marshall: "We have a lot of problems with insects. A lot of problems...grubs you can kill, slugs you can't, they just eat the corn. It is a nightmare with them. Once you get them in a field they stay there. And they will come back and haunt the beans next year also." (How do you get rid of them?) "...All you can do is go in there after dark, at night, and spray 30% on them, and just slack them up. But there is no chemical that will kill them so far, as of today... Yeah, insects is a problem out here. There is no question no matter what kind of crop you got. Insects is a problem no matter where you go." (P 1: BobbyM1.txt - 1:35 (617:646))

Every year farmers gamble that the weather will not destroy their crops. In a matter of hours, bad weather can ruin crops, and place significant financial hardship on farmers. Bobby Marshall: "Providing they don't have bad luck with the weather, a storm. And hail could come through here and put you out of business. In 2 hours time it can strip your corn, your tomatoes, your potatoes, what ever you have. Or you have a lot of rain and you can't dig your potatoes, and they'll rot. But, that is the way I look at that." (P 1: BobbyM1.txt - 1:66 (1122:1129))

Danny Leery: "If you gamble, there is no true fact fixed. A day a hurricane comes through and take this whole corn crop and destroy every bit of it, and not get a bit of it. We gamble. If you talk about a gambler, a farmer gambles. Because he puts it out there and hopes it comes up. Because you don't know if a worm down there or bug or something. It gets up and then it can come along and hail storm and wipe him out. And then it comes along with a hurricane and wipe us out." (P 4: DLMF1.txt - 4:66 (1233:1261))

Farmers can not predict the quality of harvest they will have from year to year, and can't determine what the market price will be for their crops. So, there is never any guarantees that they will have a good harvest, and that they will get a good price for their product. Farmers are constantly gambling that they will make enough money to meet their rising costs.

Bobby Marshall: "...it is going to be a rough one this season. We are going to have a small crop of corn, and the beans are going to be shorter still, and the wheat crop was very poor. And the prices have been down. Prices this year so far have been lower than they've been for years and years. And our costs is higher. Costs going up. Price what we sell is going down. What we buy for equipment and parts is going up. It don't seem fair." (P 1: BobbyM1.txt - 1:69 (1161:1176)).

Danny Leery: "See I never did, my dad, my father, he had potatoes and tomatoes, and it got to the point where you just couldn't raise them and sell them because the price wasn't there. And like potatoes now the price has dropped down to nothing. And some of the farmers have disked them out. They said they weren't worth digging them up out of the ground. That gets to be kind of bad when a farmer can't get enough back out of his return after he had invested all that and that's what I am saying, it's a lopsided situation where by the farmers are just not getting his fair share." (P 4: DLMF1.txt - 4:63 (1134:1147))

Mike Williams: "...our return on our investment is very poor, and it is a gamble. And for the inputs we put into it, we don't get very much out of it." (P 9: MikeW1.txt - 9:6 (141:176))

Moreover, the point is that every time a farmer plants a crop, or, in the case of the poultry industry, decides to simply start growing chickens, farmers' take a big risk that the product they are growing will reach maturity, and its sale will at least cover the cost of producing it.

Due to the risks involved in farming, farmers have developed measures to adapt to the uncertainty. One strategy involves a sense of conservatism. Because farmers aren't able to control many of the variables that affect them, the ones they can control they do in a very regimented fashion. Farming practices that have proven over the years to provide farmers with the most success are guarded and applied year after year. Farmers tailor production strategies to meet the unique nature of their land, livestock, weather conditions, etc., as indicated in the discussion on agricultural complexity.

Danny Leery: "Everybody does things differently. You do things differently. I do things differently. Man down the road does things differently. What ever works for you let it work. Don't let it, don't let somebody try to change it." (P 4: DLMF1.txt - 4:67 (1263:1286))

Farmers Willingness to Accept Change

This does not mean that farmers are unwilling to accept change. To the contrary, farmers are constantly adapting to changes that affect their production and investment. Without this ability, most farmers would not be in business year after year. However, farmers are not willing to accept change that they believe would place their livelihood in jeopardy. Farming practices that have no track record of success on their property will not be accepted by most farmers. This is one reason why farmers are extremely concerned that government mandates aimed at changing their farming practices will make their farming risks too great. Financial hardship, resulting in the loss of their farms, livelihood, and their retirement income, is seen as the outcome of taking on too much risk. Farmer Tom Carter provides a narrative in which he expresses these concerns:

Tom Carter: "You're doing the same thing with farmers. You're threatening him, you're trying to force him into the unknown. And you are not telling him any answers. And he wants to go slow. But, you want to jump in with both feet. And there may not be no bottom there. But you don't give a shit because you told him to jump. You're not jumping, you're going to stand on solid ground. You've told him to jump and you've forced him into jumping. So, you know... You've forced him. And most people are not going to be forced because it is their livelihood. Those 2 people that you saw come in here, I mean they have farmed all of their lives. You are going to make them waste their retirement? Risk everything. They risk it anyway. But you are going to make the risk even more. You're going to make the risk insurmountable. They

don't want to take it. So they get out. Of course that is the way this area is going anyway." (P12: TomC1.txt - 12:31 (690:716))

Although, farmers are willing to incrementally test specific practices, so that if the practice fails, only a small portion of their operation will be affected. If the practice succeeds, farmers might be willing to adapt the practices to a little more of their operation, and continue in that fashion. Farmer Tom Carter describes this process:

Tom Carter: "...I'll take something new that comes out. I'll take 5 or 10 acres, or 20 acres, and I'll try it. If it works, I'll try a little more. And if it works again, I'll try a little more. But, you can't come in

here and say, well you're going to change your 1,000 acres today, because I don't know, and its my nickel.” (P12: TomC1.txt - 12:29 (653:664))

Farmers are willing to take the risk that a small portion of their operation may not be productive in order to develop more productive strategies for their operation in the future.

Give and Take Practices

Because of the degree of uncertainty and need for adaptation/change in farmers' lives, farmers have adopted a give and take strategy that they use to determine the costs and benefits of their actions. As suggested, many aspects of farmers' occupation call for a degree of flexibility. Environmental conditions, combined with the unique nature of each farmers' land and product, require each farmer to use a varied farming strategy. Thus, farmers believe that the degree of complexity involved in farming does not lend itself to policies that are inflexible, mandating general requirements and practices. At present, much of the farmers' give and take attitude is centered on the degree to which compromises should be made so that farmers can grow the food that the world needs to survive, and make a living at it in the process. Farmers often make mention that environmentalists, government officials, and the general populous don't understand that in order to maintain our current agricultural capacity, some compromises (i.e., some costs must be accepted) must be made.

For instance, no till farming is necessary to maintain quality soil, but may increase nutrient runoff.

Mike Williams: “You know my feeling is that no till farming practices may add a lot to it (nutrient run-off). But that is what they told us they wanted us to do. I mean if we didn't till we'd have soil erosion into the water, which would have its own detrimental effect. So, we all have to live here, we all have to stay here, we all have to have a happy medium some where” (P 9: MikeW1.txt - 9:18 (382:390)).

Agricultural chemicals (i.e., pesticides, fertilizers, antibiotics, growth enhancers) are needed to ensure growth performance, but may have some adverse human health affects. Bobby Marshall: “Of course a lot of people say today that the chemicals on these fruits and vegetables is what's killing people, cancer. I can't argue with them there. It is very possible. But there again, we can't grow these vegetables, when it's green, without these chemicals. For one thing you can't grow the volume. Because we grew tomatoes, and we had, every 10 days we sprayed the vines with Bravo chemical, and as long as you kept that plant green, your small tomatoes would turn red. And the cannery wanted them red. They don't want no pinks. Because if the State comes by I guess once a day or once a week and pulls a sample from his cans, and if they're not bright red ripe, his grade is low that day” (P 1: BobbyM1.txt - 1:38 (646:663)).

Bobby Marshall: “That's just like the environment, as far as, or the EPA goes as far as chemicals. No chemicals, we can't grow the crops. And it's all kinds of regulations and stipulations on them, but with no chemicals, we can't produce enough to feed the country, like it should be. And people in other countries are starving to death every day. That's kind of the way I look at the situation. We are trying to produce more on an acre, and keep the cost down all at the same time. We are trying to do 2 things at one time. And working with the EPA also on the other end” (P 1: BobbyM1.txt - 1:60

(1064:1077)).

Manure is a cost effective, organic fertilizer, but may threaten local water ways. Tom Carter: "So you know we have our environmentalists, to give you both sides of the coin, you want environmental, or you want organic for your own stuff. You want good stuff. You want organic for your own stuff. Where does organic come from? It comes from chicken manure, it comes from cow manure, it comes from decaying leaves and plant matter. So do you want it grown with inorganic fertilizer or do you want it grown with organic stuff...I mean that's, which is it going to be. Are you going to do it organically or are we not going to do it organically..." (P12: TomC1.txt - 12:26 (608:626)).

Farm land, livestock, and machinery are necessary for farmers to produce food, but may not be desirable for those who are a part of rural development projects centered on housing, retail, and tourism.

Farmers are not saying that the production of food should outweigh all environmental costs, but they are saying that some acceptable risks should be taken, like those taken in other industries and in everyday life, so that the agricultural benefits can be realized. Mike Williams: "So you know there has to be checks and balances and pros and cons weighed with, you know, that's an acceptable risk that we have decided must be taken for the areas financial stability. And if you go in the Pocomoke River, you may forget what you want to go to the grocery store to buy. (laughter by all) But if you write it down you will have it. I mean there is acceptable risk in everything...We do it everyday. It is just acceptable. You know you were just born to accept it" (P 9: MikeW1.txt - 9:23 (558:573)).

Farmers frequently apply their give and take philosophy to settings outside their agricultural domain. Give and take usage in these instances typically take on a cost/benefit flavor. For example, farmer Mike Williams talks about whether it is prudent to legislate Pfiesteria-related policy on a large body of individuals in light of the fact that few individuals were affected. Particularly since many are unconvinced that Pfiesteria's health threats are real. Here Mr. Williams suggests that a cost/benefit analysis should show that Pfiesteria is an acceptable risk, much like an ear infection from swimming in the ocean. Mike Williams: "...There is a lot of watermen who have worked on the water for a lot of years, and I take, I take a lot of meaning in what they say, and there's guys who worked on the water for 50, 60 years, and there are still guys that have worked in that same water everyday that some of these people worked in, and they say there is nothing to it (health impacts from Pfiesteria). I believe there is nothing to it. But, there again, if there is something to it that that person's biological makeup has a problem with, do we legislate for 1 or 2 % of the people. I mean, when we go swimming in the Atlantic Ocean, some times we get an ear infection. Do you shut down the Atlantic Ocean for the people, for the 100 people that may get an ear infection this weekend. No because you weigh the pros and the cons to it" (P 9: MikeW1.txt - 9:22 (487:558)).

In another instance, Mr. Williams expresses his concern about those who pollute the environment for financial gain, and indicates that groups like Perdue do not fit this category. His rationalization, cost/benefit analysis of the situation is that Perdue is putting money back into the local economy, unlike other would be polluters. Thus, some level of pollution from Perdue should be considered an acceptable risk.

Mike Williams: "The thing that worries me the most about the environment, and the thing that should scare anybody about the environment, in my idea in what an environmentalists should be concentrating on are people that are degrading our environmental, our land, our environment, for a quick dollar. That is the number 1 issue that goes, I do think that polluting our environment, the financial gain to be made by polluting our environment is a lot. And I think that is what they should be concerned with. Now they can turn around and say yes, but Mr. Perdue is polluting our environment for gain. But, that's not, he is spreading that back out through our economy so much. And I think that some level there should be acceptable. The environmental concerns that I have is that they guy from New Jersey or Philadelphia or New York that comes down here with 100 drums of chemical he can't get rid of inflation, and buys a farm or buys a piece of woods and goes out in the middle and digs a hole and dumps it in there" (P 9: MikeW1.txt - 9:25 (596:620)).

Farmers also indicate that give and take measures should be applied to "natural" events. Farmer Tom Carter talks about how dense animal populations can cause negative environmental impacts and can introduce undesirable effects. Mr. Carter suggests that a balance must be maintained so that economic, environmental, and personal interests can be met.

Tom Carter: "...I've watched that marsh area, it used to be a beautiful marsh, I mean marsh ain't pretty, but it use to be a nice, fairly high marsh,...that you can walk on. They used to go out and muskrat in it and that kind of stuff. There are a lot of areas in Somerset county that were that way. Right now you wouldn't want to chance walking on. There ain't nothing to walk on...Its mud flat now. The vegetation has died. There is nothing there. Part of what did that is the geese that fed in there. Over 3 or 4 winters there were geese upon geese upon geese. I could have, the creek and marsh where I am is as wide as from here to the woods over there (about a quarter of a mile) through that door...I could have walked across that creek on goose back... Alright. And they literally ate the marsh up. They feed on the roots and that kind of stuff, and they just literally ate all the root matter and vegetative matter right up. Because they would overnight there...Ok, now you know our environmentalists want all of that. That is supposedly good. But anything in great numbers is not good. It has to have an economic balance or balance somewhere" (P12: TomC1.txt - 12:15 (367:418)).

Tom Carter: "And we want to see all the pretty ducks and the geese and that stuff and we have them around here. We've got foxes running in our ass around here...I mean, everywhere. Everybody thinks, oh well they're pretty. But you know what happens, you know who the next inhabitant of that den usually is, you know when the fox moves out and there is a den there, the next inhabitant is usually a skunk. So, you know, how pretty is he. (Laughter by all) So, you got to weigh things and see what is happening. When I was a small child down here, it was an oddity to see a fox. Now I got 2 that live in my yard..." (P12: TomC1.txt - 12:36 (818:841)).

Finally, Mr. Carter makes a case that give and take measures must be practiced when significant economic issues are the topic of debate. He points out that Ocean City and Kent Island would not be the attractions and money makers that they are today if give and take measures did not allow them to alter the natural environment (i.e., constructing in marshes and coastal zone areas, and building beaches). Mr. Carter argues that similar give and take measures should apply to nutrient run-off issues.

Tom Carter: "...And there is certain things, you mentioned Ocean City, you know hey, if you really want the environment to be like it is, don't put nothing back. Go down there to Assateague, don't put nothing back. Don't build the beach back up. If you're going to damn me so hard for my fertilizer

going overboard then, hey, you don't build down there. See how well we do. See how well Maryland prospers and our economy prospers. There's got to be some give and take. It's like up at Kent Island. You cut building, you come across their all the time. Hell, half those motels are built in the marsh” (P12: TomC1.txt - 12:39 (897:916)).

Interestingly, farmers have used their give and take philosophy to determine the value of menhaden fish (i.e., “the only real” impact of Pfiesteria), in relation to existing agricultural practices. Several farmers believed that menhaden had few useful qualities; and none that would justify the current level of concern over them. For instance, menhaden are seen as: uneatable, dumb, over populated, small, and fertilizer material. Danny Leery: “And Menhaden fish, is no good but for fertilizer. You can't eat them. And there a known fact that they are a dumb fish. I have said that all along. They travel in schools...And if one goes up into a gut along the river, they'll pile right on top of him. And I, they're stupid fish, they travel in a school. Menhaden have been dying for years. From Georgia clear up anywhere” (P 4: DLMF1.txt - 4:10 (68:81)).

Mike Williams: (What role do you think nature is playing in the Pfiesteria problem?) “I guess first you have to have a handle on the fish (menhaden) that were being affected. The pictures on t.v., I don't know if you have had any direct contact with them or not, but they are about 2 to 3 inches long,...So 2 or 3 will fit in the palm of your hand. And they have a serious over population problem. And one theory is that they migrate in these big schools of millions of them, and they go through the water and their feces come out and can generate this Pfiesteria, because they are so concentrated that it is unbelievable. And it's just that they're seems to be an over supply of them. There was a processing plant on the western shore of Virginia that processes these fish...For fish meal. They go out in the Bay and catch them, and they have been saying for the last 5 years, you know, it doesn't take us a half a day to catch enough to run for 2 or 3 days. The population of them is just tremendous. And I just, I think, I think some how through the water quality steps we've taken already, and through the lack of some other, life in the Bay has allowed these to thrive. And they are getting over populated. Because they are a useless fish. They never grow up, they never do anything” (P 9: MikeW1.txt - 9:20 (410:453)).

One can tell from these passages that farmers clearly believe that adjustments to their current agricultural practices should not be made in an effort to prevent the death of menhaden fish.

Farmers' notions of risk taking and give and take practices also influences how farmers perceive the environment and Pfiesteria. As eluded to in the earlier discussion on risk, the environment is the ultimate “wild card,” and should be treated with both respect and caution. Because of the environment's dynamic nature, give and take measures are essential in order to develop alternative agricultural strategies that meet each unique situation at hand. With regard to Pfiesteria then, farmers view it as another seemingly unpredictable response from nature, requiring flexible, give and take solutions to work through and around it. Similarly, farmers believe that policy to protect the environment, must be comparably dynamic in scope as the environment and/or the particular environmental problem itself; building into the policy decision making process give and take measures. Thus, striking a balance between environmentalism and economic viability.

Poultry Grower's Knowledge of the Poultry Industry

In alphabetical order, I will discuss topical information about the poultry industry that was collected through informal ethnographic interviews with poultry, grain, and vegetable farmers on Maryland's Lower Eastern Shore. Almost all of the grain and vegetable farmers we spoke with also raised chickens. This information represents some of the growers' knowledge, interests, and concerns about their industry, and should be viewed as starting points for further investigation.

Bird Diet/Feed

Many growers showed a significant interest in and concern for the diet of their birds, and particularly the composition of the feed that the integrators (i.e., poultry companies) distribute to them. Several growers stated that they felt that the feed formula was change somewhat regularly:

"...at 7 weeks here, say we get 5 loads of feed, well neither one of them might not be the same analysis. It's possible, we don't know..." (P 1: BobbyM1.txt - 1:70 (1191:1246))

"...It is like I was in the chicken house last night, and the feed was a different color. So they changed the formula somewhere in there..." (P 1: BobbyM1.txt - 1:70 (1191:1246))

Discussion also centered on the feeding strategies of different companies. Some feeds may be considered either high or low energy feed. It seems that growers prefer high energy feed because their birds can eat less and gain weight; and integrators may prefer low energy feed because it is less costly. Growers showed concerns that low energy feed could often produce light birds if several variables were not kept in check.

"...Tysons is almost called a, I don't know whether you are familiar with this, called a low energy feed. It takes more tons to put on a pound of feed, or more pounds of feed to put on a pound of, meat on chicken...They eat a lot more. To get the same thing. Which in the winter time you got to keep them real hot. If you don't, you got a high feed conversion and a light bird." (P 1: BobbyM1.txt - 1:70 (1191:1246))

"...So, high energy feed, is better for the grower, but it is costly for them. They claim they can haul more tonnage on feed and make more or save money..." (P 1: BobbyM1.txt - 1:70 (1191:1246))

Some growers also talked about how bird diets have changed in order to produce larger birds in a shorter period of time. Growers showed some concern about the degree to which growth enhancers were being used, and the impact they may have on the birds and the environment:

Jerry: "So, again I am going to say that the almighty dollar is the route of all of this in my mind. Because you got chicken producers trying to grow the ultimate chicken in the least amount of time. So they are putting growth enhancement kinds of things into the feed. Maybe that has some effect into the manure that was spreading on the ground. I don't know." (P 7: JerryM1.txt - 7:3 (28:36))

"...The diet they are on I'm sure is a lot stronger..." (P 1: BobbyM1.txt - 1:70 (1191:1246))

Finally, one grower suggested that metals and chemicals mixed into poultry feed and consumed by chickens, may produce hazardous manure that could be dangerous to humans and the environment, particularly if used as a fertilizer.

One of the big points that Doug Parker wanted to make was about the composition of manure and feed, and how these compositions affect plants fertilized by them or their by-products. For instance, Doug [heard from another grower] that the chicken feed is full of high levels of sodium, copper, arsenic, and maybe copper, that are passed through to the manure. This manure is then used as fertilizer, which gets washed into the rivers and streams, and is absorbed into the foods that are harvested, which may be returned to them in the form of grain to feed to their chickens. Starting the process over again. He [also heard that] some of these things are being absorbed by tomatoes. (P 6: Doug1.txt - 6:23 (240:269))

Bird Weight

One trend that many growers discussed was the fact that they are now able to put considerably more weight on their birds in a shorter period of time. Some wondered if this was a healthy process.

“...we are getting more weight today, or the same weight or more, in 7 weeks or less...” (P 1: BobbyM1.txt - 1:70 (1191:1246))

Even though birds are gaining weight at a faster pace, several growers talked about the problem of either getting the right amount of grain from the integrators to feed their birds, or simply getting their birds to eat enough grain.

“If not enough grain gets to the birds they will not put on the appropriate weight.” (P 2: Steve1.txt - 2:24 (251:267))

Canadian Poultry Industry

According to some growers, it is ideal to be a grower in the Canadian poultry industry.

The Canadian system is run on quotas, and growers have a say over the pricing and number of birds produced. One grower claimed that in the U.S. system growers get 4 cents per pound, and in the Canadian system they get 50 cents per pound. I did not get enough information from the growers about the Canadian system to discuss it in any depth, but would highly suggest that the Canadian model be further investigated.

Doug Parker told me about how different Canada's system is that is run on quotas. I do not fully understand this system, but it is a lot more friendly towards the growers. It is like the growers own stock in the company and have say over the pricing and number of birds produced. Several farmers I have talked to have remarked favorably about Canada's system. Doug said something to the extent of growers in the U.S. get 4 cents per pound and in Canada they get 50 cents per pound. (P 6: Doug1.txt - 6:22 (211:222))

Chicken Health

Breeding Problems

Perhaps one of the top concerns of most of the growers I spoke with was their belief that they are receiving defective birds from their integrators. The general consensus among growers is that this is the result of poor breeder flocks. Growers claim that these birds are more disease ridden and more apt to die. Problems like dermatitis are a direct result of inadequate breeder flocks. Many growers complained that despite all of their efforts to ensure that their birds are living in a healthy environment, their birds are still getting sick and dying. Bird mortalities have increased from 1% to 5 to 6%.

Steve often spoke about the problems that he has had with his chicks that relate to breeder problems. He claims that things like dermatitis and other diseases are a result of poor breeder flocks and that the growers are losing considerably more chickens than in the past (something like a 1% loss to a 5% to 6% loss), not do to their own faults, but because the chicks they are receiving are not healthy. (P 2: Steve1.txt - 2:2 (35:45))

Danny: "That's just like myself, if you do a little bit poor performance, which my performance, average wise I'm talking, your average gets out of whack, and you can't get a good chicken egg, then that affects my performance. I don't care what I do. I can wait there, and I can live out there. I can put a bed out there and sleep right there. But, it's a lot of problems come from where the integrator is not concerned with the grower, and he isn't concerned enough to get out there and find the situation. I've raised 14 brewds, and they can't tell me what I am doing wrong." (P 4: DLMF1.txt - 4:98 (1968:2027))

Sarah talked about how bad the chick quality is. There are significantly more dead chickens than in the past. She claims that the quality of the breeder chickens has deteriorated because they keep genetically altering them. (P 6: Sarah1.txt - 6:17 (183:188))

Another grower stated that he has gone to several national poultry industry conventions where he has heard industry representatives openly discuss the genetic problems of the breeder flocks.

One grower stated that poultry industry folk at regional or national conventions will sit around and openly talk about the genetic problems of the breeder flocks, which fuels the fire for the theory that some are receiving defective birds. (P 3: LESM1.txt - 3:7 (211:217))

Several growers also indicated that it was in the integrators best interest to distribute their poor quality chicks to the growers. Two reasons given were that despite the chicks poor quality, they could still be sold to the growers and deducted from their paychecks; and chicks are cheap so it is more cost effective to saturate the large number of growers houses than it is to produce better quality chicks. Most growers who were concerned about poor breeder flocks had more in depth explanations as to why poor quality chicks were being distributed to growers.

Sarah claimed that it is advantageous for the companies to sell all their chicks, including the sick ones, because the companies sell the birds to the growers for 20 cents each. Costs like these are tallied up through the growing process and subtracted from the growers paychecks. (P 6: Sarah1.txt - 6:19 (194:200))

Jerry: "...Now back then it was slower. Mortality was a lot lower. I mean, right now an average farm, on this particular farm runs probably 5 to 6%. So for every flock I get, I've got 6,000 dead chickens, ok. That's a lot of chickens. Years ago that would have been unthought of, you know. Because it just

didn't, it wasn't good business to have to have that many dead. But like I said, with that assembly like production, they can make, you know, money making 100, they can make a lot of money making a 1,000. So it is cheaper for them to saturate chicken houses with maybe lessor quality biddies, little chicks, than what they would have normally put in years gone by, to get your end product, ok... " (P 7: JerryM1.txt - 7:13 (213:257))

Bird Mortalities

As indicated in the previous section, growers are claiming that mortalities are up by 4 to 5% over the last 10 years or so. In addition, many growers also claimed that they have had mortalities in the thousands during this decade.

Steve said point blank that over the last ten years in general he has gone from losing 1% to 2% of his flock to 3% to 5% or more. Many people in the room agreed that they were losing more and more birds every year. (P 3: LESM1.txt - 3:8 (217:222))

Jerry: "...Now back then it was slower. Mortality was a lot lower. I mean, right now an average farm, on this particular farm runs probably 5 to 6%. So for every flock I get, I've got 6,000 dead chickens, ok. That's a lot of chickens. Years ago that would have been unthought of, you know..." (P 7: JerryM1.txt - 7:13 (213:257))

There was a huge poultry loss in 1995 where over 4 million birds were lost on the Shore. Steve lost [several thousand] and his [relative] lost [7 to 8 times more]. (P 2: Steve1.txt - 2:14 (170:198))

Disease, as mentioned earlier, has also played a role in the increase in bird mortalities. In more discussion on the amount of dead birds now vs. earlier, Steve claims that now, due to disease, they may have a truck load a day of dead birds vs. a bucket full in the past. (P 2: Steve1.txt - 2:13 (166:170))

Bird deaths due to extreme temperatures, particularly hot weather, has been responsible for large numbers of deaths. Individual losses in the thousands pose a real disposal problem.

Jerry: But I do everything that I am mandated to do. For instance, in the case of heat losses, ok, I had a big heat loss here last year, [10s of 1,000s] of chickens in one day. What do you do with [10s of 1,000s of] chickens. (P 7: JerryM1.txt - 7:10 (119:144))

Ward: "...half of the work is picking up dead chickens and disposing of them, right. You can imagine how unpleasant that is. Especially when it is, you know, 95 degrees, 98 degrees like today they're dying by the thousands in all these chicken houses around. All these producers have to go in there and walk through these chickens to get them up and moving around so the air circulates better, and then they have to go in and pick up the dead as they are walking through there. And then tomorrow morning they go in and they might pick up 2 to 3,000 dead chickens that may have died from heat exhaustion. 5 pound chickens, right. They have to get their biggest tractor with a front end loader and you know load them up. And with their backhoe dig a big trench or something and bury them. No more and more people fortunately are composting dead chickens." (P10: PGWF1.txt - 10:14 (381:413))

Interviewer: "In a period like this (temperatures in the mid to upper 90s), with this high of temperature, like how many could you expect to loose from this..." Ward: "You can expect if the

wind is blowing just right, you have your foggers working good, and you know you are diligent in keeping them off the, up and moving about and do everything right, you can expect maybe several 100 mortality, minimal...” Interviewer: “Wow! A day, huh?” Ward: “Yeah, a day. Normal mortality might be in a house of 25,000 birds, there might be 10 or 15. You could go up to 2 or 300 under these extreme conditions. But, you can have massive kills of 1000s of chickens in any one house when it gets really bad. We've had I guess maybe 3 like that in the last, how many years have we been doing it, 14 years I guess.” (P10: PGWF1.txt - 10:16 (428:451))

Some growers suggested that inadequate ventilation and poor pick-up schedules have made older birds more at risk for heat related illnesses and death.

Bio-Hazards

The issue of bio-hazards was also a health concern for many growers. Some growers believed that integrators' bio-security measures were inadequate to prevent the spread of disease from one house to another, particularly influenza. Poultry trucks, equipment, and servicemen were often mentioned as potential bio-hazards.

Steve claimed that not enough attention is paid to bio-hazards by the Companies. For instance, there is no real bio-security with the industry trucks and equipment moving between poultry growing areas. He claims that diseases like influenza can be easily passed on to other poultry houses through various airborne or other mechanisms. For example, if a poultry house has influenza then the house needs to be quarantined for a period of time to make sure that it does not spread to a new flock. Well the Delmarva industry may only wait 3 weeks, whereas other states or countries may wait 3 months to 3 years to make sure that adverse health conditions are appropriately checked. In some instances of large bird deaths via influenza, companies may require you to compost your birds in your house, which may effectively ruin your poultry operation. (P 2: Steve1.txt - 2:20 (222:242))

She told us that you have to be careful not to cross-contaminate the chicken houses. If you walk from one house to another and carry disease, medicine, etc to another house you could kill your birds. (P 6: Sarah1.txt - 6:6 (69:73))

Chemicals in Chickens

Several growers voiced concern over the amount of chemicals that are being fed to their birds. The concern is that these chemicals may make the birds more susceptible to certain illnesses; may produce unhealthy meat; and may produce unnecessary long term health impacts.

According to Steve, Perdue has made a fortune marketing their yellow skinned chicken and touting how natural and healthy it is. Steve claims that a synthetic chemical is used that changes the color of the skin, not from the marigold diet it is fed on. (P 2: Steve1.txt - 2:38 (375:382))

There is a lot of things that are pumped into the chickens like the dye for the color, and because the birds only live for 7 weeks, no one knows what type of long term impacts the birds might have if they lived longer. (P 2: Steve1.txt - 2:39 (382:387))

Healthy Environmental Temperatures

In brief discussions about the optimal temperature conditions for poultry, growers indicated that when their chicken houses are over 98 degrees their birds are in trouble, and that older birds do better in cooler conditions. In addition, growers stated that younger birds prefer warmer temperatures and need to be kept at around 84 degrees. We got back to the chicken houses and she said that when the temperature outside is over 98 degrees the birds are in trouble. The young birds like it warmer and I believe she said that they

need to be kept at 84 degrees, but the older birds do well in cooler temperatures. (P 6: Sarah1.txt - 6:13 (131:138))

There was some debate over the integrators' mandatory policies about maintaining

certain temperatures and conditions within the chicken house. Many growers suggested that the birds, particularly the older ones, should get more fresh air, and that growers should be allowed to open window covers to accomplish this. Growers believed that more fresh air would produce healthier birds.

Doug Parker indicated that all of the restrictions that are placed on growers are sometimes ridiculous. Particularly when certain house temperatures have to be maintained and fresh air can not be allowed into bird houses. Doug has done experiments by letting chickens go into the wild, and claims that they live very healthy lives, even through the winter. (P 6: Doug1.txt - 6:20 (201:209))

Poultry Litter

One grower felt that the presence of Pfiesteria and subsequent regulations and fines would prevent growers from cleaning-out their chicken house and changing their litter as frequently, in order to curb manure disposal problems. This grower felt that this was a bad practice because chicken houses could then become a breeding ground for harmful bacteria that could affect bird health.

Interviewer: "Well how do you think the presence of Pfiesteria has directly or indirectly affected your life? What do you think will be the outcome from all of this?"

Jerry: "I can see it well, from the money standpoint I can see the, they use to be, I mean years and years ago, when you would grow a flock of chickens you would clean out totally, and put in litter, which is sawdust and everything. The bedding. The company supplied that. Well, in the last several years, the way prices are and everything, they have slowed down that process. So your litter is staying in there longer and longer and longer. Maybe, you know, it is breeding different bacteria. So with that litter being in there longer, it's creating other problems that you are having to attend to, different kinds of illnesses and things. So, if Pfiesteria reduces the amount of manure you can spread, you probably going to see litter or manure staying in there a lot longer, as far as total removal, which is going to in effect, bring other problems into the scenario." (P 7: JerryM1.txt - 7:11 (146:171))

Chicken Houses

Cost of Building, Equipping, and Maintaining Chicken Houses

All the poultry growers that team members spoke with consistently remarked on how expensive it was to grow poultry. For starters, a new chicken house may cost between \$130,000 and \$140,000.

Jerry: A brand new chicken house is \$130,000. (P 7: JerryM1.txt - 7:33 (633:670))

Sarah told us that one of their two chicken houses costs approximately \$140,000 to build. (P 6: Sarah1.txt - 6:3 (50:54))

Interviewer: "So you have 2 houses, and did you have to build them brand new?" Ward: "One of them we bought when we bought the farm, and it was an older house at that time. And we built a new one in 1988. It cost us \$130,000 initially and have invested in it sense, \$10,000..." (P10: PGWF1.txt - 10:6 (168:188))

A manure shed for 5 chicken houses may run \$30,000 (part of this cost is subsidized) She told us that her manure shed for 5 chicken houses cost \$30,000. (P 6: Sarah1.txt - 6:8 (84:86))

New equipment and maintenance costs are other expenses that make growing poultry very capital intensive. For instance, integrators frequently require equipment upgrades. The installation of nipple drinkers for four or five houses may run \$27,000, and tunnel ventilation for one house may cost around \$15,000. In addition, after chicken houses have been paid for after 15 to 20 years, maintenance costs become an issue.

Ward: "...And it's capital intensive rather than labor intensive. So we had to make like over a \$200,000 investment in there. In those 2 chicken houses. And we have to keep sinking more money into it for making improvements to it all the time." (P10: PGWF1.txt - 10:5 (139:166))

Interviewer: "To get the big bulk of stuff paid off, is that what you are saying?" Jerry: "Yeah. Yeah. See by then the houses are going to be older. It's going to require much more maintenance, so I mean I'm not going to like fall into a gold mine per se but". (P 7: JerryM1.txt - 7:59 (1393:1399))

Jerry: "I don't have tunnel ventilation. He says look, well its just like nipple drinkers. In '91, and that was a good thing I think, putting nipple drinkers in. He says, 'well, put in nipple drinkers.' Do you got to. Well, know you ain't got to, but if everybody else does, you're not going to be able to be competitive, and eventually you probably won't be getting chickens. (Laughter) You know you take \$30,000, I was [out of town] at that time, so I couldn't do it my self. I paid contractors, it cost me about \$27,000 to put nipples in. Ok, so that is done. Alright, now, let's say that he comes by and says put tunnel in. Well that would cost probably, I'm being conservative, about \$15,000 a house. Here I am..." (P 7: JerryM1.txt - 7:34 (670:717))

Chicken House Dimensions

Several growers indicated that the new dimensions of chicken houses are 500 feet by 50 feet. (These dimensions should be checked for accuracy)

Ward: "...The newest standard is like 500 feet by 50, yeah." (P10: PGWF1.txt - 10:15 (421:426))

Chicken House Capacity

New chicken houses may have a capacity of 50,000. (This number should be checked for accuracy)

Ward: "And this other stuff, chickens on the other hand, I've got one guy who does, you only have to do a little bit. He does 90% of the work. He works at it, we have 50,000 capacity..." (P10: PGWF1.txt - 10:5 (139:166))

Chicken House Equipment

Some of the equipment that can be found in Lower Eastern Shore poultry houses include: automatic feeders, nipple drinkers, tunnel ventilation, additional fans, blowers, and pancake heaters.

"...We got more fans..." (P 1: BobbyM1.txt - 1:70 (1191:1246))

“...We've got automatic feeders...” (P 1: BobbyM1.txt - 1:70 (1191:1246))

“...Instead of having water troughs down there like we use to, we got what's called a nipple drinker in there. And he supposedly drink the water and the food is suppose to go on down into his crawl, and not suppose to drop it on the ground. That would run the feed cost up...” (P 1: BobbyM1.txt - 1:79 (1301:1318))

“...And the ventilation is completely different than it use to be...” (P 1: BobbyM1.txt - 1:79 (1301:1318))

Danny: “But anyway it is a constant thing where by you keep investing all the time and you just do it or you don't get no chickens. And like she said tunnel ventilation is coming. One company wants to put pancakes back in. As we call them pancakes...(several inaudible words) And then after several days you can use your blowers, which is advanced technology we call it, where by you don't have to go out and light every stove. You just go out there and turn the thermostat up and she comes on just like in your house. They don't want that, they want the radiant heat, and then after 7 days you can raise them up and then use your advanced technology. Well that don't make sense. Because your advanced technology heats your chicken house just the well as those radiant ones...And then a year from now they'll say take them out and throw them on the dump, because that blower is working just as good so. It's a constant change, and you keep spending and spending. And you keep updating.” (P 4: DLMF1.txt - 4:103 (2128:2158))

Competition Between Growers

Poultry companies have created a competitive system among growers that ultimately determines which growers will be the most successful. Growers are ranked according to how productive they are, including how well their operation is run, how healthy their flocks are, and final bird weight. Those growers who are ranked highest receive bonuses, and are held in high regard by the integrators.

The healthier their flocks the better the growers do in competition with other growers. The industry has a competitive system that pits growers against each other for bonuses and specific privileges. Those who do better get more praise and prestige and are thought of more highly than other growers. (P 2: Steve1.txt - 2:4 (45:75))

Moreover, those growers who are consistently ranked higher than others, including those who continue to update their equipment according to integrator specifications, feel more secure in the fact that they will continue to receive chickens from their integrators.

Jerry: “...And if the man comes out here and says, you need to put in tunnel ventilation, I don't know if you are aware of that?... I don't have tunnel ventilation. He says look, well its just like nipple drinkers. In '91, and that was a good thing I think, putting nipple drinkers in. He says, "well, put in nipple drinkers." "Do you got to." "Well, know you ain't got to, but if everybody else does, you're not going to be able to be competitive, and eventually you probably won't be getting chickens." (Laughter)...” (P 7: JerryM1.txt - 7:34 (670:717))

One grower stated that the poultry industry was so competitive that very few points separated the “winners” and “losers.”

Jerry: “...And you know what, any more, it is so competitive that everything is to a thousandths of a

decimal. I mean, you know you are talking about between first and last, you're talking about decimal places as far as the amount of feed, it is very competitive. So you're having to spend tremendous amount of time..." (P 7: JerryM1.txt - 7:17 (335:361))

Things that Make it Difficult for Growers to be Competitive

Growers claim that there are many obstacles that have to be overcome in order to be competitive. For instance, poor quality chicks, insufficient grain, high mortalities due to disease and extreme temperatures, and poor relations with servicemen can ruin a successful grower's ranking within the industry.

Danny: That's just like myself, if you do a little bit poor performance, which my performance, average wise I'm talking, your average gets out of whack, and you can't get a good chicken egg, then that affects my performance...(P 4: DLMF1.txt - 4:98 (1968:2027))

If not enough grain gets to the birds they will not put on the appropriate weight. (P 2: Steve1.txt - 2:24 (251:267))

The servicemen have the power to write-up as many faults about the growers operation as they see fit and keep that in their records. These negative records may ultimately affect how they rank among other growers and the amount of money they get for their birds. (P 2: Steve1.txt - 2:8 (105:114))

Competition against Servicemen

Many growers complained that they are put at a disadvantage when they have to compete against growers who also work for the integrators as servicemen and managers. Some growers claimed that these individuals always come out on top because they can insure that they get good quality birds, sufficient grain, and favorable reports from their servicemen. In addition, poultry company representative who are also growers may have fewer expenses, in part because the integrators may be more lenient about having them make technological (i.e., equipment) upgrades in order to get chickens.

Interestingly, Steve described a situation where people who actually work for the Poultry Companies, like servicemen whose job is to make sure that all of the growers are running their operations the way they should, and managers of various servicemen and company operations, also grow chickens. Steve thought that about half of the servicemen are growers. Steve claims that this is not a fair playing field since growing is competitive. Steve has to compete against people whose job it is to critique his operation and provide him grain, birds, etc. Steve believes that these people are always going to come out ahead because they will always receive the best birds, the right amount of grain, and will not be under the same close scrutiny as others by servicemen. They may actually incur less expenses, particularly when technological upgrades are demanded in lieu of getting more chickens. (P 2: Steve1.txt - 2:4 (45:75))

Dead Bird Disposal

Disposal Methods

Composting and burial are the primary disposal options for growers on the Shore. Each of these options can be implemented in different ways. For instance, dead birds can be composted in manure sheds, outdoor compost piles, and even in chicken houses in the case of disease kills. Similarly, bird burial can take on several different forms, including landfill- like burials (for 10s of thousands of birds) and shallow trenches, either at public burial sites or on farm locations.

Now in the early 90s onward, bird composting has been the style... (P 2: Steve1.txt - 2:14 (170:198))

....The government finally opened up some mass graves to bury the birds in. (P 2: Steve1.txt - 2:14 (170:198))

In some instances of large bird deaths via influenza, companies may require you to compost your birds in your house...(P 2: Steve1.txt - 2:20 (222:242))

Doug called and asked the Dept. of Agriculture what could be done with his dead chickens and they didn't know. Ag. got back with him and told him that they could dig a two foot high and deep ditch and bury them all...with lime on top of them...(P 6: Doug1.txt - 6:24 (269:290))

...Doug called back and asked if he could simply put them in his manure shed and they agreed to that. (P 6: Doug1.txt - 6:24 (269:290))

Problems with Bird Disposal

In general, most growers complained that existing disposal options were insufficient to handle large bird deaths, which seems to be an increasing problem for many growers. Many growers stated that composting dead birds in their manure sheds is great for small numbers of birds, but inadequate to hold thousands of birds along with chicken manure. Now in the early 90s onward, bird composting has been the style, but the problem is is that this method, though better for the environment, does not have the capacity to handle large numbers of dead burns. (P 2: Steve1.txt - 2:14 (170:198))

In addition, many growers expressed concern over the governments and integrator's unwillingness to address the disposal of large numbers of dead birds in a timely manner, and the potential environmental threat of burying thousands and thousands of birds on public and private property. According to most growers we spoke with, dead birds decompose quickly, and need to be disposed of promptly. Government indecisiveness on disposal options (and sometimes unrealistic solutions), and the lack of integrator assistance, leaves growers with few options but to bury their large numbers of dead birds before they completely decompose to soup.

There was a huge poultry loss in 1995 where over 4 million birds were lost on the Shore. Steve lost [several 1,000] and his [relative] lost [7 to 8 times more]. Growers were panicking because they had no way to dispose of their birds, and the industry and government were not helping them out in an expedient fashion. Dead birds turn to soup real quick if not disposed. The government finally opened up some mass graves to bury the birds in. (P 2: Steve1.txt - 2:14 (170:198))

Jerry: "No. See the companies don't want to address that because they are fat, dumb, and happy and that's not a problem they have to deal with." (P 7: JerryM1.txt - 7:10 (119:144))

Doug Park gave a funny story about some situation several years back where due to heat, disease, and/or a poultry strike somewhere, large numbers of the grower's birds were facing death. Doug called and asked the Dept. of Agriculture what could be done with his dead chickens and they didn't know. Ag. got back with him and told him that they could dig a two foot high and deep ditch and bury them all. With the number of chickens that were being predicted to die, [one grower told him] that this ditch would have stretched all the way to Wilmington, Delaware...(P 6: Doug1.txt - 6:24 (269:290))

In general, many growers believe that burying large numbers of dead birds is not a healthy solution, but feel compelled to do so with few disposal alternatives. Growers are concerned that buried, decomposing birds will leach harmful toxins into their soils and shallow water table. One grower even suggested that gases from buried birds can cause explosive (literally) reactions, creating a dangerous situation.

...He did not want to put large numbers of dead chickens with lime on top of them underneath the ground on his property. He thought that would threaten the ground water. He had also heard that gases from the buried chickens could cause the ground to explode. (P 6: Doug1.txt - 6:24 (269:290))

Jerry: "But I do everything that I am mandated to do. For instance, in the case of heat losses, ok, I had a big heat loss here last year, [10s of 1,000s of] chickens in one day. What do you do with [10s of 1,000s of] chickens." Interviewer: "Wow! That's unreal." "Jerry: So, normally I compost my chickens, and basically that's probably better than, that's the standard practice composting your chickens, and then turning it into fertilizer. But when you have that size of a mortality, there is nothing else to do but bury them. And that's not right, can't be good for the environment. But for me, what other alternative is there. There is no other alternative." Interviewer: "They don't offer many alternatives for that do they?" Jerry: "No..." (P 7: JerryM1.txt - 7:10 (119:144))

One grower stated that in instances where birds have been wiped-out by influenza, some integrators may require the grower to compost his chickens in his chicken houses. This practice effectively destroys the growers operation, because he may not be able use those chicken houses to grow birds for an extended period of time, eliminating his ability to make a living and pay his debts.

In some instances of large bird deaths via influenza, companies may require you to compost your birds in your house, which may effectively ruin your poultry operation. (P 2: Steve1.txt - 2:20 (222:242))

Alternative Disposal Options Needed

Most growers are calling for the creation of a government/integrator supported plan to dispose of large bird mortalities that is environmentally safe, and doesn't make the grower solely responsible for shouldering the cost of this activity. One popular alternative that many growers suggested was the use of incinerators to destroy these birds.

There is no incinerator operation on the Shore to destroy large numbers of dead birds. (P 2: Steve1.txt - 2:14 (170:198))

Farm Loans to Growers

Loan Providers

Poultry growers, and farmers in general, can obtain loans to help finance their operations from several different types of lending institutions. Growers mentioned using Farm Credit, Farm Service Agency, and commercial banks. One grower described Farm Credit as “a semi-autonomous government bank...set up by Congress, (and) administered by the Farm Credit Association, which is a government agency...The government still maintains some control of it through the Farm Credit Administration, in terms of general policy questions” (P10: PGWF1.txt - 10:7 (190:218)). He further stated that Farm Credit is suppose to be self financing. In the case of poultry, Farm Credit “loans money to producers to build new chicken houses or to refinance older ones. (Also to) Improve older ones and what have you. But mostly to build new chicken houses...” (P10: PGWF1.txt - 10:7 (190:218)). Farm Credit appears to be one of the more popular loan providers, and some growers consider it “almost one in the same as the arm of Perdue and Tyson and the other chicken companies...” (P10: PGWF1.txt - 10:7 (190:218)).

The Farm Service Agency, previously called the Farmer’s Home Administration, is thought of by some growers as the “bank of last resort for farmers” (P10: PGWF1.txt - 10:11 (323:344)). This subsidiary of the U.S. Department of Agriculture provides loans to farmers who have trouble securing loans from other sources:

...Ward: “When nobody will loan you any money to operate. If you can prove that then you go to the Farm Service Agency and they will extend you credit under pretty good terms” (P10: PGWF1.txt - 10:11 (323:344)).

Some growers strongly believe that the lending agencies and the integrators have worked-out mutually beneficial business deals to the detriment of most growers. Providing a continuous supply of loans to growers, even though raising poultry is a comparatively risky venture according to many growers. The following passages describes the relationship between the integrators and lending agencies:

Jerry: “I think Farm Credit and a lot of the lending agencies, it is a big, it is sort of like a, I don't know, it's a big circle. A vicious circle. I think the integrators and the lenders, there's a lot of other people that are involved in this, and it is one big circle. They all, they're like parasites, they feed off each other...” (P 7: JerryM1.txt - 7:15 (281:318)).

Ward: “...But, you know the Chairman of the Delmarva Farm Credit, called the Marva Farm Credit, is has for many years sat on the board of directors of the Delmarva Poultry Industry ...And the Delmarva Poultry Industry is represented on the board of directors of the Delmarva Farm Credit. And they have a very comfortable relationship. And the bank, because they are a part of this old boy network, they just go along...” (P10: PGWF1.txt - 10:9 (268:306)).

Loan Terms

In discussing certain aspects of poultry loans with growers, most indicated that they were given 15 year mortgages on the construction of new chicken houses. One grower

stated that he knew of another grower who got an inexpensive 8 year mortgage on his chicken houses when he first entered the industry. This same grower was not able to pay off the loan in 8 years and had to refinance through another institution at a higher rate. Ward: "...15 year mortgage. We have done 10 of it I guess. You know we still owe about \$60,000 on that mortgage, just on the chicken house..."(P10: PGWF1.txt - 10:6 (168:188))

Jerry: "...I mean, we have a 15 year mortgage, ok. We've been here 9, 10 years. We've got, basically 5 years to go. And we've paid Farm Credit, I mean they've gotten their money threefold..." (P 7: JerryM1.txt - 7:15 (281:318))

Martha: "You really don't ever get the house paid off. You think when you built it it was going to be paid off in 10 years or 15 years, well by that time you have had to buy something, so you've refinanced..." (P 4: DLMF1.txt - 4:101 (2093:2097))

...One company got him a cheap 8 year loan through the bank in Arkansas that was under investigation by the White Water Committee... He was told that he would be able to pay this off in 8 years. He hasn't come close..., the loan is due, and is having to refinance through another bank at a higher interest. (P 6: Doug1.txt - 6:26 (310:326))

Several growers stated that the lending institutions often required growers to have a "new house guarantee" in order to get a chicken house construction loan. This guarantee acts as a security agreement from the integrator, letting the lender know that they will give the grower a certain number of chickens over X years, at some minimum price, so the grower can make payments on his loan. However, all the growers we spoke with indicated that this guarantee is not a binding contract that requires the integrators to give growers birds. For the most part, growers suggested that the integrators have complete control over whether they will give them birds at any point and time.

Ward: "...Well, that is the thing, the poultry companies don't give them any guarantee other than the, like when we built this new chicken house, they had what they call a new house guarantee. Which you provide to the bank as part of the security agreement to the loan, to make sure that before you, you know they commit that you are going to get chickens. So the company agrees to put chickens in there. They give you a contract, not a contract, an agreement that says that they will guarantee you a minimum payment for a 1,000 chickens that they put in there for 10 years, or for so many flocks they put in there..." (P10: PGWF1.txt - 10:8 (221:263))

Jerry: "So what good, now that contract really doesn't do anything for me. It just lists my responsibilities, it doesn't guarantee me anything." Interviewer: "But it helps for Farm Credit, right?" (Laughter) Jerry: "Right..." (P 7: JerryM1.txt - 7:15 (281:318))

Loan Collateral

Because poultry growing is so capital intensive, growers must borrow considerable money and provide 20% collateral in some cases to secure loans. Most of the growers' money is tied into their farms and homes, and is their only source of collateral. So, unlike many businesses and corporations, growers must use their personal property as collateral for business loans.

Usually somebody's farm and all of their valuable possessions are used as collateral to buy poultry houses and equipment. (P 2: Steve1.txt - 2:7 (88:105))

Ward: "...Of course we mortgaged the whole damn farm, not just the chicken house..." (P10: PGWF1.txt - 10:6 (168:188))

Due to the capital demands of growing poultry, growers are not allowed to shelter their personal property from their business like corporations can. Growers often risk everything their family owns in order to raise chickens. Many growers suggested that most farm families will endure what ever they have to in order not to lose their farm, which includes their home.

Interviewer: "They probably won't give you the credit, would they, without putting your farm and your home on it as well?" Jerry: "No." (indicating that they wouldn't get the loan) Interviewer: "Is that how they keep you from being a corporation and separating your assets?" Jerry: "Right, right, yep. So, most chicken farmers, you know, are kind of reluctant to, they'll do basically what ever they got to do to pay for the farm. (P 7: JerryM1.txt - 7:16 (320:334))

Steve thinks that the Farm Credit operation is ruining a lot of farmers. Farm Credit provides loans to farmers to start poultry operations. They will loan several hundreds of thousand dollars with 20% collateral (which is usually their entire farm and/or possessions) knowing that the growers are not guaranteed birds and can only get 7 week contracts. Steve claims that a lot of farmers lose or risk losing their farms over this. Contracts are only binding when birds are actually on the floors of the growers' poultry houses. (P 2: Steve1.txt - 2:29 (308:327))

Jerry: "...Most of the time your farm and your home are all in one. It's not like a business. If this was probably a business, separated from my home life and my personal life, and I could say well, you know, this really isn't what we expected it to be. Go bankrupt, or sell it, or do whatever, walk away from it. We might have done it. But when you talk about, you know, losing your whole home, that's a different perspective." (P 7: JerryM1.txt - 7:15 (281:318))

Mortgage Payments

Growers' mortgage payments are usually deducted by the integrator from their monthly or quarterly earnings check, and mailed directly to the mortgage company. One grower suggested that it was like living in an "old time" coal mining town where a miner never saw his check because the mining company kept most of it to pay for the miners housing, and supplies purchased at the company store.

Ward:" ...See everything that Farm Credit does, in terms of the mortgage payment, plus in some cases it's monthly other cases it's quarterly, in our case it's quarterly. We never see the chicken check. We do eventually, part of it. The mortgage payment is automatically taken out of the check and given to Farm Credit where it is deposited in our account. So I don't pay the Farm Credit on our mortgage on our farm. Perdue pays it out of our chicken revenue. And I tried to change that and the Farm Credit refused. It's in the contract you signed, which is true, I did sign it because I didn't know any better in 1988." (P10: PGWF1.txt - 10:9 (268:306))

Sarah used the coal mining town analogy to describe growers' lives, in the sense that most of the money they earn from the integrators, they never see, because the integrator deducts his costs from it, as do farm loan creditors. (P 6: Sarah1.txt - 6:18 (188:194))

Problems with the Loan System

Under the current growing conditions on the Lower Eastern Shore, most growers we spoke with thought that the loan system was not designed to provide any “real” assistance to the growers. If anything, growers believe that poultry loans tie them into a surf-like relationship to the integrators. Several growers indicated that there are far too many growers, and that the integrators are still looking for new ones. These same growers believe that not all of the current growers are getting sufficient numbers of chickens to make a living, and that there are chicken houses that are not even being used. With this understanding, many growers believe that farmers are being put at undo risk to lose their property by both being allowed to get new loans even though many growers are having difficulty paying their bills, and by giving loans to new growers when the industry is already saturated with them. In summary, these loans are bad risks because the integrators give no real guarantee that growers will continue to receive chickens, and because the overwhelming majority of farm loans are made for poultry construction and equipment, creating a lack of investment diversification that is threatened in poor economic times.

Ward: “Yeah, yeah. It's kind of like the savings and loan, if anything goes wrong with the industry, then the whole things collapses like a house of cards...” (P10: PGWF1.txt - 10:9 (268:306))

Ward: “Right. Now what that contract means, like I said it's not really a contract, is that they will pay you a certain amount of money, minimum amount of money, provided that they put chickens in there. (Laughter by all) And they can for any reason on a flock to flock contract deny putting chicken in these houses. You know, this could be our last flock for all I know. Even though we are guaranteed a few more flocks. Because you know it is not a contract that they will put chickens in the houses. So, the banks are putting themselves at risk should there be a downturn in the industry.” Interviewer: “An extreme risk.” Ward: “An extreme risk because 90% of their portfolio is these damn chicken loans.” (P10: PGWF1.txt - 10:8 (221:263))

Jerry: “But your contracts, they're just lip service. Everybody says well you got a new contract. Let's say for instance I went to whoever, Perdue, Mount Aire, any of them, and said I am interested in building a chicken house. They give me all the figures, bla, bla, bla, bla, and give me a contract. They say they are going to pay me X amount of dollars per 1,000 for so many flocks, and then it is going to be reduced. And this is guaranteed, not matter what your chickens do, you are guaranteed this. Let's say I go into debt \$135,000 to build this chicken house. Now I've got this contract. I'm going to make this amount of money, and the bank says, yeah, you're going to make this amount of money. And I grow one flock with them, and then they say, well, now we don't, for whatever reason, now we don't want to grow chickens with you. Well, I'm done. So what good, now that contract really doesn't do anything for me. It just lists my responsibilities, it doesn't guarantee me anything.” (P 7: JerryM1.txt - 7:14 (261:284))

One grower even claimed that it was difficult to get a farm loan for anything other than poultry production.

Ward: “...And I complained to Farm Credit Administration about credit policies, which are locked in completely to the chicken industry. I mean 9 out of 10 loans they make are for new

chicken house construction. And you go to something different than that and they just reject you. They decline to loan you money.” (P10: PGWF1.txt - 10:7 (190:218))

In addition, another grower implied that the loan system was designed so that you were either obligated to accept any demands placed on you by the integrator, and financial hardship in order to keep your farm and home; or so that you would pay a considerable amount on your loan and then forfeit your farm and personal property to the lender.

Jerry: "...I mean, we have a 15 year mortgage, ok. We've been here 9, 10 years. We've got, basically 5 years to go. And we've paid Farm Credit, I mean they've gotten their money threefold. So, let's say I can't pay for these anymore. I don't get chickens or I just can't get, they've made their money. They'll take the farm. They'll sell it. They're not losing anything, ok. And as a poultry farmer, you're kind of put behind the 8 ball. Most of the time your farm and your home are all in one. It's not like a business. If this was probably a business, separated from my home life and my personal life, and I could say well, you know, this really isn't what we expected it to be. Go bankrupt, or sell it, or do whatever, walk away from it. We might have done it. But when you talk about, you know, losing your whole home, that's a different perspective." (P 7: JerryM1.txt - 7:15 (281:318))

Foreclosures and Non-Performing Loans

Growers were extremely concerned about their ability to make payments on their loans, and the likelihood that the mortgage company would foreclose on their property. Some growers suggested that were a number of growers already who have had to declare bankruptcy.

Ward: "Yeah Mr. X, right. But he's not the only one there is quite a number of farmers that have had to foreclose..." (P10: PGWF1.txt - 10:12 (348:363))

In one instance a grower decided that he did not like the terms of his integrator's poultry contract, so he did not sign it. As told, there was no negotiation over the disputed item, and the grower did not receive chickens. Subsequently, he could not pay his mortgage and had to declare bankruptcy.

We just had a case where a black farmer who refused to sign his Perdue arbitration contract and they wouldn't give him chickens. And so he had a big mortgage on his chicken farm and they wouldn't put chickens in so. I think Farm Credit wasn't involved in that one. I think it was Peninsula Bank and the Farm Service Agency that had the mortgages. (P10: PGWF1.txt - 10:10 (313:321))

One grower claimed that because there is such a big demand for chicken, and that most growers will do what ever it takes to pay their mortgage in order to keep their family farms, that there has been fewer non-performing loans than one might expect.

Ward: "...The industry has been expanding constantly. The integrators are doing very very well because of the contract system. The price of chicken is very low, but demand is always increasing. So it is an expanding industry. Export markets are opening up more and more now. So the industry as a whole, in terms of where the power is, has been profitable. Has done well. There haven't been many non- performing loans..."(P10: PGWF1.txt - 10:9 (268:306))

Jerry: "...And as a poultry farmer, you're kind of put behind the 8 ball. Most of the time your farm and your home are all in one. It's not like a business. If this was probably a business, separated from my home life and my personal life, and I could say well, you know, this really isn't what we expected it to be. Go bankrupt, or sell it, or do whatever, walk away from it. We might have done it. But when you talk about, you know, losing your whole home, that's a different perspective." (P 7: JerryM1.txt - 7:15

(281:318))

However, most growers still believe that the loan and contract system threatens the longevity of their family farm tradition on Maryland's Lower Eastern Shore. Steve thinks that the Farm Credit operation is ruining a lot of farmers. Farm Credit provides loans to farmers to start poultry operations. They will loan several hundreds of thousand dollars with 20% collateral (which is usually their entire farm and/or possessions) knowing that the growers are not guaranteed birds and can only get 7 week contracts. Steve claims that a lot of farmers lose or risk losing their farms over this. Contracts are only binding when birds are actually on the floors of the growers' poultry houses. (P 2: Steve1.txt - 2:29 (308:327))

Mortgage Liability

As suggested in earlier sections, mortgage payments for most growers are a huge liability that constantly hangs over their heads. The lack of control that most growers have over their ability to make these payments, creates an extreme sense of frustration, and at times is expressed in forms of depression.

Jerry: "But when you are under the gun to make your mortgage, and this, that, and the other, there is not, that's where people can get oppressed and other people have control over you. And when I, if I can ever make it through these next 4 or 5 years, it's going to be a load off my mind, off my back..." (P 7: JerryM1.txt - 7:58 (1384:1396))

Interviewer: "They got so many people (many growers), huh." Jerry: "Yeah. That's why you got people afraid to say anything about poultry producers, because "well they'll stop giving me chickens." And you'll hear that. And you know it is a valid fear. But, and I realize that, I think they did that, that wasn't something that was orchestrated. Because in order to control somebody you have to have something over their head, ok. And a big mortgage is certainly that leverage." (P 7: JerryM1.txt - 7:19 (401:412))

To make matters worse, growers are frequently required to upgrade their existing houses and equipment, adding more debt to an amount that is already viewed as increasingly impossible to meet. One grower indicated that it is not uncommon for some growers to have to refinance their loans at higher interests rates because they have not been able to pay them back on time. ...now he is saddled with about \$500,000 of debt and his houses are no longer paying off. One company got him a cheap 8 year loan through the bank in Arkansas that was under investigation by the White Water Committee. He was told that he would be able to pay this off in 8 years. He hasn't come close, the loan is due, and is having to refinance through another bank at a higher interest. (P 6: Doug1.txt - 6:26 (310:326))

For most growers, however, the biggest liability that their mortgages represent is the loss of their home if payment can't be made. This spirals into losing their farm and their traditional farming occupation.

Jerry: "... And as a poultry farmer, you're kind of put behind the 8 ball. Most of the time your farm and your home are all in one. It's not like a business. If this was probably a business, separated from my home life and my personal life, and I could say well, you know, this really isn't what we expected it to be. Go bankrupt, or sell it, or do whatever, walk away from it. We might have done it. But when you talk about, you know, losing your whole home, that's a different perspective." (P 7: JerryM1.txt -

7:15 (281:318))

Flock Insurance

One grower discussed the need for flock insurance that covers growers losses. Growers have no security that their chickens will reach maturity, which directly affects their ability to pay their mortgages. Because the integrators are the actual owners of the birds, they are the only ones who can take out insurance on them. However, growers have as much or more to lose than the integrators when disease or undesirable temperatures causes bird mortalities. In the event of large mortalities, the integrators can collect on their insurance, which in turn is not passed down in any form of compensation to the growers.

There is also no security for the growers that they will get any money back from growing their chickens. Usually somebody's farm and all of their valuable possessions are used as collateral to buy poultry houses and equipment. However, there is no way to ensure against losing money from a bad flock in order to pay mortgage payments because the birds are owned by the companies and not the farmers. So the companies are the only ones who can take out insurance and they don't share this with the farmers when their flocks die for whatever reason...(P 2: Steve1.txt - 2:7 (88:105))

According to one grower, the State, through the Legislature, has set up an indemnity fund, which is funded by taxpayer dollars, and is designed to pay the poultry industry in case of bird losses. It was suggested that a similar fund be set-up for growers, which received little support.

Steve stated that the legislature has done nothing to set up some type of indemnity fund for growers. As it stands, according to Steve, taxpayers money goes into an indemnity fund that pays back the poultry industry if they have bird losses. The growers don't get anything. (P 2: Steve1.txt - 2:10 (123:129))

One grower also claimed that it may be more profitable for poultry companies to collect insurance money on dead birds, than it would be to sell them normally. Potentially explaining why some poultry companies are not concerned about periods of high mortalities. An example provided was that a company pays X amount to raise a bird and in return can sell it for 10% to 15% more than X. In the case of collecting on dead birds, poultry companies may get 40% to 50% more than X (this example should be further explored).

Steve indicated that the Companies receive more money through insurance for dead birds than they would receive from live ones through the market. (P 2: Steve1.txt - 2:7 (88:105))

Steve was saying that any many ways it is more cost effective for the companies to collect on dead birds than to sell them on the market. Need to ask again about the return from dead and live chickens (pay 44% on, get 56%, if die get 90%). (P 2: Steve1.txt - 2:22 (242:248))

Steve told me that in 1983 or 1984 that the industry made \$254 million in profits, and that \$66 million was from indemnity funds. (P 2: Steve1.txt - 2:19 (219:222))

Grain Fraud

Some growers showed concern that their integrators may not be giving them the appropriate amount of grain to feed their birds, ultimately affecting the size of their birds and their competitive standing among other growers. Growers stated that their grain is delivered in the early hours of the morning when everyone is asleep, and that they could not sufficiently gauge how much grain was actually being received. The thought is that the integrators may be saving money by not distributing the appropriate amount of grain, or may be purposefully making individuals less competitive. In addition, one grower indicated that grain theft on the Shore is a \$1 million a year problem. He has heard of cases where poultry grain trucks have showed-up at hog farms trying to unload their product.

Steve said that unfortunately farmers on average are [trusting] people. They will openly let people take advantage of them. Steve thinks that growers are constantly being cheated on the amount of grain they are receiving. (P 2: Steve1.txt - 2:23 (248:254))

Steve thinks that growers are constantly being cheated on the amount of grain they are receiving. Supply trucks come to farm around 2:00 a.m. to dump off grain. Farmer is not around to check amount given. Steve said that grain theft is a big issue of the Shore. He knows of personal cases where trucks full of grain have shown up at hog farms offering them a great deal if they will take it off their hands. If not enough grain gets to the birds they will not put on the appropriate weight. Steve told me that if he were to slip the grain deliverers some extra money under the table, he could be assured that he would receive the right amount of grain, and perhaps some additional. (P 2: Steve1.txt - 2:24 (251:267))

As talked about before, Steve said that he could be slighted a 1000 lbs of grain when it is delivered and he would not know about it, in part because it is delivered so early in the morning. Feed theft on the Shore is a \$1 million dollar a year problem. (P 2: Steve1.txt - 2:45 (438:444))

Grower Health Concerns

Several growers complained that raising chickens was unhealthy. Most of their concern stemmed from the fact that the birds are treated with antibiotics and are given vaccinations, which have been administered to them through the air and/or in their food and water. Growers in turn are exposed to these medicines when they are working in the chicken houses. One grower claimed that they had become more susceptible to illnesses because their body had become so accustomed to antibiotics, which would normally help to fight off infections. In general, several growers believed that their exposure to these medical substances was making them sick, or more susceptible to getting sick.

Another analogy was made that due to the antibiotics that are used to treat the birds, growers working around this drugs become more susceptible to illnesses, perhaps in part because the antibiotics become to familiar to the body and don't work any longer to fight off infections. (P 3: LESM1.txt - 3:9 (222:229))

Sarah talked about not liking to be around the vaccinated birds. They use to vaccinate them through their water, now they spray it into the air in the houses. Sarah claims that it becomes part of the soil/dust and coats a lot of things and that a human can be exposed to quite easily. She was making

the case that the vaccinations and antibiotics that are used and how they are used, make humans working in the areas susceptible to getting sick. She indicated that she believed she has been sick on a regular basis from these sources. (P 6: Sarah1.txt - 6:5 (56:69))

The chicken antibiotics are used in the food and drinking water and she claims that they are the same ones used by humans. She stated that she thought that there was only one antibiotic that they did not use on the chickens. She claims that she can't take antibiotics now because of her exposure here on the farm. I was not completely certain whether she could take antibiotics before she farmed. If she takes antibiotics or is around them she becomes asthmatic. (P 6: Sarah1.txt - 6:7 (74:84))

Ward: "And the more you actually look at farmers, you know farming chickens, even if you have average or better performance, it's not an extraordinary over turn, considering that you made a huge investment. And considering that you work in that chicken house and it is very unpleasant work. It's nasty, disagreeable, and unhealthy work." Interviewer: "The smell gets pretty bad doesn't it." Ward: "Yeah, the air that you breath, and half of the work is picking up dead chickens and disposing of them, right..." (P10: PGWF1.txt - 10:14 (381:413))

Grower Stress/Pressure

Every grower we spoke with indicated that they were under increased levels of stress and pressure trying to make it in the poultry industry. Some growers indicated that this increase has brought about depression and suicides in their communities

Danny: "...As far as I am concerned no. Pressure, stress has increased. In fact you'll find we've had several young people commit suicide in this county because of pressure that was put on to them by the poultry industry. Especially the poultry industry. And the farming situation is not as bad. Like I said you are gambling. But the poultry industry has caused 3 or 4 suicides..." (P 4: DLMF1.txt - 4:97 (1954:1966))

Losing Farm and Home

Growers provided many examples as to why their lives were so stressful and pressure filled. Perhaps their single biggest concern is not being able to meet their mortgage, and possibly losing their farm and home to the mortgage company. Growers stated that because they make so little money, are not guaranteed birds, and their poultry debt is so high, that it is a month by month battle to see whether they can meet their obligations and remain in the farming business.

Jerry: "But when you are under the gun to make your mortgage, and this, that, and the other, there is not, that's where people can get oppressed and other people have control over you. And when I, if I can ever make it through these next 4 or 5 years, it's going to be a load off my mind, off my back..." (P 7: JerryM1.txt - 7:58 (1384:1396))

Ward: "Yeah Mr. X, right. But he's not the only one there is quite a number of farmers that have had to foreclose..." (P10: PGWF1.txt - 10:12 (348:363))

Jerry: "And the reason that they don't do anything else, is because again, it's fear. If I say anything to try to make change, there will be repercussions. You know it is hard to, it's hard to blame anybody that doesn't want to go out on a limb and risk everything they got..." (P 7: JerryM1.txt - 7:34)

(670:717))

Jerry: "...And as a poultry farmer, you're kind of put behind the 8 ball. Most of the time your farm and your home are all in one. It's not like a business. If this was probably a business, separated from my home life and my personal life, and I could say well, you know, this really isn't what we expected it to be. Go bankrupt, or sell it, or do whatever, walk away from it. We might have done it. But when you talk about, you know, losing your whole home, that's a different perspective." (P 7: JerryM1.txt - 7:15 (281:318))

Just Getting By

Most growers we spoke with indicated that they were barely making enough money to get by. These same growers said that the overwhelming majority of the grower community was in the same situation. This decrease in income has increased the stress levels in growers lives, and has prompted many to start speaking-out about their concerns for the first time.

Jerry: "Well it depends on who you talk to. I mean, I've talked to some people, and I've said why don't you join us (growers concerned about the state of the industry), and they say my chickens have paid for my kids' college education, and they are happy. I don't know how you can be. The way everything is. There is a top percentile of growers that are making adequate amount of money. Everybody else, I don't think, is making adequate amount of money for the labor, the investment. I mean, you know you are talking about 4 chicken houses. A brand new chicken house is \$130,000." Interviewer: "That is just an unbelievable amount of money. What percent would you say of the farmers who are in that situation that you are describing, who they have this same life style, you know, and are not paying for their kids college..." Jerry: "Well, I would say the majority of people I know, are just like me. They are doing all they can to get by." Interviewer: "So there is like what a 10%, 15, 20, who are doing really well. How many do you think?" Jerry: "I would say 10%." Interviewer: "10%. 80 and 90 are in this mediocre line?" Jerry: "Based on people I know and talking to." (P 7: JerryM1.txt - 7:33 (633:670))

Danny: "There is some people who can do it, and which I was doing good to, 2 years ago. But yet there is more grumbling going on..." Martha: "I think I have heard more like in the last 6 months. There is more pressure put on people and there is a lot more grumbling, because anywhere you go and start chicken business, you start hearing this." Danny: "They grumble. There is a grumble. Anyone you talk to you will find there is a grumble." Martha: "The threat that is hanging over people's heads." Danny: "You've got a job. But I mean your job is you go out here to different things, but among the industry, the people that perform this duty, is really dying out. And it's not only me, it's everybody. And there is a grumble underlying. And it's rough." (P 4: DLMF1.txt - 4:106 (2182:2204))

Lack of Grower Control

Another factor that further exacerbates growers' stress levels, is the lack of control they believe they have over changing their current situation. As stated by the growers, integrators often exercise their control over them by requiring them to make changes to their operations, including costly upgrades to poultry houses and equipment. Growers

believe they have no alternative but to comply, if they want to continue to get birds. In general, growers often talked about the great extent to which the integrators have control over the entire poultry production process, completely leaving the growers out of all decision making points. The growers lack of control over their businesses results in feelings of frustration and anger, creating great anxiety in their lives.

Jerry: "The biggest thing that is going to get me is when they come around here, and they want, they start, "well you got to do this, got to do that." You know what, see you later. I'll close these son- of-a-guns up and burn them down. I'd love to, that is going to be the ultimate day when I can do that. That's what I am living for." (Much laughter by all) (P 7: JerryM1.txt - 7:60 (1406:1414))

Jerry: "But when you are under the gun to make your mortgage, and this, that, and the other, there is not, that's where people can get oppressed and other people have control over you. And when I, if I can ever make it through these next 4 or 5 years, it's going to be a load off my mind, off my back..." (P 7: JerryM1.txt - 7:58 (1384:1396))

Jerry: "I getting into the home stretch of getting my mortgage paid. Now I've got to add on this tremendous debt, and I just, and I'm getting to the point where I can't see it." (P 7: JerryM1.txt - 7:35 (721:724))

Martha: "They bring us the biddy, they bring us the feed, and they take them out, when they say so. So we really have no control over any of it. And yet they are asking for more things. The want different stoves, or you got to have different water pans, or you got to have different ventilation systems. You know there is all these other things that are at our expense." Danny: "Again it is mandating. Where by you do it or you have to get out of the business." Martha: "And then they got that threat if you don't do it then you can't raise chickens any more. So you got all this big investment sitting here and you have to spend more money." (P 4: DLMF1.txt - 4:99 (2029:2058))

Interviewer: "What has been going on that is stressful with the poultry industry?" Danny: "Too much mandating again, basically." Martha: "I don't think the integrators really know what they want and they aren't including the grower in their decisions. And it's got bad on a lot of people." Danny: "They're not concerned about us anymore. And it's bad on myself." Martha: "Yeah we may not get them this Spring..." Danny: "That's just like myself, if you do a little bit poor performance, which my performance, average wise I'm talking, your average gets out of whack, and you can't get a good chicken egg, then that affects my performance. I don't care what I do. I can wait there, and I can live out there. I can put a bed out there and sleep right there. But, it's a lot of problems come from where the integrator is not concerned with the grower, and he isn't concerned enough to get out there and find the situation. I've raised 14 brewds, and they can't tell me what I am doing wrong." (P 4: DLMF1.txt - 4:98 (1968:2027))

One constant complaint that Sarah has is that the company's will make it mandatory for you to invest money in some new technology in order to get their birds, and when you do, shortly thereafter, they change their minds and the technology and the grower is stuck shouldering the cost of the purchase. For instance she [knows a grower who] bought some feeders that were more expensive and designed for roasters. [These growers] were under the impression that they were going to grow roasters and needed this technology. However, the company decided that they now wanted them to grow broilers and they no longer needed the capacity of their feeders. [Sarah indicated that she was] required to buy new nipple watering machines to replace ones that were functional, but no longer in style. The costs of these were pretty significant and this was a mandatory purchase. Also, things like PLT, which is dirt/chips, something like that, that is placed on floor to absorb urine to reduce ammonia smell, may be required, which some claim don't really work. In the past we have also heard about different styles

of chicken houses that have certain technology features that companies require. However, these features may change in the course of a year and you may be required to spend more money to replace them even though you have not paid for the old technology, if you want to get more birds. (P 6: Sarah1.txt - 6:15 (148:180))

Fear of Not Getting Birds

The fear that could bring about the end of most growers' farming tradition, and which causes great stress and anxiety, is the possibility that the integrator will stop giving them birds. Without birds, mortgages can't be met, and farmers risk losing their homes.

Danny: "...Again it is mandating. Where by you do it or you have to get out of the business."

Martha: "And then they got that threat if you don't do it then you can't raise chickens any more. So you got all this big investment sitting here and you have to spend more money." (P 4: DLMF1.txt - 4:99 (2029:2058))

Many examples and stories exist within the grower communities of how various individuals have stopped receiving birds as a form of punishment for not complying with integrator demands, or for no reason at all.

Martha: "...Yeah we may not get them this Spring." Danny: "I might not get no more chickens until next Spring" (Summer conversation). Interviewer: "Oh really." Martha: [We know of a man who has brand new houses, and he is not even renting them]. Danny: "He raised 3 brewds of chickens and they laid him off." Interviewer: "How come?" Danny: "Half a million dollar investment sitting up there." Interviewer: "What happened?" Danny: "We don't know." Martha: "And nobody else has picked them up..." (P 4: DLMF1.txt - 4:98 (1968:2027))

Sense of being Trapped

Perhaps the worse thing that growers have to confront is that there is no good way of getting out of the poultry industry. Most growers have mortgaged their homes and farms in order to get into poultry production. Growers can't leave the industry without losing their property if they don't pay off their loans. Thus, the only way for most growers to pay off their loans is to continue raising chickens. Selling their farms to pay their debt is not really an option for most growers because the selling price may not be enough to cover their debt, and/or their only sizeable investment would be relinquished.

Ward: "...You have to have chickens, because otherwise how do you pay the mortgage on the damn chicken houses, right." (P10: PGWF1.txt - 10:5 (139:166))

Interviewer: "How would you describe life on the Lower Eastern Shore?" Jerry: "Well, I'll tell you, life on the Eastern Shore I think would be primarily good. From my situation though, and I don't want to seem like I'm whining or anything. Because people, "Well if you don't like it why don't you..." (Laughter by all) Well, you know if I sold it, and by the time you pay taxes on your, I would just about throw away my last 10 years. I a pretty well locked into sticking it out..." (P 7: JerryM1.txt - 7:37 (762:785))

Jerry: "And the reason that they don't do anything else, is because again, it's fear. If I say anything to

try to make change, there will be repercussions. You know it is hard to, it's hard to blame anybody that doesn't want to go out on a limb and risk everything they got..." (P 7: JerryM1.txt - 7:34 (670:717))

Interviewer: "And people are locked in because they can't get out..." Danny: "They can't get out." Martha: "They can't get out of the cycle." Danny: "Once you build that chicken house the only way you can get out is if it burned down. And then the insurance company say if you don't build back you don't get no money anyway." (P 4: DLMF1.txt - 4:104 (2160:2171))

Jerry: "With the figures that they, you know, with the hard sell that they give you, you know they tell you what you are capable of doing, you know this is what you do, and this is what we do. And it is not necessarily true, but once you've dug a hole, you don't have, you don't have time to worry about getting out, you just try to keep the sides from caving in. (Laughter by Interviewer) You know. I think that was a major problem. And I think that the poultry companies know, that's because they, like I said, they've saturated the Eastern Shore with poultry producers. So now, they have the pick of whatever they want to do. If I don't want to abide by their programs, see you later. There is another guy that will." (P 7: JerryM1.txt - 7:18 (382:399))

Raising Chickens Was a Mistake

Despite the fact the poultry industry has allowed many farmers the opportunity to continue their traditional farming lifestyle, many growers now regret ever getting involved in poultry. Many claim that the rewards from growing chicken do not outweigh the pressure and stress one has to endure in the process.

Danny: "I told my [relative] before he ever built that chicken house over there, I said, he had a good job with [X], I said it's the sorriest damn mistake you'll ever make. That he wanted to build a chicken house and farm. And I told him right then I said it will be the sorriest mistake you've ever made. Because when you go home on Friday night, your problems are done, it's somebody else's problem then." (P 4: DLMF1.txt - 4:107 (2211:2220))

Doug talks about how he and his wife regret having gotten into chicken farming and that now they wish they had their old jobs back. (P 6: Doug1.txt - 6:2 (35:41))

Grower Work Time

Work Time with Chickens

One grower laughed as he told me about an old Perdue t.v. commercial slogan that stated, "It's a part time job with a full time income." He claims that the business is so competitive that growers are working closer to full-time hours.

Jerry: "Another thing, you know, years ago Perdue, they use to have t.v. commercials out, 'It's a part time job with a full time income.'" Interviewer: "I think I've heard that at one time. I might have even heard that at one time, now that you said that." Jerry: "Yeah, yeah, build a chicken house, you know you'll only work a couple of hours a day, ya, ye, ya...and all you have to do is cash your check every once and a while. (Laughter by all) And you know what, any more, it is so competitive that everything is to a thousandths of a decimal. I mean, you know you are talking about between first and

last, you're talking about decimal places as far as the amount of feed, it is very competitive. So you're having to spend tremendous amount of time..." (P 7: JerryM1.txt - 7:17 (335:361))

The general consensus among growers is that they are working long, hard hours tending to their chickens, and taking care of their chicken houses and equipment, as well as the surrounding grounds. On nice summer days when others are vacationing and enjoying some form of recreation, growers have to be on the farm to try to reduce the number of heat-related losses, and to make sure equipment is running appropriately.

Bobby: "...People (growers) working long hours..." (P 1: BobbyM1.txt - 1:70 (1191:1246))

Jerry: "...But, like I said, I come home from work, I've got umpteen dozen jobs I got to do. On the weekends, you know, I'll sit up at the store, taking a coffee break. I see people traveling on Route 50 going to Ocean City. I see people from around here, they're getting their 12 packs of beer, and they're heading to the beach with their coolers, like, you know, it must be nice. (Laughter by all) When it is nice enough to do that, guess what, I've got to be around here." (P 7: JerryM1.txt - 7:37 (762:785))

Danny: "...your tied down with poultry because you can't leave on hot days. You got to stick around. Just like today is hot. You start off in the morning opening chickens up a little bit and then you go back and open them again, and then you go back and open them again. And then this afternoon I might start closing them back up because the weather gets cooler. I mean you can't be with the poultry industry, and the same with swine, because swine is another thing they've got it confined and you just can't walk off and leave them. Because if you did something could happen, a fan break down. Something happen..." (P 4: DLMF1.txt - 4:64 (1149:1195))

Jerry: "...And we put a lot of effort in here. There's probably more effort that goes into this farm, or as much as any farm in the county or the state. But the poultry industry is hard, it's competitive, and I think it is lopsided. And as far as quality of my life, the quality of my life isn't that great. Because number 1, I am tied down with these chickens all the time. And it's just like now, I came home from work, when you leave I've got 50 million things to do. I will be working till 8, 9, or whenever I decide to quit. Ok. And, you know, it's really not a very good quality of life. You know, my daughter, she's [older now], and it seems like she's grewed up with me because I'm always doing something you know. Everybody thinks the farm life is family, and it may be that way on a grain farm or whatever, but I tell you, my time, my time is pretty well eat up..." (P 7: JerryM1.txt - 7:30 (570:603))

In discussing one grower's dissatisfaction with the amount of time and effort he had to put into his chicken farm, he had this profound reflection:

Jerry: "...all I can say is, the worse thing that could happen to me, would not be to lose this farm and everything I got. The worse thing that could happen is if I have to work like I've been doing for the next 20 years, like I have been. You know what I mean." (P 7: JerryM1.txt - 7:54 (1334:1341))

Work Between Flocks

Growers also joked amongst themselves about the nice long vacations they were planning to take between flocks. This joke played on the misconception that growers had several weeks before a new flock came in which to rest and relax. According to growers, this was far from the truth. For starters, new flocks may arrive anywhere from a week to 2 weeks after the old flock leaves. In some instances chicks may be brought in sooner. Considerable cleaning and maintenance work must be completed before new chicks arrive.

Jerry: “Any everybody says, ‘well you know you just got rid of you chickens, what do you get, a 2 week vacation now.’ (Laughter by all) Yeah, I've got to clean-up everything, and get it ready for the next flock. If I'm lucky I'll have 2 or 3 days that I can...” Interviewer: “Because they put them in there pretty quick don't they now?” Jerry: “Again, it's the turn around. Money, money, money, money. During the summer hell, they, sometimes I put, I have put them back in 4 days one time. And that was a major undertaking. But the norm is a week in a half to 2 weeks.” (P 7: JerryM1.txt - 7:56 (1357:1373))

Maintenance Work

As suggested previously, considerable maintenance and upkeep work must be regularly completed in order to keep one's operation running smoothly. For instance, older chicken houses and equipment require more maintenance, grounds need to be mowed and maintained, and chicken houses and manure sheds need to be cleaned-out. Interviewer: “To get the big bulk of stuff paid off, is that what you are saying?” Jerry: “Yeah. Yeah. See by then the houses are going to be older. It's going to require much more maintenance, so I mean I'm not going to like fall into a gold mine per se but.” (P 7: JerryM1.txt - 7:59 (1393:1399))

The labor on their grounds can be fairly intensive. It may take them 5 hours to cut their grass. (P 6: Doug1.txt - 6:4 (54:56))

If a manure shed like the one on Doug's property is full, it may take a bobcat 4 or 5 days to clean it out. (P 6: Doug1.txt - 6:11 (106:108))

Growers' Desire to Educate Public

Some growers expressed a desire to be able to better communicate to the public their interests and concerns over their industry, and to get assistance in this endeavor from outside sources.

Steve wants to continue to find ways to educate the public about the growers' situation and to bring more people from the outside in who have various resources that can be used to assist them. (P 2: Steve1.txt - 2:46 (446:451))

Growers Lack Representation

Most growers we interviewed indicated that they would like to be more involved in making decisions within the poultry industry that affect them. Many agreed that the only way to accomplish this is to organize. However, many growers did not believe that farmers would ever organize in sufficient numbers to make a difference within the poultry industry.

Growers would like to share in the decision making concerning their industry, and some believe that they must organize to get power to accomplish this. (P 3: LESM1.txt - 3:1 (65:71))

Several growers suggested that most poultry farmers were to afraid to organize. As

discussed previously, the belief that the poultry industry will retaliate against growers who speak out against it is strong. Also, the threat of not receiving chickens, and potentially losing one's farm is a viable concern for most growers. A strong argument is made by some growers that the poultry companies and mortgage holders need the growers to conduct their business, and if growers could show a sign of solidarity, then these groups would have to listen and take notice.

Jerry: "And the reason that they don't do anything else, is because again, it's fear. If I say anything to try to make change, there will be repercussions. You know it is hard to, it's hard to blame anybody that doesn't want to go out on a limb and risk everything they got, but it's my intent, and I don't want to get off on a tangent here or get up on a soapbox, but I keep telling these guys around here, I say look, if you were organized. I said the tail is wagging the dog. I said we've got just as much investment as these poultry companies. If we were to stand together, we could say take these chickens and stickum. Well, farm credit they can't, I mean, whose going to take, they can't close out on all these farms. You would have to have enough people and solidarity to do that. But you can't, because you can't get enough organization to do that. So now you got people that are out there trying to grasp on to that wood to keep from drowning, and they are going to do what ever it takes to get to it..." (P 7: JerryM1.txt - 7:34 (670:717))

Jerry: "...Yeah. That's why you got people afraid to say anything about poultry producers, because 'well they'll stop giving me chickens.' And you'll hear that. And you know it is a valid fear. But, and I realize that, I think they did that, that wasn't something that was orchestrated. Because in order to control somebody you have to have something over their head, ok. And a big mortgage is certainly that leverage." (P 7: JerryM1.txt - 7:19 (401:412))

Steve indicated that perhaps 5% of the poultry growers speak out about their problems while the remaining 90% to 95% don't say much because, as Steve put it, they are too dumb, are afraid of what the industry might do to them, and/or are very conservative and somewhat apathetic. (P 2: Steve1.txt - 2:1 (21:28))

According to many growers, the agricultural organizations at the local, state, and federal levels, represent more of the poultry company's interests and concerns than theirs. This effectively leaves growers without a strong voice within the industry and among government bodies.

Steve claims that almost all of the agricultural agencies and organizations, locally, state-wide, and some federal are all in cahoots with the Poultry industry and don't represent the interests of the growers. (P 2: Steve1.txt - 2:17 (200:205))

Some growers ridicule those among them who become spokespersons for the Delmarva Poultry Industry. This is seen by some as a selfish act to get ahead, which ultimately hurts other growers. The story is that some growers "go to bat" for the industry in order to become more successful growers. These growers paint an inaccurate, "rosy" picture of what it is like to raise chickens to larger audiences, so that the companies look better. Many growers believe that this misrepresentation further exacerbates the plight of growers.

Steve stated that many of the growers who become spokespersons for the Delmarva Poultry Industry do so for selfish reasons. They get a little power and prestige and to a certain degree do better monetarily because they are considered a team player who will go to bat for the industry. Steve thinks that these people help themselves but hurt the larger community of growers, by providing an inaccurate picture of growers life in the industry to politicians and other government and media

representatives. In a sense they are being compensated for their kind words about the industry. (P 2: Steve1.txt - 2:18 (205:219))

Steve says that 95% of growers are not actively trying to make their situation better or are in bed with the industry. One example is Mr. X who played ball with Hudson and became a member of DPI's grower committee. During this period he was pro industry. Tyson then bought out Hudson and made Mr. X make a lot of costly changes to his operation, and then he started complaining about how bad the industry is and how they are ruining the environment. (P 2: Steve1.txt - 2:43 (406:419))

One grower indicated that if they were able to organize, they would need strong leadership, personnel, and money to hold the group together. Steve said that part of the problem with the growers' associations is that there is not enough strong leadership, time for individuals to fully participate, and money to support activities... (P 2: Steve1.txt - 2:44 (423:438))

Growers Who are Prospering

As suggested earlier, some growers on Maryland's Lower Eastern Shore are making a good living raising chickens. One grower indicated that perhaps 10% of all growers are in this category. Those who are doing well may have been raising chickens in the early 70s when poultry money was better, and have paid off their houses. These growers may not be as cash strapped, allowing more flexibility in their decision making.

Jerry: "And there is some people who don't have the hard luck story that I am giving you. I mean, if I ran a, if I come from a farming family, and back in the early '70s is when you could probably make real good money at this. And by now your farm is paid for. And no matter what happens you have a lot of flexibility there." Interviewer: "Because you own your houses right?" Jerry: "Right." (P 7: JerryM1.txt - 7:57 (1373:1384))

Interviewer: "You know a lot of people I've talked to, you know they don't ever indicated that there is any problems in the poultry industry. I mean some people are more outspoken and other people say some things, but you know a lot of people I've talked to they think things are hunky dory. Is that really not the case are some people really doing..." Danny: "There is some people who can do it, and which I was doing good to, 2 years ago." (P 4: DLMF1.txt - 4:105 (2173:2183))

Jerry: "Well it depends on who you talk to. I mean, I've talked to some people, and I've said why don't you join us, and they say my chickens have paid for my kids' college education, and they are happy. I don't know how you can be. The way everything is. There is a top percentile of growers that are making adequate amount of money..." Interviewer: "So there is like what a

10%, 15, 20, who are doing really well. How many do you think?" Jerry: "I would say 10%..." (P 7: JerryM1.txt - 7:33 (633:670))

Growing Time

Several growers talked about the fact that it takes less time now to grow chickens than it did in the past. Some suggested that in the past it may have taken 9 to 10 weeks

for birds to reach maturity.

Bobby: "...we first started growing chickens here in 1962, they kept these birds here for around 9 to 10 weeks..." (P 1: BobbyM1.txt - 1:70 (1191:1246))

Now, in 7 weeks or less, birds weigh more than in the past, and are ready to be processed.

Bobby: "...we are getting more weight today, or the same weight or more, in 7 weeks or less..." (P 1: BobbyM1.txt - 1:70 (1191:1246))

Some growers claim that the poultry company's are able to produce birds faster and cheaper because of the special diets they are given. Growers claim that growth enhancers are put into the chicken feed to help birds perform better.

Bobby: "...And they are trying probably to put them on a diet also, just like they do these chickens here to produce more faster and cheaper..." (P 1: BobbyM1.txt - 1:79 (1301:1318))

Jerry: "So, again I am going to say that the almighty dollar is the route of all of this in my mind. Because you got chicken producers trying to grow the ultimate chicken in the least amount of time. So they are putting growth enhancement kinds of things into the feed. Maybe that has some effect into the manure that was spreading on the ground. I don't know." (P 7: JerryM1.txt - 7:3 (28:36))

Hired Help

Some growers indicated that they hire additional help to take care of all or a portion of their poultry business. One grower stated that one hired hand could work 3 hours a day and manage a 50,000 capacity operation.

Ward: "...I've got one guy who does, you only have to do a little bit. He does 90% of the work. He works at it, we have 50,000 capacity. He works at it about on an average of 3 hours a day. And you know manages those chickens for about 3 hours a day..." (P10: PGWF1.txt - 10:5 (139:166))

On the other hand, other growers suggest that it takes considerable more time to run an operation like this. Despite these differences, most growers did agree that it was hard to hire good help because the wages they could offer were so little. According to growers, they can't afford to pay their hired help much because their costs keep increasing. Many growers believe that the cheaper their help, the more their flocks will suffer, and the less competitive they will be.

The companies charge more for their increased costs, but the growers aren't making anymore. This becomes particularly hard when you want to hire someone to work the poultry houses. If you can't pay somebody much to work them you probably won't get good help and your flocks may suffer. (P 2: Steve1.txt - 2:5 (75:88))

Impacts from Less Integrator Competition

Steve, a poultry grower on the Lower Eastern Shore, had the following to say about integrator competition:

Steve states that 25 years ago or so there use to be more competition in the poultry industry. There were 20 to 30 poultry companies and now there are only 5. These 5 companies are the only game in

town and if you want to play ball you have to play by their rules and contract practices. Steve described a very interesting situation that has resulted from the consolidation of companies. Each company has set up its own territory. Meaning that, each company will only deal with growers who are X number of miles away from their operations (say maybe 50 miles). So, if you own property within the territory of one or two companies, then you don't have the option to work for the other 3, and attempt to get any better deals for yourself in your contract. Steve said that eventually you will have a situation where a whole host of growers will only be able to grow for one company due to the boundary scenario, and if you want chickens you will have to do exactly what they say. One effect from this boundary situation is that companies will try to place more and more growers in a concentrated area for production reasons. This will increase the stress to the environment because of the intensity of the production.(P 2: Steve1.txt - 2:27 (279:308))

Impacts to Growers from Nutrient and Waste Management Regulations

Poultry Industry to Leave Shore

Poultry companies have publically remarked that if costs associated with growing and processing chickens become too high on the Eastern Shore, in part due to new nutrient and waste management regulations, they will leave and go elsewhere. If this scenario were to occur, this would be the greatest impact for all growers on the Shore. Growers have mixed feelings about the likelihood of this event, and are becoming more verbal about threats of this nature.

Jerry: ...”You know the poultry integrators and companies, that's their leverage. Well, you know, it is always there, ‘if we can't do business here, we'll take it somewhere else.’ Well, take it somewhere else...” (P 7: JerryM1.txt - 7:53 (1312:1329))

Jerry: “When this first, this Pfiesteria first came about, and they were talking about regulations, and this, that, and the other, and Jim Perdue came on to the interview, and was talking about the feasibility of staying on the Shore, and he said if it was not economically feasible to grow chickens here, then they would be forced to move. And I just, you know, I just thought, you know, see you. I mean you are not going to hold that over our heads to do the things that you do, ok. If you don't want to grow chickens here, and I'm not saying that this place would be the same. Poultry has definitely made an impact on this area. There is no doubt about it. Whether we can survive without it or not, I don't know. But, I'm not going to have anything hanging over my head, you know. Leave, see you, bye. We'll do something else.” (P 7: JerryM1.txt - 7:52 (1276:1295))

Devalued Price of Farms

Many farmers expressed concern that the value of their farms has decreased since the creation of new regulations to curb nutrient and waste run-off. Statements were made that people would be less interested in buying a chicken farm because it would be too costly to dispose of manure and dead birds, penalties may be levied for improper disposal, and additional regulations may limit land use decisions.

Steve says that the whole manure problem has devalued the price of his farm. No one wants to buy into a growing operation if there is not a cost effective way of dealing with the manure. Particularly if there are fines levied against those who can't properly dispose of their manure and birds...Also

additional land control measures through regulation make farming and buying farms less attractive. (P 2: Steve1.txt - 2:31 (332:343))

The manure panic has even driven up costs of disposing of it. (P 2: Steve1.txt - 2:31 (332:343))

Potential Decrease in Production and Manure Disposal Activities

Because the cost of manure disposal has increased, some growers wonder whether they might receive fewer flocks from the integrators in order to keep manure levels lower. Even though some growers may welcome fewer flocks (less work), they are concerned that they would not be able to make enough money to pay their debts.

Jerry: "And I have to look at, well, if I can only grow 3 flocks a year instead of 6, can I make my living." (P 7: JerryM1.txt - 7:7 (75:77))

In addition, one grower showed concern over the possibility that litter and manure may stay in the chicken houses longer in order to save on disposal costs. He believed that this would be an unhealthy practice, increasing the potential for bird diseases and mortalities.

Interviewer: "Well how do you think the presence of Pfiesteria has directly or indirectly affected your life? What do you think will be the outcome from all of this?" Jerry: "I can see it well, from the money standpoint I can see the, they use to be, I mean years and years ago, when you would grow a flock of chickens you would clean out totally, and put in litter, which is sawdust and everything. The bedding. The company supplied that. Well, in the last several years, the way prices are and everything, they have slowed down that process. So your litter is staying in there longer and longer and longer. Maybe, you know, it is breeding different bacteria. So with that litter being in there longer, it's creating other problems that you are having to attend to, different kinds of illnesses and things. So, if Pfiesteria reduces the amount of manure you can spread, you probably going to see litter or manure staying in there a lot longer, as far as total removal, which is going to in effect, bring other problems into the scenario." (P 7: JerryM1.txt - 7:11 (146:171))

Consumers Pay More for Chicken

Finally, one grower suggested that increased regulations would ultimately affect the consumer in terms of increased chicken prices. He was not sure how consumers would react to this, given the fact that they pay so little for poultry now, especially in comparison to other countries. Also, integrators may ultimately pass along their increased costs to the growers, who may not benefit from an increase in the consumer price for chicken.

Jerry: "And the American consumer has to say, well, you know, instead of paying what I am for a chicken now, can I double that. Because I mean Americans eat cheaper than anybody in the free world. Not the free world, the entire world. You look at the, we do eat cheaper [than the rest of the world]. You know, everybody complains about gas prices, well hell, [in Europe 15 years ago] a liter of gas was a, like a dollar something. Well when you transfer it is a dollar something, so it is 4 bucks a gallon. And we are complaining about \$1.10 a gallon for gas. So, I mean, we're living the life of luxury, and is everybody going to make some compromises. If it costs me more to grow my chickens, and it costs the companies more to grow their chickens, is the consumers willing to accommodate that increase in price to eat that chicken, you know. So that is my feeling on that, I think economics is like

the whole big deal.” (P 7: JerryM1.txt - 7:8 (77:99))

Integrator Experiments

Several growers believe that their integrators experiment on them without their consent, by requiring them to try different technology and equipment, and through different feed formulas. In particular, many growers claimed that they often received different looking feed. The feeling that growers are being experimented on, reinforces their belief that the integrators are solely acting in their own best interest at the cost of the growers and others.

“...we're with the chicken deal, especially we're doing a lot of the experiment work for them. Try this and try that, and a lot of things we don't even know...” (P 1: BobbyM1.txt - 1:70 (1191:1246))

“...at 7 weeks here, say we get 5 loads of feed, well neither one of them might not be the same analysis. It's possible, we don't know...” (P 1: BobbyM1.txt - 1:70 (1191:1246))

“...It is like I was in the chicken house last night, and the feed was a different color. So they changed the formula somewhere in there...” (P 1: BobbyM1.txt - 1:70 (1191:1246))

Integrators as Corporate Citizens

Threatening to Leave the Shore

Several growers believed that the poultry companies were not good, responsible corporate citizens of Maryland's Eastern Shore. For example, many growers were extremely upset and annoyed by the poultry company's threats to leave the Shore if regulations made it unfavorable for them to stay. It was as if the integrators were dangling the Shore's life line over their heads, suggesting that they could let them drown as easily as let them live. Many growers commented that if the integrators were good citizens they would have rallied behind the growers and made a stand that was both in the growers and integrator's best interest.

Jerry: “...You know the poultry integrators and companies, that's their leverage. Well, you know, it is always there, 'if we can't do business here, we'll take it somewhere else.' Well, take it somewhere else...” (P 7: JerryM1.txt - 7:53 (1312:1329))

Jerry: “When this first, this Pfiesteria first came about, and they were talking about regulations, and this, that, and the other, and Jim Perdue came on to the interview, and was talking about the feasibility of staying on the Shore, and he said if it was not economically feasible to grow chickens here, then they would be forced to move. And I just, you know, I just thought, you know, see you. I mean you are not going to hold that over our heads to do the things that you do, ok. If you don't want to grow chickens here, and I'm not saying that this place would be the same. Poultry has definitely made an impact on this area. There is no doubt about it. Whether we can survive without it or not, I don't know. But, I'm not going to have anything hanging over my head, you know. Leave, see you,

bye. We'll do something else.” (P 7: JerryM1.txt - 7:52 (1276:1295))

Civic and Moral Responsibility

Some growers claim outright that the poultry companies have no civic and moral responsibility. Making claims that money made by integrators on the Shore is not reinvested into Shore communities, and that integrators have forced out local companies that were providing products and services that the integrators had an interest in providing themselves.

The poultry companies have no civic or moral responsibility to the communities in the Delmarva in which they operate. Unlike the companies, growers money stays in the community and does not leave and become mingled in the global economy. (P 2: Steve1.txt - 2:36 (365:371))

The industry forces people to make ties with them and not the community. The industry owns every facet of the process from machinery stores to grain elevators, and forces out anyone else who tries to compete with them in the area. (P 2: Steve1.txt - 2:42 (400:406))

Doug Parker really believes that the poultry industry is unjust. (P 6: Doug1.txt - 6:21 (210:211))

Concern for Growers

Ultimately, many growers believe that the integrators poor track record as responsible corporate citizens, carries over into the lack of concern they show for their growers. In general, growers have expressed many concern about raising chickens to the poultry industry, which they believe have fallen on deaf ears.

Danny: “That's just like myself, if you do a little bit poor performance, which my performance, average wise I'm talking, your average gets out of whack, and you can't get a good chicken egg, then that affects my performance. I don't care what I do. I can wait there, and I can live out there. I can put a bed out there and sleep right there. But, it's a lot of problems come from where the integrator is not concerned with the grower, and he isn't concerned enough to get out there and find the situation. I've raised 14 brewds, and they can't tell me what I am doing wrong.” (P 4: DLMF1.txt - 4:98 (1968:2027))

Jerry: “But I do everything that I am mandated to do. For instance, in the case of heat losses, ok, I had a big heat loss here last year, [10s of 1,000s of] chickens in one day. What do you do with [10s of 1,000s of] chickens...See the companies don't want to address that because they are fat, dumb, and happy and that's not a problem they have to deal with.” (P 7: JerryM1.txt - 7:10 (119:144))

Integrator Threats/Retaliation Measures

Fear of Retaliation

Most growers in general are afraid to speak-out against the poultry companies for fear that the integrators will retaliate against them in some way. This fear has been

promulgated by stories of integrator retaliation (often first hand experiences) that have been told throughout grower communities. Integrators have even taken on a “secret police” type image, keeping record of those antagonistic growers for future retaliatory purposes.

Some farmers indicated that it was a not beyond the integrators to keep track of those growers who were being critical of them and retaliate against them through some measure. Some went as far to say that integrator representatives would record the license plates of those growers who attended meetings that spoke out against the industry. So, many growers are scared to address many of their poultry problems because they fear retaliation from the industry. (P 3: LESM1.txt - 3:5 (183:197))

Leave the Shore

As discussed earlier, the biggest threat that poultry companies hang over grower community’s heads, is that of leaving the Shore, and taking their business elsewhere.

Effectively crippling the Shore’s economy, and a significant loss of Maryland tax dollars.

Jerry: “...You know the poultry integrators and companies, that's their leverage. Well, you know, it is always there, "if we can't do business here, we'll take it somewhere else." Well, take it somewhere else...” (P 7: JerryM1.txt - 7:53 (1312:1329))

Jerry: “When this first, this Pfiesteria first came about, and they were talking about regulations, and this, that, and the other, and Jim Perdue came on to the interview, and was talking about the feasibility of staying on the Shore, and he said if it was not economically feasible to grow chickens here, then they would be forced to move. And I just, you know, I just thought, you know, see you. I mean you are not going to hold that over our heads to do the things that you do, ok. If you don't want to grow chickens here, and I'm not saying that this place would be the same. Poultry has definitely made an impact on this area. There is no doubt about it. Whether we can survive without it or not, I don't know. But, I'm not going to have anything hanging over my head, you know. Leave, see you, bye. We'll do something else.” (P 7: JerryM1.txt - 7:52 (1276:1295))

No Chickens

The second biggest threat that growers receive from integrators is that of being denied chickens. On a day to day basis, this is the one threat that growers claim give the integrators the most leverage over them. This leverage is sufficient to convince growers that they need to purchase new equipment and update their chicken houses, even though the growers may be in considerable debt already, and existing equipment and facilities are adequate. As mentioned previously, without chickens, most growers can’t pay their mortgages and risk losing their farm and home.

Ward: “...And we have to keep sinking more money into it for making improvements to it all the time. You know the company requires if you want to keep having chickens. You have to have chickens, because otherwise how do you pay the mortgage on the damn chicken houses, right.” (P10: PGWF1.txt - 10:5 (139:166))

Jerry: “And the reason that they don't do anything else, is because again, it's fear. If I say anything to try to make change, there will be repercussions. You know it is hard to, it's hard to blame anybody that doesn't want to go out on a limb and risk everything they got...And if the man comes out here and

says, you need to put in tunnel ventilation...I don't have tunnel ventilation. He says look, well its just like nipple drinkers. In '91, and that was a good thing I think, putting nipple drinkers in. He says, "well, put in nipple drinkers." Do you got to. Well, know you ain't got to, but if everybody else does, you're not going to be able to be competitive, and eventually you probably won't be getting chickens..." (Laughter) (P 7: JerryM1.txt - 7:34 (670:717))

Martha: "...And then they got that threat if you don't do it then you can't raise chickens any more. So you got all this big investment sitting here and you have to spend more money." (P 4: DLMF1.txt - 4:99 (2029:2058))

Danny: "But anyway it is a constant thing where by you keep investing all the time and you just do it or you don't get no chickens...It's a constant change, and you keep spending and spending. And you keep updating." (P 4: DLMF1.txt - 4:103 (2128:2158))

One constant complaint that Sarah has is that the company's will make it mandatory for you to invest money in some new technology in order to get their birds, and when you do, shortly thereafter, they change their minds and the technology and the grower is stuck shouldering the cost of the purchase. For instance she [knows a grower who] bought some feeders that were more expensive and designed for roasters. [These growers] were under the impression that they were going to grow roasters and needed this technology. However, the company decided that they now wanted them to grow broilers and they no longer needed the capacity of their feeders. [Sarah indicated that she was] required to buy new nipple watering machines to replace ones that were functional, but no longer in style. The costs of these were pretty significant and this was a mandatory purchase. Also, things like PLT, which is dirt/chips, something like that, that is placed on floor to absorb urine to reduce ammonia smell, may be required, which some claim don't really work. In the past we have also heard about different styles of chicken houses that have certain technology features that companies require. However, these features may change in the course of a year and you may be required to spend more money to replace them even though you have not paid for the old technology, if you want to get more birds. (P 6: Sarah1.txt - 6:15 (148:180))

Interviewer: "They (integrators) got so many people (growers), huh." Jerry: "Yeah. That's why you got people afraid to say anything about poultry producers, because "well they'll stop giving me chickens." And you'll hear that. And you know it is a valid fear. But, and I realize that, I think they did that, that wasn't something that was orchestrated. Because in order to control somebody you have to have something over their head, ok. And a big mortgage is certainly that leverage." (P 7: JerryM1.txt - 7:19 (401:412))

Operational Changes

Another grower perceived integrator retaliatory measure is having to make operational changes on your farm, or perform certain tasks in order not to get a poor performance rating. Some growers indicated that poultry companies could subtly penalize them by having their servicemen require them to change some aspect of their practice, or by making them do tasks that may not be necessary. This is a mechanism by which the integrators can let the growers know who is in charge, and how few options growers have if they want to be competitive and keep receiving chickens.

Jerry: "The biggest thing that is going to get me is when they come around here, and they want, they start, "well you got to do this, got to do that." You know what, see you later. I'll close these son- of-a-guns up and burn them down. I'd love to, that is going to be the ultimate day when I can do that. That's what I am living for." (Much laughter by all) (P 7: JerryM1.txt - 7:60 (1406:1414))

Sarah told us a story about how a friend got penalized by a poultry company for speaking out about the industry or company on the topic of manure. Her friend was made to clean out his entire manure shed to below a certain level that was seldom if ever done by anybody. Her friend had to do this in order to receive any more birds from the company. One of the industry or company members who required that her friend do this gave him a wise comment that said something to the affect of "I know who you might be able to sell that manure to." Indicating that her friend was going to have to bite the cost of disposing of it because there is no place for him to sell it. (P 6: Sarah1.txt - 6:10 (90:105))

Receipt of Inferior Chicks

Some growers believe that the integrators keep favorable and unfavorable grower lists, which are used for retaliatory purposes, and for determining which growers if necessary, will take the brunt of certain shortfalls within the industry. For example, some growers indicated that there are a certain number of defective chicks that must be distributed to the growers for economic reasons. Those growers on the unfavorable list would be targeted to receive these chicks.

One theory was that inevitably the breeder birds will lay X number of defective chicks that for economic reasons still need to be distributed. Those growers who are on the unfavorable list may receive these ill chicks and loose a greater percentage of their flock. Growing is a competitive occupation, and those who have healthier flocks get better benefits and perks from the industry. So if your birds are not performing you can quickly put yourself in trouble and not be able to meet your financial obligations in paying the mortgage on your chicken houses and/or home. (P 3: LESM1.txt - 3:6 (197:211))

Company Blacklists

Much like the integrator favorable and unfavorable grower list, some growers claim that integrators keep a "blacklist" that lets them know who they will no longer supply with chickens. In the near past, growers had the option of growing for a handful or more of different companies. If a person was blacklisted from one company, they could grow chickens for another. At present however, there may be one or two companies the growers can get chickens from, and a blacklist from one or both could jeopardize their operation.

Sarah said that she knows people who have been blacklisted by many of the poultry companies for speaking out against them. When these people anonymously telephone these companies to enquire as to whether they are looking for new growers, the companies almost always say that they are looking for new ones. However, when these growers tell them who they are they quickly deny the fact that they currently need new growers. (P 6: Sarah1.txt - 6:14 (138:148))

Plenty of Growers to Raise Chickens

Finally, many growers claim that the Shore is saturated with more growers than what is actually needed by the poultry companies. In turn, some growers believe that the integrators use this to their advantage by letting the growers know that if they are not willingly to comply with their mandates, there are more than enough growers who will. Jerry: With the figures that they, you know, with the hard sell that they give you, you know they tell you what you are capable of doing, you know this is what you do, and this is what we do. And it is not necessarily true, but once you've dug a hole, you don't have, you don't have time to worry about getting out, you just try to keep the sides from caving in. (Laughter by Interviewer) You know. I think that was a major problem. And I think that the poultry companies know, that's because they, like I said, they've saturated the Eastern Shore with poultry producers. So now, they have the pick of whatever they want to do. If I don't want to abide by their programs, see you later. There is another guy that will. (P 7: JerryM1.txt - 7:18 (382:399))

Interviewer: "They (integrators) got so many people (growers), huh." Jerry: "Yeah. That's why you got people afraid to say anything about poultry producers, because "well they'll stop giving me chickens." And you'll hear that. And you know it is a valid fear. But, and I realize that, I think they did that, that wasn't something that was orchestrated. Because in order to control somebody you have to have something over their head, ok. And a big mortgage is certainly that leverage." (P 7: JerryM1.txt - 7:19 (401:412))

Jerry: "...look at the way we are producing chickens. They have saturated Delmarva with chicken houses. Like the average farm, a good size farm 30 years ago, or 40 years ago might have been 16,000 chickens. Now, hell I've got 100,000 chickens out here." (P 7: JerryM1.txt - 7:1 (12:24))

Manure Ownership/Disposal/Use

Manure Ownership

A significant point of contention exists between growers and integrators over who owns the chicken manure. From the growers perspective, the integrators own the bird and other facets of production, so they should own the manure, and take care of its disposal. However, historically the aenaeus has been on the grower to take care of the manure, and has maintained that form to present day. Recently though, some growers claim that the integrators are not comfortable with how the courts might interpret manure ownership, so they have taken measures to change this. In one such effort, growers stated that the integrators have attempted to make the growers clear owners of the poultry litter, which becomes so mixed with manure that one can't be disposed without the other. Theoretically, this would make the grower more liable for disposing the litter and manure.

Steve claims that the industry is now trying to cover their butts about manure ownership by trying to make the growers more legally bound to being the owner's of the poultry waste. For instance, companies may be requiring growers to use poultry litter, which they have to buy from the growers,

in order to absorb urine and wastes better. Well, since the growers own the litter and are responsible for its disposal, and manure becomes so mixed with the litter and tied to that there is no clear way of separating it, that the grower may also have to be responsible for the waste or at least share significantly in the cost of its removal and disposal. (P 2: Steve1.txt - 2:12 (151:166))

Jerry: "Case in point, one of our arguments was, you know, why is it, ok, I don't own them chickens, ok. [X company] owns them chickens. Why is it that they own them chickens, until they die, and then they're mine. Why is that? Why is it that the manure that those chickens produce, mine? It's their chickens. And, just looking at it from a liability standpoint, we addressed that. And now, one company on the Shore, Tyson, they don't supply your litter. Like when we need litter, they don't just send trucks out to you and blow in litter to your houses anymore. What they do, is what it would cost them to supply your house with litter, they pay you and, throughout a couple of flocks for what it would cost. So now, you've got the money, and you buy your litter. From a legal standpoint, there is no debate over whose litter that is. Who bought it. I bought it. So they are reading the writing on the wall, and they are trying to wash their hands of the liabilities..." Interviewer: "And that is new?" Jerry: "That's new, yes. That is within the last year that Tyson has done that. And if Tyson starts doing it, and it is just like with everything, once one starts, they will probably all fall in line. So that is just one way they're reducing their liability. When the man comes down and says look, your chickens produced that. Well you're going to say well hey, that farmer Jim he bought the litter, you know and the litter is his." (P 7: JerryM1.txt - 7:12 (176:211))

Use of Manure

Despite the arguments over manure ownership, manure is still considered a valuable fertilizer by farmers and growers both who raise crops on the Lower Eastern Shore. The nitrogen and phosphorous found in the manure are needed to fertilize grain and vegetable crops, and can be considerably cheaper than commercial fertilizers. In the case of growing vegetables, various natural forms of phosphorous are added to the composting manure to provide the appropriate level of nutrients that specific vegetables need.

Interviewer: "So what types of nutrients, how do your plants get their nutrients?" Phyllis: "See the pile on the right? [Crab shells are mixed with chicken manure]. And any farmer who might have some vegetables, see like these tomatoes, and we just turn it and let it cook." (P10: PGWF1.txt - 10:30 (660:669))

Manure Composition

Interestingly, several growers showed concern about the types of chemicals and metals found in their manure. These growers claim that poultry feed has high levels of sodium, copper, and arsenic that is passed into the manure, which is used in turn to fertilize grains and vegetable crops. They suggest that these metals and chemicals can be absorbed into the vegetables we eat, and get washed into Bay tributaries, causing hazardous situations in both cases.

One of the big points that Doug Parker wanted to make was about the composition of manure and feed, and how these compositions affect plants fertilized by them or their by-products. For instance, Doug [heard from another grower] that the chicken feed is full of high levels of sodium, copper, arsenic, and maybe copper, that are passed through to the manure. This manure is then used as

fertilizer, which gets washed into the rivers and streams, and is absorbed into the foods that are harvested, which may be returned to them in the form of grain to feed to their chickens. Starting the process over again. He [also heard that] some of these things are being absorbed by tomatoes. Doug did not want to have to use or deal with manure that he considered to have dangerously high levels of metals, chemicals, etc. in them. He particularly did not want to have the liability of composting it and perhaps trying to sell it to someone as organic fertilizer, nor to spread it on his fields or bury it, if it could potentially affect his crops, ground water, nearby streams, and eventually friends and family... (P 6: Doug1.txt - 6:23 (240:269))

Jerry: "So, again I am going to say that the almighty dollar is the route of all of this in my mind. Because you got chicken producers trying to grow the ultimate chicken in the least amount of time. So they are putting growth enhancement kinds of things into the feed. Maybe that has some effect into the manure that was spreading on the ground. I don't know." (P 7: JerryM1.txt - 7:3 (28:36))

Cost of Operating a Manure Spreading Business

Even though manure is thought of as a cheap fertilizer, one farmer points out that if you want to try to get into the manure spreading business, it will cost you. Time and equipment costs for some, make using manure as a fertilizer a limited option.

Tom: "That's like [a topic that was discussed at a soil conservation meeting]. Somebody had [asked what it would] cost to get in the manure spreading business. He said \$50,000 a year, and I think the guy liked to fell on the floor that was asking the question. He said well it will take 2 manure spreaders, they are \$15,000 a piece. He said a \$25,000 loader to load it with. And then you have to have tractors to pull the manure spreader or a truck, if they are going to be truck operated. You got to put that on. So \$50,000 isn't." Interviewer: "That's the bottom line isn't it." Tom: "I mean that's cheap. And I mean now that's talking about buying new stuff, but, again you are going to, if this fellow puts on about 450 acres of manure a year and he doesn't have any chickens, its all trucked in there and he cleans out chicken houses. He get to clean them out in other words, the manure sheds and that kind of stuff. And that's not the variable cost, that's just the set-up cost." Interviewer: "Are you saying that is for someone who wants to use manure in their operation?" Tom: "Right. See that is why you don't have these people jumping up and down to go get manure. Plus the time that is involved in doing it." (P12: TomC1.txt - 12:6 (172:206))

Manure Disposal

For many growers, disposing of manure is both a headache and a chore. At times, growers have so much manure that they may be forced to spread it on their land even though it doesn't require it, because of few disposal options.

Sarah indicates that there is absolutely nothing they can do with the manure. Sometimes all they can do, which she indicates is wrong, is spread their manure over their fields whether they need it or not. She said that when a good rain comes down, water rushes off of the field and runs rapidly through the drainage ditches and creeks. She said this to suggest that it is easy to move nutrients, chemicals, etc. from the fields, eventually to the rivers and Bay. (P 6: Sarah1.txt - 6:12 (108:131))

In addition, considerable time is required to clean out both chicken houses and manure sheds.

If a manure shed like the one on Doug Parker's property is full, it may take a bobcat 4 or 5 days to

clean it out. (P 6: Doug1.txt - 6:11 (106:108))

Growers also talk about the expense of disposing of their manure if they can no longer use it locally. Some growers wonder whether or not the poultry process could be slowed down in order to limit the amount of manure produced.

Jerry: "Ok. Again, I am going by what the local government has always dictated by nutrient management, but when you consider the amount of manure that is processed or spread, I mean you are talking about a lot of manure. And as far as removing that from our local area, you're talking about a big burden as far as financial. Now maybe if companies said well you can't, if we can take some of this stuff out of our feed and slow down the process of the chicken, the problem wouldn't be there. Who knows." (P 7: JerryM1.txt - 7:6 (62:74))

Because of the expense that is associated with manure disposal, some growers are concerned that manure may be left in the chicken houses longer, potentially creating breeding grounds for disease.

Jerry: "...I mean years and years ago, when you would grow a flock of chickens you would clean out totally, and put in litter, which is sawdust and everything. The bedding. The company supplied that. Well, in the last several years, the way prices are and everything, they have slowed down that process. So your litter is staying in there longer and longer and longer. Maybe, you know, it is breeding different bacteria. So with that litter being in there longer, it's creating other problems that you are having to attend to, different kinds of illnesses and things. So, if Pfiesteria reduces the amount of manure you can spread, you probably going to see litter or manure staying in there a lot longer, as far as total removal, which is going to in effect, bring other problems into the scenario." (P 7: JerryM1.txt - 7:11 (146:171))

Trucking Manure Out of State

There has been much talk by state officials and academics about how high the cost would be to transport manure off the Shore. One grower we interviewed: ...claimed that he loaded up a truck with his manure, drove it to Canada, and sold it for a decent profit and returned. Many have said that this was not possible. (P 3: LESM1.txt - 3:2 (72:77))

Pfiesteria's Positive Effects for Growers

Interestingly, some growers believe that the Pfiesteria outbreak may have been a good thing for them because it has brought public attention to the state of the poultry industry, and growers problems.

Steve said that Pfiesteria could be a good change catalyst that would bring attention to growers problems. (P 2: Steve1.txt - 2:35 (362:365))

One very interesting point about Pfiesteria that some of the more outspoken poultry farmers have made is that perhaps Pfiesteria is the best friend that they have had in a long while because it is shedding light on many of their day to day problems inside the poultry industry. (P 6: Sarah1.txt - 6:27 (327:333))

Poultry Contracts

Among growers, the topic of poultry contracts brings up great discussion and debate. Most growers would agree that the poultry contract lies at the heart of many of their poultry raising problems. The following sections will highlight some of the growers' brief discussion on the contract system, and related topics.

Integrator Pitch to New Growers

Most of the growers first introduction to the poultry industry was through "pitch" meetings with various integrators, who attempt to sell the individuals on why they should grow for them. The words that many growers used to describe the information that was presented to them include: misleading, "not just so," and not necessarily true. In particular, growers stated that the earnings aspect and mortgage payoff information were misleading. Especially in light of the integrators control over the chick supply, and demands for equipment and house upgrades.

Ward: "They (integrator) gave us this totally misleading, but seemingly, you know accurate project of what is involved in the return on the investment over a 10 year period. It sort of looked like it wasn't terribly profitable, but it was stable and kind of worth doing, and it's all bull shit you know, all kinds of things in the cost category that aren't taken into account in the projections, and so on." (P10: PGWF1.txt - 10:13 (364:381))

Doug Parker also told me a story about another grower, which is parallel to many other stories on the same topic, where many community members tried to convince him not to go into poultry farming. Evidently the company told him a lot of things that weren't just so, and he did not want to believe the growers story, and now is saddled with about \$500,000 of debt and his houses are no longer paying off... (P 6: Doug1.txt - 6:26 (310:326))

Jerry: "With the figures that they, you know, with the hard sell that they give you, you know they tell you what you are capable of doing, you know this is what you do, and this is what we do. And it is not necessarily true, but once you've dug a hole, you don't have, you don't have time to worry about getting out, you just try to keep the sides from caving in..." (P 7: JerryM1.txt - 7:18 (382:399))

Integrators also used radio and t.v. advertisement to entice individuals to become growers. Potential growers were told that they could be their own boss, work part-time and earn a full-time income, and live an idealistic lifestyle on the Eastern Shore.

Growers indicated that these statements were as misleading as the financial picture was. Interviewer: "Yeah. And I thought I had it bad. But, you all are out here, suppose to be in like the idealic life right, and you all are working your butts off. (Laughter) Here I thought you are your own boss, you have your own freedom, and stuff like that..." Jerry: "That's the pitch. That's the pitch. And then once you bite the hook, then you know they've got you." (P 7: JerryM1.txt - 7:55 (1343:1352))

Jerry: "Another thing, you know, years ago Perdue, they use to have t.v. commercials out, 'It's a part time job with a full time income.'" Interviewer: "I think I've heard that at one time. I might have even heard that at one time, now that you said that." Jerry: "Yeah, yeah, build a chicken house, you know you'll only work a couple of hours a day, ya, ye, ya...and all you have to do is cash your check every once and a while..." (Laughter by all) (P 7: JerryM1.txt - 7:17 (335:361))

New House Guarantee

The new house guarantee that integrators provide to growers is perhaps the first and only long-term contract that growers receive. However, growers will tell you that this contract is more about empty promises than anything else. As discussed earlier, the new house guarantee is a contract between the grower and integrator that stipulates that the grower will receive a minimum payment for X number of birds over a set period time, which in turn is provided to the mortgage holder as part of a security agreement. What is not mentioned, growers claim, is that the integrators don't have to give you birds over this period of time. So for the grower, this contract provides no guarantee that they will be able to meet their financial obligations over the life of their chicken mortgage.

Ward: "Well, that is the thing, the poultry companies don't give them (mortgage companies) any guarantee other than the, like when we built this new chicken house, they had what they call a new house guarantee. Which you provide to the bank as part of the security agreement to the loan, to make sure that before you, you know they commit that you are going to get chickens. So the company agrees to put chickens in there. They give you a contract, not a contract, an agreement that says that they will guarantee you a minimum payment for a 1,000 chickens that they put in there for 10 years, or for so many flocks they put in there... Now what that contract means, like I said it's not really a contract, is that they will pay you a certain amount of money, minimum amount of money, provided that they put chickens in there. (Laughter by all) And they can for any reason on a flock to flock contract deny putting chicken in these houses. You know, this could be our last flock for all I know. Even though we are guaranteed a few more flocks.

Because you know it is not a contract that they will put chickens in the houses. So, the banks are putting themselves at risk should there be a downturn in the industry..." (P10: PGWF1.txt - 10:8 (221:263))

Jerry: "But your contracts, they're just lip service. Everybody says well you got a new contract. Let's say for instance I went to whoever, Perdue, Mount Aire, any of them, and said I am interested in building a chicken house. They give me all the figures, bla, bla, bla, bla, and give me a contract. They say they are going to pay me X amount of dollars per 1,000 for so many flocks, and then it is going to be reduced. And this is guaranteed, not matter what your chickens do, you are guaranteed this. Let's say I go into debt \$135,000 to build this chicken house. Now I've got this contract. I'm going to make this amount of money, and the bank says, yeah, you're going to make this amount of money. And I grow one flock with them, and then they say, well, now we don't, for whatever reason, now we don't want to grow chickens with you. Well, I'm done. So what good, now that contract really doesn't do anything for me. It just lists my responsibilities, it doesn't guarantee me anything." (P 7: JerryM1.txt - 7:14 (261:284))

Grower Ownership/Responsibility

As one grower put it, "growers own the houses, chicken manure, and dead birds and nothing else." (P 6: Sarah1.txt - 6:16 (180:183)) In addition, along with manure ownership, some companies are trying to transfer the ownership of the litter to the growers as well. This provides a good example of how much of the process is owned and

controlled by the integrators.

Jerry: "...Why is it that they own them chickens, until they die, and then they're mine. Why is that? Why is it that the manure that those chickens produce, mine? It's their chickens. And, just looking at it from a liability standpoint, we addressed that. And now, one company on the Shore, Tyson, they don't supply your litter. Like when we need litter, they don't just send trucks out to you and blow in litter to your houses anymore. What they do, is what it would cost them to supply your house with litter, they pay you and, throughout a couple of flocks for what it would cost. So now, you've got the money, and you buy your litter. From a legal standpoint, there is no debate over whose litter that is. Who bought it. I bought it. So they are reading the writing on the wall, and they are trying to wash their hands of the liabilities..." (P 7: JerryM1.txt - 7:12 (176:211))

Integrator Ownership/Responsibility

As indicated in the previous section, growers own most aspects of the poultry process, including the birds, feed, medicines, transport operation, and processing factory to mention a few. Also as suggested earlier, some companies still supply litter to the growers.

Jerry: "Case in point, one of our arguments was, you know, why is it, ok, I don't own them chickens, ok. [X company] owns them chickens..." (P 7: JerryM1.txt - 7:12 (176:211))

Jerry: "...And now, one company on the Shore, Tyson, they don't supply your litter. Like when we need litter, they don't just send trucks out to you and blow in litter to your houses anymore. What they do, is what it would cost them to supply your house with litter, they pay you and, throughout a couple of flocks for what it would cost. So now, you've got the money, and you buy your litter. From a legal standpoint, there is no debate over whose litter that is. Who bought it. I bought it. So they are reading the writing on the wall, and they are trying to wash their hands of the liabilities..." (P 7: JerryM1.txt - 7:12 (176:211))

History of Integrator/Grower Responsibilities/Ownership

In response to questions as to how the current system of ownership and responsibilities became established, many growers commented that it has been like this since the industry's inception. In terms of the responsibility to dispose of dead chickens, one grower suggested that earlier on in the industry large bird mortalities like today did not occur, and it wasn't a hardship for the growers to dispose of them. Similarly in the case of manure disposal, there was less of it and farmers needed it to fertilize their crops. Interviewer: "What do they give you for an explanation of the manure, why it is yours? Did they ever give you an explanation?" Jerry: "Well, see, that's in your contract, and everything, it's just like mortality. In the inception of the poultry industry, you know there was certain responsibilities of the poultry integrator, and certain responsibilities of the grower. And one of them was to dispose of, pick up and dispose of your deceased chickens. Now back then it was slower. Mortality was a lot lower. I mean, right now an average farm, on this particular farm runs probably 5 to 6%. So for every flock I get, I've got 6,000 dead chickens, ok. That's a lot of chickens. Years ago that would have been unthought of, you know. Because it just didn't, it wasn't good business to have to have that many dead. But like I said, with that assembly like production, they can make, you know, money making 100, they can make a lot of money making a 1,000. So it is cheaper for them to saturate chicken houses with maybe lessor quality biddies, little chicks, than what they would have normally put in

years gone by, to get your end product, ok.” Interviewer: “Right, that they need. Was that, a while back, was that an informal agreement that they had with the integrators, the growers. About, I’ll, you know, we’re doing this, I’ll take care of the dead chickens for you?” Jerry: “Well, you know, we’ve only been doing this for like 9, 10 years now, so what it was, I’m sure, I’m sure that it wasn’t a verbal agreement.” Interviewer: “That it was a verbal agreement?” Jerry: “That it wasn’t. I mean, I heard, but I can’t say that without a doubt.” (P 7: JerryM1.txt - 7:13 (213:257))

Contract Periods

Growers indicated that a standard poultry contract was approximately 7 weeks long. There were no longer contracts mentioned. Poultry contracts are done around 7 week intervals. There are no long term contracts... (P 2: Steve1.txt - 2:5 (75:88))

Binding Contracts

Interestingly, growers stated that contracts were only binding when birds were actually on the floors of the chicken houses. Growers are not guaranteed birds and can only get 7 week contracts. Steve claims that a lot of farmers lose or risk losing their farms by obtaining large loans that they may not be able to pay back. Contracts are only binding when birds are actually on the floors of the growers’ poultry houses. (P 2: Steve1.txt - 2:29 (308:327))

Competitive System Between Growers

Growers’ earnings in part are based on their performance as compared to other growers. This competitive system allows for little margin of error, and first and last place can be separated by decimal places. The growers are ranked according to a list of criteria, which includes things like bird weight and other more subjective servicemen observations about growers’ operations. Growers consistently talked about how little control they have over their ability to be competitive, due to unexplained bird illness and mortalities to mention a few. Jerry: “...And you know what, any more, it is so competitive that everything is to a thousandths of a decimal. I mean, you know you are talking about between first and last, you’re talking about decimal places as far as the amount of feed, it is very competitive. So you’re having to spend tremendous amount of time. Again, years ago, and I don’t even know if they’ve changed it, or what the local policies are, all you needed is 5 acres to put up a chicken house. If you only have 5 acres, what are you going to do with the manure that that house produces? There is a lot of things that don’t add up, but they did.” (P 7: JerryM1.txt - 7:17 (335:361))

Cost of Living Compensation

Several growers discussed the fact that they are not compensated for cost of living. However, growers claim that the companies pass on their cost of living expenses to them. Some growers indicated that they have been making the same amount of money for the last 15 years, and their costs have increased every year.

Steve said that growers are not compensated for cost of living. Meaning that they are receiving the same amount of money for things that they did 15 years ago. The companies charge more for their increased costs, but the growers aren't making anymore. (P 2: Steve1.txt - 2:5 (75:88))

Chick Costs

As mentioned earlier, the integrators own the birds, but the growers are required to pay around 20 cents for each chick. The cost of chicks and things like feed and litter are totaled at the end of the 7 week contract and subtracted from the growers paychecks. Sarah claimed that it is advantageous for the companies to sell all their chicks, including the sick ones, because the companies sell the birds to the growers for 20 cents each. Costs like these are tallied up through the growing process and subtracted from the growers paychecks. (P 6: Sarah1.txt - 6:19 (194:200))

Integrator Payments to Growers

As suggested in the last section, growers receive paychecks from the integrators after costs and in some cases mortgage payments are taken out the check. The final check at times is so small that some growers have likened the situation to working for an early coal mining operation. The coal mining companies would deduct costs for housing and supplies from miners paychecks, leaving them with almost no take home pay. Of course the mining company owned practically everything in town, so goods and services had to be purchased from them.

Sarah used the coal mining town analogy to describe growers' lives, in the sense that most of the money they earn from the integrators, they never see, because the integrator deducts his costs from it, as do farm loan creditors. (P 6: Sarah1.txt - 6:18 (188:194))

Sarah claimed that it is advantageous for the companies to sell all their chicks, including the sick ones, because the companies sell the birds to the growers for 20 cents each. Costs like these are tallied up through the growing process and subtracted from the growers paychecks. (P 6: Sarah1.txt - 6:19 (194:200))

Arbitration

Several growers we talked to complained about not having a fair mechanism to resolve disputes with the integrators. Not to long ago an arbitration agreement was written into their contracts that growers claim completely favors the integrators. Some clause within the arbitration agreement may require the grower in dispute to shoulder part of the arbitration cost, particularly if it extends over a lengthy period of time. Also, there may be some caps on rewards. According to growers, this and other aspects of the

arbitration agreement make it an unjust mechanism to solve grievances. Steve also talked about the arbitration rules that exist in their contracts. Now, if growers have any grievances they must go through arbitration to solve them. I can't remember specifically what Steve said about this, but somehow the grower who brings the case to arbitration may become responsible for paying some of the costs of it, particularly if it is drug out over a period of time or somehow if attorneys are brought in, and there may not be away to have these costs reimbursed even if the grower wins. He explained that the arbitration system makes it very difficult for growers to ever successfully have their grievances heard, to fix injustices, and to be compensated for any wrong-doing. He claims that arbitration was not originally in their contracts a number of years ago, but it is now. (P 2: Steve1.txt - 2:11 (130:151))

Ward: "We just had a case where a black farmer who refused to sign his Perdue arbitration contract and they wouldn't give him chickens. And so he had a big mortgage on his chicken farm and they wouldn't put chickens in so..." (P10: PGWF1.txt - 10:10 (313:321))

Labor Issues

Because the growers are not employees but contractors of the companies, the same labor and legal issues do not apply to them. (P 2: Steve1.txt - 2:29 (308:327))

Contract Restrictions

A grower brought it to our attention that their contracts have certain restrictions. One interesting restriction was that growers were not suppose to discuss their production with any third parties.

Another weird contractual obligation that exists says something to the effect that growers can't talk about their production with any third parties. (P 2: Steve1.txt - 2:29 (308:327))

Contract Changes

Finally, the last noteworthy point about contracts mentioned by growers is that the integrators may have the ability to change grower contracts at their own discretion.

Precluding any input from the growers.

The companies can change these contracts as they see fit, and the grower has little choice, but to accept the contract as is if they want birds. (P 2: Steve1.txt - 2:11 (130:151))

Poultry Market Impact

Several growers talked about the overall success of the poultry industry, indicating that the demand for chicken both domestically and internationally is on a rise. The Shore's northeast location makes it an ideal distribution point to one of its largest markets. Unfortunately, the growers say that they are not seeing any of the profits from

the expanding poultry market. Because there is such a demand for chicken, some growers claim that the integrators are willing to accept more bird mortalities, and recruit more growers. If the market demand was lower, these same growers claim that the number of growers would decrease, and more attention would be paid to quality birds.

Ward: "...The industry has been expanding constantly. The integrators are doing very very well because of the contract system. The price of chicken is very low, but demand is always increasing. So it is an expanding industry. Export markets are opening up more and more now.

So the industry as a whole, in terms of where the power is, has been profitable. Has done well..." (P10: PGWF1.txt - 10:9 (268:306))

Steve claims that the poultry market has been incredibly high, but that the growers are not seeing any of these profits. What happens is if the market is high the companies are willing to take more losses with dead birds, and simply recruit more growers. However, if the market were low, they would probably decrease the number of growers and be more concerned about quality birds. (P 2: Steve1.txt - 2:9 (114:123))

Steve said that it is very lucrative for the Industry to be in the Delmarva because of its location in the Northeast, which supplies its largest market. (P 2: Steve1.txt - 2:37 (371:374))

Quality of Life

Several growers we interviewed believed that they had a poor quality of life due to raising chickens. There were many factors that led them to this opinion, including the facts that: poultry houses have an unhealthy odor to them; growers are responsible for the disposal of their manure and dead birds; growing is time and capital intensive; growing isn't very profitable; growing is stressful due to mortgage and integrator demands; and growers can't leave their farms because they have to tend to their flocks.

Ward: "And the more you actually look at farmers, you know farming chickens, even if you have average or better performance, it's not an extraordinary over turn, considering that you made a huge investment. And considering that you work in that chicken house and it is very unpleasant work. It's nasty, disagreeable, and unhealthy work." Interviewer: "The smell gets pretty bad doesn't it." Ward: "Yeah, the air that you breath, and half of the work is picking up dead chickens and disposing of them, right. You can imagine how unpleasant that is. Especially when it is, you know, 95 degrees, 98 degrees like today they're dying by the thousands in all these chicken houses around. All these producers have to go in there and walk through these chickens to get them up and moving around so the air circulates better, and then they have to go in and pick up the dead as they are walking through there. And then tomorrow morning they go in and they might pick up 2 to 3,000 dead chickens that may have died from heat exhaustion. 5 pound chickens, right. They have to get their biggest tractor with a front end loader and you know load them up. And with their backhoe dig a big trench or something and bury them. No more and more people fortunately are composting dead chickens." (P10: PGWF1.txt - 10:14 (381:413))

Interviewer: "How would you describe life on the Lower Eastern Shore?" Jerry: "Well, I'll tell you, life on the Eastern Shore I think would be primarily good. From my situation though, and I don't want to seem like I'm whining or anything. Because people, 'Well if you don't like it why don't you...'" (Laughter by all) Well, you know if I sold it, and by the time you pay taxes on your, I would just about throw away my last 10 years. I am pretty well locked into sticking it out. But, like I said, I come

home from work, I've got umpteen dozen jobs I got to do. On the weekends, you know, I'll sit up at the store, taking a coffee break. I see people traveling [to the beach]. I see people from around here, they're getting their 12 packs of beer, and they're heading to the beach with their coolers, like, you know, it must be nice. (Laughter by all) When it is nice enough to do that, guess what, I've got to be around here.” (P 7: JerryM1.txt - 7:37 (762:785))

Jerry: “...But the poultry industry is hard, it's competitive, and I think it is lopsided. And as far as quality of my life, the quality of my life isn't that great. Because number 1, I am tied down with these chickens all the time. And it's just like now, I came home from work, when you leave I've got 50 million things to do. I will be working till 8, 9, or whenever I decide to quit. Ok. And, you know, it's really not a very good quality of life. You know, my daughter, she's [older now], and it seems like she's grown up with me because I'm always doing something you know. Everybody thinks the farm life is family, and it may be that way on a grain farm or whatever, but I tell you, my time, my time is pretty well eat up...” (P 7: JerryM1.txt - 7:30 (570:603))

Jerry: “But, you know it's just, and I was making a remark to a friend at work today, I said you know, it's August 25th, and I've yet to eat my first steamed crab. That's pretty sad. That's pretty sad.”

Interviewer: “Wow, wow. You all are busy. That's intense.” Jerry: “Now I'm not saying I couldn't have. There's been nights we go out. I'm just saying that you would think that the people who live here would be able to enjoy this place more than what they do.” (P 7: JerryM1.txt - 7:38 (803:816))

One grower eloquently summed-up how he felt about his quality of life raising chickens:

Jerry: “...all I can say is, the worse thing that could happen to me, would not be to lose this farm and everything I got. The worse thing that could happen is if I have to work like I've been doing for the next 20 years, like I have been. You know what I mean.” (P 7: JerryM1.txt - 7:54 (1334:1341))

Servicemen

Some growers indicated that relationships between servicemen and growers are often very poor. According to growers, servicemen have considerable power and authority over them, and can make their lives miserable. A servicemen could potentially give a grower a poor performance score, making them less competitive, if they don't care for them. One of the biggest complaints we heard was that servicemen don't treat many of the growers with much respect. Particularly when it comes to growers knowledge of raising chickens. Growers become annoyed when servicemen start dictating to them exactly how they should run their operation.

As a side comment, Steve indicated that the Servicemen can be real condescending, and don't treat the growers with much respect. The servicemen have the power to write-up as many faults about the growers operation as they see fit and keep that in their records. These negative records may ultimately affect how they rank among other growers and the amount of money they get for their birds. (P 2: Steve1.txt - 2:8 (105:114))

Sarah told us a story about how a friend got penalized by a poultry company for speaking out about the industry or company on T.V.. I believe the topic was manure. Her friend was made to clean out his entire manure shed to below a certain level that was seldom if ever done by anybody. Her friend had to do this in order to receive any more birds from the company. One of the industry or company members who required that her friend do this gave him a wise comment that said something to the affect of “I know who you might be able to sell that manure to.”

Indicating that her friend was going to have to bite the cost of disposing of it because there is no place to sell it. (P 6: Sarah1.txt - 6:10 (90:105))

Jerry: "The biggest thing that is going to get me is when they come around here, and they want, they start, "well you got to do this, got to do that." You know what, see you later. I'll close these son-of-a-guns up and burn them down. I'd love to, that is going to be the ultimate day when I can do that. That's what I am living for." (Much laughter by all) (P 7: JerryM1.txt - 7:60 (1406:1414))

Time Between Brewds

Growers indicated that flocks may turn around in as few as 4 days, or 1_ to 2 weeks, which is the norm.

Jerry: "Any everybody says, "well you know you just got rid of you chickens, what do you get, a 2 week vacation now." (Laughter by all) Yeah, I've got to clean-up everything, and get it ready for the next flock. If I'm lucky I'll have 2 or 3 days that I can..." Interviewer: "Because they put them in there pretty quick don't they now?" Jerry: "Again, it's the turn around. Money, money, money, money. During the summer hell, they, sometimes I put, I have put them back in 4 days one time. And that was a major undertaking. But the norm is a week in a half to 2 weeks." (P 7: JerryM1.txt - 7:56 (1357:1373))

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