



MAPACA

Mid-Atlantic Alpaca Association

Newsletter

October 2006

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Jubilee 2007 Update!

*By Anne Hallinan, Jubilee
Show Manager*

Now accepting entries for the 2007 Jubilee Art Competition!

It's time to flaunt your creativity and help give the 2007 Jubilee its very own identity! The winning design will become the "look" of next year's show and be used on all promotional materials, including the Jubilee website, program and tshirts.

See the enclosed (insert) Entry Form for details and rules.

Watch the MAPACA Newsletter for more Jubilee updates!

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MaPaca Annual Meeting—2006

October 15, 2006

Lunch at Noon.

☺ **DOOR Prize**— For all you chocolate lovers out there, MAPACA will present a Hershey's Chocolate Fun Basket to the door prize winner!

Speaker: Dr. Shari Silverman, VMD will address the subject of neonatal nutrition, colostrum, and its impact on the neonate's immune status. The talk will also briefly touch on the nutritional concerns that arise as a cria progresses from birth to weaning.

To be held at:
The Hotel Hershey
100 Hotel Road
Hershey, PA 17033

Phone: 717-533-2171

Website: www.thehotelhershey.com

Please go to www.mapaca.org for directions and further information.

***Please mark your calendar for this date and plan to attend!**

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President's Mes- sage:

Here are the results of the recent MA-
PACA Election.

CONGRATULATIONS are in order to
the newly elected MAPACA Board
Members who are as follows:

Chuck Gulotta (see note below)
Monica Kline
David Moran
Wayne Robinson

Jovi Larson has resigned from the Board
due to her recent move to Virginia and
the related workload of moving and re-
establishing her alpaca farm in her new
location. Chuck Gulotta, our first runner
up in the election, will take Jovi's seat
on the board and fulfill the remaining
one year of her term on the board. Many
thanks to Jovi for her creative and dedi-
cated work on behalf of MAPACA. We
will miss Jovi as a Board Member.

Sincerely,
Nancy Johanson

Bioavailability and Pharmacokinetics of Oral Omeprazole (Gastrogard) in Camelids

MAF/ARF Investigator Profile

by Ingrid Wood of Stormwind Alpacas, Columbus, New Jersey

“That job is going to give me an ulcer!” Who hasn’t made such an outcry or, at the very least, heard co-workers or family members express frustration and anxiety coupled with concern over the health of their digestive system?

Aside from emotional stress, an organism called *Helibacter pylori* is responsible for peptic ulcers in people. This bacteria has also been isolated from domestic cats. According to Dr. Geoffrey Smith, Assistant Professor of Ruminant Medicine at North Carolina State University, *Helibacter pylori* is not an issue whenever stomach ulcers are diagnosed in large animals.

In the proposal he submitted to the Morris Animal Foundation (MAF), Dr. Smith cited research published by Murray E. Fowler, DVM as well as Smith BB, et al. to make a compelling argument for the significance of his own study: “Third compartment (stomach) ulcers are a common cause of morbidity and mortality in camelids of all ages. Although the exact cause and pathogenesis of stomach ulceration in these animals is not completely understood, stress appears to be the most common predisposing factor” (Dr. Geoffrey Smith, MAF Proposal, *Bioavailability and Pharmacokinetics of Oral Omeprazole in Camelids*). Before the Morris Animal Foundation approves funding for a project, the Principal Investigator must present clearly defined objectives to be accomplished. Dr. Smith’s main goal was to examine the bioavailability of orally administered Omeprazole (GastroGard) in camelids. Additionally, he hoped to determine the optimal dose necessary to successfully treat and/or prevent stomach ulcers in llamas and alpacas. Once approved, the project was co-sponsored by the Alpaca Research Foundation (www.alpacaresearchfoundation.org).

When I contacted Dr. Smith in early August of 2005, he had already completed his research and was prepared to share the somewhat surprising results.

Prior to our pre-arranged phone interview, I con-

sulted *The Merck Veterinary Manual* (8th Edition) to refresh my memory on the issues concerning gastric ulcers in farm animals. It makes for disturbing reading. The authors discuss GI ulceration as a “common problem in small and large animals”, including camelids. Gastric ulcers pose a health threat to a significant number of foals and pigs, with cases of abomasal ulcers “increasing in importance” in mature cattle and calves. Why do so many agricultural animals suffer from ulcers? What causes their illness? What contributes to it?

The first question I asked Dr. Smith was, “Do you believe that stress is the cause of gastric ulcers?” “Yes, I do”, he replied without hesitation. “I don’t think it’s the only reason, but, in my opinion, environmental stresses play a large role. That’s why I encourage my camelid clients at North Carolina State University to send a patient with a buddy.” “Yes, many alpacas panic when owners remove them from their herdmates,” I agreed. “Exactly,” Dr. Smith continued, “it’s not unusual for sick animals to be hospitalized and develop other, unrelated symptoms such as an ulcer due to stress.” He added, “I also emphasize that camelid owners should keep llamas and alpacas in pairs at their farms, never as singletons.”

“What about diet?” I broadened my inquiry. “In cows, a high grain diet can cause ulcers,” Dr. Smith explained. “Corn and wheat are among the main culprits as being the grains hardest to digest. Oats are easier on the digestive system. Also, it’s important that grains or other supplements are fed as coarsely textured as possible.”

Breeders and owners of other livestock species are well aware of diseases caused by nutritional programs rich in concentrates and low in forage. *The Merck Veterinary Manual* lists, among others: feedlot bloat, displaced abomasum, lactic acid acidosis, founder, laminitis and enterotoxemia. “There is certainly no harm in feeding small amounts of grain or pelleted feed to alpacas,” Dr. Smith stated and admitted to rewarding the llamas in his research study with a handful of treats after an examination. “However, the bulk of a grazing animal’s diet should be excellent pasture and quality hay,” he insisted firmly.

In horses, the incidence of gastric ulcers is so

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high (up to 88% of all Thoroughbreds according to *The Merck Veterinary Manual*), it's no wonder that GastroGard, the paste form of Omeprazole, was initially developed to treat equines. "Some veterinarians even advise horse owners to use GastroGard prophylactically, that's how prevalent the problem is," Dr. Smith mentioned.

Although reducing stress and providing a good diet go a long way to prevent ulcers, such a care protocol is obviously of no immediate help if disease is already present. Dr. Smith's research is therefore of utmost importance to camelid owners and breeders. GastroGard works very well in horses, and the caretaker can easily medicate the animal without assistance. Dr. Smith hoped that the product would have the same beneficial effect on camelids. Six healthy llamas were brought to North Carolina State University on loan from the Southeast Llama Rescue program to determine what concentration of the drug would accumulate in their bodies.

One nice aspect of Dr. Smith's research was the fact that it was not necessary to induce disease. Six healthy llamas arrived, remained healthy, and were returned, none the worse for wear, to their rescue organization at the conclusion of the project.

The outcome of the clinical trials was disappointing. "The drug was poorly absorbed," Dr. Smith explained. "Bioavailability was only 2% of the dose. The first stomach compartment (C-1) in camelids is full of bacteria. It is possible that this bacteria degraded the drug before it had a chance to be absorbed into the bloodstream. Typically, you'll get gastric ulcers in camelids in the third compartment. We even doubled, then tripled the dose normally used on horses, it didn't make a difference." It was easy to tell that Dr. Smith had hoped to present the Morris Animal Foundation, the Alpaca Research Foundation, and their supporters with more positive results.

"Why does GastroGard have to be absorbed into the bloodstream? Can't the drug simply travel through the digestive system and eventually reach C-3?" I asked.

"Omeprazole is a proton-pump inhibitor," Dr. Smith explained patiently. "It *has* to be absorbed into the blood to work. If it isn't, there is no way I can think of that it would still be effective. I know

that anecdotal evidence suggests otherwise. Some veterinarians and owners may not believe the results of my research," he speculated. "Where do we go from here?" I asked. "Well, the injectable version of Omeprazole certainly works when given intravenously. It's just not as convenient and cost effective for owners," Dr. Smith replied. He explained how he inserts a catheter into an alpaca patient's jugular vein to administer the drug. "Although my research did not support the belief that GastroGard will work in alpacas, there is no reason to give up on its use completely. A future study could also monitor stomach pH," he suggested. With a smile, I remembered the conversation I had had with a young family friend, an avid swimmer. When I explained the basic facts of stomach pH to her, she had laughed out loud, "Then mammals' stomachs are like the water in a swimming pool. Their pH has to be just right or they can't be completely healthy." Her off-beat analogy proved to me that she had grasped the fundamental concept of a functional digestive system.

Although camelids are not true ruminants (some scientists refer to them as "modified" ruminants), their three stomach compartments are nevertheless a complicated structure. They are labeled C-1, C-2, and C-3. The glands that secrete digestive enzymes and acid are located in what is called the terminal one-fifth of C-3. A healthy pH level varies from 6.4-7.0 in the three compartments, dropping to 2.0-3.0 in the terminal one-fifth of the third compartment. Any time this delicate pH balance is disturbed, the normally very efficient camelid digestive system fails to function properly. Acute indigestion develops when the pH level drops considerably due to, for example, the consumption of a large quantity of concentrates. A chronic overproduction of stomach acid may very well result in a gastric ulcer. That's why GastroGard, which causes a prolonged (24 hours) inhibition of gastric acid production, is so effective in healing ulcers in horses.

In alpacas and llamas, the challenge is to get the paste moved well past the bacteria that degrades the drug in C-1 and into C-3 where ulceration takes place. How can that be accomplished without surgery or other invasive procedures?

"There is a possibility we can explore," Dr.

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Smith pointed a way out of the dilemma, “and it involves a digestive mechanism typical for ruminants called the esophageal groove reflex.” I had read about this fascinating phenomena in *The Merck Veterinary Manual* not too long ago. This reflex causes digestive passageways to close while the ruminant neonate suckles from its dam or a bottle. The milk is thus channeled into the appropriate compartment for proper digestion. In camelids, if the reflex functions properly, it ensures that colostrum and milk are funneled into the C-3 compartment. Deposited in C-1, milk ferments and causes severe digestive problems. This is a good reason *not* to encourage neonate camelids to drink from buckets. In calves, “ruminal drinkers” often develop diarrhea and are generally unthrifty. Dr. Fowler, the author of *Medicine and Surgery of South American Camelids*, tells readers that “the esophageal groove of the camelid is not as well developed as in ruminants. There is only a single lip as contrasted with two in the ruminant.” He cautions caretakers of orphaned neonates to insert a feeding tube only as far as the thoracic inlet instead of directly into the stomach. “Fluid traversing the thoracic esophagus may cause reflex closure of the esophageal groove and shunting of the colostrum to C-3 of the stomach, where it belongs” (Fowler).

As crias become older and stop nursing, the need for the esophageal groove reflex to work diminishes. Eventually, it ceases to function. If you are trying to prevent medication from being degraded in C-1 and wish to channel it directly into C-3, Dr. Smith suggested a medical “trick” used in ruminants. “The appropriate salt solution, administered orally, may achieve closure of the groove,” Dr. Smith explained. “We could certainly explore this type of treatment when administering GastroGard to alpacas and llamas. I have used the procedure in cattle, although not in a controlled study,” he shared with me. Again, *The Merck Veterinary Manual* provided interesting details. For example, it lists a mixture of 2 oz. (60 ml) of 5% copper sulfate, 5% zinc sulfate, and 10% of sodium bicarbonate as being effective in closing the groove in cattle. “Onset of the reflex responses takes 5-10 sec., and the groove may remain closed for up to 60 sec.” (Merck).

I firmly believe that every “closed door” in life leads to the exploration of alternative, and often

more exciting, opportunities.

Dr. Smith seemed to share that philosophy. The results of his initial research may be disappointing, but they point in a direction that ultimately will be of a much greater benefit to camelids and their owners. Meantime, I believe that it behooves veterinarians, owners, and breeders to jointly develop a care protocol that helps *prevent* the development of gastric ulcers. Omeprazole, like any other drug, is not without its side effects. *The Merck Veterinary Manual* warns that it is “contraindicated for chronic therapy”, citing the fact that it is “a microsomal enzyme inhibitor” and that, in man, adverse effects from suppression of gastric acid secretion include development of carcinoids. Although extrapolation from human applications is not always appropriate for other species and may not be in this case, camelid owners are well advised to approach *any* use of drugs with caution.

Throughout the interview, I sensed Dr. Smith’s deep concern for the animals used in his study. It quickly became obvious to me that he thought of the llamas as individuals with physical as well as emotional needs, not merely objects to be manipulated for his research purposes. The members of the Southeast Llama Rescue program who approved the use of their llamas for this project can be well pleased with their decision.

“Where, when, and why did you develop an interest in veterinary medicine?” I finally asked. Dr. Smith shared with me that his parents are college professors. A neighbor next to their home in South Carolina raised pigs, and young Geoffrey was soon “hooked”. His interest later switched from swine to dairy cows. “I have always been especially interested in working with small family farms,” Dr. Smith related. This certainly makes him ideally suited to work in camelid medicine. His camelid caseload at North Carolina State University is small but growing.

Dr. Smith is married to a veterinarian who specializes in small animals. He enjoys spending his free time with his wife and two young children. An English Pointer named Yogi rounds out the family. Introducing such a caring professional to the greater camelid family was a pleasure and a privilege.

Editor's Ramblings:

During the heat of the summer I felt that the heat would never end. Well it did! Today is the last day of summer and as I sit at my computer I can feel the breeze of an early autumn day blowing in through my window. I'm enjoying the coolness and so are the alpacas. Thank goodness we made it through another hot summer and we still have grass out in the pasture, thanks to all my watering efforts!

As Nancy Johanson announced, the winner's of the recent MAPACA Election were: Wayne Robinson, Monica Kline, Charles Gulotta, and David Moran. The new board will be seated at the Annual Meeting to be held on October 15, 2006, at The Hotel Hershey, in Hershey, PA. You can find driving directions on their website at: www.thehotelhershey.com. Make sure that you do not miss this meeting. MAPACA is sponsoring, for your education and enjoyment, Dr. Shari Silverman, VMD, who will speak on the subject of neonatal nutrition from birth through weaning. MAPACA will also be awarding a door prize of a Hershey Chocolate Fun Basket. Lunch will be served at 12 Noon. There is no charge for members for this meeting. Come a day early and enjoy all the fun things to do in the Hershey area. The Hershey Amusement Park will be open and there are several other things to do in the area. The leaves should be starting to turn and I'm sure there are some scenic roads that are just waiting to be discovered.

Please note on the front page of this Newsletter, the announcement about the Art Contest. If you or anyone you know is an amateur artist, please send in your art work for the Jubilee Art Contest. The contest is now open to any amateur artist. You don't have to be a MAPACA member to participate.

On the last page of the Newsletter notice the information about the Camelid Veterinarian Continuing Education Grant Program. It is up to each MAPACA member to notify their veterinarian about this program if the vets are to receive this money. Please take the initiative and give an application to your vet!

Just to give you all a heads-up, renewal forms will be going out in the next Newsletter. You will be happy to know that dues will remain the same. We have had quite a few new members join this year and I anticipate that trend will continue. Anyone who joins MAPACA from Nov. 1 on will receive 2007 membership for their dues.

I am looking forward to meeting some of our new members at the Annual Meeting. If anyone has an article they would like to see in print in the Newsletter, please bring it along and give it to me. I will be happy to accept it and print it in an up and coming Newsletter. I hope your fall birthing season will result in all healthy new crias running in your pastures. **Best, Alice Brown**

Classified Ads:

Any member may post an ad for alpaca and/or alpaca farm related equipment and items. The ad may include a short description and contact information. This will be a free service to current MAPACA members ONLY. Please send your ads to Alice Brown, fpalpacas@aol.com or call 856-697-8127.

1. **Alpaca Cria Sweaters**—Made of 100% alpaca. Warm, durable, lightweight, soft! Small to 25lbs. Large to 35 lbs. Assorted colors. \$50.00 each + tax, S&H. Free shipping with purchase of 3 or more. **Mountain Meadows Alpaca Farm. 540-586-1745.**
2. **Manure Spreader.** Pequea Model 70, ground driven, excellent condition (used 10 hours total), paint faded. 70 bushel capacity. If new \$2,900—asking \$1,400 or reasonable best offer. Pictures available. Contact: **Paul at Big Sky Alpacas—856-223-0570.**
3. **New Alpaca Photos Website-** www.alpacaphotosonline.com 100s, soon to be 1000s of photos of alpacas and products. No charge to submit photos. Contact: **Nancy Lake, info@alpacaphotosonline.com or 301-393-5878.**
4. **Wanted. Long term boarders** (one or two Huacaya females) fair rates, excellent pastures, spacious barn, and plenty of TLC, **call 609-261-0696 or visit www.stormwindalpacas.com**
5. **Alpaca Equipment:** chutes, scales, hay saver feeders, Tooth-A-Matic, shearing tables, Pro-Tie & mats, panels & gates See our insert in this month's Newsletter or visit us on-line at **www.lightlivestockequipment.com or call Jay Ward of AuSable Valley Alpacas at 518-524-0545.**
6. **Transportation Services** from Origins Alpaca Ranch: Private Transport, Emergency 24/7 Transport and "The Show String" - Will transport your alpacas to shows and show them on your behalf. If interested contact Mike Kober at 908-239-8676 or mike@originsalpaca.com.



Calendar of Events

October 14, 2006—Alpaca Heritage Sale—10AM-4PM—Mullica Hill, New Jersey 08062, at the Gloucester County 4H Fairgrounds. Twenty Breeders all in one place! Private treaty sales, free fiber seminars, free admission to the public, visit: www.alpacaheritage.com . For more information call **Ingrid Wood: 609-261-0696.**

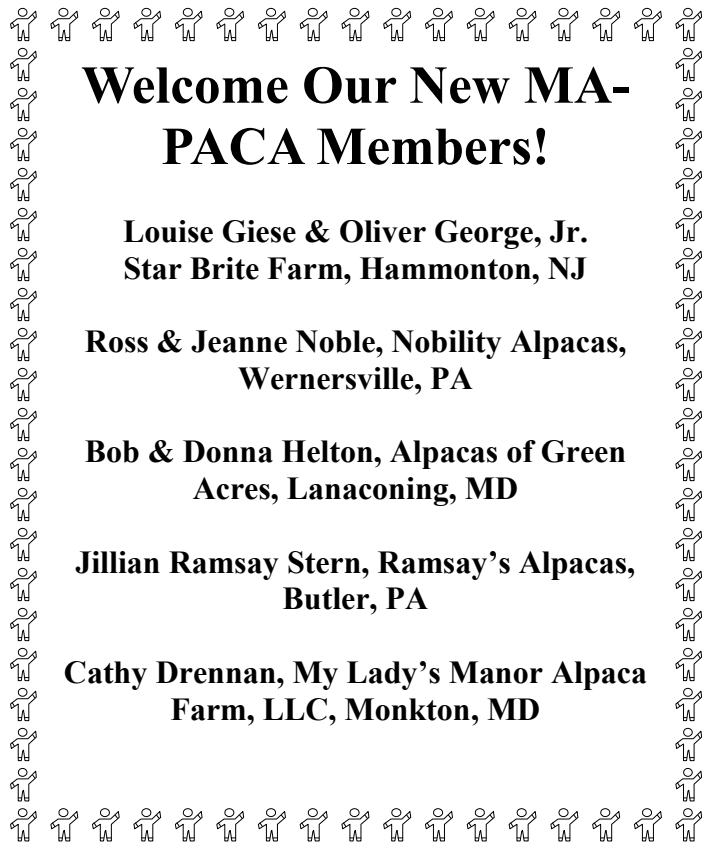
November 4-5, 2006—The Great American Alpaca Yarn & Fiber Festival—York, PA—Small Alpaca Farms of the Northeast Association—an event for all alpaca owners and breeders to showcase and sell their American grown, processed and produced alpaca fiber, rovings, yarn and products. Participate in the fiber related classes: enter skein, fiber arts and fleece competitions; donate to and enter silent raffle/auctions; see the alpaca to shawl demonstration and then bid on the shawl during the live auction. **For details: www.safona.org/events.html or contact Naomi Fenstermacher, at 610-273-0220.**

November 11-12, 2006 ALPACA HOLIDAY BAZAAR—Hosted at Annapaca Farm in Hagerstown, MD. The Alpaca Shop at Annapaca Farm will offer a wide variety of alpaca garments and associated products. In addition the Bank Barn next to the Alpaca Shop will house other vendors with alpaca yarn and products, handcrafted jewelry, ceramics, organic soaps, peppermint candies and homemade candies! **For details call Bert or Ann Kramer at 301-824-2840 or e-mail bertkram@aol.com or anndram@aol.com.**



Calendar of Events

November 11, 2006—Eric Hoffman, Author of *The Complete Alpaca Book—”Alpacas from A-Z”* - 10:00AM-2:00PM –Mr. Hoffman will present several topics including 1) Andean Pastoralism, 2) Understanding Camelid Behavior for Better Management, and 3) Unique Aspects of Fiber and New Technology. \$75.00 per person includes lunch. Please see flyer in this months MA-PACA Newsletter to sign up for this event. For more information go to www.AlpacaHeritage.com or contact **Ingrid Wood at 609-261-0696 or stormwindalpacas@comcast.net.**



Welcome Our New MA-PACA Members!

**Louise Giese & Oliver George, Jr.
Star Brite Farm, Hammonton, NJ**

**Ross & Jeanne Noble, Nobility Alpacas,
Wernersville, PA**

**Bob & Donna Helton, Alpacas of Green
Acres, Lanaconing, MD**

**Jillian Ramsay Stern, Ramsay’s Alpacas,
Butler, PA**

**Cathy Drennan, My Lady’s Manor Alpaca
Farm, LLC, Monkton, MD**

Camelid Veterinarian Continuing Education Grant Program

PLEASE NOTIFY YOUR VETERINARIAN!

The Board of Directors of MAPACA is delighted to announce the establishment of an annual program to support continuing education for camelid veterinarians serving alpaca owners in the MAPACA region. Grants will be available up to \$500 per session to attend camelid educational programs. Grants are limited to one per year for each veterinarian. In the case of veterinary practices, only one grant per practice per program. Feel free to contact Alice Brown, Recording Secretary, with any questions you may have.

Funds will be available retroactively for programs already attended in 2006. The Camelid Veterinarian Continuing Education Grant Application is available on the MAPACA website. Please submit the completed application to Alice Brown. The applications will then be reviewed and approved by the Board of Directors. MAPACA requests that all recipients prepare a brief summary of the program, within 2 weeks of attending, to be shared with the MAPACA membership on the MAPACA website. These summaries will be archived and kept on the website for future reference as well.

Print out the application on line from the MAPACA website (www.mapaca.org) and give it to your veterinarian to fill out and send to me:

**Alice Brown
458 Main Road
Vineland, NJ 08360**

Advertise in the MAPACA Newsletter!

No ads will be accepted that include the PRICE of animals for sale. Stud Service prices are acceptable.

We will insert one-page ads for members in MAPACA Newsletters. Ads cost **\$40.00** for one 8 ½" by 11" ad, on 24 pound paper or less, if you supply ALL the copies (they can be in color and two sided if you like). If your ad is on heavier paper than 24 pound, the cost will be **\$60.00**. If you would like us to copy your ad, supply us one copy and we will have it copied in black & white, one sided, for **\$70.00** total.

If you know any business that sells products or services relating to alpacas or farming in general that would benefit alpaca farmers, that would like to place an insert AD in the MAPACA Newsletter, you can recommend them if you are an existing MAPACA Member. The costs for businesses would be an additional **\$100.00** added on to the regular member fee for an insert AD. Thus it would be either **\$140.00, \$160.00, or \$170.00**. Please send copies, along with payment, to Alice Brown, 458 Main Road, Vineland, NJ 08360 by the 20th of the month you want your ad inserted. Make check payable to **MAPACA** and include check with inserts. Please, when you send inserts, do not require that I have to sign for them! **Any questions, email Alice Brown: fpalpacas@aol.com or call: 856-697-8127.**

Please send your comments, articles, or submissions to
Alice Brown at:
Fpalpacas@aol.com.