Organic Pork Production
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Introduction

During the days I intended to prepare for this article I ended up being totally absorbed in the life of one of my sows. My hours spent helping her live gave me time to ponder my intentions behind organic pork production. Maude is sow of unknown age and ambiguous breeding. She was one of our first sows, purchased mature and bred, an "easy" introduction to farrowing. The "hog operation" we purchased her from was the dark, muddy basement of a decrepit old dairy barn. We needed flashlights to navigate the crowded pens constructed of pallets lashed together with baling twine. The mud on the barn floor measured three feet deep in some areas and there were plank bridges to traverse from pen to pen. The mud was a result of a broken water pipe and a complete lack of bedding. Ironically despite the flowing mud there was no water provided to the sows or the feeder pigs. Nor was there currently food. Feeding time consisted of backing a truckload of rotten produce up to the pens and throwing boxes into the mud. There were two pens of 10-15 sows, each with a boar. There were also small pens of feeder pigs and a slightly dryer farrowing pen. When we arrived to look at these sows the farmer (and I use that word loosely) had just returned from chasing a group of escaped hogs down Rt. 79. He was cursing and beating the hogs back into a small pen with a 2X4. Now I'm no shrinking violet. I am a livestock farmer and I've seen a lot of management techniques, but this was a dungeon. It was not hog farming in any way. It was unabashed slavery, cruelty, and neglect.

Our intention that day was to purchase two bred sows whose farrowing dates would correspond to that of the Tamworth gilt we already had. When I entered that barn, however, I wanted to save the whole herd. The farmer was moving soon and so selling the whole lot of them at auction the next day. We had cash for only two. In the first pen I chose a strong looking white Yorkshire sow that expertly avoided the sorting panel. I liked her attitude despite the horrid conditions. In the next pen I chose Maude. She greeted me through the pallets with a snort. She was a bizarre looking flop eared sow with an enormous turned up snout. Now that's no way to chose breeding stock, on looks and personality, but I didn't have much to go on since all the sows were chest deep in mud and indistinguishable due to filth. We easily loaded the new sows and paid our $400.

Upon returning home we released the sows onto pasture and watched with amazement. The minute they left the trailer their snouts hit the ground. They were rooting and grunting with contentment within seconds. Soon after they had a good roll and a long drink. A few days later, after a cleansing rain, we discovered their color. Maude was pure white with appaloosa spotting on her hams and a fine curly tail. These sows went on to farrow good litters for us, particularly when bred to our Tamworth boar. Since they are of unknown age, we assist their deliveries just to be safe.

This will be Maude's last litter. Yesterday, after farrowing 9 fine piglets (and 3 others that didn't live) she continued to lie there in distress. The piglets went about their business learning to walk and fighting over teat space while Maude panted and spiked a fever. I stayed with her all day, cleaning up her diarrhea and managing the piglets when she flopped over in pain. During this time she delivered 3 more piglets bringing her grand total to 15. When the vet arrived she pulled another dead piglet from Maude and said she could feel another one far at the end of the uterine horn. The horn was twisted and circumstances did not look good for Maude or her brood. She was treated with oxytocin and penicillin and the vet left us with little hope. I continued to stay with her well into the night, expecting to lose her at any moment. Before finally going to bed I sponged off her hot ears and misted her face and snout with water containing homeopathic remedies (Ars., Arnica, Puls., and Caul.). The following morning I found her sitting up. Her fever had subsided and her breathing was normal. She took a good long drink of water with molasses and electrolytes and lay down again for the hungry piglets. And so there she lies. She feels much better and is even attempting to deliver some placenta, but the piglet remains in her twisted horn. Meanwhile I am teaching the piglets to drink warm cow milk from a pan and trying to keep Maude comfortable. I check on her every hour or so to clean her bedding, give her a drink, and spritz her snout with remedy. So, if this article seems to lack depth and proper research, I apologize. I was busy raising pigs.

Raising Hogs In the Beginning

We began with pigs like many other have, just keeping a few feeder pigs to turn our compost and fill our freezer. Ann and Eric Nordell's composting method originally inspired us and since we too had draft horses it seemed a perfect fit. With horses as our only source of power, our front-end loader for moving and turning compost was my husband's two arms. In order to use pigs for compost turning we built three 10'X12' compost "middens" with a shed roof, cement floor and adjustable walls. These middens served as a composting facility for our horse and cow manure and rooting bonanza for two feeder pigs. The three middens fulfilled three purposes. One was for fresh manure and bedding, one was for older composting manure and bedding, and the third was for fresh bedding. The pigs slept and ate in the third midden while working in the other two. We alternated their work between packing and turning the pack, depending on its stage of composting. This was and still is a marvelous method of making large amounts of compost. If the compost is working properly (good carbon to nitrogen ratio and moisture content) it provides endless rooting opportunities and a warm bed in the winter. Plus, at the end of six months we had fat hogs. After selling some of our pork to our egg customers the demand quickly grew. Increased production lead us to moving the hogs out to pasture and on to a slightly more complicated production model.

Raising or Purchasing Piglets

Since our hog management facilities started and have remained very simple and low cost, our biggest challenges were purchasing piglets and buying organic feed. Initially we

purchased back yard piglets from any farmer who had them available. These were the $35-40 Heinz 57 weaner pigs with dubious beginnings. After trying our first Tamworths from High Meadows farm we began purchasing higher quality piglets and liked what we saw as they grew on pasture. What we didn't have, however, was a good source for Certified Organic piglets. After much number crunching and head scratching it was decided that we might actually be able to farrow our own pigs economically if we were very careful and moderately successful. Even though it was a financial risk to put so much organic feed into sows, it gave us control of our pigs' management from day one. Not only did I want to produce strapping organic piglets for my own production, but also I wanted to provide high quality stock for others. This has led us to our current herd of five sows (3 Tamworth and 2 Yorkshire X), a replacement gilt, and a boar (Tamworth). These animals are on certified organic feed 100% of the time and on pasture when not farrowing. We wean an average of eight piglets per sow twice a year. Half of these piglets are raised on our farm and the others are sold as weaners (6-8 weeks)

The economics of raising certified organic sows is very tight. We must carefully monitor how much feed we put into them when they're gestating, and we must manage them for good litters. Each and every piglet is very valuable to us. If a sow fails to have an adequate sized litter we must cull her, we cannot feed her for a small litter. Success is even more important for the boar since we are putting vast amounts of organic feed into animal we cannot market (although some do) for food when he is done. Due to these restrictions we have chosen to keep the herd small so we can focus on guanteeing good-sized healthy litters. In our simple set up this requires good husbandry and lots of attention. This only works because I love working with sows (except the mean one) and helping to bring piglets into the world.

Managing Sows

Our current sow set up uses only our existing infrastructure, but we intend to build dedicated sow housing this fall. During the summer the sows and boar forage on rotated paddocks with access to a run-in shed and an automatic drinker. When a paddock has been hogged down I move the animals and seed it to some sort of forage (oats, peas, corn, alfalfa, or clover). When a sow is within a week of farrowing I move her into a box stall in the barn (12'X12') or one of the compost middens that has been cleaned out. There she has a nipple drinker and receives more feed. After weaning I move the sow back out to pasture with the boar where she will breed within a week or two of weaning. The weaned piglets are then sold or moved out to pasture to be raised by us.

In the winter we have housed our sows in a 14'X48' hoop house that houses our hens in the summer. We lined the inside of the hoop house with hog panels and put down a deep bedding of straw. During gestation they live together with the boar. As they approach farrowing time we divide the space into separate pens with hog panels and plywood so we can feed the sows separately and more easily manage their piglets. This set up worked fine, but without a cement floor we battled moisture all winter, and we did not have a frost-free automatic drinker. The new sow house will be designed with these issues in mind.

Sample Budget for 6-sow operation with 1 boar

Expenses

Feed for one sow

90 days * 10 pounds per day= 900 pounds * .21 per pound $189.00

275 day * 5 pounds per day= 1375 pounds * .21 per pound $288.75

Straw (bedding) $75

$3000 hoop structure with water, hog panels, feeders, Outdoor access, pro-rated over 8 years and 6 pig use $3000/8/6 $62.5

Misc supplements $20

One vet visit per year/6 animals $100/6 $16.67

Incidental expenses $30

Cost to raise sow to breeding age prorated for 5 yrs of breeding life

Feed 1500# @ .21= $315

Piglet (purebred) = $100.00

$415/4= = $103.75

Expense of keeping a boar for 1year split amongst 6 sows

1 year feed (365*5= 1825# @ .21 per pound= $383.25

Cost to raise boar up prorated over 4 years = $103.75

Incidental expense = $30

Misc supplements =$20

Total =$537 / 6 sows= $89.5

Total expense = $875.17 per year for One sow

(Overhead expenses like insurance, organic certification, truck, main barn, etc are not included)

Income If the Sow Cannot be Processed For Meat When Culled

For example if she dies on the farm or has to be treated with antibiotics.

Pigs per litter	Pigs per year	Price per pig*	Income per sow	Expenses **	Profit	Hours of labor***	Hourly rate
4	8	$80.00	$640.00	$875.17	-$235.17	61	-$3.86
4.5	9	$80.00	$720.00	$875.17	-$155.17	61	-$2.54
5	10	$80.00	$800.00	$875.17	-$75.17	61	-$1.23
5.5	11	$80.00	$880.00	$875.17	$4.83	61	$0.08
6	12	$80.00	$960.00	$875.17	$84.83	61	$1.39
6.5	13	$80.00	$1,040.00	$875.17	$164.83	61	$2.70
7	14	$80.00	$1,120.00	$875.17	$244.83	61	$4.01
7.5	15	$80.00	$1,200.00	$875.17	$324.83	61	$5.33
8	16	$80.00	$1,280.00	$875.17	$404.83	61	$6.64
8.5	17	$80.00	$1,360.00	$875.17	$484.83	61	$7.95
9	18	$80.00	$1,440.00	$875.17	$564.83	61	$9.26
9.5	19	$80.00	$1,520.00	$875.17	$644.83	61	$10.57
10	20	$80.00	$1,600.00	$875.17	$724.83	61	$11.88
10.5	21	$80.00	$1,680.00	$875.17	$804.83	61	$13.19

11	22	$80.00	$1,760.00	$875.17	$884.83	61	$14.51
11.5	23	$80.00	$1,840.00	$875.17	$964.83	61	$15.82
12	24	$80.00	$1,920.00	$875.17	$1,044.83	61	$17.13

Income If the Sow is Processed For Meat When Culled

Pigs per litter	Pigs per year	Price per pig*	Income per sow	Expenses **	Profit	Hours of labor***	Hourly rate
4	8	$80.00	$640.00	$532.00	$108.00	61	$1.77
4.5	9	$80.00	$720.00	$532.00	$188.00	61	$3.08
5	10	$80.00	$800.00	$532.00	$268.00	61	$4.39
5.5	11	$80.00	$880.00	$532.00	$348.00	61	$5.70
6	12	$80.00	$960.00	$532.00	$428.00	61	$7.02
6.5	13	$80.00	$1,040.00	$532.00	$508.00	61	$8.33
7	14	$80.00	$1,120.00	$532.00	$588.00	61	$9.64
7.5	15	$80.00	$1,200.00	$532.00	$668.00	61	$10.95
8	16	$80.00	$1,280.00	$532.00	$748.00	61	$12.26
8.5	17	$80.00	$1,360.00	$532.00	$828.00	61	$13.57
9	18	$80.00	$1,440.00	$532.00	$908.00	61	$14.89
9.5	19	$80.00	$1,520.00	$532.00	$988.00	61	$16.20
10	20	$80.00	$1,600.00	$532.00	$1,068.00	61	$17.51
10.5	21	$80.00	$1,680.00	$532.00	$1,148.00	61	$18.82
11	22	$80.00	$1,760.00	$532.00	$1,228.00	61	$20.13
11.5	23	$80.00	$1,840.00	$532.00	$1,308.00	61	$21.44
12	24	$80.00	$1,920.00	$532.00	$1,388.00	61	$22.75

*There is the assumption that all pigs can be sold at an organic premium.

**Meat from Sow at Culling. A 400 pound sow may have 280 pounds of sausage (at $6.50 a pound) is $1820 minus process charges of $450= $1370 prorated over 4 breeding year is $342.50 per year. The value of this sow can really affect the end profitability of keeping sows.

***At an average estimate of 1 hr per day *365 days, I'd have 365 hrs involved divided by 6 sows=60.83 hrs per sow. Some days you spend 10-15 minutes while other you spend 2 hours. Estimating actual time is difficult.

Raising Hogs

Regardless of whether you farrow or purchase your piglets, raising them on pasture is a very economical method for growing organic pork. Our hog raising “facilities” are low-tech, low cost, and low maintenance. After weaning piglets are moved out to pasture in a group of 20-30. We initially confine them to a small paddock of hog panels with two strands of electric polywire running along the inside. This familiarizes them with not only foraging, but also the fencing to which they will be confined for the next four months. Once we observe that they fully respect the polywire (with 4-6000 volts) we remove the hog panels and allow them access to ¼ acre of hog pasture. I say hog pasture

because this is its sole purpose. We do not ring the noses of our hogs so hogging down the pasture means rooting up the rocks. This creates a very lumpy, uneven ground that cannot really be mowed. It also creates a mixed forage base that is more suited to hogs than cows.

The hogs remain in each paddock for roughly two weeks depending on their size, the weather, and forage growth. After they move on to the next paddock we seed down the previous to oats or rye depending on the season. A paddock is formed simply by two strands of polywire at 6-12" and 12-24" on fiberglass posts with a solar charger. Each paddock is planned to have a large pine tree for shelter. A 1" over land water line gravity feeds from our pond to nipple drinkers secured to a t-post. Our feeders are stainless steal self feeders picked up at an auction which we fill daily with feed stored in 55 gallon barrels. When its time to load hogs for the butcher we set up a simple chute with hog panels, back the trailer up to the fence, and feed the hogs in the trailer. Once we have the number of hogs we need in the trailer the door is closed and the chute is dismantled. We load patiently and quietly. This is key to having contented hogs while trucking and unloading at the butcher.

Winter hog production varies only slightly. Since we typically have a snow pack all winter and we only raise a dozen hogs, we confine them to one paddock near the barn. This paddock is woven wire with a single offset hot wire and contains calf hutches and porta huts for shelter. We use the same self-feeders and a heated stock tank for water. We also keep a pair of hogs in the compost middens to keep the winter bedding worked. These animals may be replacement gilts we are taming or other animals that may need a little extra attention.

Processing

While feed may be the most expensive part of our hog operation, processing is the most complicated. Finding and keeping a good butcher is a challenge and finding a Certified Organic one is nearly impossible. We have used four USDA butchers and numerous custom butchers (for pre-sold halves) and have never been totally satisfied with any of them. Since currently the nearest is Certified Organic butcher is in New Jersey, we chose the highest quality we could find within 2 hours of our farm. So although our Certified Organic piglets from our Certified Organic sows are raised on certified pasture and feeds, once they walk through the butcher's doors they can no longer be called organic. Fortunately for us we direct market only and have no trouble explaining this disjunct to our customers. We have persuaded our butcher to make low nitrate smoked meats (just sea salt and honey) and are in the process of providing him with certified organic herbs and spices for our sausages. Its important to keep in mind that good USDA inspected butchers are few and far between and do not typically need our business, particularly if we have extra needs and demands.

Our particular needs and demands are not obscene, but they do make extra work for the processor. First the processor must be flexible. Sometimes we can't get the trailer into our pastures and we may have to wait for a dryer day. Second they must have a clean,

comfortable unloading and holding facility. Thy must have a separate well-bedded pen to keep our animals separate from others and feed them only our organic feed. They must not use electric prods. Third, they must have a well-managed, non-stressful kill area. I don't like my animals to be able to see other hogs being killed. Fourth, they must have a clean cutting area. This is probably taken care of by virtue of being USDA inspected, but we like to see for ourselves. Fifth, they must not bulk our meat with anyone elses'. This is a common practice, especially with ground meat. Sixth, they must do a nice job cutting and wrapping and not add any nitrates, MSG, or other chemicals to the sausages. This can actually be a tough bill to fill, but we take it very seriously because we've put a lot of hard work and money into getting those hogs to market.

At market is where the economic viability of raising organic hogs really comes to a head. Organic growers of all kinds chronically undervalue their products and meat is commonly the worst. We juggle this economic reality with wanting to provide a high quality product that everyone can afford. Our compromise on this is to charge appropriately across the board, especially for high end smoked sausages and hams, and yet have a few basic cuts like chops and breakfast sausage that are reasonably priced for anyone. Organic meat is not just for the well off, but there will also be no local organic meat if farmers don't make a living wage.

Closing

Well I've just returned from checking on Maude. She drank some water and ate a slice of apple. Some of the remaining placenta is emerging, but not the piglets in the twisted horn. I administered her 20cc of Penicillin, spritzed her nose with homeopathic remedies, and gave her a little raspberry leaf tea. She seemed calm and the piglets were busy nursing. They've begun to drink the cow milk too. If they survive I will need to find a buyer for a dozen uncertifiable piglets that were very honestly cared for by this dedicated organic hog farmer.