



Aurora Pharmaceutical, Inc.
Innovative Products Backed
by Exceptional Service

Volume 2 Issue 3

business essentials



BUSINESS ESSENTIALS - INSIDE

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AURORA UTILIZES OUTSIDE EXPERTISE AND EXPERIENCE TO QUICKLY BUILD OUR BRAND



Bob Rehurek,
Director of Sales and Marketing
Aurora Pharmaceutical, Inc.

Marketing isn't just about advertising. It's about creating a reputable brand and a value proposition that aligns with your customers' needs. When we started Aurora Pharmaceutical more than 10 years ago, we wanted to bring our innovative products and formulations to market as quickly as possible. However, we just couldn't spend a lot of time putting together a sales force. We opted for contract sales people to fill in the gaps while we developed *the right* outside sales force.

We knew we needed a team that already had excellent reputations and contacts in the veterinary and distribution marketplace. We needed experienced sales professionals who would use their knowledge and skills to help Aurora quickly improve internal processes and produce immediate sales. As it has turned out, it was one of our best decisions. As a matter of fact, the salespeople we started with are still with us today – and we've expanded that list over the years. The high level of professionalism and experience in our contract sales team is unprecedented. Let me introduce them to you:

Patty Ross is one of our most experienced equine sales consultants. Patty has experience on all levels of the equine industry. Having been a horse trainer and farm manager made her transition to pharmaceutical sales easy. She has been both an inside and outside sales rep for distribution as well as an outside territory manager for a major manufacturer.

"Relationship building and customer service has always been my focus," says Ross. "My clients feel like I am more of a partner in their business vs. being a salesman. I have never promoted anything I didn't believe in. That's why it was a natural step to work with Aurora. Dr. Strobel and Bob Rehurek are putting together a team at Aurora that perfectly fits the industry's corporate culture. I wanted to be a part of that movement, especially with the new products they have coming," Ross states.

PATTY ROSS



Mike Duvall has been working in the equine industry for more than 40 years. Born and raised in Louisville, Duvall entered the animal health industry in 1978 with Jensen-Salisbury and later joined BIVI in 1994 specifically to start their equine sales division.

"BIVI gave me the opportunity to visit equine accounts all over the southeast and midwest, developing relationships along the way. Also, I convinced BI to become the first *Educational Partner with the AAEP*, with the help of Dr. Bill Rood of Rood and Riddle Equine Hospital," Duvall says. "I have always enjoyed working with horse people. They expect an honest approach to their business and want to make sure they're well informed regarding our products. I don't consider what I do as a sales role as much as a customer relations role. These veterinarians and their staff are like family. I enjoy walking into their clinics and interacting with them on a regular basis."

MIKE DUVALL



GARY JACQUES

Gary Jacques had the management experience we were looking for. Jacques started in the animal health business in 1976 as a salesman for Burroughs-Wellcome and has worked as both a manufacturer and distribution rep. As a former territory manager for BIVI, Jacques brings a level of equine sales expertise we needed in the field.

"I have always owned, ridden and shown horses. It has been a passion of mine to be around horses and horse people," says Jacques. "I've spent my entire career building relationships and making sure my vet practices were my top priority. That has not changed today. Their needs are changing, but their expectations of what I need to bring to the table have never changed. I like that Aurora is on an upward trajectory with innovative products, as well as much-needed niche products. It's not difficult to position good products backed by reputable data."



DR. GERRI BROWN

Gerri Brown, PhD., has been one of Aurora's most important finds. She is well known in academia and has been highly instrumental in helping Aurora develop products and conduct the necessary trials for submission and labeling. Working out of her home in northern California, Dr. Brown brings a scientific approach to sales and technical service.

"I've been a lifelong equestrian owner and enthusiast," Dr. Brown says. "I understand the complexities of working with equine owners, especially when it comes to performance and racehorses. I make it a priority to assure that my equine and distribution partners are up to date on Aurora's products, and love working with academia and practitioners as we expand our labels and bring new equine products to the market. Additionally," she adds, "it's great to see former students and how wonderful and humbling it has been to see the amazing practitioners they are today and that the learning never stops."





When Robert Flickinger, DVM (ISU '49) started Fargo Veterinary Supply in a supply closet at his veterinary practice in West Fargo, ND, in 1960, he only had one vision – get better products to the veterinarians in his area that were working on chickens, swine and beef cattle. Fast forward to 2019, and Midwest Veterinary Supply (MVS), overseen by Dr. Flickinger's son, Guy Flickinger, and the dream of servicing the veterinarian has never been so apparent.

With more than 500 employees and servicing veterinarians from coast to coast, MVS is a family and employee-owned wholesale distributor of veterinary supplies. "We now have nine distribution centers across the country to service veterinary clinics and animal hospitals," says Guy Flickinger. Headquartered now in Lakeville, MN, MVS has opened distribution centers in Des Moines, IA; Dallas, TX; Ft. Wayne, IN; Norristown, PA; Owings Mills, MD; Sun Prairie, WI; and recently added both Las Vegas, NV and Birmingham, AL.

"Since my father incorporated the business in 1961, everything has grown," says Flickinger. "There are now more veterinarians, more veterinary-specific products and services, e-commerce has evolved, companion animal care is as big as food animal, drop-ship is the norm and pharmacy orders are standard practice.

The one constant, though, is this remains a relationship business.


Veterinarians want to talk to a person who can help them stay viable and grow. They want people who understand their

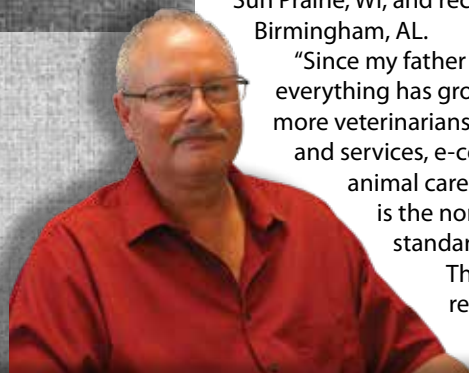
needs and can provide the resources and expertise to help them today. And they want a relationship to mean something – not just long enough to make a sale," he believes. "We want him/her to remain viable and profitable. We want them to be sustainable and happy."

Flickinger adds, "There are so many more products now. Product and service innovation has changed dramatically. Veterinarians want to talk to people who represent products, discuss the new technologies, etc., and are extremely interested in how we can help them with their business. That can range from next-day shipping to inventory management to assisting in their staff development and training. Our focus is helping the veterinary practice."

Standing on the front line is Nicole McFarland, a 16-year MVS Equine Territory Manager responsible for keeping Dr. Flickinger's dream of "service before anything" alive. "We are a unique business in the animal health industry because we're family and employee owned," says McFarland. "We're extremely responsive to a clinic's needs."

McFarland, who attended ISU and earned an Animal Science degree says, "Our focus is constant and unchanging – help practices with their business, their staffing and their profitability. Our culture from the warehouse to the corporate office is very family friendly. Each of us is here to meet their needs. They expect honesty and loyalty and a commitment to them. We work at being a partner every day. Not just today, but down the road as well."

In conclusion, McFarland points to strong vendor alliances as one of the keys to bringing top-quality service to her veterinary clients. "I have some fantastic manufacturer reps that help keep me ahead of the knowledge curve. For example, I enjoy working with Jim Murray at Aurora. He's constantly bringing me new data to present, product and new label information that's valuable to my vet clients and is always there to offer sales assistance, meeting funds and technical services expertise. These kinds of relationships strengthen my service commitment." 



Guy Flickinger



Nicole McFarland

steadfast loyalty,
superior personal service
remain goals at MVS



Ambulatory Practice Fits Sonoma



Like so many young veterinarians, Amber Bowen, DVM, MS (UC-Davis '14) graduated from veterinary school with a huge student loan debt and a mission to return home to open a clinic and do what she has always wanted to do – work with horses, and more specifically, performance horses. With the student loan debt she was carrying, even the long-founded practice she was working for didn't allow her to make any strides in paying off the debt, let alone have a chance of ownership.

"I find it to be tragic that many veterinary students come into the profession thinking they are financially not worth a lot," Dr. Bowen outlines. "I found out early in my career that you must look out for yourself financially. You've just invested a lot in school, and you're worth being paid for your education. Don't sell yourself short. Good practices will pay for good veterinarians."

In Dr. Bowen's case, chance favors the prepared. "I had been contemplating starting my own practice when the first big (California) fires hit our area in October 2017," she recalls. "I awoke to gas tank explosions, smoke and raging fires. It was total chaos."

After a night of evacuating her own friends' and clients' animals, Dr. Bowen and others started organizing shelters, as they continued to care for a steady stream of arriving horses and other animals. For two weeks Dr. Bowen and colleagues coordinated hundreds of volunteers, vaccinated, placed biosecurity protocols, dealt with burns, strangles, colic, lacerations, anxiety, corona virus and treated injured animals.

"Half of the evacuated were friends or clinic clients," Dr. Bowen recalls. "But everyone showed up and wanted to know how they could help. My parents moved their travel trailer to the fairgrounds, so I didn't have to leave." This was all handled by someone with less than three years of veterinary practice experience. However, her dedication and calmness did not go unnoticed.

For her efforts, Dr. Bowen was awarded the Sonoma County Horse Council's highest award – the Equus Award – which focuses on a nominee's history and accomplishments.

“ I find it to be tragic that many veterinary students come into the profession thinking they are financially not worth a lot. ”

County Equine Practitioner to a Tee




According to the SCHC, “Dr. Bowen’s calm control of the situation, compassion, vet skills and patient empathy minimized animals’ and owners’ anxiety during an historic evacuation.”

While the fires remain a tragedy, they allowed Dr. Bowen to make the move of starting her own ambulatory equine business – VIP Equine Services in Sonoma. “There’s no other way of saying it, the first few months of starting my practice were terrifying. I didn’t have many clients. I had no one to talk to about business decisions. I just started networking with friends and colleagues, trying to market myself and my services.” Gradually the clients – many who saw her in action during the fire evacuations – started calling. After a few months, she was extremely busy, and the business started to take off.

For Dr. Bowen, an ambulatory business fits her to a tee. Her truck is her office and allows her to practice without the additional debt of a static location and support staff. It also allows her to practice what she loves to do – equine performance medicine. Even before starting her own business, Dr. Bowen became certified from the Chi Institute in Veterinary Acupuncture and completed several advanced courses in traditional Chinese veterinary medicine. She completed several courses specific to lameness, imaging

and rehabilitation hosted by the International Society of Equine Lameness Practitioners. She recently became certified in equine medical manipulation (chiropractic) hosted by the Integrative Veterinary Medicine Institute.

“Even though my business is in a truck, my clients expect the latest techniques and science modalities when it comes to treating lameness and performance issues,” Dr. Bowen states. “Continuing education and technology are critical to my practice’s success and it’s up to me to find these sources and make sure I’m up to date.”

Working with people and animals during the devastating California fires solidified her desire to help others. In January 2019, she was co-founder of her second non-profit, Sonoma County Community Animal Response Team. “During the next disaster, Sonoma CART will aim to provide a platform to assist local animal professionals as well as local government services, develop site-specific training and education programs and implement long-term solutions that improve public health and the community I serve,” concludes Dr. Bowen. “We only had seven Animal Services officers, and they received over 10,000 calls during the 2017 fires. We now have more than 200 organized volunteers. It’s a way of giving back to those who don’t have the means of helping themselves or their animals.” 





Digging through debris to rescue horses

There are few circumstances that make Bethany “Bess” Darrow’s, DVM (Ross University ‘07) practice just a little different than most. First, she didn’t receive her veterinary medical license until she was 37 years old. “Yes, I’m a late-in-life veterinarian, which has its own issues and rewards,” she admits. “Like so many of my fellow veterinary graduates, I have a mountain of school debt. I also have to work overtime to establish myself and my practice in a part of the state (north central Florida) that already has some of the best equine-specific veterinarians in the world,” she admits.

While she works hard to pay back the school debt, she has answered the competition dilemma by focusing exclusively on the much-needed area of equine dentistry. “I already had the skill set of an equine dental tech (receiving her International Association of Equine Dentistry certification in 2001), but I couldn’t perform anesthesia, write necessary prescriptions, etc. The next logical step for me was becoming a veterinarian,” she states.

The second circumstance that sets Dr. Darrow apart is the fact that even though she is exclusively an equine dentistry veterinarian in north central Florida, some 4-5 hours northwest of her practice in Williston, in the Florida Panhandle, she is a full-service equine veterinarian with a thriving second equine practice.

Dr. Darrow explains, “Many years ago a local farrier who serviced the Florida Panhandle took me under his wing and introduced me to his equine clients who did not have access to many equine veterinarians. I immediately realized the opportunity to provide much-needed services to those 500-plus accounts.”

However, when she’s back in central Florida, she exclusively practices equine dentistry. It has been a fantastic fit, especially since most practitioners don’t want to do equine dentistry, because it’s physically demanding work that requires specialized equipment and a highly specific skill set.

In October 2018, Hurricane Michael, a Category 5, nearly 160 mph storm, made landfall, devastating the Florida Panhandle and affecting most of Dr. Darrow’s equine clients there. She and many of her clients are still dealing with the devastation today.

“Hurricane Michael was actually stronger than initially measured, prompting forecasters to

posthumously upgrade it from a Category 4 storm to a Category 5,” states Dr. Darrow. “The upgraded status means Michael was the first hurricane to make landfall in the United States as a Category 5 since Hurricane Andrew in 1992, and only the fourth on record. And nearly a year later, much-needed aid and assistance are still slow in materializing.”

Assuming the worst, Dr. Darrow, another veterinarian, a physician and a few volunteers, traveled to the hurricane damaged area after the storm to locate their clients and their horses. She admits the area was extremely lucky and truly blessed that for the most part, the horse population in that area only sustained minor injuries during and after the hurricane.

“Our biggest obstacle during the first few days was actually getting back into the horses and farms,” she recalls. “All the roads were covered in fallen trees and downed power lines. There was no power and fresh water available to most farms. We were using chainsaws for days just to clear roads so we could get back in and treat horses.”

Dr. Darrow and colleagues went door to door, checking on horses and livestock. “We left fliers on gates and doors saying that we had free hay, grain, fuel, water and complimentary veterinary care,” she recalls. “We delivered the feed, hay and supplies to people who could not physically get out of their properties to get to it. We provided and set up temporary tarp shelters/barns to protect animals from the elements and to keep donated feed and hay dry. We moved animals out of unsafe areas and provided free transportation for all who needed it.”

Dr. Darrow adds, “I had to take everything in – four spare tires because the debris was cutting tires. All my fuel because no gas stations were open. All my



Dr. Bess Darrow, owner of Tune Ups Veterinary Equine Dentistry, takes a much needed break



Typical debris laceration

food and water. All the necessary medications. I had to literally pack everything in, and of course, plan to sleep in my truck because there were few hotels or homes to stay in. It was like a huge bomb went off. It was total chaos everywhere. The only calmness in the chaos were the horses. They were just glad to see us.”

Dr. Darrow recalls, “People were literally freaking out that they didn’t have water for the horses. We managed to get generators into many of the sites to attach to the wells, but had no earthly idea how to wire a generator to a well pump. We finally tracked down



Hurricane Michael devastation



Kayaking fresh water to horses

an electrician to get this completed at a few farms. At one farm, in particular, they were towing plastic barrels full of water behind kayaks and floating them across a pond to bring water to their horses. This pond was infested with alligators and such. There were a lot of heroic people working to save these horses."

These efforts led Dr. Darrow to form the Hurricane Michael Horse Relief Fund, a GoFundMe campaign started as soon as the hurricane hit. Her 501(c)(3) non-profit and Facebook presence is known as "Houses4Horses," and as Dr. Darrow outlines, it has three main goals. "The relief effort provides actual shelters/houses for animals, temporary homes for horses whose owners needed them off of their properties while they rebuilt houses, barns and fences, and lastly, permanent new homes for horses whose

owners simply could not keep any longer. Because of the fund raising, we were able to foster 22 horses temporarily at local farms, adopted out several others and provided feed, hay, shelter and medical care to hundreds of horses affected by the hurricane."

And finally, the rewards. "I love my clients," Dr. Darrow states. "When I come to the Panhandle, I am treated like immediate family. I oftentimes stay with my clients and am invited to weddings, birthdays, etc. While I am still providing a much-needed service in taking care of their horses, I am rewarded daily with their friendship, compassion and kindness. In an area of the country where people had nothing after the hurricane, they were so willing to give you everything." **a**



Horse stalls post hurricane

"I want to personally thank Aurora for their generous donation of much needed antibiotics and wound-care medications. The veterinary supply companies were so kind to step in with products when these horse owners needed it most."
- Dr. Bess Darrow

EQUINE PRACTITIONER DROPS EVERYTHING TO RESPOND TO DISASTER



Managing Both **Veterinary** and **Military** Careers Keeps Texas Practitioner Busy

Around three weeks a month, Dickie "Joey" Vest, DVM (Texas A&M '98) is a staff theriogenologists at Brazos Valley Equine Hospitals (BVEH) – one of the largest equine practices in the state with five locations in Texas and one in Brazil. The rest of the month he is Colonel Vest, commanding officer of the U.S. Army's 352nd Combat Support Hospital in Camp Parks, CA – a position that is usually commanded by a human medical doctor, not a veterinarian.

"I entered the United States Army Reserve by direct commission in June of 2001," recalls Dr. Vest. "Three months later the towers came down in New York (Sept. 11) and the world changed. I went from doing two-week humanitarian missions straight to combat operations.

"As a matter of fact," he smiles, "I got the call from the Army to mobilize the same day I got the call that I had been accepted into the residency program at A&M. My residency was delayed 10 months while I worked inspecting MRE's (Military Ready to Eat Meals) for the outbound troops and worked with the service dogs heading to the Middle East."

After 17 distinguished years as a U.S. Army Veterinary Corps Officer, Dr. Vest earned his master's degree in Strategic Studies in 2017 and was promoted to Colonel in 2018. Dr. Vest has served in a variety of medical and military command assignments including active duty deployment to both Afghanistan and Kuwait. He has traveled extensively during his military career, leading humanitarian animal missions and food safety operations around the world.

According to Dr. Vest, after completing his residency, he started a practice that was only focused on working with veterinarians, not equine owners. "My goal was to offer referral-level reproductive care to veterinarians," he states. "I was totally mobile and worked with a wide variety of practices that didn't offer advanced reproductive care.

"One of those practices was BVEH. It was fun because I spent almost every day talking to veterinarians. It was also very practical because it allowed me to focus on equine medicine during the major reproductive and foaling months and allowed me the time to continue with the military commitments I enjoyed. I knew my practice could never be very big or even grow that fast, however, it allowed me to work



directly with veterinarians and advance my skills as a reproductive specialist."

Dr. Vest joined BVEH in 2017 and currently serves as the staff reproduction specialist responsible for leading the practice in specialized equine reproductive techniques and services including embryo donor and recipient management, oocyte harvest, management of subfertility in mares/stallions as well as a full caseload of reproductive medicine and surgeries.

According to Dr. Vest, there are a lot of similarities between the Army and veterinary medicine, the biggest is dealing with people. "The Army is the 'people' element of the armed forces. We control the land and the people. And much like the Army, veterinary practices deal with a wide variety of cultures and people. My military career has benefited because I'm a veterinarian and deal with a wide variety of people."

Dr. Vest says the military has allowed him to refine his organizational capabilities, employee management skills and his ability to adapt to multiple situations.



his reproductive practice, especially when dealing with placentitis and reproductive infections.

"EQUISUL-SDT has become the Gold Standard in care for many pathogens we deal with. I have given up dealing with SMZ tablets. Clients don't like dealing with them, we have never been able to get an accurate dose delivered, and the clients hate dealing with the whole process of crushing and making it into a paste they know the horse will reject. EQUISUL-SDT is already in liquid form and the horse loves the flavor."

Dr. Vest adds, "Our practice loves the ease of administration and packaging size of both

EQUISUL-SDT and Altren® (altrenogest). EQUISUL-SDT is just the right size to issue to a client vs. a 500-count bottle of SMZ tablets where you may only need 40 tablets out of that bottle.

"Additionally, before Aurora received FDA approval on the 150 mL package of Altren, I was taking a 1,000 mL bottle of Regu-mate® and making my own 150 mL bottles. That meant I had to buy the 150 mL light-protected bottles and special fitting tips and then produce an accurate label with all the administration and clinic information on it. It was a real hassle and highly time consuming. Aurora's 150 mL bottles are great, because you start the mare on it after she ovulates. She needs 10 cc/day for 15 days before being preg-checked. That's 150 mL and I don't have to do all the work of repackaging, labeling, etc. It's a no brainer." **a**

Altren and EQUISUL-SDT® are Registered Trademark of Aurora Pharmaceutical, Inc.
Regu-Mate® is a Registered Trademark of Merck Animal Health



Military Awards

- Bronze Star Medal
- Meritorious Service Medal (second "Oak Leaf" device)
- Army Commendation Medal (with four "Oak Leaf" devices)
- Army Achievement Medal
- Army Reserve Component Achievement Medal (with three "Oak Leaf" devices)
- National Defense Service Medal
- Afghanistan Campaign Medal with Campaign Star
- Global War on Terrorism Expeditionary Medal
- Global War on Terrorism Service Medal
- Humanitarian Service Medal (JTF Katrina)
- Armed Forces Reserve Medal with "M" Device and Bronze Hourglass
- Army Service Ribbon
- Overseas Service Ribbon (2nd award)
- Army Reserve Components Overseas Training Ribbon (with "5" device)
- NATO ISAF Medal
- Combat Action Badge
- Expert Field Medical Badge
- Air Assault Badge

"Resources, capabilities, core competencies and activity analysis are the fundamental building blocks for developing winning strategies in the military and in the veterinary clinic," insists Dr. Vest. "BVEH Managing Partner, Dr. Terrell Buchanan, has been practicing many of these management steps since starting the practice in 1967. We are simply selecting a business strategy that exploits valuable resources and distinctive competencies to have a competitive advantage."

"This is seen in the veterinarians we have on staff, how we interact with our equine owners and how we implement our daily assignments. The practice has made a point of investing in resources, continually," he notes. "It's simply senior partner leadership and strategic thinking, not micromanaging."

That same mentality and attention to detail is why Dr. Vest is a proponent of EQUISUL-SDT® (sulfadiazine/trimethoprim) in

HARD WORK AND PERSIST MINNESOTA POULTRY VETE

As a young child, Jill Nezworski, DVM (U of MN '02) always wanted to be a veterinarian. But unlike most children, she wanted to work with chickens and turkeys ... not dogs, cats and horses. Her dream was achieved through a lot of hard work and sacrifice that many veterinary students don't want to do.

"I knew if I wanted to be taken seriously as a veterinarian, I needed to work on the farm, do the dirty work and learn the business from the producer's point of view," says Dr. Nezworski. Her preceptorships during school included Willmar Poultry Company, The Turkey Store, Hyline International and Longmont Foods. Dr. Nezworski practices what she preaches.

"I met my husband (Jeff Erickson, DVM) while in veterinary school. After graduation, neither one of us could find jobs in the same

area," recalls Dr. Nezworski.

"We did a short stint of large animal practice in Wessington Springs, SD, before I was able to join the Michael Foods team in Gaylord, MN, working with their 2.5 million layers and 800,000 pullet egg production system. Dr. Erickson went to work for Swine Health Center."

Her in-field experience broadened as a new staff veterinarian for Christensen Farms, one of the largest hog-producing companies in the U.S.

In May 2010, eight years after graduation, Dr. Nezworski finally was in a position to start her own poultry veterinary business – Blue House Veterinary, LLC, in Buffalo Lake, MN – to provide independent veterinary service for poultry producers. Her hard work was finally paying off.

"As it turned out," she looks back, "being able to work in swine greatly benefited my poultry practice. Egg-laying

operations are similar to sow operations," she outlines. "You have a long-live animal, a continuous flow system, not all-in/all-out, heavily records based, etc. And," she adds, "much like working with contract growers at Christensen Farms, I work with individual farms with their own personalities and individual flock health issues. I became more exposed to different people, different end-goals, different personalities that have really helped me grow my poultry business. I'm extremely thankful I was able to be exposed to those types of dynamics and develop my people and communication skills."

Dr. Nezworski's business is about 50% turkeys and 50% egg layers. "My customers are big enough to have health issues, but not big enough to have their own on-staff vet. Some of my bigger customers may only use me as a consultant when they have specific issues. Some of my egg-layer



Dr. Nezworski and son, Eli Erickson



ENCE KEEP RINARIAN

Flying High

customers have upwards of 5 million birds," she notes. "However, I also have several smaller clients that may only have 300 birds. They all have health issues and they all need expert veterinary care and advice. My goal is to help producers become more profitable and, therefore, sustainable."

Dr. Nezworski's clients are spread out across the country ranging from Fargo to west of Aberdeen to southwest Iowa and Nebraska, to Minnesota, Missouri, Wisconsin, the Dakotas, Illinois and Indiana. She counts on her 1954 Cessna 180 to reach them on a regular basis. "Flying my own plane allows me to reach most of my clients in only a few days. Flying is something I like to do and have been doing it for around 10 years," she notes. "I make it a priority to see every client as often as possible. My plane allows me to do that more efficiently."

Big issues facing her clients? "Food safety is huge moving forward," she

addresses. "We just have to get better at it. We're looking at a day, and not too far away, where we'll have to be salmonella-negative to sell birds/eggs. We have already started on many of our farms to up our game and reduce salmonella loads. Some clients are more behind the times, and I'm trying to get them to see the big picture."

Dr. Nezworski is also concerned that the regulatory environment will be a lot tougher for antibiotic choices.

"We're already pushing to get away from antibiotic treatments," she says. "I have a lot of clients who rely on products like BALANCE™ Stress & Dehydration Aid and ORAL-PRO® Oregano to reduce pathogen loads and reduce stress-related issues that cause serious, low-level pathogen flare-ups that cost a lot of money to quiet down."

"I made the decision early in my career to avoid clients who only want me to write a script for their problems. My

people are early adopters and are working in tandem with me to alleviate the underlining pathogen problems. It's not easy, but we're making huge strides to be compliant," Dr. Nezworski concludes. **a**



ORAL-PRO is a Registered Trademark of Aurora Pharmaceutical, Inc.
BALANCE is a Trademark of Aurora Pharmaceutical, Inc.



CONTINUING EDUCATION KEY TO PROVIDING CLIENTS' NEEDS

Mike Mull, DVM (The Ohio State '89) has built his practice on one simple axiom ... "Disease gets you on the farm, your ability to bring fresh, profit-saving ideas, keeps you on the farm. Bridging the gap between treatment and prevention means doing everything possible to help my clients increase their bottom-line profitability." And that advice has allowed Dr. Mull and his veterinary school classmate and wife, Jean Murphy, DVM (The Ohio State '89) to build York Animal Hospital, Bellevue, OH, into one of the more progressive mixed-animal practices in the state.

In 1992, after a few years working in a six-veterinary mixed-animal practice gaining valuable experience, Dr. Mull and Dr. Murphy found a practice for sale with a house right on the property. "It was the perfect situation for a couple looking to build a practice and start a family. The situation allowed us easy access to both the house and the clinic, so we could be with our two boys as they were growing up," notes Dr. Mull.

Dr. Mull completed the intensive two-year Executive Veterinary Program in Swine Health and Production at the University of Illinois, furthering his interest in swine health and management. From 2000 to 2006, he served two elected terms on the Board of Directors for the American Association of Swine Veterinarians. He also served on the Ohio Department of Agriculture's Concentrated Animal Feeding Facility Advisory Committee, as representative for the Ohio Veterinary Medical Association and the Ohio Department of Agriculture's Swine Health Advisory Committee. All of this is to stay on the cutting edge of knowledge that he can take back to his clients.

According to the veteran practitioner, being an asset to your clients is the true secret to a successful practice. "My primary goal is to put programs in place to prevent disease. However, I also need to be armed with the latest information/innovations to show my clients how to improve production parameters such as feed efficiency, rate of gain and sow productivity, and to be able to effectively evaluate the environment and manage pig flows for optimal production," says Dr. Mull.

"I have to be an asset to their business while providing the knowledge and resources to make informed decisions concerning the health, well-being and production of their livestock. However," he admits, "that commitment means I need to stay on top of the latest production management practices and science to help my clients. For me it's going to the annual AASV and AABP conferences and my regularly scheduled conference calls with the Innovative Veterinary Solutions, LLC (IVS) team of like-minded veterinarians."

Dr. Mull joined the IVS group specifically to get new perspectives on management and production medicine he could pass along to his swine and beef accounts. "I enjoy our educational conference calls," he notes. "The veterinarians on the calls are similar to my practice in that they preach disease management, but they sell production-improving information and solutions."



When you're fully engrossed in your daily business, you forget to grow as a veterinarian. These calls are invaluable to me. I can learn from these practitioners' experiences (and them from mine) and take that information right to my clients to help keep them competitive. We have been able to make some significant strides with fairly simple changes."

One of the simple changes Dr. Mull is referring to is his increased use of BALANCE™ Stress & Dehydration Aid for heat and production stresses. "I use BALANCE, mainly due to its excellent electrolyte combination (developed by a swine veterinarian), prior to shipping pigs to market. It does an excellent job of reducing stress in those pigs and dramatically reduces downer pigs. We see multiple benefits in production weights and the significant reduction in stress-related illnesses. If I see a barn where there are downer pigs, lethargic pigs, tail biting, etc., I instantly clean it up by putting BALANCE in the water. Our clients love it too, because it is priced to handle stress at every phase of production."

But according to Dr. Mull, stress is something practitioners face in their own lives as well. "After 30 years in practice, sometimes you don't want to go to work," concludes Dr. Mull. "It's not always easy to get in that truck. However, when I feel like I am starting to burn out, I like to hang out at those farms with a positive energy, the ones that are expanding their business, making daily strides to be better. I feed off their energy, and it really helps me get my perspective back in focus. I'm fortunate that I have a lot of really good clients and friends) that bring that positive flow to their business every day. It helps me recharge." **a**





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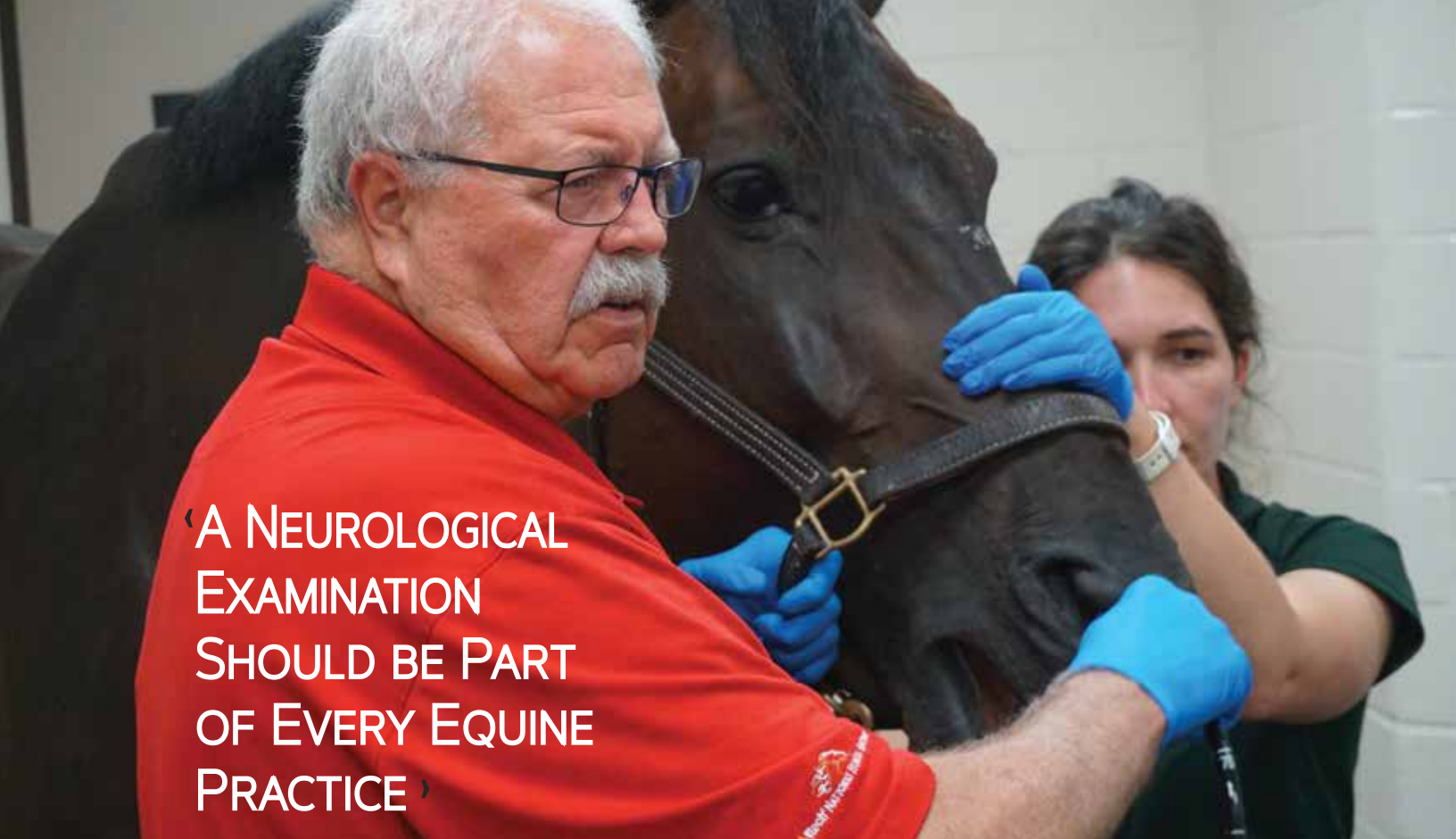
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A NEUROLOGICAL EXAMINATION SHOULD BE PART OF EVERY EQUINE PRACTICE

Many equine veterinarians recognize Steve Reed, DVM (The Ohio State '76) as one of veterinary medicine's best equine internal specialist and diagnosticians, currently at Rood and Riddle Equine Hospital in Lexington, KY. But what you may not know is that for more than 26 years prior to joining Rood and Riddle, Dr. Reed helped build one of the most prestigious equine care centers in the country in Columbus, OH.

"Early in my career, I developed an interest in the specialty of equine neurology," recalls Dr. Reed. "I quickly became recognized as an expert on *wobbler syndrome* or clinical equine protozoal myelitis and head trauma, and then developed a neurologic examination to identify the syndrome and eventually worked with equine surgeons

« One of my high school classmates on the wrestling team asked me if I would help him and his dad on the weekend. His dad was a veterinarian. He allowed me to learn about this profession, and it was exciting from that moment on. **Dr. Steve Reed** »

to develop a procedure to alleviate the issue." That notoriety and focus was instrumental in establishing the veterinary hospital at OSU as the primary site for surgery to stabilize cervical vertebrae as a treatment for instability.

"One very helpful and simple advancement in equine neurology was to stop calling every horse with neurological disease a 'wobbler' and instead, identifying the specific disease or disorder that was responsible for the clinical

signs," notes Dr. Reed. "As it has been said, giving different things the same name may seem innocuous, but it slows progress in the field."

Dr. Reed adds, "In evaluating horses with suspected neurological disease, the most important step is to establish the neuroanatomic localization. To accomplish this, one needs to begin with a careful neurological examination."

Dr. Reed says the goals of the neurological examination are to differentiate the problem from musculoskeletal disorders and to identify the neuroanatomic location of the lesion(s). "After determining the location(s), further diagnostic testing and/or a course of therapy must be chosen. In addition," he adds, "the examiner should take advantage of ancillary diagnostic aids for horses with neurological diseases such as examination of cerebrospinal fluid, radiography, ultrasonography, electroencephalography, electromyography, myelography, computed tomography, magnetic resonance imaging, and other techniques such as auditory and visual evoked response testing, nerve conduction velocity, and other procedures."

» Dr. Reed's experiences dictate that the neurological examination should be included as a part of the physical examination of all equine patients. "Understanding neurological disease and recognizing the clinical features that result from neurological disease in horses can result in early detection of potentially serious and sometimes fatal problems. If left untreated, many disorders of the nervous system of horses can result in permanent disability, and the eventual outcome may be euthanasia for either humane or safety reasons."

Dr. Reed believes outcomes for horses with neurological diseases are improving, because many practitioners now

recognize that including the neurological examination as a part of the routine physical examination leads to earlier diagnosis and treatment. "In addition," he adds, "newer rapid and quantitative testing for diseases that affect the nervous systems of horses mean early recognition and accurate diagnosis, and ultimately, this leads to significant economic savings for owners and trainers. Over time, many veterinarians will have access to horse-side testing for infectious diseases as readily as they now have access to radiography."

Nearing retirement, Dr. Reed maintains a schedule of treatments and referrals. A noted author and editor of numerous scientific articles and textbooks, Dr. Reed recently completed editing the Fourth Edition of *Equine Internal Medicine* with co-authors Warwick Bayly, BVSc, MS, PhD and Debra Sellon, DVM, PhD. "I hope to continue to speak/teach at state, national and international meetings," he concludes. "I enjoy my responsibilities as Emeritus Professor of The Ohio State University, an Adjunct Professor at the University of Kentucky, and the chairman of the Grayson-Jockey Club Research Advisory Committee in Lexington. I hope to never stop learning and teaching."



Equine Internal Medicine
fresh off the press

COMPOUNDING FOR PRESCRIBING VETERINARIANS

→ Part 2 of this article will appear in the next issue



Urban Legends and the Real Law

By: Matt Klotz, DVM
Technical Services Veterinarian
Aurora Pharmaceutical, Inc.

In the companion animal practice segment (horses, cats, dogs, etc.), the use of compounded medications has run amuck. Much of this is due to the propagation of false information that has been accepted as truth. The latest veterinary compounding debacle had its day in federal court in Texas in July that has resulted in the owner of that pharmacy pleading guilty to introducing misbranded and adulterated drugs into interstate commerce with intent to defraud and mislead, but none of this happened until it cost one of the leading racehorse trainers a 16-year license suspension that essentially ruined his career. This is only the latest of many cases that have cost horses their lives, owners lots of money lost and putting veterinarians' licenses at risk. It is now time that the veterinary profession understands the laws and knows what questions to ask a compounder before using them.

Myth: Compounding is OK to do from raw ingredients

→ **Fact:** Veterinary compounding is **only** legal if done from either FDA-approved human or veterinary finished-form drugs. The law is very clear on this. However, since companion animals don't enter the food chain, our regulating authorities don't prioritize its enforcement like it does in food animals. HOWEVER, licensing boards and courts do enforce this law when it appears in those venues.

Myth: Compounding of unapproved drugs is OK as an alternative to approved treatments

→ **Fact:** AMDUCA regulations clearly state that when there is an approved treatment for a certain disease in a certain animal, it must ALWAYS be used first, and a veterinarian can only turn to alternative treatments once there is an abundance of proof that the approved treatment is not effective.

Myth: Compounding of two medications combined into a single dosing form makes it legal

→ **Fact:** In veterinary medicine this is legal IF the medications being combined are sourced from approved forms, but most of the time, they are being mixed from raw chemicals to be offered at a much lower cost which always makes the compounded medication ILLEGAL.

Myth: Changing the form of the delivered drug makes all compounding legal

→ **Fact:** Changing an approved drug form to another for administration is legal; however, this is almost always done to hide the use of raw chemical in a gray area that veterinarians think is legal.

Myth: Compounded drugs are just as effective as approved forms

→ **Fact:** Most compounded preparations have NO scientific study of pharmacokinetics to determine their absorption and distribution in the animal and they have NO proven efficacy.

Myth: Compounded drugs are generic drugs

→ **Fact:** Approved generic prescription drugs are made to the same stringent standards as the pioneer formulation and must prove equivalent absorption and distribution in controlled, blinded pharmacokinetic trials. There is no required control of purity, formulation and qualification of compounded preparations.

Myth: Compounded medications are good until the six-month expiration date

→ **Fact:** Federal law dictates that compounded medications can have a maximum 180-day expiration. Compounders routinely put this date on their products with no validation that it's actually still potent for that entire time because compounders are not required to perform stability testing like approved manufacturers are.

Myth: Compounded drugs are consistent with their labels

→ **Fact:** Compounding pharmacies are not required to validate their raw ingredients and the final formulation for purity and concentration. There are many instances that have been found that the compounded medications have not been the same concentration as what is on the label and many cases of compounded drugs being contaminated with other drugs.

Myth: It's OK to use compounded medications when a client can't afford the approved product

→ **Fact:** There is NO legal provision for clients who can't afford approved drugs. The animal owner's finances should never dictate our prescribing, which is a tough reality for many veterinarians to live in.

Myth: We can stock compounded medications in our clinic pharmacies

→ **Fact:** Compounded medications are to be produced only upon receipt of a prescription for a particular animal or herd. Depending on the state, practitioners are allowed to keep from zero up to seven days' supply on hand for immediate need, but never to exceed that. Also, in some states, it is illegal to mark-up compounded drug prices for dispensing, and it is illegal to charge for writing a script.

Myth: Sterile compounded medications for injection are truly sterile

→ **Fact:** Sterile compounding is very difficult to achieve, and few pharmacies have the technology to sterilize finished preparations. Never take for granted that an injectable compounded drug is sterile. If you doubt this, just ask one of the many people that suffered and died from bacterial meningitis due to a supposedly sterile compounded injectable medication.

Now that we have debunked many of the falsehoods that have been accepted as fact surrounding compounded medications, in the next issue, I will address what questions practitioners should ask of a compounder when considering which pharmacy to use. **a**



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Stop the Effects of Heat and Handling on Your Bottom Line

Much information has been published on the effects of heat stress on productivity and immune response in swine and poultry. A seasonal problem in many parts of the country, a high ambient temperature causes economic losses through a reduction in feed intake, while decreasing nutrient utilization, live weight gain, egg production, egg quality and feed efficiency of both swine and poultry.

Heat stress occurs when the amount of heat produced by an animal surpasses the animal's capacity to dissipate the heat to its surrounding environment. This imbalance may be caused by variations in a combination of environmental factors (e.g., sunlight, thermal irradiation, air temperature, humidity and movement) and characteristics of the animal (e.g., species, gender and rate of metabolism). Animals experiencing heat stress tend to reduce their heat production by limiting feed intake, with subsequent negative effects on growth performance.

Heat stress is complicated even more by the demand for improved production performance and feed conversion, making today's swine, chickens and turkeys more susceptible to heat stress than ever before.

The increasing pressure to produce more animals per unit of space makes it necessary (and economical) to control heat and handling stress where possible.

Manage Heat Stress Before It's a Production Problem

Several methods are currently available to alleviate negative effects of high

environmental temperature on the performance of production animals. However, since it is expensive to cool buildings in which animals are housed, such methods are focused mostly on properly balanced nutrients via water and dietary manipulation.

Aurora Pharmaceutical's BALANCE™ Stress & Dehydration Aid is a veterinarian-preferred nutraceutical product that is quickly gaining considerable usage due to its excellent heat stress reduction properties, ease of administration via the water and low cost per dose. The balancing and buffering effect will give your animals:

- Increased water consumption while reducing body temperature in a high-heat environment
- Reduced panting, thus reducing the blood pH, resulting in a healthy, responsive metabolic system
- Quicker rebound from excessive heat or handling
- Less shrinkage during processing and greater meat production under stress conditions

BALANCE™ Mixing Directions

Water Administration

DOSAGE LEVEL	WATER MEDICATOR
780-gm foil pack	Administer 1 packet per 5 gallons of stock solution metered at 1 ounce per gallon (1:128) of drinking water

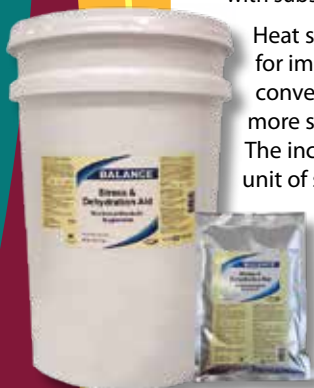
40-lb. bucket with scoop	Administer 3 cups per 5 gallons of stock solution metered at 1 ounce per gallon (1:128) of drinking water
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DOSAGE LEVEL	WATER TANKS
780-gm foil pack	Administer 1 packet per 640 gallons of water (each packet treats approximately 64,000 pounds of livestock)

40-lb bucket with scoop	Administer 3 cups per 640 gallons of water (each cup treats approximately 21,300 pounds of livestock or 213 gallons drinking water)
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By: Grant D. Weaver, DVM
Technical Services Veterinarian
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As mentioned above, BALANCE™ Stress & Dehydration Aid has been shown to maintain uniform water consumption during times of stress which leads to better hydrated organs and tissues that function more efficiently. If the stress occurs close to market or during transportation, a more normal blood pH can lead to overall better meat quality. **A**

BALANCE is a Trademark of Aurora Pharmaceutical, Inc.