

Performance Evaluation is the Thing to Do

-- If it is Done Right --

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A PERSPECTIVE

The invitation to address this federation was received with a verbal notation that there was concern among some members of this organization over the declining participation in central test stations by seedstock producers. Before I address that concern, allow me to share with you my perspective of the state of the economics of swine production and the art of animal breeding.

The pig has long been known as the mortgage lifter. Many in this room tonight have prospered equal to or in excess of the American dream because of the economic opportunity in raising pork. The swine industry of this nation traditionally has enjoyed the economic benefits, in relative terms, of cheap feedstuffs, cheap resources (money), and cheap labor due to bountiful availability. On this foundation, the swine industry has shared in the productive prosperity of American agriculture. Things, however, economically are changing. We are all aware of the changes that are taking place. Labor not only became less available, but what was available became more expensive. This fact, coupled with rising land values and more efficient systems of crop production, is forcing the industry toward highly capitalized confinement systems. My scenario for the future reads like this.

The cost of feedstuffs to the swine industry will continue to escalate. This nation is the most efficient producer of feed and foodstuffs and will take advantage of this position in the world market. The cost of both long- and short-term capital has recently escalated beyond anyone's expectations. While there may be fluctuations in the money markets, the trend for interest rates is sharply higher. The bottom line is that the profit margins, for swine production, will be lower during our lifetime than we have been accustomed to.

This is not the first industry in this nation that has faced declining profits. When profit margins have declined due to economic pressures, the industries, including agriculture, have successfully endeavored to maintain acceptable profit margins by the adoption of new technology. The breeding of livestock is on the threshold of rapid adoption of known and new technical breakthroughs. Those who will have a positive impact on the swine industry in the future must recognize the

need and value of the skilled, technically disciplined, dedicated scientist at our public and private institutions. The technicians must lead and we must follow, as well as challenge, if this industry is to maintain its viability.

This nation is a leader in crop production due to the adoption of technically based products, services, and systems by the producer. We have the technical advantage. Do we have that technical advantage in animal production? Where do we stand relative to the European livestock industry?

My remarks this evening concerning performance evaluation will be from the perspective of a layman. I am not a scientist. During my experience in the swine industry working for both purebred and corporate seedstock, I have accumulated a lot of questions based on field observations. The number of questions is considerably more numerous than the answers I possess. In preparing these remarks, I have taken the time to study the literature and reports of the NSIF. Allow me to review the five basic purposes of NSIF:

Uniformity: To work for establishment of accurate and uniform procedures for measuring and recording data concerning the performance of swine which may be used by participating organizations.

Development: To assist member organizations and/or their affiliates in developing their individual programs consistent with the needs of their members and the common goal of all record-keeping programs.

Cooperation: To develop cooperation among all segments of the swine industry in compilation and utilization of performance records to improve efficiency in the production of swine.

Education: To encourage members to develop educational programs emphasizing the use and interpretation of performance data in improving the efficiency of swine production.

Confidence: To develop increased confidence of the swine industry in the economic potential of performance testing.

My conclusion concerning NSIF purpose is that this federation believes in the use of facts in breeding programs that develop germ plasm for more efficient production of swine. If your purposes are to be fulfilled, the following are the key issues you must resolve:

1. The need to disseminate scientific fact
2. The need for economic criteria.
3. The need for selection programs.
4. The need for more research.

## 5. The need for verification of germ plasm

Taking the issues separately, these are the questions this federation must answer.

### The Need to Disseminate Scientific Fact

Have the scientific facts in animal breeding been disseminated widely enough and often enough to be believed?

I have hanging over my door a plaque that says "Behold The Art of The Animal Breeder." To date, animal breeding has been an art. Am I correct in my perception that science must and will take over?

The educational purpose of NSIF is critical. Be careful you do not confuse that purpose with promotion.

### The Need for Economic Criteria

How important a role should economic values have in the identification of superior germ plasm? Do visual, conformation, or indicator traits have economic value?

Was Dr. Bill Ahlschwede right or wrong when he was quoted in The National Hog Farmer, "I feel quite strongly that it is a much better strategy to emphasize the sought result than an indicator of the sought result. If we want faster gains, then we should weigh pigs and select for it rather than selecting those that looked like they grew fast...."

Was Dave Huinker right or wrong when he was quoted in The National Hog Farmer, "...It is hard to make progress when hog type is changing.

I believe that there is a large segment of the seedstock industry that places more emphasis on indicator traits than on performance traits

The animal breeding scientists are not wrong. NSIF will accomplish its purpose if it will support those dedicated to developing more efficient germ plasm.

### The Need for Selection Programs

Forgive me, but I must digress a moment for a personal comment. In working with individual seedstock producers for several years of my life a key result I failed to achieve was the establishment of the recognition of a need, first and foremost, for a basic selection program. Performance evaluation must be a part of a selection program and not vice versa.

Improving germ plasm based on economic value is a very slow process. Indexes or total score methods were recommended to make progress in several traits at the same time. Unfortunately, the results are not visual.

What can NSIF do to encourage selection programs? I recommend you put more emphasis on selection. Then performance evaluation will have to follow.

Dr. Lauren Christian's presentation in 1976 to this federation entitled "Textbook to Test Pen" spelled it out quite clearly. "The central issue in record utilization is selection."

Selection is the key to the success of NSIF.

#### The Need for More Research

Genetic research is expensive. Public funds are drying up. The greatest challenge to personnel at our land grant and government research institutions is the acquiring and allocation of resources for research. One organization, namely the National Pork Producers Council, has taken a lead in providing funds to public institutions. Their leadership and membership are to be commended.

Has the field of animal breeding matured or have you only just begun? I believe there is a lot of work to be done. Watching the communications between scientists, it is obvious to me they are limited only by the lack of resources.

What will be the role of individuals or organizations funded by the sale of technically developed products in the conducting of animal breeding research?

If NSIF is to reach its full potential, it must be involved in the acceleration of more basic and applied research.

#### The Need for Verification of Germ Plasm

During the past decade there have emerged three seedstock-producing segments. The purebred industry has recently collectively made an organizational effort to serve their needs. Several organizations, both corporations and cooperatives, have entered the seedstock business. And now we see the rapid emergence of entrepreneurial entities of individual producers developing their own specialized product. The marketing strategies of these segments are clear.

Will verbal debates or technical documentation decide the issue of the different germ plasms available? The swine industry of this nation is an important cog on the economic balance sheet. Is there a need for technically designed verification programs?

Are the central testing stations accurately identifying the genetic value for feedlot and carcass traits? Or, as some maintain, the public swine evaluation system in this nation has value for promotional purposes; but due to pre-test and on-test environmental efforts, they cannot, with a high degree of accuracy, identify the value of the germ plasm or breeding systems. Rather than defend a position, even if you

believe you are right, the most constructive approach would be to reexamine our public evaluation procedures using the technical knowledge available to determine the best approach for the entire swine industry.

Is it possible to develop and implement evaluation programs that will measure not only the present genetic value of germ plasm, but the degree and rate of genetic change that is taking place?

The NSIF has an opportunity to take a big step forward. It is time for leadership.

In closing, I have these comments. Dr. Jay Lush presented a paper in September 1944 at a seminar held in Cleveland, Ohio. He stated, "Man is usually in a hurry, and individually his time on earth is short. Forces or processes which change things with imperceptible slowness may appeal to his imagination and curiosity as a philosopher, but they do not stimulate his efforts as a laborer or attract his resources as an investor." It would be presumptuous of me to take issue with Dr. Lush on scientific matters. Philosophically, however, on this point Dr. Lush is wrong.

I personally have had the opportunity to know and work alongside Dr. Earl Lasley in his efforts to apply scientific fact to animal breeding. He finally helped me understand that genetic change is so slow that no man would see the final results of his endeavors. Continuity and discipline of effort beyond one man's lifetime are necessary to obtain the achievable results.

There are entities involved in the development and distribution of swine germ plasm that are willing to provide the necessary resources in funds, personnel, and time to achieve positive, measurable genetic change. They will fund both basic and applied research that has economic payout for the entire industry. As has occurred with the other agricultural segments, the American farmer has accepted technical support in the form of products, services, and systems to maintain his economic viability. It has helped him become the most efficient agricultural producer in the world. The commercial swine producers will do likewise.

Performance evaluation will increase in the swine seedstock industry in direct proportion to the quality of leadership that is made available.

NSIF has the opportunity to play a vital role. As I stand here tonight, I am looking at individuals who can lead the seedstock industry in the right direction. Will long-term selection programs using scientifically sound performance evaluation become the technical base for both the present and the future? The answer to the questions will determine NSIF future.