

Bar Coding Tracking Systems — Birth to Retail

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My name is Mel Coleman. I'm a fourth generation rancher in Southern Colorado. Instead of selling calves right off the cows as we had been doing for many years, in 1979 we decided that we would sell beef directly to those people who we thought were concerned about chemicals in beef production and chemicals in all of agriculture. We knew we had to authenticate our claims of no antibiotics or growth hormones, so we set up a tracking system and an audit trail for our cattle and beef to prove to our customer that we were actually doing what we said. As you'll notice on this chart, the product is represented in the yellow boxes, going from left to right, from ranch clear through to retail. The white boxes in this chart are all affidavits that people sign. These affidavits then go to the green boxes, which represent separate offices. The blue boxes represent a backup system which is laboratory testing. As you'll notice in this slide, this baby calf at his birthplace gets an identification number in his ear, and that number carries on through the nursing stage, the weaning stage, the grass stage, and into the feedyard, where, along with the original ID tag, he also carries a red tag with the Coleman name. As this Federal Inspector in the white hat inspects the cattle as they are unloaded off this truck going into the slaughter plant, the Colorado State Brand Inspector on the right in the black hat also inspects the cattle for proof of ownership. In the packing plant, the carcasses are ink rolled "Coleman Natural Beef" and identity is maintained through the processing plant. And then on to the retail store, where we furnish point of sale materials for the retailer. This is the manual monitoring system that we have used for a good many years using the ID tag with a number at birth, the plastic red tag in the feedyard, the ink roller on the carcass, the wholesale label at processing and the sticker at retail. However, we realized all along that we needed to monitor this baby calf clear on through to the meat product itself.

Starting three years ago, Dan Montanari computerized what I had been doing manually, and we call this system Origen. Obviously, the history of the Origen System was developed to ensure our natural product claims to consumers from Coleman Natural Meats, and it evolved from the old manual audit trail that I had devised in 1979. Now it utilizes state-of-the-art electronic technology to track all the way from cows and bulls down to the retail store and the ultimate consumer. Recently, we have heard a lot about farm to table identification, from the rancher to the feeder, to the packer, to the processor, retailer, and on to the consumer. The purpose for a computerized system is to track an object from its place of origin, to monitor the production process of an object (in this case a calf or meat), and to maintain a constant reference number so that it can always be traced. Also, the purpose is to recall and report tracking information.

The development of the Origen System in the Coleman company is for farm to table identification, verification of our organic labeling, food safety checks, international trade verification, and for

integration with other systems of electronic identification. At Coleman Natural Meats, we have a HACCP program in place, which ultimately can be incorporated in the Origen tracking system. One advantage, of course, of Origen is that there is a rapid traceback capability from table back to farm. (Recent deaths and illnesses from food poisoning emphasizes the importance of traceback.) And it addresses systems standardization, production efficiency and inventory control.

Obviously, when we started using this bar coded ear tag, we realized that there are other devices out there for identifying objects. Radio frequency ear tags, data buttons, and implanted transponders are some which can be used in the system. And, of course, the uses for animal ID are many. To name a few include genetic records, medical or veterinary records, inventory control, production control, transportation information, and ownership records. To many of us, individual animal identification is imperative. We see many benefits, some of which are cooperation and communication between buyers and sellers, pathogen tracking, international trade, inspection and certification, standardization, modernization, and systems integration. With the passage of NAFTA and GATT, international boundaries will be crossed by many products as well as many live animals. The necessity for identification becomes more obvious each day.

So, from this little calf that has just been born on through to packaged meat and to the consumer's table, this computer system can be used forward and backward, conception to consumption and consumption to conception. I need to emphasize that "Origen" has been developed, but it is not used in its entirety as yet by the Coleman meat company. Thanks for listening to my story.