

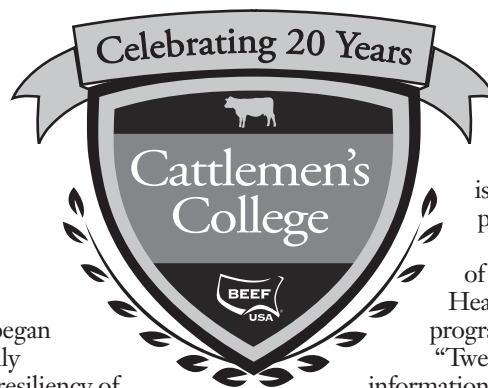
Cattlemen's College® Turns 20

NCBA's Cattlemen's College celebrates 20th year anniversary at 2013 Cattle Industry Convention.

Now in its 20th year, Cattlemen's College has established a reputation as one of the most thorough cattle producer education programs in the nation. Sponsored by Zoetis Animal Health (formerly Pfizer Animal Health) and coordinated by the National Cattlemen's Beef Association (NCBA), the 2013 program began Tuesday afternoon with demonstration sessions on reproductive strategies and low-stress cattle handling. Participants were treated to a ranch horse competition at the Florida State Fairgrounds Tuesday evening.

The college continued Wednesday morning. Class began bright and early with a keynote address by internationally respected futurist Lowell Catlett, who spoke about the resiliency of the beef industry and the people who work in it. Catlett also provided his predictions for the long-range outlook for the agricultural industry, along with factors that influence profitability and sustainability of beef cattle production.

"No matter what is thrown at us, we just get up in the morning and go to work," said Catlett. "The resiliency of the human spirit is amazing. People matter, and the beef industry needs to be ready for tremendous changes to come."



Wednesday's sessions included a cattle market update presented by CattleFax, along with sessions on preserving family relations on the ranch, weather predictions for 2013 and beyond, consumer attitudes toward beef and beef production, how to cope with drought and high feed prices, animal welfare issues, and how to identify risk factors that affect cattle producers' bottom line.

Allen Moczygemba, director of the beef segment of the U.S. Cattle and Equine Team with Zoetis Animal Health, said the company saw a need for more educational programs for cattle producers.

"Twenty years ago, cattle producers needed access to information they didn't have," said Moczygemba. "Years later there is still a hunger and desire for more information. U.S. beef producers want to become better at what they do, and they are constantly striving to improve. Cattlemen's College provides them with the tools to achieve that."

The following section offers a glimpse of what was presented at the meetings. For additional coverage of Cattlemen's College Sessions and other highlights of the convention and trade show, visit the newsroom at www.4cattlemen.com, which offers the *Angus Journal's* complete coverage of the event.

Using Reproductive Technology

New to the Cattlemen's College this year were live-animal demonstrations Tuesday evening, Feb. 5, at the Florida State Fairgrounds. Included were demonstrations of reproductive technologies conducted by the National Association of Animal Breeders (NAAB), whose member companies serve as sources of genetics, utilized through artificial insemination (AI), and technology services.

Explained were the potential advantages of AI following synchronization of estrus with protocols that utilize the controlled internal drug release (CIDR®) device for delivering progesterone. NAAB representatives demonstrated proper fitting of the device applicator and insertion in demonstration animals. Also explained was the use of heat detection patches to aid identification of females ready for AI service.

Proper storage and handling of frozen semen to protect semen

quality was discussed with the aid of a cut-away semen storage tank, followed by a step-by-step demonstration of insemination techniques and use of a portable insemination box.

Emcee and Genex representative Willie Altenburg said current technology enables producers to achieve 55%-60% conception on the first heat cycle. With the use of the equipment demonstrated and application of safe, low-stress cattle-handling techniques, added

Altenburg, a well-trained crew of four technicians can efficiently breed up to 100 females per hour.

— *Troy Smith, field editor*

Low-stress Stockmanship

The beef industry may change often, but the one thing that never changes is the need for stockmanship, Curt Pate told Cattlemen's College participants at Tuesday evening's live-cattle demonstrations. Good stockmanship increases profit for the rancher and quality of life for the

Futurist Lowell Catlett Says, 'Get Ready; It'll Blow Your Doors Off.'

Economist and futurist Lowell Catlett informed and entertained Cattlemen's College® attendees during his keynote address Wednesday morning. Catlett, who is on faculty at New Mexico State University, shared his thoughts on future technological possibilities, repeatedly saying, "Get ready; it'll blow your doors off."

Catlett began his remarks by reminding the audience of challenging times in history, such as the first energy crisis, when gas doubled in price from 32¢ per gallon to 64¢ per gallon, and the 80s, when most manufacturing moved to Japan.

He noted that when you read history you find that no matter what is thrown at the United States, Americans get up and work — and

the rest of the world admires us for that.

"I'm not making light of problems; I'm just saying problems come and go," Catlett said. Today it's climate change and \$8 corn, he noted. "In 20 years there will be different problems, but we get through them. Americans are resilient."

Catlett noted the coming population boom and economic growth in third-world countries. Of this — and the boost it can mean for agricultural products including beef — Catlett said, "This world is rising in its income and quality of life. It may not happen in my lifetime, but it will for our sons, daughters, nieces and nephews, and it's phenomenal."

Looking to the future, Catlett referenced the rise of the cell phone

and technological products like the Kindle — and the fact that these products are "game changers" for the world. As examples, he shared stories of phones being equipped to determine if a skin blemish is benign or cancerous, to transmit your heart rate to your doctor, and to test your blood pressure.

"Oh, get ready folks," he said. "The manifestations of what we're going to do with this [science and technology] will blow your doors off — for human health, and it will change animal health, too."

Another trend noted by Catlett is the increasing role of women in the workforce, particularly in agriculture. He shared that 70% of graduates in agricultural degree areas are now women.

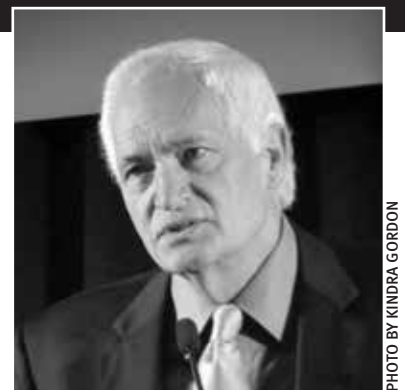


PHOTO BY KINDRA GORDON

Problems come and go, but the resilience of Americans will ensure successful adaptation to whatever comes, futurist Lowell Catlett predicted.

This, too, is a revolution from which the world will benefit, Catlett said. He shared research collected by the Bill and Melinda Gates Foundation that women in farmer roles are 30% more productive with the resources given to them.

animal, and satisfies consumers' desire for accountability.

Pate's daughter Mesa is in the bucking bull business. While many consider bucking bulls to be mean, good stockmanship keeps the bulls and Mesa safe, stress-free and healthy, he said.

Pressure is the key in low-stress handling, and knowing when to apply it and when to release it is the secret. Pate said to test the animals' pressure points, or flight zones, get the animals moving. Don't stay behind the animal for too long, he added, and stay where they can see you.

To stop cattle, he said, back off the pressure. To "hook him up," get eye contact and then back off the pressure. This gets the calf's attention, and once you can get him to stop, you have more control over which way to direct him.

Pate cautioned not to get too far forward when pushing cattle, because that puts the pressure point too far up the body, and the calf will turn around.

"The right amount of pressure at the right time can get them to do the right things," he explained.

It is your job to make the animal think the destination is their idea, so patience is required. In a way, faster is slower, and slower is faster, Pate said.

"Think, reflect, then act," he advised.

Think about where the cattle will be going, because if you go to where they are, you're too late, he said. Don't work the whole animal; work the nose, because that is where the animal will go.

Pate said he sees many ranchers get so concerned about being behind the animals that they lose track of where the animal is actually going.

If a calf gets separated from his buddies, Pate advised increasing pressure, because if the calf is thinking about you, he's not thinking about his buddies. He will be easier to get out the gate.

Working cattle can be done on

horseback, on foot or even on 4-wheelers, Pate said, but he cautioned that it's a lot harder to turn a 4-wheeler or to back off pressure when you are on a 4-wheeler. Stockmen should always play it safe with whichever method they choose.

On horseback, he said, good stockmanship should never have to get out of a trot.

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Curt & Mesa Pate demonstrated how to use pressure to move animals in a low-stress way. Pressure is the key and knowing when to apply it and when to release it is the secret, Curt said.

This gives men more time to devote to "turn wrenches" Catlett said, explaining the advent of 3-D printers and assembly. "We need people who know how to use their hands."

With the burgeoning population and many people in the world currently food-impooverished, Catlett said, "Let women be the agriculturists and men turn wrenches. Wouldn't you like to have 4 billion more people want more American beef?"

"I don't know what's coming, but I read history and I know this: This old country and this old world is doing this," he concluded, holding up his phone and Kindle to emphasize technology. "The demand for what you do is going to be different."

— **by Kindra Gordon, field editor**

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Pate said he always makes this promise to the stock with which he is working: "If I put pressure on you — through noise, touch or sight — you can take the pressure off yourself. If you can't, it's my job as a stockman to take the pressure off."

— *Kasey Miller, associate editor*

reproductive tracts. Choose higher-scoring heifers.

If taking pelvic measurements, Smith warned against keeping heifers with the largest measurements. Pelvic size is related to skeletal size so it could contribute to increased mature cow size. Instead, he advised producers to focus

on culling heifers with very small pelvic measurements.

Smith recommended breeding heifers two to three weeks ahead of cows. Delivering their first calves early allows heifers more time to recover after calving and return to estrus before the next breeding season.

"Consider implementing fixed-time artificial insemination (AI) to increase the proportion of early-calving heifers. Use sires with high-accuracy EPDs (expected progeny differences) for calving ease to reduce dystocia," advised Smith.

As management of cows, Smith recommended careful attention to



PHOTO BY TROY SMITH

"The good things you do don't compensate for the mistakes you make," said MU's Michael Smith, "and your mistakes can cancel out the things you do right."

Remedies for Reproductive Wrecks

What have your cow herd's pregnancy rates been in recent years? What is the calving distribution throughout the calving season? If your heifers and young cows don't calve near the front end of the season, and you're not seeing close to 85% of calves born within 60 days, you might need to work on the reproductive performance of your herd.

That was the message shared by University of Missouri (MU) animal scientist Michael Smith. Smith emphasized principles of reproductive management that can move a herd toward a higher level of production. He warned producers that it takes discipline.

"The good things you do don't compensate for the mistakes you make," said Smith, "and your mistakes can cancel out the things you do right."

Smith emphasized the importance of having a defined calving season, and how cows that calve early in that season are likely to be the most profitable. Early-born calves post higher weaning weights, so cows that consistently calve early will produce more payweight during their lifetimes.

Smith said improvement to a herd's reproductive performance starts with selection of replacement heifers. He recommended choosing early-born heifer calves that have not received growth-promoting implants. Smith advised producers to develop heifers to an appropriate breeding weight and subject all to a prebreeding exam by four to six weeks prior to breeding. Performed by a veterinarian, the exam should include palpation of heifers'

precalving and postcalving nutrition. At calving, he advised, cows should have a body condition score (BCS) of at least 5. He also recommended systematically reducing the calving season to a period of 60-70 days.

Hastening recovery from postpartum anestrus can help maintain a 365-day calving interval for cows. Methods

include manipulation of the suckling effect on anestrus through very early weaning or temporary calf removal. A less management-intensive method might be biostimulation with a bull, allowing fenceline contact with females at 30-40 days postpartum.

“Another very effective way to jump-

start estrus in cows is by using an estrous-synchronization protocol,” added Smith.

— *Troy Smith, field editor*

Agricultural Water: Protecting the Future of Our Nation

“Water is truly the issue of the coming decade,” said Paul Genho during

his remarks to Cattlemen’s College participants.

Genho, who is former general manager of Deseret and King Ranches, is now president of Farmland Reserves Inc. He noted that the drought throughout the country in 2012 really exacerbated the United State’s lack of water supply, lack of resource management and lack of viable policy related to water.



Advocacy, research, education, policy and planning will be key to address water resource issues, said Paul Genho, president of Farmland Reserves Inc.

Genho pointed out the growing U.S. and world population — and the resulting increased demand for food. He noted that this also means an increased demand for water.

“Our nation needs agriculture, and agriculture needs water,” Genho said.

During his presentation, Genho shared findings from an agricultural white paper published in October 2012 by the King Ranch Institute for Ranch Management in an effort to highlight the need for more leadership on water supply issues and priorities.

As examples of some of the issues ahead related to water, Genho pointed out that many critical water facilities are more than 50 years old with no redundancy or reserve capacity. Federal policy does not provide funds to maintain or replace federal facilities, and local economies don’t have the funds.

The white paper identifies three priority issues for the future — water supply, water resource stewardship, and long-term water policy. Recommended steps on addressing these issues include:

- effectively using existing water resources;
- responsibly increasing water supplies;
- encouraging continued investment in water infrastructure;
- protecting water rights ownership; and
- incentivizing innovation and private investment in water resource management.

Going forward, advocacy, research, education, policy and planning will be

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key in addressing water resource issues, Genho emphasized. "I would like to suggest to you the water crisis is equivalent to the energy crisis but under the radar screen because gas prices have gone up, but food prices have not."

With only 2% of the population involved in production agriculture,

Genho said, "Ag cannot do this alone. We need other stakeholders to help us share this message with legislative leaders."

He encouraged those in attendance to visit with their local and state agricultural organizations, as well as their county commissioners, state representatives and national legislators.

Genho also cited city planners and environmental groups as possible partners in addressing the water issue, saying, "We need an army, not a single soldier."

He added, "We've got to repeat the message over and over and over again until it's heard."

View the full Agricultural Water white

paper at <http://krirm.tamuk.edu/>.

— by *Kindra Gordon*, field editor

Drought Management of Forage, Water and Cattle

As a manager of ranches in Wyoming and Nebraska, and more recently as a ranch management consultant, Burke Teichert has experienced more than a few droughts. None lasted forever, but sometimes a ranch must endure several drier-than-normal years. Teichert talked about strategies for drought management during a Cattlemen's College session at the 2013 Cattle Industry Convention in Tampa, Fla.

"Drought seldom means no rain — just less than normal. Sometimes it's quite a bit less, for a period of several years," said Teichert. "We have to manage the land so we can take advantage of whatever rain we get."



PHOTO BY TROY SMITH

A plan for destocking may be your most important drought strategy, said Burke Teichert.

Teichert stressed the need for protecting the land by managing the water cycle, mineral cycle, energy flow and biosuccession. An advocate of rotational grazing, he said it's necessary to rotate cattle in a timely fashion and leave some grass behind in order to grow more. Teichert said leaving litter behind also helps prepare the soil to receive and hold moisture when it does come.

Protecting the land during drought often requires destocking by relocating cattle or selling them. Teichert said that for cow-calf producers in particular, it can be emotionally difficult. Even so, he said, every ranch needs to know how and when to reduce numbers of animals.

"Every ranch needs to have a plan for destocking as part of its overall drought plan," stated Teichert, "and the earlier you begin, the less you will have to destock."

Teichert said producers should know when precipitation historically falls on their ranch and how much. Based on historical data, they can estimate how much forage will be produced and whether it's going to be enough.

"You have to establish critical dates for your plan — dates when you'll have to make the decision to remove cattle. You also need to know which cattle go first, whether it's stockers, late-calvers or older cows. Start with what hurts the least to sell, but when cattle need to be removed, do it. Be disciplined," advised Teichert.

Having well-placed stock water is beneficial during drought, as it encourages better grazing distribution. Teichert noted how the use of pipelines fed by deep well and portable solar pumps for shallow wells can help make a ranch a little more drought-resistant.

“But a plan for destocking may be most important. Put it in writing, and you’ll be more apt to follow the plan,” said Teichert. “If you are going to relocate cattle, know where you’re going to go. If you must sell, know the market for various classes of cattle. Make decisions that are cost-effective. It’s easier to make decisions based on emotion, but they can be costly.”

— *by Troy Smith, field editor*

Developing Heifers in Era of High Feed Costs

Higher feed costs support developing heifers to a lower breeding weight.

Cow-calf producers who raise their own replacement females are often advised to develop heifers to an appropriate weight for breeding in order to achieve reproductive success. For about 40 years, the recommended rule-of-thumb has been to target a first breeding weight equal to about two-thirds of a heifer’s expected mature weight. In this era of high feed costs, University of Nebraska reproductive physiologist Rick Funston thinks it’s time to re-evaluate heifer target weights.

Explaining beef systems research aimed at lowering production costs by targeting more modest heifer target weights, Funston said producers might not be doing themselves any favors by pouring feed to heifer calves during postweaning development.

“I would argue that a heifer never has to gain more than a pound and a half per day (on average) to reach a comfortable target weight for breeding,” stated Funston.

Many producers often develop replacement heifers on diets containing high-energy feedstuffs and, in Funston’s opinion, allow heifers to become too fat. He suspects feeding for maximum heifer pregnancy rates results in heifers becoming dependent on carrying a certain amount of fat to get pregnant again. When these females join the breeding herd and must live on the same lower-quality forage diets as mature cows, some cannot maintain reproductive performance. They fall out of the herd as second- or third-calvers that fail to rebreed.

Funston said producers tend to keep only the number of heifers they need as replacements and feel they must try to get all of them bred. He suggested they consider keeping more heifers than are required, and challenge their adaptability to a diet similar to that of mature cows.

According to Funston, all heifers born to the University of Nebraska Gudmundsen Sandhills Laboratory herd have the opportunity to stay. All heifers are kept after weaning and developed on low-quality grazed forage, either dormant winter range or cornstalk

residue, plus supplemental protein. Funston said producers lacking those resources could drylot heifers and limit-feed, using low-cost harvested forages as the basis of the ration.

While heifers can be grown on a restricted diet, with modest weight gain during the first part of the development

period, their plane of nutrition should be elevated to achieve higher gains during the 45-60 days prior to breeding. With a system targeting low gains, followed by high gains, heifer pregnancy rates can rival those of heifers developed under a more conventional system targeting even gain throughout the development period.

“Pouring nutrients into a developing heifer may not save her in the long run,” said Funston, “but this more extensive development system can lower costs by over \$100 per head. Heifer adaptability to the production environment is determined

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early, instead of later when more inputs have been invested. Those that don't breed can be sold (as feeders) profitably."

Funston admitted that heifers will be lighter at the time of first breeding, but they can catch up if their nutritional needs are met postbreeding and on through calving time.

"They do need to keep growing. They still need to be at 85% to 90% of their mature weight by the time they calve," he added. "They can get there if they're well taken care of after they're bred."

— *by Troy Smith, field editor*

Don't Leave Money on the Table

The concept of the book and movie *Moneyball* can be used in the cattle industry, said both Don Schiefelbein, Schiefelbein Angus Farms, Kimball, Minn., and Tom Field, director of the University of Nebraska-Lincoln Engler Agribusiness Entrepreneurship Program and rancher in

Colorado. The *Moneyball* approach can find value in undervalued assets of your operation, they told Cattlemen's College participants.

Schiefelbein explained that for the past 20 years, it has been drilled into producers' heads to be a low-cost producer. However, using his own family ranch as an example, he said the years they had the least amount of costs, they also had the least amount of revenue.

Profit equals revenue minus expense, he said. Bottom line, you must increase revenue. To do that, you must invest in quality and do your research. He urged producers to change their decision-making process.

Ignorance purchases on price; knowledge purchases on value, he said. "You have to spend money to make money! Don't ever lose that mind-set."

Schiefelbein gave many examples of how this works on his operation. For one, the operation buys new John Deere equipment every single year, reasoning the equipment has great resale value and the company has an excellent service department. They sell every year so the used equipment is still under warranty and thus has even greater resale value, and they have earned value rewards with their local dealer over the years.

This turns out to be cheaper than leasing equipment because the equipment is always reliable, Schiefelbein explained. The purchase cost breaks down to \$3 per hour for smaller equipment, \$5 per hour for medium-size equipment and \$10 per hour for the cutter.

The Schiefelbeins use the same mind-set in feed, genetics and vaccines.

Field emphasized that producers should use information-based systems to maximize profit. He suggested all producers take the time now to establish an estate plan. Once that is taken care of, really examine your operation. His own operation is focused on the five concepts of stewardship, information-based systems, flexibility, wealth creation and continuous improvement.

Ask the tough questions, and have others ask tough questions of you, Field advised. Those outside the industry can be a source of great ideas from a fresh perspective.

Production practices can increase revenue, also, like low-stress handling, source- and age-verification of calves, and being decisive early in the face of weather trends. Price your feed by the nutrient instead of just by the ton, so you get the most value out of it, he said. Genetics also provide control, and disciplined selection should be used.

"If you don't have the numbers, you're guessing, and guessing sucks. That's why *Moneyball* is such an important thing to go look at, because it makes you think about how you look at the numbers, how you make choices, and how to find undervalued assets that you've been overlooking for years," he concluded.

— *by Kasey Miller, associate editor*

Technology Helps Ranchers Prosper

“We are living in some of the most exciting times in history. There are challenges, yes, but this is a great business,” said Mark Gardiner, Gardiner Angus Ranch, Ashland, Kan., and member of a Cattlemen’s College panel discussing technological advances. The panel also included Bill McDonald, McDonald Farms, Blacksburg, Va.; Jack Holden, Holden Herefords, Valier, Mont.; and David Nichols, Nichols Farms, Bridgewater, Iowa.

Beef production is like a three-legged stool, Gardiner said, the legs being cattle nutrition, herd health and information.

Gardiner said his family’s operation has used artificial insemination (AI) exclusively since 1964, so they only use high-accuracy, proven bulls. All of the other panelists agreed that AI is influential in their operations, as well, even if not used exclusively. Embryo transfer (ET) also allows high-value females to produce more progeny.

The Gardiners rely on the American Angus Association’s performance information database, which has helped them to increase their male weights by 77%, decrease birth weight and stature, and maintain mature weight. They have also been able to increase weights and gain by almost 100% with 56% less feed.

Genomics was another popular technology among the panelists. Genomic-testing allows producers to evaluate unproven animals with greater accuracy, accelerating genetic improvement, they agreed. McDonald said the value of genomics is in saving two years and about \$1,500 putting a bull through the Simmental carcass-merit program.

DNA testing also allows for parentage verification and elimination of genetic defects, noted Holden.

Even with the availability of genomic testing, panelists agreed that phenotypic traits must still be collected, recorded and taken into consideration.

Ultrasounding was a popular technology among panelists, who said they use it to assist with reproductive and carcass evaluation. Gardiner said they use ultrasound for early pregnancy diagnosis and for fetal gender determination.

Records are integral, and each had his own system. Gardiner said they developed a Microsoft Access program. Holden explained that they use GEM software, which builds custom reports.

Holden explained that his ranch is using sexed semen in its line-breeding program to produce a higher percentage of females.

Nichols said the industry is indebted to pioneers like Henry Gardiner and Les Holden; they had the foresight to start using some of these technologies in their infancy. By taking advantage of continually emerging technologies, the industry will continue to advance, he said.

“We have an obligation to produce the best genetics in the world to allow

our customers to succeed,” Gardiner asserted.
— by Kasey Miller, associate editor

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Editor’s Note: These articles are part of the event coverage posted to www.4cattlemen.com by the Angus Journal. Visit the newsroom at www.4cattlemen.com for comprehensive coverage of the event. For Angus Journal coverage of other industry events, visit www.api-virtuallibrary.com.



Tom Field (left) and Don Schiefelbein told producers to stop trying to be the low-cost producer. Instead, do research and find resources that are the best value rather than the cheapest.

PHOTO BY KASEY MILLER