

Upscale Pork Markets for Small-Scale Hog Producers

Charles Talbott

Coordinator, Small-Scale Hog Producer Project
North Carolina A&T State University

Thank you for inviting me, I appreciate the opportunity to come down here. I want to talk to you today about a project we have begun with Niman Ranch Pork Company, a cooperative of 200 small-scale producers in the Midwest. Paul Willis is the president, and he started it just three years ago. At that time they had over 100 producers, and now they have 200 producers. This project is in collaboration with NCDA, NCSU, the North Carolina Rural Farms Coalition, Heifer Project International, and the Niman Ranch Pork Company. I became associated with them last year, and we are now shipping about 30 hogs a week to Niman Ranch's parent company out in California. What we are trying to do here is re-vitalize the small-scale hog industry in North Carolina, primarily for food security reasons, but also to address some of the issues that the corporate confinement units are currently facing—mainly animal welfare issues, environmental issues, and the feeding of sub-therapeutic levels of antibiotics.

Since 1983, North Carolina has gone from being number 15 in hog production to number two (since 1994), with 9 million hogs on inventory. But that increase has come at the expense of the small-scale producers. For a time the hog population really remained fairly consistent—there were about 2 million hogs in the state. Then, in the early 90s, Wendell Murphy of Murphy Farms started the confinement industry, and this became the model for the state. As a result, the hog inventory grew over four

times, to reach more than 9 million hogs in the state. Currently, it remains at about that level, primarily due to the swine moratorium. This growth has really come with the contract growers, and it has had a cost. In 1983, we had over 23,000 small-scale hog producers in the state, and now we have fewer than 4,000. Also, in 1983 the average number of hogs on a farm was 100 or less, whereas now the average number is 1,500 to 2,000 per farm.¹ In the process, we have essentially gone from a situation where hogs were raised extensively on pasture, to a mass production system. Duplin and Sampson Counties have the largest hog population in the world. In those counties, there are more than 20-25 hogs for every person.

Every time we lose a small farmer, we increase the possibility of a food crisis. I think this becomes evident when your production system is reduced to only two or three major players. For example, the Smithfield facility in Tarboro has one of the largest "kill floors" in the world, with a capacity for 33,000 hogs a day. But they contract with their farmers, and it is hard for an independent farmer to break into that. It is hard for the farmer to sell, and that has contributed to low hog prices. Certainly in 1998 and 1999, the system was just all bottled up: there was demand for pork, but all the independent farmers had no way to kill or sell their hogs.

In the long run, as we lose more small farmers, we stand a chance of not having enough

to eat; with the loss of that farmer, we have lost the experience and knowledge that goes with him. With this corporate, integrated confinement system, we stand the chance of losing the basic knowledge that goes into raising a pig from piglet to market. It's a situation very much like the automobile industry, with separate units and departments. People are trained just for their specific segment. We send these piglets off to a nursery in another county, and then they might go out of state. Everyone has a compartmentalized job. What this means is that in the long run, we have few farmers who know how to breed, to manage the sow, and to raise the hog entirely. And again, this is much like the automobile industry: only one person knows how to put on the front end, one person works on the engine, another works on the transmission—it's all compartmentalized. There is no comprehensive knowledge base. I should say here that I am certainly not against confinement farming; I grew up in the university system and I believe in efficiency. But I believe that there is also a place for small farmers, and when we think about food security, I think the small farmers are especially important, because they help us to retain our knowledge base.

As I said, in 1983 there were 23,000 hog farmers. And as far as the background for this project, knowing how many farmers there were, I just thought to myself, "well, there still must be a knowledge base." I envisioned the typical North Carolina farm of 20 years ago, where the tobacco farmer had his tobacco allotment, maybe some mules, and then pigs that he killed in the fall. And there was a connection between tobacco farmers and hog farmers. So, I called up the NCDA and I asked them how many tobacco farmers also sold hogs, and it turns out that 11% of them do. So, we started with the supposition that there were farmers out there who already had the know-how in hogs. There is no market anymore, but they have the know-how, and they may be more apt to try an alternative enterprise if they have this know-

how and they like it. I mean, I loved producing hogs. Hogs are really fun to work with, and if you can make money at it, that makes it even better. In fact, it's really discouraging when you send a truckload off and you know you are going to lose money.

Now, let me turn to some potential angles for marketing. First and foremost, I would say that pork quality is the number one angle for marketing. I was a big fan of the "other white meat" campaign. But I read an article on the "Art of Eating" from a gourmet publication, and this article indicated that when it came to mass-produced pork, the taste just wasn't there. Basically the taste has been bred out of these hogs. In fact, we tried to create a low-fat hog in the industry, and in many cases when we removed the fat, we removed a lot of the taste. This same gourmet article was where I was first introduced to Niman Ranch and some of the alternative pork production systems—the sort of systems I think we might be able to bring to North Carolina. With Niman Ranch Pork Company, there has been a revitalization of small-scale production.

In the gourmet article, the author indicated that the lean, confinement-raised, corporate pork was almost impossible to cook without making it dry and tough. The flavor is bland, so the texture stands out. In fact, that's why a lot of the meats today are marinated. It's a convenience food that overcomes a lot of the problems of a very lean cut of meat. It's not that you can't have a good lean cut of meat and have it taste great, but that sort of meat can be very unforgiving when it comes to cooking. And of the 17 million hogs that are conventionally marketed in this state each year, they are all pretty much fed the same diet and they all come from the same 'lean genetics.' So, this gave me an idea—there was an opening here for doing things differently. We don't have to produce the same model of pork that the confinement producers do. We could produce a pork that was better, that stands out, and we could compete this way. I felt that this was an

approach that might work, and of course it would also address other issues, such as animal welfare and the feeding of sub-therapeutic levels of antibiotics. Those are important issues, but you also have to produce a pork that is better, and I think you can.

What influences the taste of pork? Certainly genetics are important. According to the Pork Producers Council, the Duroc and the Berkshire varieties of pork are certainly outstanding in terms of the quality of taste. However, just because you have Durocs in your herd, that does not necessarily mean you are going to have good quality meat—diet is also important. Several years ago, I spoke about hogs and diet at a conference in Cuba. I was interested in whether or not one could capture a unique flavor for meat by allowing hogs to graze on acorns in the woods. After I spoke, a fellow came up to me and said he was involved with a project raising hogs under cork trees—they call it an Iberico Ham. These Iberico Hams come from large Iberian pigs that graze under cork and oak trees. For two months of the year, they put two hogs per hectare underneath the trees, so that they can eat the acorns that are on the ground there. The acorns contain fatty acids, and when the hogs are allowed to eat them, it leads to a very high quality meat. This Iberico ham costs about five times the price of conventional pork.

So, there are many studies on this issue of hog diet and pork taste, and I am particularly interested in pursuing it for small-scale producers, as a form of market diversification. I recently spoke at a conference in Front Royal, Virginia, and I met a woman who was turning her hogs out under an orchard. She had cherries, peaches, and apples, and she followed the hogs through the orchard. She was trying to identify specific flavors in the meat, so she could specify an “apple fed hog” versus a “cherry fed hog,” and so on, and market those qualities. That is really what I would like to try—to have different types of diets. I would like to feed hogs with low levels of garlic or

sage. This might help taste, and it also would have de-worming properties. Perhaps one could even try for a self-basting ham!

What else influences the taste of pork? John McGlone at Texas Tech University has done studies that show that animals raised out on pasture are more flavorful and more tender. This research comes from the Pork Industry Institute—the studies are listed on their web site.² Freshness is also important. With beef, we try to keep it for about ten days in coolers to age and to improve the taste. But you don't want to do that with pork, you want to send it right out. Stress is also a big factor, particularly with pre-slaughter stress. That can influence the taste of pork, and the quality, particularly in terms of color and water-holding capacity. So all of these are issues that are confronting the industry, and these are the sorts of issues that the Niman Ranch Pork Company is really addressing in order to come up with an ‘upscale’ pork. Given this, I think there is an opportunity to develop the small-scale pork producer market in North Carolina. We have a knowledge base here, and we can ship to the east coast markets much more easily.

As I mentioned, we are currently involved in a small project, funded in part by a grant from Golden LEAF. We have four main objectives in this project. Our first objective is to *produce upscale pork for niche markets*. There are essentially two ways we can go about this. The first is by *emphasizing pork quality* in a way that is different from that practiced by the confinement industry. Certainly, there are other sorts of independent production. There are some farmers who are going to farmers' markets, and selling their pork from the back of a truck. But most independent producers don't really want that consumer contact, so this is a real option for small-scale producers. If you go to the Niman Ranch home page,³ they indicate that their pork is raised exclusively by a select group of Iowa and mid-west family farmers, who raise their hogs free range, treat them humanely, feed them only the finest grains and

other natural ingredients, never supplementing the feed with sub-therapeutic levels of antibiotics, or artificial growth stimulants of any kind. In addition to the ecological soundness and humaneness of these practices, many people believe that this production process produces the best tasting and most tender pork available. As I said, there are also other options that we are trying to pursue, particularly with different flavors and different diets. But with this brand, this is one option and we are bringing these hogs in next week. We hope to get up and running and sell our first hogs in the Christmas market next December.

The second type of niche marketing is to produce an upscale pork that appeals to an alternative market, one that requires that animals are raised in accordance with *animal welfare standards*, and are not fed sub-therapeutic levels of antibiotics. These issues are certainly pertinent in Europe. Right now, the European Union has banned all confinement crates (or farrowing crates), as well as tethering, and that may benefit us. McDonalds has also started looking at these issues. For instance, they have made a major change in terms of who they buy their eggs from. They no longer purchase eggs from producers who practice forced molting with their hens, and they also require a larger space for their hens. So, the animal welfare issues are very important in Europe, and they may become more important here very soon as well. In fact, according to the National Commission on Small Farms, the USDA is now looking at this reliance in the industry on sub-therapeutic levels of antibiotics, and certainly with antibiotic resistance, this may lead to changes in the policies in the confinement program as well.

Our second major objective is to *assist in developing market access for small-scale producers* in North Carolina through the farmer-owned Niman Ranch Pork Company. Niman's founder, Paul Willis, has spoken to the Carolina Farm Stewardship Association conference, and we have already been to eight meetings to

talk with farmers around the state. We have also begun enrolling farmers. Our goal is to have ten farmers enrolled this year, and we now have five that are ready and have signed the contracts. They will receive animals after the quarantine period of two months. There is also an affiliation with the Heifer Project International, an organization that helps farmers with limited resource. Our hope is that small farmers can serve as demonstrators for the rest of the state.

Our third objective was to develop *participatory farmer research* in collaboration with North Carolina A&T. We have one project planned, where we intend to put up some hoop structures that are about one-tenth the cost of a finishing unit. We will farrow inside them, using a Swedish-style farrowing system that allows the sow access to go out, to roam around, and to come back to her nest. She will build a nest, and after 10 or 14 days, when the piglets are old enough, they will come out and co-mingle together. They will be raised like feral pigs that have sounders—they are really a matriarchal society and the females all travel together. This is very similar to a Swedish-style system that is getting some recognition in this country. As part of our research, in this exercise we intend to have half of our pigs stay inside, and half of the pigs go out and hog down the corn. This is part of the whole system we are trying to put together, where we take a look at having the animal harvest its own feed, thus cutting down on some of the mechanization in the process. There is a book that has just come out, for instance, that looks at the healing properties of animals. It suggests that they can sort out and get what they need on their own, if given the opportunity. In another study that we just completed at A&T, we took leaves that would have been headed for the landfill, and we put them in 50 by 50 foot plots. We found that, compared to a group where there are no leaves, the side with the leaves was a real muddy mess. But when we give the hogs a chance to "express themselves"

in the mud, what we find is that our sows are continuously turning the mulch and the manure, and in so doing, they are developing an organic soil. We would like to take this project one step further, and try to develop organic pork as well. We feel that this would be an integrated system that would certainly lend itself to the diversified market.

And finally, our fourth objective is to provide *marketing and technical expertise in developing organic pork*. As I suggested earlier, this might include a situation where hogs harvest cherries and peaches, or pumpkins—anything that might be able to produce a unique flavor in the meat. And also as I mentioned earlier, with the Heifer Project—with Niman Ranch, the NCDA and NCSU—the expected outcome is that 30 project farmers will market 200 hogs per year, over a three-year time frame. We expect to start ten next year with this project, and ten the following year. (I have some applications if you are interested. I also have some more information on crop profit-

ability, sustainable systems with pork, and a new publication that you might be interested in.) We estimate that the cost of production will be between \$35 and \$40 dollars—which is typical for the Niman Ranch core producers. But with Niman Ranch, there is a floor; the price never goes below forty cents, or \$40 a hundred weight, because they want to keep these producers around next year. So, based on \$45 dollar hogs, a farmer could expect to net \$5,000 per acre if they use these hoop structures, and possibly up to \$7,000 per acre based on \$55 dollar hogs. Hopefully, the project will revitalize the small-scale hog industry in North Carolina, and would allow farmers to be involved in research that matters.

¹This information comes from hogwatch.org, a website sponsored by Environmental Defense, a non-profit environmental organization.

²<http://www.depts.ttu.edu/porkindustryinstitute/>

³<http://www.nimanranch.com/index.htm>