

Creating a Competitive Advantage through People: Managing People in a Large Production System

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Modern-day pig production is less about pigs that it is about people. When farms were small, the owner, more often than not, provided the labour. Because of their vested interests, owners were highly motivated to ensure that work got accomplished in a timely and effective manner. Doing the work themselves, owner-workers did not have to rely much on the efforts of others. Because swine operations have grown in size in recent years, they have increasingly become dependent upon hired labour. With this dependence came a need for owners to understand how to get the most out of their hired staff. Endpoints such as farrowing rate and litter size became subservient to manning rates, employee turnover, and pay scales.

This paper summarizes how New Fashion Pork, Inc. (NFP) deals with employee issues in its integrated swine operations. How should farm staff be organized so that time wastage is minimized and that the right work is done at the right time? How should the service echelon be structured so that the people hired to service farms actually solve problems and improve farm performance, and not just ride around in pick-up trucks dispensing advice without accountability? How should farms be staffed and people who bring value to an operation be retained? How can staff be fairly paid for their contributions to the operation?

▪ Organizational Model

The Farm

Traditional organizational hierarchies remain the most commonly used and, arguably, the most effective way of manning commercial swine farms. By design, NFP's pig farms typically have four levels of responsibility: farm

manager, department manager, senior technician, and technician. The farm manager heads up operations, having responsibility for controlling direct costs; supervising assets (e.g. breeding stock, repair & maintenance of facilities and equipment); recruiting new employees (responsibility usually being shared disproportionately with a human resources department); retaining, training, scheduling and deploying employees; and maintaining production and inventory records. Farm managers have experience in all aspects of the swine operations that they oversee but must be particularly skilled at supervising people. Working along side their staff, department heads make daily work assignments and provide supervision in the conduct of work. They are highly experienced staff having special skills and knowledge in the activities of their department. By definition, senior technicians should be experienced and motivated; they, thereby, perform the bulk of the jobs on the farm that require technical expertise. Technicians are usually one of two types: (1) non-experienced but thought to be motivated to do their job (e.g. new employees) or (2) experienced but unable to take on the responsibility of doing more technical jobs (established employees). While there are jobs on a modern swine operation for both experienced and non-experienced people, there is no room for non-motivated staff. Large farms may also have production-support technicians, such as an ultrasound technician, an in-house boar stud technician, or a maintenance technician.

All of the breeding farms of NFP are farrow-to-wean farms. These farms have breeding and farrowing department heads. The farrowing department has at least two senior technicians. The *senior delivery technician* is responsible for supervising sows from the time they are loaded into a farrowing room until the youngest litter in the room is 3 days old. The *senior nursing technician* is responsible for rooms containing sows with litters from 3 days of age until they are weaned. The breeding department also has two senior technicians. The *senior breeding technician* is responsible for sows from weaning until they are mated for the final time before being placed in the gestation snake. The *senior gestation technician* cares for sows from the time they are placed in gestation until they are loaded into farrowing. The number of technicians serving with each senior technician depends upon the size of the farm. For example, on our 4,000-sow farms, there are one *delivery technician* and two *nursing technicians* supporting the two senior technicians in the farrowing department, and there are two *breeding technicians* and one *gestation technician* supporting the two senior technicians in the breeding department. Farms having a gilt development unit (GDU) can also have a *senior gilt technician* as well as one or more *gilt technicians*. The number of gilt technicians depends upon whether or not heat checking and breeding occurs in the GDU.

Company-owned nurseries, finishing, and wean-to-finish farms have a manager who is supported by a cadre of technicians and senior technicians. Growing pig farms of NFP do not have department heads, just senior technicians and technicians, who are differentiated either by their experience (i.e. length of

employment) or their technical knowledge. Labour is far less specialized in growing pig facilities than in breeding herds. Therefore, all technicians, regardless of level, are expected to perform all tasks.

Service Echelon

Traditionally, the service echelons of multi-farm corporations are organized by type of farm being serviced. For example, some service staff specialize in breeding farms; others service nurseries; and still others work exclusively with finishing farms. In contrast, NFP is organized into vertically integrated farrow-to-finish pyramids in which a production manager supervises the sow farms along with all of the pig flow from those farms. There are multiple service managers, reporting to the production manager who service individual farms and are the direct supervisors of the farm managers. Specialization occurs in these production pyramids at the service manager level. There are breeding farm, nursery, and finisher service managers, who report to each production manager. Service managers specialize in one phase of production. The production manager integrates all phases of production and is responsible for pig flows and marketing.

Production-support Functions

Departments outside of the production service department of NFP have been created to provide support for the functions of live animal production staff. Examples include live animal transport scheduling, production information management, and marketing. In addition, staff officers, not having line officer responsibility, act as support staff across all phases of production and all production pyramids. Examples include staff veterinarian and nutritionist. Other companies have marketing specialists who mark pigs by weight for subsequent marketing. Depending upon the size of the company, these specialists work across pyramids either as staff officers or as members of a marketing department.

▪ Manpower

Farms

The budgeted number of people who staff a farm varies according to several factors.

- Farms having a higher degree of task automation require less people than those with little automation. Examples of automation include automatic feeding in farrowing and use of boar robots in breeding.

- ▶ The scope of the responsibilities of farm staff influences the level of staffing. For example, farms that do their own repair and maintenance, have on-site gilt maturation, and conduct their own ultrasound tests of pregnancy, require higher staffing rates.
- ▶ Work schedules often vary in the amount of staff they require. Schedules such as *5 on / 2 off* may require a higher staffing rate than *11 on / 3 off* schedules.
- ▶ The lower the budgeted number of hours worked/staff/week, the higher the level of staffing that is required. NFP sets the work-week at 48 hours/week for both salaried and hourly workers. The targeted work-week for other pig companies in the U.S. ranges from 45 to greater than 50 hours.
- ▶ Farms having high annual employee turnover rates are associated with less trained staff and, subsequently, less efficient staff. Thus, more staff is required.
- ▶ Daily work schedules for farm staff are designed to organize staff activities and allow the monitoring of task completion. They, thereby, influence how efficient farm workers are at getting things done and how effective they are in prioritizing their work.

Service Echelons

The number of service staff required to service pig farms is dependent upon several things:

- ▶ When farms are geographically distant from each other, service routes are longer. Consequently, fewer farms can be serviced by a single service person.
- ▶ Companies requiring service staff to do physical work during their visits (i.e. ultrasound tests of pregnancies, marketing) require more service staff.
- ▶ The more non-production work required of a service staff (e.g. marketing, meetings, report preparation), the more service staff required.

▪ Scheduling

Weekly Work Schedules

Farming has traditionally required workers to work long hours and frequent weekends. Shortages of workers and the increased occurrence of workers having non-agricultural backgrounds have motivated the swine industry to look for creative ways of scheduling staff. Traditional work schedules, such as *12 on / 2 off* and *11 on / 3 off* are giving way to schedules such as:

- ▶ every third weekend on,
- ▶ 5 on / 2 off, and
- ▶ 5 on / 2 off, 8 on / 3 off, 7 on / 3 off.

Competition for workers is forcing the adoption of work schedules that are more appealing to today's workers. Being more considerate of worker time off, contemporary work schedules inherently result in the daily scheduling of activities becoming more important. For example, with the increasingly popular 5 on/2 off schedule, workers either have Friday and Saturday off each week or every Sunday and Monday off. This results in marginal staffing 4 days per week and full staffing on only three days. Scheduling of worker activities becomes critical on both marginally and fully staffed days, if all of the work is to be accomplished during the week. Relative to traditional work schedules, more deliberate scheduling of holidays and workdays has also become more important as companies have adopted contemporary schedules.

Daily Worker Schedules.

The scheduling of tasks to be accomplished during a day by a farm varies considerably from company to company, and, in some companies, schedules vary considerably from farm to farm. NFP provides its farm managers with templates of daily work schedule to help them deploy their staff efficiently. These templates vary with the size of the farm, the weekly work schedule, and day of the week.

The efficient scheduling of the activities of farm workers is dependent upon:

- ▶ having a complete list of all tasks to be completed by day of the week, and knowing
- ▶ the time it takes to complete each task,
- ▶ the number of tasks needing to be completed each day of the week,
- ▶ when breaks will occur and when the work day begins and ends,
- ▶ the priority of tasks to be done, and
- ▶ how many staff are available to work each day.

NFP uses a computerized scheduling program to create work schedules by department. These schedules are updated as activity loads change and according to manning rates of farms.

▪ **Monitoring Work Effort**

Mechanics

Time clocks are commonly used to encourage compliance with attendance policies and to capture hours worked. As interest in worker efficiency has increased, companies have moved to clocks that allow attendance data to be captured electronically. Swipe-card and biometric (fingerprint) systems are being increasingly used to minimize cheating and to facilitate the capture of information on when workers are actually in the barns. These systems can access clocks remotely through a modem, allowing management to understand how many people are in the barns at any time of the day. In order to capture information on worker activity, NFP requires that its employees, even salaried staff, clock in and out of the barns.

Common Endpoints

Endpoints that can be easily monitored with electronic data capture include:

- number of employees at work by time of day and day of the week,
- time that each employee begins and ends their work day,
- time taken by each employee in breaks,
- number of days that employees miss work, or either are tardy or leave work early, and
- hours worked/week.

Just as the swine industry has long monitored endpoints of pig production, it will have to learn how to use data on workers.

▪ **Recruitment**

Hiring the Right People

Hiring the wrong people not only results in high employee turnover, but it also results in lower herd productivity, employee dissatisfaction, and higher labour costs. Advertisements to identify employment candidates works much less well than encouraging farms to take accountability for recruiting new employees. Human Resource Management departments are necessary to ensure that employment papers are filled out and legal issues are addressed. However, farms that depend only upon HRM departments to identify candidates, typically will be chronically understaffed or staffed with poorer quality employees.

“Stockpiling” Recruits

Chronic shortfalls in staffing results in labour costs being under budget. During times when candidates are more plentiful, additional staff can be hired without exceeding labour budgets, if labour costs are analyzed over an extended period of time. Stockpiled workers can be placed in temporary positions at other farms until they are needed on the farm they have been hired into.

Identifying Candidates

Since farm workers are usually the best recruiters, they should be given incentives to actively participate in the recruitment of new staff. Having a fully staffed farm or a farm staffed with people who enjoy working together may be adequate incentive. In some instances, NFP has provided financial incentives to staff for the identification of candidates who are eventually hired and who remain an employee for 6 months.

▪ Retention

Many companies experience annual employee turnover rates in excess of 100% per year. Several studies have shown that the first 90 days of employment are key, not only to the effectiveness of a new staff but also to low employee turnover. The first 90 days is often the period in which employees set their work habits and expectations, whether good or bad. Attempts should be made by key farm staff to meet the personal needs of newly hired staff (e.g. equipment, clothing). Responsibilities and expectations should be clearly defined at the onset of employment and with each change in position. New staff must be formally trained in the jobs that they will be doing and retrained as necessary. “Old staff” should be given incentives to take care of new hires (such as through their participation in training and mentoring programs).

▪ Training

Orientation

The objectives of the farm, of the department in the farm, and of the company should be stated, including endpoints of production. The new employee must understand where they fit into the farm. When a technician is assigned to a new position, the tasks to be accomplished should be explained, along with when are they to be done and how long it should take to get tasks done. Brief step-by-step standard operating procedures (SOPs) should be provided for each task and a list of what will be required to successfully complete it. This should be accompanied by a demonstration of how a task is done correctly.

Then, a follow-up should be done to make sure that employee completes the task correctly in a reasonable time.

Cross-training

Cross-training requires that farm staff know jobs outside of their position description. It is also essential for career advancement. Cross-training is required for days when short-staffing occurs or when a staff member has a disproportionate amount of the daily work. As an employer, you must inform all staff that it is part of their responsibility to co-workers to be cross-trained.

Continuing Education

Formal educational opportunities are imperative for long-term employees. While monies spent on educational programs for new hires may be wasted, long-term employees need educational programs that allow for job enhancement and career advancement.

▪ Supervision

If you want workers to do things your way, you must inspect their work. Let them know you are monitoring what they are doing. Remember, a blend of the “carrot” with the “stick” will be necessary for motivating employees. Too much of either is not effective. *Carrots* include: financial remuneration (base pay and bonuses), benefits, days off, work schedule, processed pork, public recognition and praise. *Sticks* include: verbal and written warnings, disqualification for bonuses, salaried staff being forced to work additional time to get their work done, and not giving annual merit increases in base pay.

▪ Remuneration

Labour Rates and Labour Costs

Labour rates refer to the salaries and hourly wages of staff (including fringe and benefits). Labour costs are the labor expenses spread over the number of pigs or kilograms of pork sold. It is all-to-tempting to attempt to control costs by paying low wages. However, if production suffers because of the quality of workers, labor costs may actually rise on spendthrift farms. Labour shortages are common in some geographic areas and on farms having high turnover rates. Short-staffed farms may have to be over staffed for a period of time to allow for catch-up. While it is tempting to examine manning rates monthly in attempts to control labor costs, fluctuations in farm manning may require a longer time horizon (e.g. quarterly analysis).

Labour rates vary with geographic region. In areas where there is competition for employment (e.g. high pig farm density, factories), labour rates will be inflated, and stronger competitive employment benefits and work schedules will be required. Standardization of labour rates across farms is usually desirable but may not be possible when farms are geographically dispersed. When farms are labor intensive, such as sow farms, they should be sited where there is an available pool of less expensive labour.

Labour rates for farm staff and service positions should be budgeted such that labour costs per unit sold are achieved at budgeted levels of performance. For example, if a 5,000-sow farm has a labor budget of \$4.85/weaned pig, the total amount of salary dollars for the farm should be established consistent with budgeted levels of weaned pig output (e.g. 26,250 pigs/quarter). As stated earlier, more attention should be paid to labor costs than to labor rates. Monitor labour costs in your monthly financials, but be reluctant to intervene in the correction of salaries any more frequent than quarterly.

Annual Merit Raises

Before any raises are awarded, company management should set a target percentage change (usually an increase) for the entire company (e.g. 4.5%). Then, as employees are individually reviewed, consideration is given such that the average across all employees in a production pyramid matches the target change. Farm staff should never be allowed to assume that they automatically get a pay increase. Staff being encouraged to leave the company will receive no increase. Top-performing staff may get substantial increases, as long as there is a complementary group of staff that get no or only a marginal increase. At NFP, new staff members are not eligible for annual merit increases unless they have been employed by the company for at least 6 months.

Incentives

Potential incentives that NFP has used to attract employees include bonuses, work schedules, housing, farm produce (e.g. pork), transportation, training and continuing education, and vacation and holiday time. The offering of financial incentives has long been debated. NFP has taken a position of strongly favouring financial incentives. We use several guidelines when formulating bonus plans.

- The incentive should be directed toward endpoints consistent with the company's production or financial objectives.
- Bonus programs should be consistent with company budgets as well as stated targets for performance.

- ▶ Bonuses should not be based upon a single endpoint. When multiple endpoints are used, they should be weighted according to their financial merit to the company or be consistent with active company initiatives.
- ▶ When production endpoints are used as bonus criteria, the timeline for awarding the bonus should be consistent with the time it takes for an employee's efforts to be manifest. For example, when using farrowing rate as a bonus criteria, assess farrowing rate at least 4 months after the employee began breeding sows.
- ▶ Endpoints used for bonuses must be achievable. For example, NFP has developed a bonus scheme in which employees begin earning bonus at budgeted levels of production and reach a maximum bonus at targeted levels. Achieving budgeted levels of production is expected; achieving targeted levels is "a reach," but they are still achievable.
- ▶ Endpoints used in formulating the bonus should, whenever possible, be a blend of financial and production endpoints.
- ▶ Endpoints for bonuses should be clearly understood by employees as well as the steps for improving them.
- ▶ Incentives should be linked to endpoints over which the employee has direct control.
- ▶ The endpoints used to evaluate farm staff should be consistent, but may not be identical, with those used in the evaluation of service staff. Also, the standards of performance at which bonuses are paid should be the same for farm and production staff when common endpoints are used.

Pay Augmentation

Occasionally, employees are asked to do something in addition to their normal responsibilities. When this happens, NFP has offered the employee a *pay augmentation*. This type of remuneration persists only for as long as the employee does the job. For example, employees on a short-staffed farm can split the salary of the missing staff for as long as the vacancy exists. If an employee is willing to travel an abnormally long distance to another farm to temporarily fill a vacancy, their salary can be supplemented with a pay augmentation.

$$\text{Remuneration} = \text{Base Pay} + \text{Benefits} + \text{Incentives}$$

Where: Base Pay = Starting Base Pay + Annual Merit Raises + Cost of Living Allowance + Pay Augmentation

▪ **Evaluations**

Format

Standardized, pre-prepared evaluation forms do not work well for evaluating the management staff of a pig operation. NFP uses an evaluation form that blends a subjective review of personal traits with a subjective analysis of the person's performance relative to specific production objectives. This subjective review is complementary to the objective criteria used in the calculation of bonuses. Personal traits reviewed include such things as execution of company policies and initiatives, management of subordinates, and improving job knowledge. Subjective factors assessed relative to production objectives include such things as ability to troubleshoot problems, focus on cost management, and care of company assets. The review is customized to fit farm managers, service managers, production managers, and staff officers (e.g. veterinarian).

Frequency

At NFP, production management personnel are reviewed annually, at the close of each fiscal year, synchronous with the compilation of the last quarterly bonus. New employees are formally reviewed at the end of a 90-day probationary period.

▪ **Conclusions**

To be successful in managing employees over the long term, employee programs need to be integrated. Farm manning (quality and quantity) is directly related to a farm's ability to achieve budgeted and targeted levels of performance. Performance budgets and targets must be consistent with bonus programs. Bonus programs must be compatible with merit reviews. Reviews must be consistent with what staff have been taught and asked to do. What you can ask farm staff to do is dependent upon the quality and quantity of staff you recruit and retain on the farm.

Farms that have good performance achieve it because of their people. It is not an accident when a farm is staffed, over a long time horizon, with motivated people who work together to achieve a common goal of production excellence. Pigs do not achieve excellence; people achieve excellence through their pigs.