

stockerFACTS

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Management Drives I.D. Decisions

I.D. ESSENTIALS:

- **Identify Need First**
- **Understand the Components**
- **Balance Cost Against Potential Return**

So far, the industry's debate about individual animal ID has been the proverbial stubby tail trying to whip a mastiff-sized bound into frenzy.

Fact is, despite USDA's quest for the standardized National Animal Identification System (NAIS)—for the purposes of animal health monitoring and animal disease control—and all of the industry tonsil wagging about the need for source and process verification, which requires individual animal identification, individual animal ID is still worth whatever you can get out of it for your own management, period. No more, no less.

Sure, a few beef buyers, including McDonald's, are paying for source verification on some of the cattle they buy. Some packers, like National—owned by U.S. Premium Beef—are experimenting with paying more for age-verification in advance of resumed export trade, especially with

Japan. As well, ID-based source and process identification continues to be the foundation of the value package offered by several long-running, vertically coordinated systems. And, ID tied to specific health programs has certainly driven premiums for preconditioning.

But, push come to shove, order buyers aren't being hounded by feedlots for age, source or process records. In turn, outside of the isolated instances above, these buyers aren't beating the bushes to get their hands on cattle in mass that come with these types of records.

While this reality could change—and there are logical reasons to expect that it will in time—the point is the only intrinsic value individual ID has currently is that which individual stocker operators and backgrounders find in it for management.

With that in mind, when you consider adding ID to your program, or modifying the ID system you current have in place, focus on your

What You Need to Do Now

- Register your premises for the National Animal Identification System (NAIS) through your state's animal health department.
- If you're already identifying cattle with electronic tags, make sure they conform to standards of ISO 11784 or 11785 so that they could be grand fathered into NAIS if necessary.
- Ask yourself what proof you can show to buyers asking for or demanding source verification. Examples would be records for bull turn-out.
- Ask yourself what proof you could show buyers asking for or demanding age-verification
- Ask your buyers what type of ID and/or verification they need for this year's crop, and what they think they may need next year.
- Tough as it is to sort through the clutter, keep track of the NAIS facts as they unfold.

need and potential use of ID for management, but also look for opportunities to leverage any money you spend on ID by trying as best as you can to make it fit with what it appears the government and the industry will be asking for sooner or later.

To ID, or Not to ID?

ESSENTIAL: IDENTIFY NEED FIRST

You can pay for and receive reams of carcass data on the cattle you feed, even some of the cattle you sell someone else to feed. If you don't use the data to enhance your selection, procurement, management and marketing, though, it's all money and time down a rat hole.

That's just the way it is with applying individual ID to cattle with the notion that you will use it to gather information to manage cattle on a more individual basis.

There are a growing number of producers who have invested in automated systems, used the information and come out money ahead. As an example, some in this camp use individual ID, weigh stockers individually at receiving, then after the first 45 days, for instance, cull out the sub-par performers. Others find the individual health history this type of ID allows helps in their own management as well as adding to buyer confidence. Still others are using it to verify age (at least by calving season) and first-ranch of origin of the individual cattle they run. The list goes on.

However, if you don't intend to gather this kind of information and use it, as mentioned earlier, there is no need or economic incentive to do more than the absolute minimum.

Chances are you already identify the cattle in your stocker or backgrounding program in one fashion or another. Maybe you tag all of the calves in a single group with dangle tags that are the same color. Maybe you use dangle tags with individual numbers simply for the convenience of tracking those that need doctored or sorted. If that is suiting your needs, and those of your buyers, there's currently no reason to change.

On the other hand, if you're already using, or are considering using Radio Frequency ID tags (RFID), you should be aware of what USDA is proposing for its NAIS program (see NAIS In a Nutshell).

For hogs and poultry, which are typically managed in lifetime production groups, NAIS—which aims to track

any head of livestock in commerce back to all previous locations of residence within 48 hours—isn't much of a stretch: track the group and you're tracking all of the individuals in that group.

Cattle, on the other hand, are obviously a whole 'nother cat. Individuals are often traded as individuals multiple times between the ranch of origin and the retailer. Consequently, with the 48-hour trace-back goal of NAIS, the beef industry has recommended to USDA that RFID be required for NAIS tags used on cattle.

As such, USDA issued a preliminary rule toward the end of 2004 that makes it possible for anyone using RFID tags that conform to ISO standards to grandfather those existing numbers into the NAIS system.

Of course, that's a little like getting the keys to a rusted out pick-up sitting on blocks, seeing how NAIS tags are not currently required by the government or the market—and likely can't be for several more years—and the fact that official NAIS numbers won't be made available to tag manufacturers until at least late summer of 2005. Be that as it may, if you're already using RFID tags and want to know the numbers are NAIS-compliant, just make sure they conform to ISO standards.

Beyond complying with NAIS and meeting your own management needs, the only other consideration is what your buyers want. As mentioned previously, outside of specific programs that have already established a value for ID, specifically, or for a broader package of process and/or source-verification that requires individual ID, there are currently no market standards.

Matching ID System to Need

ESSENTIAL: UNDERSTAND THE COMPONENTS

If you're looking to add ID to your program, modify an existing system or audit the one you already have, start with assessing why you want to use individual animal ID, what you want it to accomplish for you. Is it simply to sort cattle in your own program for doctoring, movement and shipping? Is it for compliance with an existing market, or to provide specific source, age or process verification to buyers (see Verification Records)? Is it so that you can collect performance information on individual animals in order to manage them more as individuals that are part of a group, rather than as a group?

Next, consider the central components common to all ID systems, relative to your need.

Briefly, all ID devices that include an alpha-numeric number—visual ear tags, electronic ear tags or boluses, tags with scannable barcodes, etc—are built upon numbering systems that are supposed to provide you assurance that you can use the system without duplicating numbers for a period of time, if ever. The NAIS system, as an example, is built on a 15-digit alphanumeric number. The combination of numbers available means that none of us should see NAIS numbers duplicated during our lifetimes.

Also common to all ID devices is that fact that they must be attached to or inserted into the animal it will identify. Especially when it comes to external application that means failure rate—how many can get torn out or will fall out—is a primary concern. In all cases, the ease and time of application required are also key considerations.

When it comes to electronic tags, the considerations are more complex. There's still application, but the most common ones—individual buttons, or buttons in tandem with visual dangle tags that have management numbers on them—are applied in the usual manner as other ear tags.

With electronics, though, failures aren't just associated with lost tags. Failure rate also has to do with the "readability" of the electronic chip carrying the information. That means the chip itself containing the ID information, the device used to read the number and the software that collects and translates this information into usable data are all potential points of failure. So, you need to assess the reliability and compatibility of each of these components.

Moreover, a basic trade-off between visual tags that can be read with the eye, and electronic tags, has to do with ease of reading and ease of data capture. As for reading ease, visual tags require nothing more than decent eyesight, while electronic tags require electronic "readers", either hand-held or contained within a panel. Besides the added equipment, the read-range—how close the electronic tag must be to the electronic reader in order for it to be read—is typically limited to 18" or less, meaning that reading the tags requires gathering cattle and sending them through the chute.

The flip side, is that electronics can automate data collection and transfer, increasing the speed and accuracy of doing so.

Admittedly, many who first dip their toes in the waters of electronic ID can find the experience anything but automatic. While the electronic chips employed in the tags themselves are usually reliable, as are the devices used to read the chips, getting the software configured to collect the information has been the cause of more than a few cuss words. Mind you, as with much that is computer-based, problems encountered often have to do with the user rather than the software or the equipment, but that fact doesn't lessen the frustration.

Further, when it comes to electronics there are issues of compatibility. Specifically, while more standardization is occurring, all electronic readers won't necessarily read all electronic tags. Likewise, the data collected by one electronic system won't necessarily transfer seamlessly to a different one.

The crux of all of this is that if you're considering electronics, what is the reliability of the tag itself, as well as the application device used? What is the reliability and compatibility of the electronic reader and data collection software being considered?

Then, whether visual or electronic, consider the cost relative to the value of how the system allows you to accomplish the goals that you have for individual animal ID.

What's It Cost — What's It Worth

ESSENTIAL: BALANCE COST AGAINST POTENTIAL RETURN

The rewards of individual animal ID are in the eyes of the beholder. If you're just trying to identify animals as part of a particular group, or are using tags to sort individuals while you own them, the value comes in the time you believe such a system saves. That against a tag cost of about 50 cents to a buck per head, plus the cost of labor to apply it.

If, on the other hand you're applying electronic tags to comply with NAIS or some other program—sticking a tag in their ear but not using it yourself—today you can figure an additional \$2 per head for the electronic tag, plus the labor to apply this additional tag.

Now, if you're applying the electronic tag to actually use in your operation, meaning you will have to be able to read the electronic chip—which means you either have to own the necessary equipment or pay a service provider to do it for you—the cost multiplies exponentially.

For instance, Kevin Dhuyvetter at Kansas State University put together a spreadsheet to calculate potential

costs (available at www.beefstockerusa.org). In that spreadsheet, applying and using electronic ID across 1,250 head comes out to about \$3.50 per head (see Table 1); less if you can dilute equipment costs across more cattle, lots more if you're stacking costs against fewer cattle.

So, using this example, will \$3.50 per head out-of-pocket cost return you at least that much in actual dollars based on your ability to sort and manage the cattle differently. Again, the answer, as well as the initial cost, will be unique to each operation and the

NAIS In a Nutshell

As you are likely aware by now, USDA's National Animal Identification System (NAIS) is designed to provide a common, standardized ID system, applied to all livestock of all species that enter commerce, solely for the purposes of animal health monitoring and disease control. The ultimate goal is that the system will be able to track all livestock in commerce with such accuracy that any time an animal is discovered to harbor a Foreign Animal Disease, or some other malady that impacts the industry as a whole,

that animal can be tracked to all locations of previous residence within 48 hours.

For perspective, the first primary effort in NAIS development has been to get all livestock premises (locations) registered through state animal health departments. So far, about 35 states and tribes already have NAIS premises registration systems in place, and another eight are in the process of getting up and running. To register, check with your state animal health department. In most cases there is no charge to register, as states are using money allocated by USDA to cover the cost.

Also, be aware, the NAIS premises registration system calls for either a 911 address or GPS coordinates for the location. If you don't have

a 911 address, one way to get the GPC coordinates is by contacting your Farm Services Agency Office.

The next step in NAIS will involve tagging all livestock that enter commerce with official NAIS tags. While final rules haven't been released yet, the beef industry has asked USDA to make RFID tags a requirement for cattle.

Finally, in simple terms, with premises registered and cattle tagged, the notion is that each time livestock move from one premises to another, the receiving premises will report this information to the official NAIS database. In this way, individual cattle can be tracked across their lifetimes in commerce.

Obviously, the logistics of accomplishing all of this are trickier than convincing an atheist that animals and plants are the result of something more than a fortu-

TABLE 1

Total Annual RFID System Cost, \$/head (Examples)

Description	Size of Herd, Number of Head						
	62	125	187	250	625	937	1250
eID Transponder (tag)							
Electronic tag	\$2.34	\$2.34	\$2.34	\$2.34	\$2.34	\$2.34	\$2.34
Electronic reader							
Wand/stick reader	\$2.48	\$1.24	\$0.83	\$0.62	\$0.25	\$0.17	\$0.12
Data accumulator							
Laptop computer	\$1.99	\$1.00	\$0.66	\$0.50	\$0.20	\$0.13	\$0.10
Software/ web-based analysis and storage							
Computer software	\$2.81	\$1.40	\$0.94	\$0.70	\$0.28	\$0.19	\$0.14
Other							
Internet access	\$2.00	\$1.00	\$0.67	\$0.50	\$0.20	\$0.13	\$0.10
Subscriptions/upgrade fees	\$4.16	\$2.08	\$1.39	\$1.04	\$0.42	\$0.28	\$0.21
Labor	\$8.32	\$4.16	\$2.77	\$2.08	\$0.83	\$0.55	\$0.42
Total annual cost for these examples	\$24.10	\$13.22	\$9.60	\$7.78	\$4.52	\$3.79	\$3.43

goals established for using such a system to begin with.

BOTTOM LINE: There is no federal regulation saying you must identify your stocker cattle in any manner. Be aware though, while USDA wants a standardized national individual animal identification system for the purposes of animal disease surveillance and animal health monitoring, the market is beginning to ask for source and process verification, which also require individual animal identification.

So, outside of a smattering of buyers trying to verify cattle for source of origin, process or for some other attribute, and the fewer still that are paying for it, the only reason you need to consider ID is for your own management purposes.

itous spin of the cosmic rock tumbler. That's why USDA cannot yet mandate participation. That's also why safe money says 2007-2008 would be the soonest USDA could consider making NAIS mandatory. And, that depends on making quicker progress than is currently happening when it comes to resolving such sticky issues as protecting the confidentiality of information submitted to NAIS, let alone, who's going to foot the bill.

Keep in mind, if and when NAIS becomes industry standard, mandatory or not, unless USDA veers sharply from the original intent of the program, information collected for NAIS can only be accessed by animal health officials, and only for the purposes of animal disease control and animal health monitoring. That means producers will have to find other ways to comply with any source or process verification demands made by the marketplace.

For more NAIS specifics you can find the official USDA website for the program at www.usda.gov/nais.

Verification Records

One reason the industry debate surrounding animal ID gets so confusing is that the term often gets used synonymously with verification. Animal ID is required for source and process verification—proving that a particular animal came from a certain place or was handled a particular way—but it is not the verification itself.

For instance, animal ID doesn't say anything about where a critter originated or began its life in the world of commerce. That ID tied to records authenticating point of origin provides the verification. Likewise, ID can't verify animal age, but ID must be tied to proof of age to verify that a particular animal fits a certain age window.

Putting that into practice, be aware that major beef buyers like McDonald's are demanding packers provide them more than affidavits signed by produc-

ers to verify source of animals. Consequently, logic says packers will demand more than affidavits from feedlots, who will pass the demand along to their suppliers. What records will ultimately be required is anyone's guess. There are already systems designed

to provide this type of verification for producers, either directly or as the byproduct of another program such as preconditioning where veterinarians are involved as third-party verifiers.

As the date for mandatory Country of Origin Labeling draws nearer—September 2006—USDA should be releasing source-verification requirements for that program as well.

Similarly, the current debate about age verification for the purposes of complying with new harvest standards aimed at reducing the risk of BSE, and for complying with unfolding beef exports requirements, has left plenty of folks scratching their heads on how best to provide such verification. After all, plenty of cow-calf producers don't know which cows calved until they gather them up to brand.

With that in mind, one suggestion for stockers is simply to ask suppliers to tag calves according to calving season, then provide documentation that supports that.

Keep in mind, there are lots of folks you and your suppliers already work with who can serve as record providers and as third-party verifiers for those records. A veterinarian, for instance, could sign a document stating when he preg-checked a supplier's heifers, when he sold you animal health products for working calves, which products, lot numbers, etc. There are a growing number of "management cooperatives", too, that band together to manage cattle similarly in order to assemble larger lots for buyers. These are ready-made low-cost or no-cost third-party verification providers.

As well, if suppliers are tagging calves at branding, they could make a record of what tag numbers were applied and when. Don't overlook other management you and your suppliers already do that provides a window for age verification. As an example, in some grazing associations and tribal grazing agreements, records are kept of the date bulls are turned out and taken out.

Again, even if USDA's NAIS program becomes a reality, presumably information gathered for it will not be used for purposes other than animal disease surveillance and animal health monitoring, so producers will need to have other verification programs in place.

For more information related to stocker production visit us on-line at www.beefstocker.org.

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