



Labor Management for Heifer Rearing

Peter Tozer, Trent Schriefer, and Jud Heinrichs



Department of Dairy and Animal Science
The Pennsylvania State University
324 Henning Building
University Park, PA 16802
(814) 865-5491 • FAX (814) 865-7442
www.das.psu.edu/teamdairy/

Topics Include:

Introduction
Chore chart for a labor management system
Summary of chore charts

INTRODUCTION

Good labor management is a key to the success of the modern dairy business. Labor management includes the delegation of tasks, the supervision of employees, and the completion of tasks in an orderly and timely manner. In addition, employees should be aware of the consequences when there are lapses in management and when tasks are done incorrectly.

When a manager delegates responsibilities to employees, it implies that the manager knows their skills and knows the standard operating procedures (SOP) for the particular job. SOPs are important to maintaining a safe working environment as well as optimizing animal performance. It is unrealistic to expect an employee who does not possess the necessary skills or is poorly trained to do a job correctly.

Performing a task properly can be defined by following the proper SOP for the job being conducted. SOPs are written procedures on how a particular job is to be completed. Having this information in writing minimizes miscommunications between the employer, manager, and employees.

There are four basic points to keep in mind when managing labor and ensuring that SOPs are being followed. The first step is to meet with the employees and discuss how current protocols are being implemented. This can help to determine if employees are following the SOPs, if they have been trained properly or if the SOPs need to be updated.

A second point for SOPs that deal with everyday tasks is to list events step by step. It is often the small details that are assumed to be known which create the major problems. A third recommendation is that SOPs be written in the most simplistic language so there are no misunderstandings on how, when, and where tasks should be performed.

Lastly, all employees should be aware of the SOPs and they should be posted in highly visible areas. This helps new employees as well as part-time help to perform tasks correctly.

SOPs should allow tasks to be completed in a timely and consistent manner everyday. This can assist the manager in making efficient use of all resources available, not only labor

CHORE CHART FOR A LABOR MANAGEMENT SYSTEM

To ensure that managers and employees alike understand their duties and responsibilities it is a good idea to develop a chore assignment or accountability system. A simple chore chart idea has been developed to use with each of the four logical dairy heifer-growing periods. This chart is designed as an example of one farm

only. Its intention is to help employers and managers think of new and better ways to enhance the current labor management system. However, it should be noted that an attempt was made to model this after a typical Pennsylvania dairy farm that is raising replacement heifers.

CHORE CHART, CONT.

In the spreadsheets, the frequency of the chores is specified. The other factors specified will vary and depend on the unique situation of each farm business. The outcomes and consequences are also given as examples and will vary across individual businesses.

Chore

Chores will be self-explanatory in most cases. The personnel and general management chore for the owner or manager is to set aside time for managing and training employees. It should also include an allowance for the owner or manager to undertake training or self-education workshops as well. Examples of continuing education include attending extension or industry workshops and farm visits. Time should be allotted for reading journals, newspapers, magazines, or conducting Internet searches for information to improve the overall efficiency of the dairy business.

Daily, weekly or monthly

This is the number of occasions per time period that a particular chore should be done.

Personnel

The person who should do a particular job or is primarily responsible

for the task. A well-trained employee is one who the owner or manager believes can do the task satisfactorily without direct supervision or very limited supervision.

Time

An approximation of the time to do the task specified.

Labor cost

The cost of the time taken to do the task specified, based on the time taken and the cost of the labor of the person doing the task.

Responsibility factor (RF) ***(1 lowest – 5 highest)***

The responsibility factor is a measure of the importance of doing the task correctly and in a timely manner. A high responsibility factor implies that the consequences of not doing the task correctly can be extremely costly to the dairy farmer.

Outcome

The result of completing the task correctly or at the right time.

Consequence

The result of carrying out the job incorrectly or not at the right time.

SUMMARY OF CHORE CHARTS

Calves from birth to weaning

Daily tasks related to feeding are the most frequently required tasks for this age group, however the tasks of feed preparation and equipment sanitation have the highest responsibility factor. They require a well-trained employee or the owner or manager handles these tasks. These items also have the highest potential consequence if they are done improperly. Health checks are also high priority tasks and have great consequences in both time and economic loss.

The other tasks are important, yet not as critical to the day-to-day health and well being of the calves. The other tasks must be done occasionally as noted in order to maintain a controlled calf raising operation.

The degree of record keeping and personnel or general management will vary greatly with the size of operation and individual goals of the farm owner. Therefore, the time related to these tasks are not given.

Heifers from weaning age to 6 months

In this age group, proper feed preparation, regular health checks, and personnel or general management are the most important factors to accomplish. Other than feeding and repairs (when necessary), the other factors related to this age of heifers are more flexible as to when they are accomplished. Thus these animals can serve as a time buffer for some of the rest of the farm operation. Record keeping however is of high relative importance and is critical to the

success of the farm enterprise and animal well being.

Part of this record keeping is to monitor the growth of the animals. This should include weight (scale or heart girth tape) and height of the heifer (withers height or hip height). These monitors encompass a variety of items, but they are most directly related to feed quality, ration balance, and general health program.

Heifers from 6 months of age to breeding

Tasks, relative importance, followed by outcomes and consequences are similar to the previous age group. Some of the daily tasks are of slightly less relative importance as the immediate nature of the consequences is not as great. For example, if a ration is not accurately prepared on one day, the consequence is trivial. If not prepared correctly for a week, it could be

important. Long term poor animal husbandry practices are of great consequence and management is still of top relative importance.

During this time period heat detection and breeding become factors of top importance. Time spent involved in these aspects can have a tremendous impact on overall heifer rearing costs relative to herd average age at calving.

SUMMARY OF CHORE CHARTS

Heifers from breeding age to prefreshening

Similar to the previous heifer group, as heifers get older and larger, the day-to-day relative importance is less critical to the outcome, however chronic weekly or monthly problems are important.

Management must have some degree of quality control to maintain proper and consistent growth rates in a cost-effective manner.

Making a custom chore chart

Some tasks and chores can be done in conjunction with each other, providing the person doing the chore has the training. An example of this is the person responsible for feeding calves can also check the health of these

animals as the feeding is being done. The calf feeder may need some training to be able to identify animals that may be unwell or symptoms that indicate an animal is unwell and can report to the person responsible for health checks.

This publication is available in alternative media on request.

The Pennsylvania State University is committed to the policy that all persons shall have equal access to programs, facilities, admission, and employment without regard to personal characteristics not related to ability, performance, or qualifications as determined by University policy or by state or federal authorities. The Pennsylvania State University does not discriminate against any person because of age, ancestry, color, disability or handicap, national origin, race, religious creed, sex, sexual orientation, or veteran status. Direct all inquiries regarding the nondiscrimination policy to the Affirmative Action Director, The Pennsylvania State University, 201 Willard Building, University Park, PA 16802-2801; tel. (814) 863-4700/V, TDD (814) 865-1150/TTY.

Where trade names appear, no discrimination is intended, and no endorsement by Penn State's College of Agricultural Sciences is implied.

Issued in furtherance of Cooperative Extension Work, Acts of Congress May 8 and June 30, 1914, in cooperation with the U. S. Department of Agriculture and the Pennsylvania Legislature. T. R. Alter, Director of Cooperative Extension, The Pennsylvania State University.

SUMMARY OF CHORE CHARTS, CONT.

Calves from birth to weaning

Chore	Daily	Weekly	Monthly	Personnel	time	labor cost (\$)	RF	Outcome	Consequence
FEEDING									
Mixing/Prep.	2X			owner/manager well trained employee	20 min	minimal	5	properly mixed replacer maintained equipment attention to inventory reduced health costs less scours	poor nutrition scours poor growth disease transfer vet costs wasted product
Sterilizing/Sanitation	2X			owner/manager well trained employee	15 min	minimal	5	maintained equipment clean equipment reduced health costs less scours	disease transfer scours reduced growth
Feeding	2X			trained employee well trained employee	2 min/hd	0.23/hd	3	properly feed calves observed health status observed intake observed growth observed bedding	underfed calves poor health slow growth poor environment vet costs
Inventory		1X		owner/manager well trained employee	20 min/wk		2	always stocked maintain product quality cost effective	run out of product expensive substitute products
CLEANING/BEDDING		1X	1X	trained employee	1.5 min/hd	0.18/hd	2	clean environment healthy animals maintained facilities	unhealthy animals vet costs maintenance costs poor appearance
HEALTH CHECKS		1X	1X	owner/manager well trained employee	0.5 min/hd	0.06/hd	5	identify problems early reduced vet costs healthy animals	unhealthy animals costly problems poor long term growth labor cost treating sick animals
scours									
pneumonia									
general appearance									
vaccinations									
WEIGHT/GROWTH CHECKS			1X	well trained employee			3	determine calf growth identify health problems identify poor doers identify ration problems develop workable animals	unknown average gain economic loss
RECORD KEEPING		1X		owner/manager well trained employee			4	better management decisions improved problem-solving better financial control better animal monitoring	poor decision-making loss of financial control management problems
inventory									
growth records									
health records									
employee records									
facility records									
REPAIRS & MAINTENANCE	1X	1X	1X	owner/manager all employees			3	well maintained facility pride in work environment safe working environment safe for animals maintain value	poor facility poor working conditions high employee turn-over unsafe environment loss of property value
PERSONNEL/GENERAL MANAGEMENT				owner/manager			4	properly trained employees	untrained employees
training	1X	1X	1X	all employees				increased working knowledge team work environment pride	chores done incorrectly large financial loss unproductive wages paid
advertising								attend workshops, seminars	unsafe employees
communications								better, smoother operation coordinated work efforts	high employee turn-over duplication of work efforts management problems

SUMMARY OF CHORE CHARTS, CONT.

Heifers from weaning age to 6 months

Chore	Daily	Weekly	Monthly	Personnel	time	labor cost (\$)	RF	Outcome	Consequence
FEEDING									
Mixing/Prep.	1X			owner/manager well trained employee	20-30min	3.5	5	attention to ingredients maintained equipment attention to inventory reduced health costs attention to forage quality attention to biosecurity	poor nutrition poor growth disease transfer vet costs wasted product
Feeding	2X			owner/manager trained employee	1.5min/hd	0.23/hd	3	properly feed heifers timely feed heifers observed health status observed intake observed bedding condition continual inventory check	inconsistently fed heifers poor health slow growth too rapid growth poor environment vet costs wasted product
Inventory		1X		owner/manager well trained employee	10 min		2	always stocked maintain product quality cost effective	run out of product expensive substitute used time lost looking
CLEANING/BEDDING		1X	1X	trained employee	1 min/hd		3	clean environment healthy animals maintained facilities pleasant work environment	unhealthy animals vet costs maintenance costs poor appearance
WALK THROUGH HEALTH CHECKS		1X	1X	owner/manager			5	identify problems early reduced vet costs healthy animals	unhealthy animals costly problems slow growing animals reduced production
general appearance									
vaccinations									
WEIGHT/GROWTH CHECKS			1X	owner/manager well trained employee			3	determine heifer growth identify health problems identify poor doers develop workable animals	unidentified poor doers economic loss unworkable animals
RECORD KEEPING		1X		owner/manager well trained employee			4	stay current better management decisions improved problem-solving better financial control better animal monitoring ration quality control	poor decision-making loss of financial control management problems
inventory									
growth records									
health records									
employee records									
facility records									
feed/forage sampling									
REPAIRS & MAINTENANCE	1X	1X	1X	owner/manager all employees			all	well maintained facility pride in work environment safe working environment safe for animals maintain value	poor facility poor working conditions high employee turn-over unsafe environment loss of property value
PERSONNEL/GENERAL MANAGEMENT				owner/manager all employees			5	properly trained employees increased working knowledge team work environment pride attend workshops, seminars better, smoother operation coordinated work efforts	untrained employees chores done incorrectly large financial loss unproductive wages paid unsafe employees high employee turn-over duplication of work efforts management problems
training	1X	1X	1X						
advertising									
communications									

SUMMARY OF CHORE CHARTS, CONT.

Heifers from 6 months of age to breeding

Chore	Daily	Weekly	Monthly	Personnel	time	labor cost (\$)	RF	Outcome	Consequence
FEEDING									
Mixing/Prep.	1X			owner/manager well trained employee	20-30min	3.5	4	attention to ingredients maintained equipment attention to inventory reduced health costs attention to forage quality attention to biosecurity	poor nutrition poor growth disease transfer vet costs wasted product inconsistent feed quality
Feeding	1 or 2X			trained employee	1 min/hd	0.23/hd	3	properly feed heifers timely feed heifers observed health status observed intake observed bedding condition continual inventory check	underfed heifers overfed heifers inconsistently fed heifers poor health slow growth poor environment vet costs wasted product
Inventory		1X		owner/manager	10 min		2	always stocked maintain product quality cost effective	run out of product expensive substitute used time lost looking
CLEANING/BEDDING		1X	1X	trained employee	.5 min/hd		3	clean environment healthy animals maintained facilities pleasant work environment	unhealthy animals vet costs maintenance costs poor appearance
WALK THROUGH HEALTH CHECKS		1X	1X	owner/manager well trained employee			4	identify problems early reduced vet costs healthy animals personal knowledge of animal	unhealthy animals costly problems poor long term doers reduced production
general appearance vaccinations									
WEIGHT/GROWTH CHECKS			1X	owner/manager well trained employee			3	determine calf growth determine feeding rate identify health problems identify poor doers identify poor quality rations	unidentified poor doers economic loss
body condition scoring									
REPRODUCTION				owner/manager well trained employee			5	bred animals calving schedule early bred animals efficient use of animals	open heifers unscheduled calving late freshing heifers feeding open animals
heat checks breeding pregnancy checks									
RECORD KEEPING		1X		owner/manager well trained employee			4	stay current better management decisions improved problem-solving better financial control better animal monitoring ration quality control	out of touch poor decision-making loss of financial control management problems
inventory growth records health records employee records facility records reproduction records feed/forage sampling									
REPAIRS & MAINTENANCE	1X	1X	1X	owner/manager all employees			all	well maintained facility pride in work environment safe working environment safe for animals maintain value	poor facility poor working conditions high employee turn-over unsafe environment loss of property value
PERSONNEL/GENERAL MANAGEMENT	1X	1X	1X	owner/manager all employees			5	properly trained employees increased working knowledge team work environment pride attend workshops, seminars better, smoother operation coordinated work efforts	untrained employees chores done incorrectly large financial loss unproductive wages paid unsafe employees high employee turn-over duplication of work efforts management problems
training advertising communications									

SUMMARY OF CHORE CHARTS, CONT.

Heifers from breeding age to prefreshening

Chore	Daily	Weekly	Monthly	Personnel	time	labor cost (\$)	RF	Outcome	Consequence
FEEDING									
Mixing/Prep.	1X			owner/manager well trained employee	20-30min	3.5	5	attention to ingredients maintained equipment attention to inventory reduced health costs attention to forage quality attention to biosecurity	poor nutrition poor growth disease transfer vet costs wasted product inconsistent feed quality
Feeding	1 or 2X			trained employee	1 min/hd	0.23/hd	3	properly feed heifers timely feed heifers observed health status observed intake monitored growth observed bedding condition continual inventory check	underfed heifers overfed heifers inconsistently fed heifers poor health slow growth poor environment vet costs wasted product
Inventory		1X		owner/manager well trained employee	20min/wk		2	always stocked maintain product quality cost effective	run out of product expensive substitute used time lost looking
CLEANING/BEDDING									
		1X	1X	trained employee	.5 min/hd		3	clean environment healthy animals maintained facilities pleasant work environment	unhealthy animals vet costs maintenance costs poor appearance
WALK THROUGH HEALTH CHECKS									
general appearance vaccinations		1X	1X	owner/manager well trained employee			4	identify problems early reduced vet costs healthy animals personal knowledge of animal	unhealthy animals costly problems poor long term doers reduced production
WEIGHT/GROWTH CHECKS									
body condition scoring			1X	owner/manager well trained employee			3	determine heifer growth determine feeding rate identify health problems identify poor doers identify poor quality rations develop workable animals catch over-conditioned animals	unidentified poor doers economic loss unworkable animals fat animals
RECORD KEEPING									
inventory growth records health records employee records facility records feed/forage sampling		1X		owner/manager well trained employee			4	better management decisions improved problem-solving better financial control better animal monitoring ration quality control	poor decision-making loss of financial control management problems
REPAIRS & MAINTENANCE									
	1X	1X	1X	owner/manager all employees			all	well maintained facility pride in work environment safe working environment safe for animals maintain value	poor facility poor working conditions high employee turn-over unsafe environment loss of property value
PERSONNEL/GENERAL MANAGEMENT									
training advertising communications	1X	1X	1X	owner/manager all employees			5	properly trained employees increased working knowledge team work environment pride attend workshops, seminars better, smoother operation coordinated work efforts	untrained employees chores done incorrectly large financial loss unproductive wages paid unsafe employees high employee turn-over duplication of work efforts management problems