

SOP is Here

Committing your production routine to a standard written format can save time and money as well as reducing the likelihood of a serious error or accident.

by Ed Haag

A standard operating procedure (SOP) sheet or manual is a common quality and safety assurance document in other industries, but when Dale Moore, Extension veterinary specialist, Washington State University (WSU) searched for SOP templates pertaining specifically to cow-calf or seedstock operations, she was surprised to find that there were none.

"The closest I could come was an SOP developed by Pennsylvania (Penn) State University for dairy operations," Moore recalls. "I couldn't find anything that looked like that in the beef world."

To understand what an SOP is, one only has to remember being a kid and having an adult jot down a list of chores on a scrap of paper torn from a discarded feed sack. At that moment, you were being handed your first SOP.

Moore defines standard operating procedures as written guidelines that

specifically describe how to complete various tasks on the ranch.

"They make it possible for different people — employees or family members — to always complete the same tasks consistently and safely," Moore says. "In addition, they make for better future decision-making or investigation into how to improve the processes on the ranch."

She points out that on every ranch there

are numerous variables unknown to all but those who are directly involved in its day-to-day operation. These range from a particular way to start a tractor to where specific supplements are stored.

Moore views the SOP as a tool used by those who are not knowledgeable about the intimate workings of an operation to perform required tasks and achieve a degree of success without a period of trial and error.

"For example, you've probably processed cattle many times before and know the idiosyncrasies of your squeeze chute, but not



PHOTOS BY PATTI HAAG

► Low-stress cattle handling is an excellent candidate for establishing standard operating procedures.

everyone else has this wealth of knowledge," she says. "SOPs will provide that bridge of information and serve as a systematic way to make sure that all tasks are carried out consistently."

Tool for today's rancher

It is a familiar lament among beef producers that the cattle business is not the same as it was in dad's day and, if there is a single complaint voiced above all others, it is that running an operation today is far more complex than it was in the past. This is particularly true for ranchers who must hire workers who are unfamiliar with their operations.

Faced with that reality, Moore says she believes developing and using standard operating procedures for various tasks is an excellent first step toward coming to terms with employee turnover as it applies to quality control and worker safety.

"SOPs can serve as a guide for people filling in, can be a reference for training new workers, and [can] decrease the amount of confusion when someone leaves and things have to get done," she says. "The big advantage is that they help move the procedures toward consistency and getting the job done right."

Moore adds that it is no accident that SOP development is an integral part of WSU's Beef Quality Assurance (BQA) Program. "We see SOPs as a way to demonstrate what you do and how you get it done," she says, pointing out that they are written evidence that a rancher is doing his best to comply with the practices outlined in the program.

Jan Busboom, professor of meat science, Extension meat specialist and a participating faculty member in the WSU BQA Program, concurs.

"A big part of producing quality beef consistently is making sure everyone is on the same page," he says, adding that documentation supporting the correct procedure has an authority that transcends verbal instructions.

He points out that studies confirm operations that develop a reputation for delivering consistently high-quality beef can demand and receive a higher price for their product. "Any way you can maintain that quality by always performing tasks uniformly and properly will eventually make you more money," he says.

Moore notes that SOPs are also excellent tools for evaluating worker performance, as well as serving as a coherent outline for work-related discussions with employees, both individually or in a group.

The value of SOPs extends beyond their usefulness in dealing with existing employees, Moore says. They are also

beneficial in recruiting qualified replacement workers by providing an outline for writing job descriptions and in helping identify skill requirements.

Besides functioning as worker checklists, quality control instruments and hiring guides, SOPs serve other important functions.

“One of the main reasons businesses keep SOPs is for worker safety and preventing injuries on the job,” Moore says, adding that because it provides a detailed printed document of a particular procedure, the SOP offers the rancher additional legal protection in the event of an accident, as well as serving as a reference document in accident investigations.

Document for all seasons

For Moore, one of the real advantages of SOPs is their versatility. While SOPs can be written for most ranch tasks, two general categories are worth considering.

“Some of the many things you might want to write SOPs for involve processing and feeding cattle,” Moore says. “That is where your big inputs are and you might want to know that time and resources aren’t being wasted.”

These would include tagging, branding, castration, dehorning, vaccination, treatments, feeding, implanting, breeding, transporting, restraint, moving and handling, and calving management.

When prioritizing which tasks are in most need of SOP documentation Moore has some definite opinions.

“If I were writing an SOP, I would first pick something involving worker safety or something that has the greatest impact on my employees or cattle operation,” she says. “For example, every squeeze chute I’ve ever worked with has its own peculiarities, and I would have saved a rib from being damaged if someone would have informed me that that headgate had a mind of its own.”

Taking the first step

Once it is determined which task should be documented, the writer should first proceed with one of three formats, including a simple set of steps, a tiered set of steps or a flow chart. All three formats document the process of completing the selected task from beginning to end — Step 1 accompanied by written instructions, Step 2 accompanied by written instructions, and so forth to its completion.

“The instructions in the process should be simple, short statements and be written clearly and concisely with little room for

►WSU Extension veterinarian Dale Moore sees SOPs as essential tools in maintaining quality control.



interpretation,” Moore says, suggesting that those who are required to comply with the SOP be involved in its development process. “This will improve compliance and may help define the procedure more efficiently.”

Every SOP should also include the title of the task, the name of the person responsible for the SOP, and date or revision date as well as the list of tools, materials or equipment needed for the procedure and a list of safety precautions for hazardous procedures.

Applying the SOP principles

Moore notes that there will be some overlap in SOPs.

“For instance, processing calves might involve a number of different procedures, all of which you want to have done right,” she says. “For that reason you might need an SOP for each of these major procedures.”

As an example, the squeeze chute is a device commonly used to restrain calves in order to administer vaccinations correctly. The SOP outlining the use of the squeeze chute should be reviewed prior to initiating that restraining process.

At the same time, the calves being vaccinated must be handled and delivered to the chute with minimum stress so that their stress response does not interfere with their antibody response to the vaccine. Following an SOP for the proper low-stress handling of cattle will improve the chances of those animals arriving in the proper state.

Moore points out that, with the goal of vaccinating every calf effectively so that they can respond to the vaccine appropriately, a primary role of the vaccination SOP is to foresee where problems might occur and have instructions that will minimize error.

Using the SOP worksheet

This is accomplished by responding to each heading on the SOP worksheet, such as identifying the work site — chuteside or on calf table — and who will be doing the procedure. The SOP should also include a heading for a list of equipment or supplies needed

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SOP Development Worksheet

SOP Name: _____

SOP Number: _____

Written by: _____

Date Written: _____

Date Implemented: _____

Date Last Revised: _____

Task Description

Location work is done: _____

Number of people required: _____

Skill level: _____

Equipment & supplies required: _____

Personal protective & safety equipment required: _____

Objective, finished product or result expected: _____

Scope of this SOP:

Operations covered: _____

Workers covered: _____

Designated & trained workers: Names _____

Locations covered: _____

Specific Skills, Training, Certifications, or Licenses Required: _____

Adapted from ProDairy forms

►SOPs make it possible for different people to complete the same ranch tasks consistently and safely, Moore says.

to accomplish the procedure. In the case of a vaccination SOP, it would include a list of adequate supplies of needles and vaccines for the number of calves being inoculated, syringes or clean vaccination gun with backup equipment, a cooler and ice packs, paint stick for marking “done,” appropriate herd health record sheets, a sharps container for used needles, a garbage container for vaccine bottles and boxes, as well as a list of personal protective and safety equipment such as gloves, boots and hats.

Another heading on the SOP worksheet should pertain to the objective, finished product or result expected. In the case of the vaccination SOP, the objective would be a properly handled vaccine given as per label (dose, site) to each calf.

Scope of the SOP should also be specified, indicating operations covered, workers covered and locations covered, as well as specific skills, training, certifications or licenses required to carry out the vaccination procedure.

Once the initial portion of the SOP worksheet is completed, detailed steps in the

procedure can be listed. An example could include:

- ▶ Obtain vaccine from refrigerator and place in cooler with ice packs.
- ▶ Keep vaccine cool during entire processing time.
- ▶ Follow label guidelines for vaccine handling.
- ▶ Set up equipment table at chuteside.
- ▶ Load syringe/gun.
- ▶ Give label dose in neck in labeled manner [subcutaneous (sub-Q) or intramuscular (IM)].
- ▶ For sub-Q, tent skin to make sure needle is under the skin.
- ▶ Mark calf with pink paint stick.
- ▶ Check off on list of calves.
- ▶ Mark tag number on record sheet.

Training with SOPs

Moore notes that while SOPs are no substitute for on-site training, they can be a valuable addition to the process. This is particularly true for operators wishing to standardize procedures in order to optimize quality control and efficiency.

“Do not assume that everyone can read

and understand written SOPs,” Moore warns. “They should be used as part of the training practice and not replace training.”

She points out that workers want to understand why the procedures must be performed correctly. The best way to accomplish this is to discuss what the procedures are and why they are important, show how to do the procedures, have the trainees do the procedure and get feedback, then have the trainees do the procedure and describe what they are doing while performing the procedure.

Finally, completed SOPs are only as effective as their visibility. Several copies of the document should be available both as a laminated and posted instruction sheet where the procedures take place and as 3×5-inch (in.) index cards that can be tucked into a pocket for quick reference.

For more information on developing your SOPs, access WSU’s BQA web site, “A Guide to Writing Standard Operating Procedures,” at www.bqa.wsu.edu/states/wa/documents/GUIDETOWRITINGSOPsFORBQA2008.pdf.

