

ECONOMIC DEVELOPMENT THROUGH THE ENHANCEMENT OF SWINE PRODUCTION IN WESTERN NORTH DAKOTA

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SUMMARY

The NDSU Dickinson Research and Extension Center has requested and received funding from the North Dakota Agricultural Product Utilization Commission to enhance economic development opportunities through swine production education for western North Dakota's rural citizens. The purpose of this project is to assure the continued development of a swine industry within commercial agriculture in western North Dakota. The swine development program supports an educational network to service the needs of 20 to 100 sow farrow-to-finish enterprises. The development project supports a curriculum based educational program for entry level producers that is supported by on farm consultant services. Prospective students attended informational meetings in Dickinson and Hettinger, and 14 students registered for classes that began meeting regularly in April of this year. Class members took a break over the summer to plant and harvest crops and resumed meeting in mid September. Classroom instruction was completed in mid October. Students that attended represented a cross section of the targeted audience, which were individuals that were interested in raising hogs, but had little or no experience as well as farmers that were raising hogs on a limited basis, but wanted to expand their knowledge base. On farm visitations revealed students that were ambitious and willing to learn. Success ratios with programs like this one are difficult to evaluate, since financial histories may plague a student that is very capable of being a successful hog producer, but is unable to secure adequate financing to establish even the most modest of facilities. Of the students enrolled, approximately 35% will establish a hog business on their existing farm by either feeding feeder pigs to finish, or establishing a farrow to finish business. Another 14% will expand their present enterprise to feed out the feeder pigs they have been raising. Yet, another 14% will resume growing out feeder pigs to finish that had been out of business. Seven percent will not

operate their own swine business, but will be employed as a swine herdsman by a larger business that hires people with swine management skills. The remaining 30% will probably never raise hogs or work for someone that does, but value the training they received.

INTRODUCTION:

The major challenge facing rural leaders is to foster stability and develop growth in rural communities. Rural areas have been decimated by the farm crisis of the 1980s. Moreover, current federal farm policy has implemented a massive land retirement program, the Conservation Reserve Program (CRP), to reduce soil erosion and reduce surpluses of the mid-1980s. The impact of this idling of productive capacity for ten years has devastated many rural areas. The problem, in the short term, is to ease the financial stress on individual members of rural communities. The challenge, in the long term, is to enhance rural economic development to provide financial stability to producers and indirectly to rural areas as a whole, and to all of North Dakota.

For many rural people, especially beginning producers, grain farmers that want to add value to home grown feed grains, youth, farm wives and small town citizens, additional income opportunities exist when livestock are added to the present daily work load. Swine would not only increase the value of present crop production systems, but would also provide rural economic development opportunities for the area. Unfortunately, specialization of the farm has often led to the sale of the livestock enterprise including the swine enterprise. Hog numbers in the state declined 32% from 1950 to 1985, then began to increase to their present level of approximately 340,000 head. Compared to other states, North Dakota's current hog production amounts to less than 1% of the nations total production (ND Ag. Statistics). Annually, tons of feed grain are exported out of the state due to the lack of hogs to consume the feed resources available.

Nationally, the pork industry is undergoing tremendous change in every aspect of the business. While the current focus is on large intense production units, pork producers in the southwest realize that expansion of the industry in North Dakota must focus on smaller moderate sized sustainable units which will play an integral role in establishing new swine enterprises in the state; ultimately increasing farm unit income. This proposal focuses on small and moderate sized "all in: all out" farrowing units that utilize existing farm buildings, grain handling equipment, utilities and water facilities. These units are an excellent outlet for excess farm labor and offers increased opportunity for

supplemental farm income. Providing an "all in: all out" farrowing system is utilized, historic ten year net income estimates for a moderate investment semi-confined 60 sow farrow-to-finish system in western North Dakota range from \$9,000 to \$14,000/year. These operations also add value to the present cropping system, through enhancing the overall cash flow by approximately \$100,000 per year.

Overall intent of this project is enhancement of the swine industry in western North Dakota to provide an opportunity to ease the financial stress on individual members of rural communities. As the industry grows, a stronger industry will be in place to provide value added dollars to local crop production systems.

PROCEDURE:

The development project supports a curriculum based program for the entry level producers as well as an expansion program for hog producers that desire to manage 20 to 100 sow production units.

A.) Swine curriculum based training program:

The introduction of hogs to producers will be coordinated through schools, workshops and individual contact. A multi-faceted program has been developed to accommodate individuals with different needs. However the core of the program will be the North Dakota Swine School. The school consists of an initial series of 7 to 9 six hour classes of intensive training involving both classroom and "hands-on" experience. The classroom instruction has provided a basis upon which private on farm consultation visits will be developed. Classroom instruction will include discussion of economics, genetics, reproduction, nutrition, disease and parasite control, housing principles and existing facility renovation for hogs, marketing, computerized ration balancing, computerized swine herd record keeping and performance analysis and computerized whole farm record keeping. Hog production labs have included sow feeding, baby pig processing, castration, vaccination, farrowing practices, artificial insemination, boar management and other management aspects germane to swine production. All participants receive routine consultant visits by project coordinator Doug Landblom.

A farrowing workshop will be held to supplement the regular school during farrowing at the Dickinson Research Extension Center. Baby pig survival is often the most limiting factor to a successful enterprise. These workshops will

be designed to help producers understand what changes are occurring within the sow during late gestation and delivery as well as the needs of the newborn. The majority of the time will be spent assisting sows in labor and solving problem situations as they develop both with the mother and newborn. Additional annual activities include:

- 1.) Conduct swine management workshops/clinics that address specific specialized areas.
- 2.) Conduct North Dakota swine development seminars.
- 3.) Introduce swine herd appraisal software.
- 4.) Conduct swine enterprise analysis package.
- 5.) Update county extension staff on improved swine technology.

B.) North Dakota Swine Development Program:

As a supplement to the swine training program, a swine development unit will be established in southwestern North Dakota consisting of those producers who have attended the swine school classroom series (7-9 six hour classes). The individual and group educational program will be supervised by the unit coordinator. Individuals within the unit will be encouraged to establish their own production goals and priorities through utilization of educational opportunities provided by the project. By the end of the developmental phase, producers will be encouraged to obtain help directly from extension's ongoing swine educational programs. The swine coordinator will:

- 1.) Design and implement a recruitment program that will successfully encourage agricultural producers to consider improving or implementing a swine enterprise within their farm or ranch operation.
- 2.) Work individually and in small groups with potential and current swine producers to provide the necessary technical knowledge and skills needed for successful hog production.
- 3.) Instruct producers in the process and procedure for establishing and evaluating progress toward whole farm and ranch goals, family goals and personal goals relating to the family and local community.

4.) Conduct financial enterprise analysis for swine producers.

5.) Obtain and screen a detailed list of resources, finances and available labor from each producer and develop individual feasibility plans.

7.) Encourage each producer to enroll in a swine herd appraisal software program such as HOGCHAMP or PIGTALES and to purchase money management software such as MONEYCOUNTS.

8.) Determine initial and expansion swine numbers for each producer based on feasibility plan and production records.

9.) Advise the state extension services in designing a year-round program of large group, small group and individualized instruction based upon the needs of swine producers in western North Dakota.

PROGRAM EVALUATION:

The impact of this project will be evaluated through producer survey responses. Evaluation of efforts will be conducted in a manner consistent with the project's objectives. When the program focus is localized, observations and informal feedback on educational program efforts will be assessed. For funding organizations, specific information on project impacts will be evaluated. These include but are not limited to 1) number of individuals with increased knowledge, 2) the timeliness and adequacy of management data provided, 3) the number of information requests answered and swine producers served, 4) secondary trend data collected including change in livestock inventories, production statistics and enterprise profiles. Trend data would include the measurement of change in profitability to the whole farm and ranch and the swine enterprise.

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