

Records, chute-side reports, what can new grads do?

John D. Bolinger, DVM

Owner, Bolinger Veterinary Service, LLC, Tipton, MO 65081

Abstract

The ability to capture data chute-side can give the veterinarian a great opportunity to help producers beyond just utilizing their technical skills. This data can be turned into Management Event Reports that are designed to highlight key information for a specific event, such as pre-breeding/turnout, pregnancy diagnosis and weaning, heifer development, and bull breeding soundness exams. These reports can be created chute-side using a tablet and printed onsite, allowing the veterinarian to provide instant information to further discussions with producers.

Key words: beef records, reports, chute-side

Introduction

A veterinarian's opportunities to make a real impact on a cattle operation are usually limited to the visits they make in person. This is especially true early on in the development of a veterinary-client relationship. Most opportunities come during key management events throughout the cow-calf production cycle, such as pre-breeding/turnout, pregnancy diagnosis and weaning, heifer development, and bull breeding soundness exams. During these visits, veterinarians have a chance to not only help the producer through their technical skills, but also their knowledge base. Chute-side reports are a great tool to showcase that knowledge and can be used as a starting point to more meaningful discussions with the producer about the future of their operations.

When developing management event reports, it is important to make sure one can highlight the important information available without creating information overload by trying to glean too much information from one event. Remember that each management event is a single snapshot in time that occurs during the entire production cycle, from breeding to pregnancy to calving to weaning. In the following sections, key data points we collect during each event and how we choose to present them in a report are presented. These reports are a baseline to review on all farms, but they can be supplemented if the situation warrants.

A few features are common to all of the reports. First, the report fits on a single page. Creating long reports with multiple pages leads most producers to glance at the first and last parts, thus ignoring everything in the middle. Second, limit the number of graphs to 2. More than 2 may leave the producer with a feeling of information overload, and they may have a hard time focusing on which graph is important. A production event with a major problem, like low pregnancy rate,

can justify adding extra graphs and pages, but for the majority of visits I do not recommend it. Next, I recommend including a vaccination/deworming protocol chart. At the majority of these management events, the cattle will be receiving various vaccinations, deworming, and/or other treatments. These treatments are likely to vary from one herd to the next and by including them in the reports, one is better able to recall which herd had what treatments and when. Lastly, do not forget to properly identify the owner, herd, and date. This seems simple, but a major component to the success of these reports is getting the simple things correct.

One does not need to create these reports from scratch each visit. We utilize a spreadsheet program to create an original template for each report. The template is then duplicated and saved as a new file for each herd. Then, as data for that herd is entered, the report is generated chute-side at the same time. We use Apple's Numbers spreadsheet program as opposed to the more familiar Microsoft Excel. Since we use an Apple iPad to collect the data chute-side, Numbers is more convenient. Also, in my experience, Numbers is much more tablet-friendly and touch screen-friendly, thus making it more suited for chute-side use.

Only a small number of simple formulas are used to create these reports in Numbers. They are the following: =, Count, CountA, CountIFs, Average, AverageIF, Max, Min, Median, and StDEV (Coefficient of Variance = Standard Deviation/Mean). If I am using Excel, Frequency is also a useful formula. I will not describe each formula, but their use can be explained easily with a web search. It is also important that if you choose to use Excel, remember to turn on AutoSave. This feature will automatically save the spreadsheet after you finish entering each cell. AutoSave is always on in Numbers. Also, you should be familiar with the Undo button. Someone will eventually accidentally erase half of the sheets or paste something over the top of your cells. This is easily remedied by using the Undo button, and you will save someone from having a panic attack.

Cow Reports

The cow reports (Figure 1) we use were developed with pregnancy diagnosis in mind, but can also be utilized at pre-breeding/turnout or in continuous calving herds that process cows once or twice a year. The "Breeding" chart is at the beginning of the report that allows recording bull in and out dates, as well as an AI date, if needed. From those dates, we provide an estimated start of the calving seasons, as well as the maximum and minimum stages of pregnancy that should be possible. The latter is more to aid the veterinarian



Cow Report

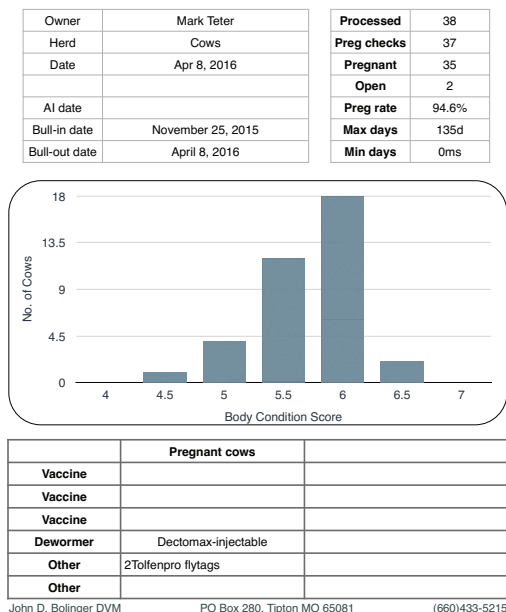


Figure 1. Cow report.

in accurately staging pregnancy diagnosis. The minimum data points collected on each cow are cow ID, color, and body condition score (BCS). Depending on the visit, we will also collect pregnancy status and/or weight. We also have a column for age, which may or may not be used. A nice result of collecting the age of a cow is it only has to be done once in a cow's lifetime, then you can easily copy that data into subsequent reports for that farm. From the few data points, a ton of information can be created. The purpose of a good report is to focus a producer on the information that can make a real impact in their operation.

The graph we choose to highlight in all of our cow reports is a BCS histogram. Cow body condition is crucial to all aspects of a cow's life. Whether it is her chance at conceiving a calf, producing quality colostrum for that calf, or responding to the vaccinations/treatments veterinarians recommend, appropriate cow BCS lies at the heart of the success for all of these. The BCS histogram allows one to assess the herd as a whole. We do not even include an average BCS for a herd, because I think viewing the distribution of the herd leads to better discussions with the producer. If we capture individual cow weights, we will use a different template (Figure 1a) that includes basic statics (average weight, max, min, range, coefficient of variance) of the weight data in a chart as well as a weight distribution graph. Cow age is recorded in the



Cow Report

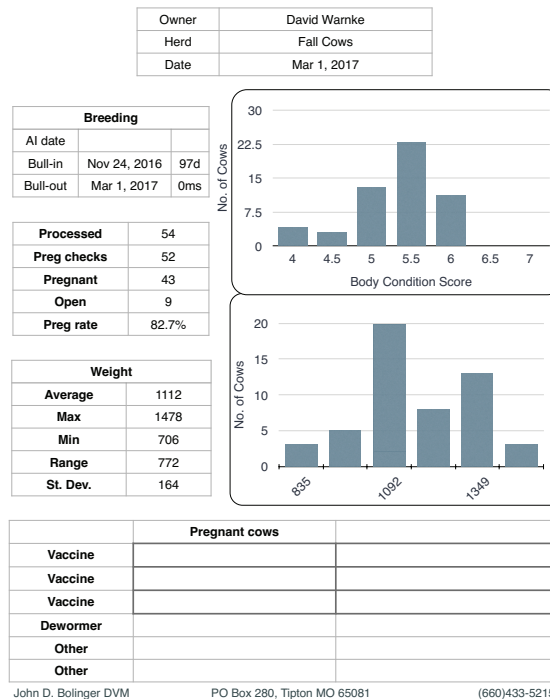


Figure 1a. Cow weight report.

data field, but is not included in any charts or graphs for our standard reports.

Calf Report

The same calf report (Figure 2) is used for all of the common management events in a calf's life: branding/turn-out, pre-weaning, weaning, and revaccination. The key data points we collect are calf ID, color, and sex with or without weight. We will also commonly add a column to our data collection for a second ID that we utilize for some verified herd health programs. When recording the sex of a calf, it is important to make sure the spelling/capitalization is consistent among all calves. The formulas we use to create statistics based on sex require the program to recognize the exact spelling/capitalization of the term we use for the sex column. To insure proper spelling/capitalization, we create a drop-down menu in the sex column so that each entry is consistent throughout the report.

The main chart in the calf report contains statistical breakdown based on sex. The chart shows the total number of all calves, heifers, steers, and bulls, as well as number of each weighed and their respective averages. I included the

Calf Report

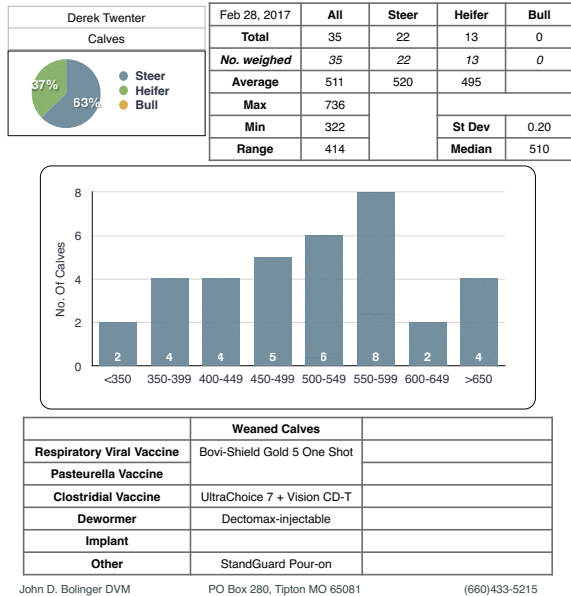


Figure 2. Calf report.

“number weighed” row because in our continuous calving herds, I want to be able to provide weight information specifically about the calves that are close to weaning age. We usually still record the weights of the younger calves, but we typically add a separate column in our data collection sheet to accommodate this without being included in the weight statistics. In addition to average weights, we also include max, minimum, and median of the herd as part of the basic report. Another aspect we try to analyze is uniformity of the calf crop. To assess this, we look at both the range and coefficient of variance. Coefficient of variance is equal to the standard deviation divided by the mean. We originally just looked at standard deviation, but it was hard to compare the uniformity of a group of calves that average 400 lb (182 kg) to a group of calves that average 600 lb (273 kg). I am not a statistician, but I am told coefficient of variance allows you to do this and gives a number between 0 and 1 that is easier to interpret, the smaller the number the more uniform the group. To better understand uniformity statistics, we include our clinic’s average in the report to help our clients benchmark their operations.

The main graph we highlight in the calf report is a weight distribution graph, as well as including a small pie chart showing the sex breakdown of the herd. The weight distribution graph is broken down into 50 lb (22.7 kg) weight

range. This breakdown can help a producer make more informed decisions regarding future marketing or growth plans of these different sized groups. The pie chart containing sex data was added as a more eye-friendly approach to show the percentages of each sex with a herd.

Heifer Reports

We use 2 heifer reports. The first is a “Heifer Development” report (Figure 3) designed to be used at 12 to 14 mo of age when performing pre-breeding exams, i.e. reproductive tract scoring and pelvic measurements. The second is a “Heifer Pregnancy” report (Figure 3a) for use at pregnancy diagnosis. Both have a blend of features from the cow and calf reports, but also include planning charts. Replacement heifers are literally the future of the cow herd and should not be overlooked. However, I find that they are often an afterthought for the producer because they are not being sold anytime soon and are not currently raising a calf that will be sold soon. I like to use the planning charts in the heifer reports as a way to highlight the importance of good heifer development and as a starting point for discussions regarding that process.

In the Heifer Development report, the first planning chart is the “Breeding Plan”. It allows for recording when the AI date is (if at all), when the bulls will be turned in, as well as

Heifer Development Report

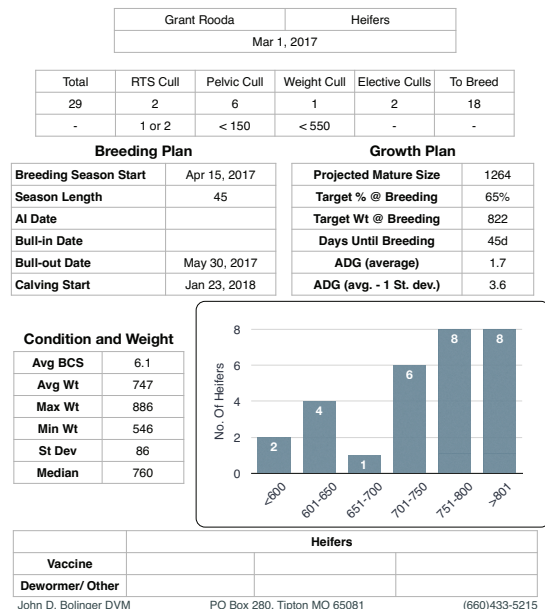


Figure 3. Heifer developmental report.

Heifer Pregnancy Report

Bailey Ranch	Heifers
Sep 30, 2016	

Breeding

AI Date	May 13, 2016	140d
Bull-in Date	May 23, 2016	130d
Bull-out Date	Aug 15, 2016	46d

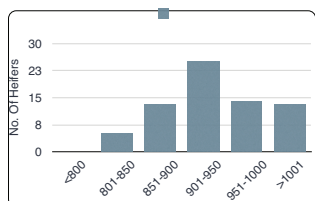
Pregnancy Data

Processed	70
Preg checks	70
Pregnant	65
Open	5
Preg rate	92.9%
AI	40
AI rate	57.1%

Avg BCS	6.0
Avg Wt	945
Max Wt	1130
Min Wt	802
St Dev	71
Median	933

Growth Plan - Calving

Projected Mature Size	1250
Target % @ Calving	85%
Target Wt @ Calving	1063
Days Until Calving	153
ADG (average)	0.8
ADG (avg. - 1 St. dev.)	1.2



Heifers		
Vaccine	ScourGuard	
Dewormer/ Other	Dectomax-injectable	StandGuard Pour-on

John D. Bolinger DVM PO Box 280, Tipton MO 65081 (660)433-5215

Figure 3a. Heifer pregnancy report.

the length of the breeding season. Asking about these dates can lead to deep discussions that will impact these heifers, and therefore the cowherd in the future. The report also includes a “Growth Plan” that is designed to monitor the heifers’ progress towards their target weight at breeding. Again, this is a great opportunity to start indepth conversations that will have a huge impact on the cow herd for years to come. Similarly, the Heifer Pregnancy report has a Growth Plan to help monitor progress towards our target weight at calving.

Bull Reports and Individual Exams

The development of these chute-side reports occurred over several years. We have made changes to what we include in the report and the layout of the forms. We had been using the cow, calf, and heifer reports for several years before we thought to include the bulls chute-side. One day, I realized that when I was on a farm I would often refer to a previous year’s cow reports on my iPad when discussing cows. This is a great side benefit of doing electronic reports chute-side, because you always have access to them anywhere. However, when it came to bulls, I was still relying on paper forms that were often left in a filing cabinet at the office. When doing routine breeding soundness exams of herd bulls, I always used the Society for Theriogenology’s herd form. I really like

Owner	Bulls
Mar 6, 2021	

Breeding Soundness Exam

Id	Metal	Breed	Age	SC	Motility	Morph	PE	BCS	Wt	Classification*	Trich Test
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											

*Classification based on Society For Theriogenology recommendations for breeding soundness.

Bulls	
Vaccine	
Dewormer/ Other	

John D. Bolinger DVM
Society For Theriogenology Member
Tipton, MO

Figure 4. Bull BSE report.

the layout and simplicity of the form, and modeled our bull report (Figure 4) to match it. It has been a great advantage to having this report available electronically. I am now able to pull up the previous BSE report and copy the bull ID, breed, age, scrotal circumference, and physical exam results. This is important because it is easy to lose track of a bull’s age and having it readily available helps. Also, this report allows me to monitor a bull’s scrotal circumference over time and pick up on any large decreases for an individual. I have found several bulls that would have meet the minimum guidelines for scrotal circumference, but due to the large decline, we choose to not use that bull for the upcoming breeding season. I can also monitor any notes that I previously made regarding a bull’s physical exam, such as preputial scars, corneal scars, or foot lesions.

After creating the Bull report, I eventually decided to create some individual exam reports in an effort to both improve the completeness of my medical records and as a way to remind myself of everything that has happened on a particular farm. We have a template for Individual Exam (lameness/illness), Dystocia, and Necropsy Report. These simple forms are designed to be completed within a few minutes. They are comprised of a few drop-down options to reduce repetitive typing and a small space for making brief notes regarding an exam.

Preparing the Reports Chute-side

We collect the data chute-side using iPad tablets. I know of others that use other tablets or laptops. We chose the iPad originally because the availability of a rugged case that allowed it to withstand the everyday work conditions of a mobile veterinary clinic. Buying a high-quality case will allow the tablet to be used in the dust, rain, snow, and mud, as well as resist damage when being dropped daily or thrown off the back of the truck when driving off. We use

a LifeProof or Catalyst case on our iPad and have had great results. Both cases are identical; however, depending on the version of your iPad, the case made to fit is produced by one brand or the other, but not both. Our iPads have generally lasted 2 to 3 years before being retired from daily vet work and being transferred over to a family member. The case does make them more sensitive to overheating on hot day (over 85°F [29.4°C]) and shutting down. If this happens, we just throw it in the refrigerator or cooler for a minute or two, then it is ready to go again. Overheating can be avoided by keeping the iPad in a shaded area and propping it on an ice pack. It is also sensitive to extreme cold and can shut down, but if you can keep vaccine from freezing, you can keep an iPad from freezing.

The other accessories I find necessary are an external battery pack for long days and a stylus. We usually just use our fingertips for data entry and get along great when wearing nitrile gloves. However, when it gets cold and we wear heavier gloves the stylus is a useful tool. It is also beneficial on rainy/snowy days because a stylus allows you to enter more cows before you have to wipe the water off the touchscreen.

Once the report is finalized, we provide a copy to the producer to allow us to review it. We accomplish this by keeping a small home printer in the truck that allows us to print onsite. The inexpensive printers (~\$80-\$100) are more rugged than you would think, lasting 12 to 18 months. We also frequently email reports to clients. This allows clients to have access to the reports on their phones when they are in the field while checking cows, and to print additional copies later. Numbers give the user different format options when emailing reports. I usually email reports as a PDF, as this is the most user-friendly for the client.

The use of these reports will lead to a large number of files in a hurry, so it is important to have a good file naming system. The way we name our files is 4-digit year.2-digit month.2-digit day.last name.first name.herd.report

type (2020.02.13.bolinger:john.preg). Each file is moved and stored within a producer's folder within Numbers. My iPad, iPhone, and MacBook at the office all automatically sync using iCloud, and I have access to all of my files anywhere. This is very convenient; however, accidentally deleting a file from one source will unfortunately delete it from all sources. To avoid accidental data loss, I download a copy to the hard drive of the MacBook from iCloud or email a copy to my office PC to be downloaded to its hard drive. This allows us to have a separate copy stored onsite.

Conclusions

Every time I present this topic to a group of veterinarians, the first question I get when I finish is "How do you charge clients for this?". This is a question I struggle with. It implies that the audience can see that the client will see value in chute-side reports, which they do, but it also implies that it is only worth doing if you can charge separately for it. I do not charge for these reports. They are at the core of how I practice veterinary medicine, and I don't know how I would practice without them. They open avenues of communication that might be missed otherwise, giving me the opportunity to offer better services to my clients and in turn, allow my clients to better understand why such services are important for their herd health. When I work with clients through these reports, I feel I am an integral part of their operation, and I believe my clients feel the same way. These reports are part of the foundation that help me build a long-term veterinary/client relationship.