



CAB Corner on Quality  
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## Data vs. Information

By David E. Shock, Director, CAB Information Systems

Can you tell the difference between data and information? My trusty Webster's pocket dictionary has it:

**Data** – facts; information. **Information** – news or knowledge imparted.

They seem very close. However, in our world of extensive computers and detailed record systems they are very different.

Data can be divided into three categories.

Raw data – this could be “85” – doesn't have meaning when it stands alone. It might mean something if you knew it was live birth weight of a calf in pounds.

Related raw data is a group (data set or data file) of organized raw data that can be tied together. For example, it could be a group of birth weights, birth dates, sire and dam identification numbers, all tied to the calves' ear tag numbers.

Cleaned raw data is all the above after being validated or processed through some kind of “sense” gate. Such a process might ensure that birth weights are between 60 and 120 pounds (someone could accidentally enter a 700-pound birth weight), that birth dates fit the calving season you set and that sire numbers match the five bulls you used.

Data can be acquired from many different sources. It must always be evaluated as to which category it belongs, and if it needs any additional validation before analysis that produces information.

Certified Angus Beef LLC (CAB) has a large database. We keep track of companies that produce and sell *Certified Angus Beef*<sup>®</sup> products, and all of the restaurants and retail stores that sell it to consumers. Our database has well over 180,000 different companies, 6 million sales invoices, and 16.7 million CAB<sup>®</sup> sale items.

OK, but you ask, “Where did CAB get all that data?” We have been using a computer-based data tracking system for more than 17 years. As our program has grown, so has the amount of data we receive. Every

month, we get data from the U.S. Department of Agriculture and at least 500 other sources to include packers, distributors, exporters, processors, feedlots and retail chains from around the world.

It's a whole lot of data if you're entering it into a computer. When we started the Trademark Integrity Protection System (TIPS), we required each company to send a monthly paper report of sales. Each of these needed to be entered. Today, e-mail and the Internet allow us to upload a large percentage of these sales reports into our database.

All of our data goes through some sort of validation so that we don't have tenderloins outside the nominal range of 4 to 6 pounds, for example. Even with the best validation, data will never be perfect, but it is processed and cleaned to the point of having a very high confidence of its accuracy.

So, is it information yet? Not yet. Information is born when we organize the clean raw data into charts, summaries, averages and ranked lists that help us make decisions. These would be called "informed" decisions.

If I know company A sells company B 50 pounds of strip steaks, what decisions can I make? Not too many. But if I know company A sold a total of 5,000 pounds of strip steaks but they only purchased 4,000 pounds, I can decide to investigate the fact as a trademark compliance issue.

CAB analyzes all these sales invoices a number of different ways. We perform compliance audits on distributors, reviewing their purchases and sales, on a regular basis. We compare packers' CAB<sup>®</sup> acceptance totals with the amount of boxed beef they sell. We monitor how much CAB<sup>®</sup>-accepted product the packers don't sell, too. This helps us determine if we can add new distributors or retail chains.

By turning data into information, we ensure consumer satisfaction. That builds demand for the brand. As repeat buyers tell their friends, they, too, become satisfied consumers, and demand grows. As licensed packers analyze their cleaned raw data in this area, they learn that they need more CAB<sup>®</sup>-accepted cattle. They decide to increase the premium paid to producers to meet the demand.

Check your data on premiums available for producing cattle that hit the CAB<sup>®</sup> target. Analyze the potential for profit and decide whether you need to adjust genetics and management.

Acquire as much data as possible, remember not all of it is clean or valid, and try to understand the context in which the data is presented. Making the most informed decisions possible won't guarantee success, but it will help.

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