

Identifying the Winners: Ten Things Successful Hog Farms Will Have in Common-Regardless of Size

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It has become a cliché to say that we are in a period of great change. However, pondering the changes which are unfolding before us is pivotal to positioning a business for profitability in the next millennium. Before we consider the likely characteristics of successful production operations in the next century, it is crucial to understand the nature of the change within which these operations will compete.

First, it is revealing to recognize that the changes which we are observing today are not the result of recent decisions. Rather, the reshaping which is occurring in our industry has its roots in a fundamental shift which has already irreversibly occurred in our world. It is rooted in the mid-1700's in the rise of technology. When a producer asked me at a recent meeting in Moberly, Missouri, «Why can't things go back to the way they used to be?», he was asking for something much more profoundly impossible than for large producers to stop expanding or for new buildings to stop being constructed. Several decades ago our modern world ceased to be fundamentally organized around labor and we gave birth to a knowledge-based society.

The emerging reality of the twenty-first century for all agricultural industry will be that those businesses which are organized around knowledge rather than tasks will have the opportunity to create wealth. Those operations primarily organized around tasks or formulas will enjoy a smaller and smaller return to their efforts. This reality is not confined to the producer but is already grinding its way through feed dealers,

packers, veterinary practices, lenders, drug companies and extension programs. The return to raising pigs, transporting pigs, killing pigs, processing pigs and selling pig meat will shrink while the return to knowledge will grow.

Ten Characteristics of Successful Producers

Within the knowledge-based framework described, it is possible to think through the characteristics of firms which will be able to exploit the changing environment to create wealth. As we discuss each of the characteristics there will be both overlap and seeming contradiction. However, the successful firm of the future will have to create wealth within a very challenging environment requiring the ability to deal with confusion, unanticipated market movements and rapid change.

1. Successful Producers Will be Knowledge-Based

Pig Producers

One of the most fascinating aspects of the transformation occurring in the industry is the changing motivations and goals of production. We can identify three distinct paradigms of production within the U.S. industry. The first and oldest existing paradigm of production is the agrarian model or pig producer. Swine production of this type is characterized by its place in a diversified farming operation. This production is guided by two principal motives. The first is to provide productive use of

labor when cropping demands pass through seasonal periods of low labor requirements. Second, grains produced on the farm can be fed through the animals adding value when grain prices are low.

Outdoor, labor-intensive production methods characterize this paradigm but are not a rigid definer of this class. Other attributes include, minimal record-keeping, high variability of product, low management requirements, sporadic or seasonal production, low value ratio (ratio of high value to low value products obtained from the finished carcass) and little or no distinguishable improvement trend in the quality of output over time.

Although operations which keep no records except for income tax can be characterized as pig producers, the same can be said for any production company large or small which keeps elaborate records but makes no effective use of the information. Since they have limited their knowledge of the basic production process on their farm(s), they are unable to make informed changes to position their production system to create wealth. In addition, these producers are making a product for a commodity market which is gradually disappearing. Pig producers will not enjoy a profitable position in a twenty-first century industry.

Meat Producers

In the last ten years we have seen the emergence of a new class of producers which can be characterized as meat producers. These producers have mastered record-keeping and can share with you detailed information regarding «cwt out the door». Their focus is on producing lean meat at least cost. This group has arisen in response to a reward system at the packer level which encourages leaner meat production. These producers are making a differentiated product which is assessed at the carcass level and priced in the meat. Meat producers can quote their kill sheet statistics as well as their cost of production within a few cents.

Meat producers are part of a second paradigm of production which can be called the industrial model. This set of methods introduced capital as a replacement for labor and brought a systematic process which is specialized and throughput-oriented. Specialization of production separated the pork production process from the demands of the cropping projects and established it as its own enterprise. As a

result, steady gains were made in the efficiency of production. These gains were made possible by intensive management practices and by focusing on understanding the basic needs of the animals and providing for them.

Attributes of this style of production are increased capital requirements, moderate to high leverage, demand for specialized, high-quality and uniform inputs (especially feed), detailed record-keeping and information management, benchmarking and systematic, continuous production. The focus of this model is the efficient, least cost production of lean meat.

Meat producers will bring about the crisis which will force the industry to make it's next major change. Because of their ability to flexibly respond to current packer pricing incentives, these producers will push efficiency to the point where quality becomes degraded. Their legacy will most likely be pale, soft, exudative pork or tough, dry but very lean pork. They have access to a market which will eventually pass away. As this happens, they will have the opportunity to become food producers.

Food Producers

This third paradigm of production is now emerging. It is a post-industrial model of production. Yet the focus of this model is to produce a differentiated pork product within a highly controlled, responsive and flexible system of production. While many of the industrial model production methods are used, the system is broader and more complex. As distinct from the industrial paradigm which focuses heavily on low cost commodity production, the post-industrial producer is targeting product characteristics which are multi-dimensional and directly related to known tastes and preferences of final consumers.

Within the post-industrial motive, the focus changes from least cost production of lean to cost and quality controlled production of food made from pork. Production in this paradigm broadens the notion of «system» to include the community in which production takes place. Long-term commitments to the community are part of the investment. Attributes of this system of production are high investment, very specific input requirements, trading back some of the

efficiency gained by industrial methods in return for quality characteristics demanded by customers, and modelling production and profitability as a means to change. In addition, there is a perceived need to manage within the social and environmental climate within which the production takes place to achieve a win/win relationship with the community.

Multi-goal quality attributes for products include food safety, shelf-life, texture, appearance (including color), taste, water-holding capacity, size of cut, tenderness etc. In addition, responsiveness to the changing demands of target customers is rapid. Executing effectively within this model requires high management/knowledge and capital requirements and relatively low labor.

2. Successful Producers Will be Final Consumer-Oriented

The change in pricing today is from pigs to meat. Note that the futures will no longer price live animals after the closeout of the December 1996 contract. Within five years (sooner in some places) cash markets will change from pricing meat to pricing food. However, for the reward to be there, we must develop an entire pork chain which is knowledge-based. The current packer matrix tells us as much about the kind of pig that minimizes packer fabrication costs as about consumer tastes and preferences. Premiums or discounts for packer throughput costs must not dominate and thereby blur the signal from final consumers regarding tastes and preferences. The same thing can be said for lean premiums. In order to get the plant average up, we have made lean the one-dimensional measure of quality and it is driving our product toward the inedible. In the process, packers are often overpaying for a characteristic which winds up being negated when PSE destroys their ability to market it at a premium price. Premium pricing hogs for discounted meat will not continue.

The McLean Deluxe has officially become the McLean Defunct. That glorious beef and seaweed burger which averaged 2-8 sales per location per day has been pronounced dead by McDonalds. It was kept on the menu for as long as it lasted to satisfy the complaints of health-watch groups that accused the fast-food industry of not providing low-fat choices. We would be wise as an industry to recognize the

lesson in this. Consumers are not interested in lean. They are interested in a constellation of quality attributes which include taste (first), safety, appearance, ease of cooking, nutritiousness and so on. Creating and producing an animal which is responsive to knowledge about what consumer's desire will create a large reward. Anything else will be punished severely in the marketplace.

3. Successful Producers Will be Interdependent (Relationship oriented)

Networking is a means to gain access to a set of advantages which a producer or input supplier by themselves could not acquire. It is another name for interdependence. Interdependence is about exchange, association, mutuality and working together to achieve things impossible to the individual. Wherever one person's economic destiny is shared and influenced by another, an opportunity for networking exists.

Interdependence strategies work because they are based in reality. Modern pork production is already a vast network of linkages directly involving most of the agricultural economy and indirectly linked to the entire non-agricultural economy. Having acknowledged that those linkages already exist, the question becomes how to appropriately capitalize on and further develop some of the links to the mutual benefit of the parties involved.

Interdependence acknowledges the reality that no one person or firm has all of the answers or all of the resources necessary for success. Interdependence provides a means to achieve the added efficiency and productivity which comes with specialization. Many of the most successful examples of interdependent associations among producers involve some form of specialization. Examples include producers who have invested together in joint farrowing facilities to obtain high quality pigs for their own nursery and finishing operations. By working together they avoid the disadvantages of purchasing mixed source pigs from auction markets and have eliminated farrowing operations for which they did not have a comparative advantage or interest. Contracting relationships have established multi-site production advantages and the increased efficiency which comes from specialization at each site. A host of other arrangements from input

purchasing groups, seed-stock user groups, and marketing groups have become popular. Each of these early forms of interdependence focused primarily on lowering cost. The next trend in interdependence will be toward creating value.

Vertical networking or interdependence with packers and input suppliers will be the hallmark of future, successful producers. Coordination will be required to develop and consistently deliver high value-added products to brand-loyal customers.

4. Successful Producers Will Employ a Sustainable Growth Rate

Many companies and producers have mistakenly assumed that a very short window of opportunity exists to grab a percentage of the future sow base in this country. This has led some to over-extend their financial position in a number of ways. «I better get big then I'll get better» mentality has led to large scale failure in some high profile production companies. Lack of production and financial control in runaway expansion is a sure prescription for limited wealth generation or worse.

If one over-invests in expansion, a working capital vulnerability occurs such that the firm is at grave risk when unexpected declines in price or increases in cost reduce the operating cushion. This has led some producers and companies to employ high-risk capital and subordinated debt and to treat these like equity. This is a very dangerous approach. Units and complexes which should be monuments to profit are in fact pillars of debt. Packer contracts which guarantee floor prices but extract hefty costs per head sold are being substituted for careful planning and sustainable growth. The result will most likely be a lot of work and little long-term wealth.

Failure to invest in the future will result in declining margins and viability. Those producers who are choosing to «wait and see what happens» before investing any additional capital have probably already made their decision about the future.

Choosing a sustainable growth rate means reinvesting and expanding at a level which does not adversely affect liquidity. This rate will be uniquely determined for each farm and company based on a

through knowledge of their financial situation. Choosing a rate less than the sustainable one results in slow death to the business. Choosing a rate which is greater than the sustainable rate will result in near term catastrophic failure. The sustainable rate puts the firm in the long-term wealth generating position.

5. Successful Producers Will Create High Productivity/Low Variance Production Systems

Developing a high productivity/low variance production system involves coordinating all the facets of production and enabling them to reach their potential in a synergistic fashion so that overall production is consistently optimized. The production areas that must be coordinated to produce a high output/low variance outcome are 1) *throughput*, 2) *the health assurance program*, 3) *the genetics/breeding program*, 4) *the facilities and buildings*, and 5) *the nutrition technology employed* and 6) *personnel*.

Throughput

Throughput is primarily a manufacturing term and refers to the amount of finished product generated by a production process in a given period of time. On-farm, throughput refers to volume of production appropriate for the fixed assets that are in place. The first consideration is sow inventory relative to the number of gestation and farrowing spaces that are planned or available. Secondly, mating targets must be established and achieved for each breeding group. Historical records that establish a track record for each month throughout the year are required to establish seasonal targets.

Health Assurance

The health assurance program is of primary importance in promoting high productivity/low variance production. Once sow inventory, mating targets, and mating management are being properly managed, diseases, both primary and secondary, become significant contributors to variation in performance. The health assurance program should address both external and internal biosecurity. It should minimize the opportunity for diseases to enter the herd for the first time (external biosecurity), as well as minimizing the effects of diseases within the herd (internal biosecurity).

Genetics and Breeding Program

The pig genotype that is used must allow the production system to meet its production and financial goals, and allow the system to produce in a high throughput/low variance manner. The selected genotype must be able to meet the system's goals for reproductive performance, growth, and carcass quality. The genetic source should be able to supply the required numbers of animals in a timely manner, ideally from only one source herd. The genetic source should provide the purchaser with evidence of its commitment to research, development, and long-term genetic improvement. Assurance that the product is going to be available on a long-term basis, but with improvements, is needed.

Facilities Employed

Pigs are resilient creatures and can be produced in a variety of facilities and building types. High productivity/low variance production, however, requires standardization of building types within a system. Ideally, the separation of the various phases of production onto different sites can be accomplished. Although our research has shown that there is no advantage to removing pigs from a high-health sow herd, separate-site production allows for the specialization of labor, it encourages all-in, all-out production, and it provides for a depopulation of the building or site between production groups. Separate-site production provides an insurance policy, in that the potential exists for «breaking» the transmission of a disease should an outbreak occur. Separate site production promotes higher productive efficiencies without the expense and down-time of repopulation in those herds in which chronic diseases have reached a level at which production is impaired. Buildings must provide a reasonable environment for the people who work in them, and routine maintenance schedules must be observed.

Nutrition

The feeding program in a high productivity/low variance system must be designed to economically optimize the genotype of pig employed, and must allow performance consistent with projections. If feed is mixed on the farm, quality control is in the hands of the manager and the feed mill operator. They must assure that ingredient quality and feed biosecurity meet their requirements.

6. For Successful Pork Production it is: Location, Location, Location

The United States is now beginning to realize its world-wide competitive advantage in the production of high quality food made from pork. All of the necessary ingredients exist in this country to create and sustain this advantage. A developed economy which is capable of long-term, moderate growth without inflation, the land base necessary to utilize manure nutrients effectively, the prospects of long-term, low cost production of major feed grains, a free society and economy which encourages investment and the creation of capital, an educated work force which is highly mobile, and the list could be expanded from there... The United States has a comparative world-wide advantage in the production of pork.

Having said this, where does one locate to be a successful long-term player? Those firms which seek out places where the hassle-factor will be low because of lax environmental standards will be disappointed. Standards are low in many places because no challenge to the environment currently exists. When the challenge arrives, the regulation begins. Those producers who are looking for isolation may well discover why few people live in those locations. Choosing the best location, whether it be that place in the neighboring county which makes the most sense or that place in Arizona which seems to work, will be critical to long-term sustainable wealth creation. Site selection is a critical part of long-term feasibility.

Successful production requires long-term access to high quality water supplies. Water rights and potable supplies are shifting in some areas. Careful site evaluation has led some producers to realize the need to develop surface water sources after building construction has begun. The normal lead time for surface water collection is two years.

One-dimensional site-selection criteria will most assuredly lead to surprises and drain wealth as firms attempt to «fix» unexpected problems. Location within an economic distance to low cost grain and competitive packing will give enormous advantages. Trading one of these elements away should only be considered where true, long-term compensating advantages exist. Location in a community which can sustain the families of a highly educated workforce will be crucial. Keeping talented people in isolated

locations with poor-quality schools and few life-style amenities is not likely to happen at any price (salary).

7. Successful Producers Will be Environmentally Sustainable

I use the term environmentally sustainable in its technical sense rather than its agenda-laden political meaning. Pork production systems will not be allowed to pollute the waters of any state. Nor will these systems be allowed to ruin rural communities with noxious odors. Short cuts around technical sustainability to reduce cost are a prescription for failure. Careful site selection, community involvement and the creation of a win/win social and economic outcome will be the only way to create long-term wealth. Investment in the technology and methods necessary to reasonably protect the community and the environment from the externalities of pork production will be demanded.

8. Successful Producers Will Exhibit Flexibility and the Willingness to Change

Any producer who is threatened by change will not have a comfortable place in the future of this business. The characteristics of the production and investment environment within which producers operate demands a flexible willingness to be creative, adapt and change. Coming changes in technology, especially in the areas of nutrition, customized inputs, manure nutrient management and genetics will require constant assessment and adjustment to capture margins. Knowledge will be the key to wealth. Sorting which developments will create increased net income for an individual operation will be a full-time concern.

In addition, as the entire chain reinvents itself in a consumer-driven model, truism, rules of thumb and well established precedents in every major area of production will be rewritten. Already we know that standard forecasting techniques for prices no longer yield their formerly dependable outcomes. Structural changes in the industry are redefining these relationships. We do not have enough history to estimate the new relationships and may very well not be able to for a decade or more ahead since the structural change is really just beginning.

9. Successful Producers Will Develop Effective Marketing Plans

The traditional wisdom in the industry for expanding producers has been to accept the average price of the year and remain competitive through cost control. Using futures and options to establish floor prices or to lock in profits has not been readily accepted. Marketing plans have often been reduced to eliminating sort loss (which is almost never economically optimal) and choosing the best bid of the day where midwest overcapacity for slaughter has allowed it.

A knowledge-based approach to marketing will most likely involve a shift away from a direct focus on price to achieving levels of financial efficiency. Achieving the highest possible price is not only an unrealistic goal but does not guarantee that the production system is financially efficient. As the industry shifts to a consumer driven model, production efficiency may decline as high value food attributes are restored to the meat. Here, a focus on net return rather than either cost minimization or price maximization will yield more wealth. Cost minimization can lead a production system astray since it does not consider the potential increased value of the more costly carcass. Achieving target levels of return on assets (ROA) or return on investment (ROI) are far more revealing with respect to the production of wealth than level of price.

10. The Successful Producer Will be Benchmarking Their Business

Benchmarking is a means to better understand the production process and to steadily improve it over time. The word benchmarking comes from a term used in surveying. To a surveyor, a benchmark is a previously determined position, usually marked by a permanent stone, from which a reference can be obtained. With the aid of the reference stone, the surveyor can establish the accurate boundaries of a piece of property.

Similarly, producers who know their own operations and their competitor's as well, can position themselves for future competitiveness and profitability. Benchmarking begins by gaining a true understanding of the systems at work on the farm,

their strengths and weaknesses, and then evaluating them in the light of the best systems in the industry.

Unfortunately, many producers stop the process of benchmarking with a simple comparison of their costs of production or efficiencies with another set of producers. This is often motivated by fear or curiosity, «to see how I stack up». Benchmarking is much more involved than simply taking a reading on the dipstick occasionally to see how you are doing compared to others. Production systems, processes and strategies are all the acceptable subjects of benchmarking.

The best use of benchmarking is as a continual proactive process of improvement, whereby the manager constantly seeks to identify the best practices of the industry. As these are identified, an evaluation process begins to determine if employing these practices within your own operation could result in increased profitability. If increased profits are likely, planning is undertaken, capital is sought, changes are

made and the process begins again. Producers who want to be profitable players in the twenty first century must realize that continual, incremental improvement and reinvestment will be necessary.

Benchmark comparisons should not be restricted to the pork industry only. The wise producer will keep an eye open for innovative ideas and practices used in other agricultural and non- agricultural industries. Thinking «outside the box» is an essential part of innovation and advancement. This does not mean employing every new idea that comes down the pike, rather as an example, ideas which have been successfully employed in the poultry and beef industries have found their way into pork production. Quality control, efficiency and best cost production are well established in the major manufacturing industries. Reading about these processes and about the people who lead major companies will help seed new ideas and the development of innovative strategies in times of change.