



DIRECCIONES

Newsletter of the Arkansas-East Bolivia Partners of the Americas

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Fall and Winter, 2002

President's message

Last November 20 to 23 found several Arkansas Partners in Quito, Ecuador for the Partners of the Americas International Convention. **Susan Heily, Mark Robertson, Bettie Lu Lancaster, Don Dombek, Kay Kraeft** and I attended. It was marvelous having so many Partners and friends together. It was fun to hear other Partnerships say, "Everywhere I go there is someone from Arkansas or Bolivia here." AND, those Arkansas Partners made good use of their time and money by attending the meetings and workshops, then playing in the night, straddling the Equator, shopping or awaiting a side-trip following the meeting.

Working Together for Peace and Development was the theme for this Convention, and in view of the worlds' upheaval, it was apropos. Around 275 Partners gathered to work together to improve the lives of millions. It is a daunting task, but things are happening, work continues and lives are changing. There are years of work ahead to be done by many on a day to day basis. For me, attending the Convention gives a much needed boost of energy. Swapping successes and failures brings things into focus. It appears, at times, that the Arkansas Partners are not doing many projects with Eastern Bolivia (Farmer to Farmer being the most active). Some other Partnerships are not doing as much, and some have had to work to keep or even reinstate their Partnerships. Some are doing more. I've notice through my twenty-one years of involvement that there are times which are less active than others. This is normal. However, we have some of the best Partners here but we need to get more working projects. I am making an appeal to the Committee Chairs to invite people to join their Committees. Ideas will emerge and work will be done.

On the last day representatives from the Washington office met with all the Partners from Bolivia and their American counter-parts to talk about a \$3,000,000 grant that has been awarded to Bolivia. This is a cooperative agreement for "Civil Society for Justice Reform in Bolivia." The Partners of the Americas won this grant after competing with other qualified national and international

non-governmental organizations not-for-profit and for-profit entities. The CSJR will be financed through USAID/Bolivia's on-going Administration of Justice (AOJ) Program. This program will institutionally strengthen Bolivian civil society organizations (CSO's) to : a) carry out public awareness and civic education programs concerning Bolivia's new Code of Criminal Procedures (CCP), and b) organize a civil society coalition to monitor CCP implementation and support continued criminal justice understanding, acceptance, participation, and support for the reformed Bolivian justice system, and will prioritize the achievement of these results among the disadvantaged sectors of Bolivian society. In brief, it will inform the women, the poor and the indigenous of their rights. New programs have been approved by the Bolivian government but notifying and enforcing these laws is a major problem. (I feel certain that the POA was awarded this Grant because of our thirty-seven year history of net-working). This Grant will be over three years. Our role is not quite defined in its entirety, but Bettie Lu is working to gain interest in the Political Science Department at the U of A. If you want more information, call one of us who were at the Convention.

I wish a very Happy New Year to everyone. May our every need and wish come to fruition in 2003!

Sincerely,

Thecia

Editor's note

As many of you realize, there has not been an issue of *Direcciones* since the spring issue of last year. Summer kind of passed your Editor by leaving him with a bad back and little desire to do anything except stay close to home moaning and groaning all the while. He is happy to report that he is almost functional again and hopes to give better attention to his duties. Therefore, there will be quite a lot to catch up on in this issue. Bear with us!

Travels

Yes, we have quite a lot of them to report and we think you will find them interesting.

Eliza Zegarra

The first report is on a traveler to Arkansas and is provided by **Kay Kraeft**, Chair of the Culture Committee.

Eliza Zegarra de Rivera arrived in Little Rock, Arkansas from Santa Cruz, Bolivia on Tuesday, June 11 for the purpose of working with Suzuki string teachers in the state. As her host, I had arranged with 2 Suzuki teachers here, **Laura Caputo** of Little Rock and **Mary Haley** of Fayetteville, to help Eliza even though the school year was finished so that most students of various genres had begun their summer vacation schedules with their families. Nevertheless, both the Arkansas teachers had generously volunteered to pull together at least some of their students for this special occasion.

So, after resting a bit after the long flight, Eliza settled in at my home and we leisurely took in the general sights of Conway including the University of Central Arkansas, Hendrix College and the Toad Suck Port on the Arkansas River. On Wednesday we left early for a full day in Hot Springs, first attending an orchestral rehearsal of the Hot Springs Music Festival. This orchestra is made up of young musicians from the United States as well as from foreign countries. Eliza was elated to discover string players from Honduras, Argentina and Costa Rica. She quickly struck up a friendship with some of them. The orchestra and the entire Festival is of extremely high quality and it was quite fitting that the music being rehearsed that morning was the New World Symphony by Anton Dvorak. Eliza was proud to have the opportunity also to meet and visit with the conductor and director of the Festival, **Richard Rosenberg**. After lunch in the historic district, we toured one of the restored bath houses, the Fordyce, and also went up into the National Park tower to enjoy the spectacular view of the Ouachita Mountains. Souvenir shopping was followed by a light supper and attendance at one of the Chamber Music concerts of the Festival.

Since one of the highlights of Eliza's visit was the opportunity to play with the Conway Symphony Orchestra's Fourth of July concert, she was able to practice the music every day while in Conway and also later on in Fayetteville. So just when you think we have free time on her itinerary, you can believe she was behaving like all serious, professional musicians - that is practicing at every opportunity. A very committed, talented and serious musician indeed.

On Friday afternoon we retrieved from the bus station Eliza's sister Yolange, who was in the U.S. on a year long Mennonite scholarship, and was spending the summer working in one of the Mennonite gift shops in St. Louis. What a lovely surprise to be able to have both sisters together for the weekend and especially for the festivities we had planned for that time. These consisted of a party at my home on Friday night. Among the guests were

some Conway Partners, of course, including **Lisa** and **Martin Ronis** with their little daughter as well as **Loretta Price** and **Jose Arjona** of Puerto Rico. We had fine times making music together, eating and all around having fun. On Saturday **Susan Heily** took both girls to visit the Territorial Restoration in Little Rock and also to the home of **Claude** and **Betty Gillette** in Hazen where the Zegarra sisters sampled fresh catfish and Arkansas country living. **Thecia Taylor** treated the girls on Sunday to a movie, after which several of us fetched the girls to travel to Hot Springs for the gala finale to the HS Festival - namely, the Verdi *Requiem*. A spectacular weekend!!

Then early Monday morning Eliza and I departed for a week in Northwest Arkansas, staying first for several days with **Bettie Lu Lancaster**. That's where **Mary Haley** had arranged a showcase of Suzuki teaching and performing for Eliza. We had sad word early in Eliza's visit that due to an extreme tragedy in **Laura Caputo's** family, she would be unable to participate. Let us hope that we can plan another opportunity for Laura to join Partners. Nevertheless, not only was Eliza able to observe several lessons of various levels of difficulty, but also a performance given by the Suzuki students. Finally, she was able to take advantage of a private lesson also with Ms. Haley. It should be mentioned that at all social and group events Eliza was quite willing to share her own musical talents with us, playing classical as well as Bolivian folk music. All who heard her were charmed by that!

In the Fayetteville area, Eliza was able to enjoy parties given by the Suzuki students and their parents, a swimming party outside the city hosted by former teachers at the American School in Santa Cruz, and also a Partners party at Bettie Lu's home. We traveled one day to the Terra Studios workshop outside of Fayetteville where the traditional Arkansas "Blue Birds" are blown. Eliza was fascinated by the glass blowing demonstration as well as by the flour grinding at the War Eagle Mill where we stopped on our way to Eureka Springs after completing our agenda in Fayetteville.

Eureka Springs is not only the charming restored Victorian town of some fame, but also the site of other attractions. We toured Turpentine Creek which is a refuge for tigers, leopards, cougars, lions and bobcats located just outside Eureka Springs, the stunning Thorncrown Chapel designed by Arkansas architect **Faye Jones**, as well as the Botanical Gardens there. Our main purpose was to attend two productions of the Inspiration Point Opera School - *La Boheme* by Puccini and *Così fan tutte* by Mozart. Both productions were of wonderfully high quality. To the delighted surprise of both Eliza and me, who should be sitting in the orchestra, but two Bolivian musicians from La Paz, **Sergio** and **Alejandro Villegas**. Needless to say we not only got together with those two that evening but also arranged a very animated lunch together the next day. Both young men are currently attending the University of Central Arkansas, although Alejandro is in the process of changing his location. In Eureka Springs we stayed two nights at the Crescent Hotel which is on the U.S. Register of historic Buildings.

Back in Conway we had only a few hours rest before starting out again for Little Rock where **Thecia Taylor** hosted one of her famous Partners parties. This one did NOT disappoint what with the scrumptious food and gracious hospitality. The next few days were filled with practice for the Conway Symphony concert, preparations for securing Suzuki and other string teaching materials for Eliza, assembling recordings, scores and other materials for her to bring back to Bolivia. We toured the Arkansas Art Center collection in Little Rock one day, also having lunch there. Just before the final concert at Lake Beaverfork in Conway and Eliza's departure, we spent a day at the Ozark Mountain Folk Center in Mountain View, where Eliza observed the dulcimer workshop and actually played 'country (Bolivian country?) Fiddle' with the folk musicians who typically demonstrate in the little showcases there. Then the final concert, complete with fireworks was fitting American windup to a visit packed with a wide variety of musical and American experiences that did not leave out old fashioned hamburgers, Oriental food, movies and videos as well as WalMart, shopping malls and a wide variety of American citizens. In all our travels we did not pass up even one gift shop or 'photo op'! Alejandro Villegas also played with the Conway orchestra and so spent a short time in a private visit with Eliza before her departure.

So all in all we have widened our circle and hopefully made some lifetime friendships that we hope will bear professional fruit as well. Eliza departed for Santa Cruz on Sunday, June 30

Kyle Brunen

UA trainer takes lessons on road

by **ROB KEYS**

ARKANSAS DEMOCRAT-GAZETTE, Published Sunday, September 29, 2002

FAYETTEVILLE — If you see **Kyle Brunen** sporting a Bolivian soccer jersey, just know that he earned it.

Brunen, a Canada native and graduate of Arkansas State now working on a master's degree in exercise physiology at Arkansas, recently spent three weeks in Bolivia as part of the Arkansas Partners of the Americas' Coaching of Coaches exchange program.

That means Brunen spent roughly one week each in Santa Cruz, Trinidad and Cobija introducing coaches and their athletes to strength and conditioning methods and programs commonplace in the United States.

Partners of the Americas was founded in 1964 as the people-to-people component of the Alliance for Progress, which touts itself as the largest private volunteer organization in the Western Hemisphere engaged in international cooperation and training. The Coaching of Coaches program is funded by a grant from the State Department's Office of Citizen Exchanges.

Brunen's first stop was Santa Cruz, which he described as similar in size to Little Rock. Brunen also described how he quickly he realized not speaking Spanish was a slight hindrance to his mission.

"The coaches came with great attitudes, really willing to learn, and a lot of questions were being asked. It was a great atmosphere," Brunen said. "The only barrier was the language. "It doubles the time of everything you do

because you have a translator saying everything that you're saying. That was the only thing that was really holding us back. I figure if I speak Spanish the next time I go down, it'll be a lot more painless."

Despite the communication problems, Brunen said he was able to conduct informative workshops for the coaches, then spend time helping them implement the ideas with their athletes. Areas emphasized included strength and conditioning principles, flexibility exercises, cardiovascular endurance and how to test for each.

Brunen did basically the same work in each city, but it was while in Trinidad that he truly began to earn souvenirs such as the soccer jersey that the locals bestowed upon him. Living conditions in Trinidad are practically Third World-like, something Brunen learned the hard way.

Brunen had been in Trinidad only for a day or two when he developed a rash and flue-like symptoms. His eyes also swelled almost shut from the dirt stirred up from traveling by scooter.

"I couldn't hold much in for probably two-thirds of the trip," Brunen said with a laugh about eating and drinking. Brunen persevered, though, and said he worked with athletes ranging in age from 14 to 20 in sports such as soccer, track and field, baseball, basketball, volleyball and karate.

At one stop, Brunen even worked with a table tennis coach, guiding him through agility drills and shoulder-strengthening exercises. In fact, only when faced with the prospect of working with a chess coach did Brunen blink. "I just said, 'Well, I'm not really sure what I could do with that,'" Brunen said.

Otherwise, Brunen said, the experience was rewarding. "I don't know how soon it might be, but I'd definitely go back," Brunen said. "This is something I can do for the rest of my life if I want to."

Don Dombek

Don traveled to Santa Cruz following a Farmer to Farmer workshop in Antigua, Guatemala. This report covers his trip to Bolivia from June 17 to 26, 2002 and is excerpted from his report made following that trip. As he states in that report:

"I traveled to East Bolivia to follow up on my visit in January, 2002, during which I evaluated variety testing programs and seed production practices for soybeans, corn, grain sorghum, wheat and rice in the Santa Cruz District. I had the opportunity to work with the technical staff of the 'Asociación Nacional del Productores Oleaginosas y Trigo' (ANOPO). I also worked with Partners and Farmer to Farmer members and volunteers from Santa Cruz, as well as staff members of Archer Daniels Midland (ADM) grain company. Also involved were the research and production staff of Semexa (a small seed company specializing in the production of soybean, sunflower, maize, and grain sorghum seed), and also with limited resource farmers that are members of ANAPO.

“We spent considerable time on the establishment of a non-profit foundation to enhance the ability of ANAPO to acquire funding from the Bolivian government and international funding organizations, and to improve communications between Arkansas and Santa Cruz Partners and FTF volunteers. Several potential and new FTF projects were discussed. We also reviewed genetically modified (GM) grain production in the Southern US for ADM employees so that they might be better prepared to handle such grains in Bolivia if and when they become legal there. We reviewed research and production practices at Semexa to explore the possibility there of cooperation with future FTF volunteers.

“In all of this I believe I gained a better understanding of seed production practices in Eastern Bolivia. Although I was only there for a short time, I believe that I built on some relationships that were established during my January 2002 visit. I did make new contacts that hopefully will lead to other opportunities to contribute to Bolivian agriculture through the FTF program. ANAPO is becoming quite aware of the value of Partner FTF visits. During both my meetings with **Diego Montenegro**, their CEO, he spoke of the important contributions of previous FTF volunteers and expressed his wishes to work with future volunteers.

“I hope to be able to return to Santa Cruz to continue to help with ANAPO’s variety testing research and seed production, and to follow up on possibilities for increasing their extramural funding. I also hope, in cooperation with Santa Cruz partners and FTF volunteers, to explore possibilities for related future projects. There are other needs that should be addressed under this program, such as: a volunteer with experience in rice research and production, a plant pathologist with experience in screening breeding lines for diseases is a critical need, and a seed processing technologist to make recommendations for improvements to ANAPO’s seed plant.

“Without exception, every person that I met was pleasant, professional, hungry for information and easy to work with. Being flexible about schedules is important - plans change often! As with my first trip, it was very rewarding personally. Having the opportunity to contribute as a volunteer while learning and experiencing the culture is more fun than a vacation.”

Carol Corning

Carol also attended the Farmer to Farmer workshop in Guatemala before traveling on to Bolivia. Again, the following is excerpted from her report to Partners but is in her words:

“Antigua, Guatemala, Farmer to Farmer workshop, June 12 to 15. During these four days I was able to learn more about the Farmer to Farmer program. Being able to meet both the North and South counterparts and program participants and learn about their goals, past successes, and exchange ideas for implementing future change was a great experience. The most successful part of the workshop for me was being able to see accomplishments

of chapters and getting to know other partners as well as new ways to help people. One of the successful projects in Bolivia had involved micro-grants that gave individuals initial start-up money. I especially enjoyed meeting Washington staff and other partners who are also working in Bolivia.

“East Bolivia, June 16 to 26. I arrived in Santa Cruz and was greeted by my new host family, **Miguel** and **Gladys Justiniano**, along with their two beautiful grandchildren, **Maria** and **Carlito**, who sang all the way home. The next day, **Cleto Siles**, whose wife **Teodora** ran a shop selling arts and crafts, took me to Cotoca where I visited the local potters and mothers clubs. The making of local pottery was done in outside wood kilns and the final work was very attractive. Large batches of clay were worked using feet rather than hands, and usually every family member participated resulting in about \$20.00 (American) daily. Later in the evening we celebrated my birthday at the home of Miguel and Gladys along with several Bolivians.

“The next day Miguel Justiniano, **Miguel Cortez** and I visited the school of Agronomia. Judy, a co-worker of Miguel’s, took me to visit local artists who sold items in the public square. I took pictures of the various items and purchased a few samples. We then visited other local shops and artists. We also visited Arte Campo, a shop run by **Ana Vaca**, wife of the famed local artist, **Lorgio**. Later **Yolanda Cabrera** and I visited the Museum of Folklore and Culture and other shops in town. I then had lunch with **Aida McKenney**, **Blanca Callaú** and her husband **Walter**, Aida’s son **Claudio** and his wife at a restaurant on the lake.

“The next day I left Santa Cruz and arrived in Trinidad in late morning and was picked up by **Roxana Rivero** on her motorcycle. My transportation while in Trinidad was on the back of motorcycles. I was in good company as most families, with sometimes as many as five people, commuted on these small motorcycles. It was a little scary at first but great fun. The next four days were spent visiting local artisans and seeing crafts and work done in Trinidad. One day I met with **Father Pablo**, a priest at the church of La Santa Cruz, and saw religious wood carvings done by a local artist. We visited Centro Artesanal Moxos, Centro Santo Noco, and small leather and craft shops representing the greatest portion of artisans in that area. Later one evening Partners arranged a meeting with local artists at the Casa de Cultura del Beni. Artists attending and the works they represented were: **Juan Willy Mae** who kept records of the neighborhood meeting, **Maria Luisa Anteaza**, Committee of vigilance, **Florencia Carire**, Artisan Center, artisans **Raquel Sereno** and **Mireya Aponte**, **Gaby Tardio**, carved wood, **Pablo Mauba**, ceramics, and **Francisco Guaji**, musical instruments. After a question and answer session they conveyed their needs for high quality training, help with new designs, and help on how they can increase their sales. The majority of artisans are poor and this is their only income. All members of one family often work in the same workshop and the

majority of the people making their living from handicrafts are Indians.

“Later, along with Roxana and her son, I visited the local prison in which I saw leather works that included wallets, purses, and belts made by prisoners. Items seemed to be of superior quality. Before lunch I did a live impromptu interview with **Victor Hugo Callaú** on the local radio station ‘La Libertad’ before being hosted for lunch at Laguna Suarez. Victor Hugo, his wife, **Pedro Mendoza** and his wife **Maria Luz Yuja**, and **Wilma Alarcon**, accompanied me along with several children. The final evening in Trinidad was composed of a dinner with the Partners at the home of Roxana. A representative from a local school for the deaf expressed how much they appreciated earlier Partners **Sue Heily** and **Mary Anne Sennett**, who had worked at the school. Everyone sent warm wishes to the Northern Partners. My flight was changed so I was not able to return to Santa Cruz until the following afternoon, so I spent the morning visiting additional artisans, the very poorest in the area.

“The next day in Santa Cruz I spent the day in town, escorted by **Jorge Rodriguez**, purchasing sample products to bring back to find possible markets for. I had a farewell lunch with Miguel and Gladys and family, and Miguel and Marta Cortez.

“As a summary, the work that I saw in Santa Cruz seemed to be of good quality and made by capable craftspeople. Pottery would be very difficult to export, but it was also very nice. Santa Cruz has Arte Campo, which I understand has been instrumental in helping local people sell their works. After my time in Trinidad viewing their products it is evident they need materials and hands-on training. The only major shop in Trinidad that helps natives sell their work only has one treadle sewing machine and is very small by American standards. The handwoven fabric was beautiful but the ability to put purses together is lacking. They also seemed to lack the skills or knowledge necessary to use complementary colors in assembling fabric works. Some of the woodworking shops did work of superior quality but many people don’t even have the necessary wood to carve. Unlike Santa Cruz they do not have a center of education for arts.

“The people of Bolivia were warm and receptive to anything I needed and made my visit both hospitable and educational. I did discover my Spanish proficiency needs more work. I hope to return and work in Bolivia in the near future.”

Wayne Kellogg

Volunteer Assignment: The trip to assist Bolivian farmers with their forages and nutritional supplementation for dairy cattle that graze the forages was planned in December, 1999. It was realized in conjunction with the 4th *Simposio de Productividad Lecheria*, November, 2002. My paper, “Trace Minerals for Grazing Cattle” was prepared and sent

on October 22nd by e-mail. I departed Northwest Arkansas on Saturday, October 26th and was met at the airport in Santa Cruz de la Sierra by **Dr. Miguel Cortez**, Presidente of Partners of the Americas. He graciously allowed me to rest until dinner that evening, for I was very tired because of traveling all night.

Planning session: I had a pleasant dinner with Miguel Cortez and **Antonio Pereira**. We planned the details of the first 7 days to include the farm visits listed in the Plan of Work.

University Dairy Farm: On Monday morning we went to the University Dairy Teaching Farm and Artificial Insemination Center north of Santa Cruz. A conference with four of the scientists and managers was held first, and I was provided with information about the herd, including a four-page listing of nutritional information about feeds that are common to the region. British scientists had conducted the feed analyses. Both neutral detergent fiber (**NDF**) and acid detergent fiber (**ADF**) were provided, but calcium and phosphorus were the only mineral analyses included.

We toured the dairy farm before lunch. First, we went to the milking center and spent considerable time viewing the cows and the facilities. They had two outstanding cows separated from the herd. These cows placed first and second in the country. The remaining cows in the herd were brought from pasture to the feeding barn for silage. Their appearance of milking cows was very good, although my estimate of their body condition score (**BCS**) of approximately 2 or 2.5 (on a scale of 1 to 5) was below optimum. We would prefer that the BCS vary from this point in mid lactation up to 3.5 when cows are turned dry. It is probable that nutrition should be improved, especially in early lactation. These cows were smaller (body weight and frame size) than North American counterparts, but that reduced size fits grazing herds well. If desired, the frame size of cows may be improved by selection of sires or perhaps by improved nutrition of growing heifers. Only one cow was suffering with foot problems.

I saw no evidence of heat stress, other than cows had moved to the shade of trees before 10:30 a.m. Cows were not panting, even after walking. However, heat stress is most likely to occur when cows are closely confined, as in the holding area prior to milking. Fans and sprinklers may help in the holding area, although the local windy conditions help. Based on experience of farmers in Florida and Texas, I suggested that a fresh-water pool be constructed for cows as they enter the holding area before each milking. Cows maintain production during hot weather and somatic cell count (**SCC**) of milk is lowered. However, the water must be kept clean and fresh, or cows will be subjected to disease organisms. Therefore, a good source of fresh water is necessary, and a recycling plan is needed. Although the temperature was hot, the wind was blowing and humidity seems relatively low. There was plenty of space in the feeding barn for cows. I would not recommend spraying cows with water in this barn, but a large, energy-efficient, overhead fan (4 to 6 meters in diameter) might be helpful. All areas except the milking parlor were designed to take advantage of

wind. The milking barn was functional, though enclosed. The only problem that I noticed was that water was standing in the feeders. There was a drain, but the cows had worn the concrete so much that water could stand. Bacterial growth in the standing water could affect cows, and it should be clean and dry between milkings.

Moving cows to the covered feeding barn during the hottest time of the day is an excellent idea, since cows were standing in the shade rather than grazing anyway. The pastures are mostly dormant because of the extended dry period, and the cows were eager to eat silage. The silage had fermented well and had an appropriate, pleasant odor. The visible corn appeared slightly immature for corn silage, but the nutritional report showed an average of 36.6% dry matter (DM), and that is within the ideal range of 34 to 38%. I emphasized waiting until the early dent stage for harvest. However, particle size of the corn silage was too long indicating that the silage chopper had been set improperly. It should be a 3/8-inch chop for better packing in the silo and for improved intake by the cows. These cows probably do not receive enough energy unless intake of corn silage is high. Soyhulls, an excellent source of digestible fiber, were also offered to cows in the outside feeding barn, and I understood that some of the grain was fed outside the milking parlor.

The grain mixture was 21.5% crude protein (**CP**) and listed wheat bran, sunflower meal, soybean meal, sorghum grain, cottonseed meal, salt, vitamins, minerals, "conchilla", and bone meal. Grain (2 kg per milking) was offered to cows while milking occurred at 0600 and 1800 h. Protein is high enough when pasture is lush, but--depending on intake--it may be low during the dry season with corn silage as the base forage. The CP may need balanced to provide the correct ratio of rumen degradable protein (**RDP**) and rumen undegradable protein (**RUP**). A few nutritionists are balancing for a few specific amino acids in the RUP portion of feed, but that practice is not widely accepted for dairy cows. Researchers should begin collecting data on RDP and RUP values for different feeds, as well as mineral composition of feeds.

University Beef Research Farm: Rivero took me to the 1000-ha Proyecto de Mejoramiento de Ganada Bovino de Carne (**PMGBC**) near Montero (about an hour north of Santa Cruz). In addition to the beef herds, they produce a variety of forages for pasture, silage, and green chop and have a dairy project with crossbred cows. The pasture experiment for beef cows is divided into 10-ha fields with water and covered supplement troughs provided for cattle. There was natural shade in each pasture, and more trees had been planted. I believe that the pastures are replicated, and this is an excellent design for research. The pasture grasses being studied in the large pastures include *Branchiaria decumens*, *B. mutica*, Mombaza, estrella (star grass), and Cameron roja.

Analyses of other species of forages were provided to me, and I have summarized the average values in Table 1. Similar, and in some cases more complete, data were published in 2001 ("Establecimiento y Manejo de Pasturas") by PMGBC. The publication is an excellent description of the forages, cultural practices, and

compilation of some data about the nutritional quality. These data are extremely limited in scope, and a major effort is needed to better characterize forages. Additionally, crude fiber should be dropped, and analyses should be conducted to determine concentrations of neutral detergent fiber (**NDF**) and acid detergent fiber (**ADF**). As mentioned above, RDP and RUP values are needed. Finally, mineral analyses should be expanded to include selenium (**Se**) and molybdenum (**Mo**) concentrations in forages. The means indicate that forages vary in nutritional quality. This offers opportunity to supplement grasses with legumes such as chamba and morera. Both legume trees are higher in CP and calcium (Ca) than grasses. These samples of *B. humidicola*, cameron verde, and pasto de bajo were all below 10% CP; whereas sorgo forrajero, gatton panic, glycine, and bemruda were 15% or higher. Dry matter varied considerably, and it may be difficult to achieve intake goals with some of the wetter forages. Dry matter intake is often limited by fiber composition, but NDF and ADF values are needed.

The requirements of dairy cows for Ca and phosphorus (**P**) increase with higher milk yield, and supplementation of both are probably needed for milking dairy cows. High iron (**Fe**) in the diet will interact with other minerals. Some forages were high in Fe, or there was some soil contamination in the plant samples. Reproductive efficiency drops with a deficiency of P, zinc (**Zn**), copper (**Cu**), manganese (**Mn**), and cobalt (**Co**). These forages tended to have plenty of Mn (40 mg/kg is required by cows). However, Zn is below 40 mg/kg in all samples. The requirement for Zn in diets of high-producing cows has been raised to 65 mg/kg by the National Research Council. When Zn is added, it raises the need for Cu; and Cu is low in most forages. The requirement for Cu is 10 mg/kg, but some nutritionists are providing 30 mg/kg for lactating cows. [It should be noted that sheep are sensitive to Cu, so dairy cow supplements should carry a label warning against feeding to sheep.]

The scientists at PMGBC are also studying legume trees, and these forages are noticeably higher in CP and calcium compared to the grass species. Scientists should be encouraged to expand studies of the legume trees because these trees can provide high quality protein feed and build soil nitrogen.

The crossbreeding project involves Holstein, Brown Swiss, and Gyr breeds. A purebred Gyr herd is maintained at the farm. The cows are being managed with grass and legume tree pastures, but chopped grass was offered in a large feeding barn near the milking parlor. Some grain is being fed and some land is being prepared for corn silage. This is an excellent project, in my opinion. While it will take time to accomplish the primary goals, some secondary projects can be accomplished and demonstrated with the herd. One suggestion is to compare the lactation curves of the crossbred cattle as the percentage of Gyr changes. This project should be done at PMGBC. It is extremely difficult for private farmers to accomplish crossbreeding trials.

Dairy Farm Visits. On Wednesday **Fernando Cadario** (Gerente tecnico, Federacion Departamental de Productores de Leche; FEDEPLE) and I visited a dairy farm east of Santa Cruz that was developed by a Menonite family. The farm is currently owned by a man from Switzerland. He has a very nice flat milking barn that held 10 cows at a time with five milking machines. Cows were fed according to production, and the list was on a clipboard for the person to follow. The grain mixture was prepared in the barn from 37.09% corn bran (maize zootechnia, 12% CP), 28.22% wheat bran (afrecho de trigo, 19% CP), 20.16% soybean meal (granillo de soja, 36% CP), 11.29% soybean hulls (cascarillo de soja, 15.5% CP), 2.01% mineral mix (), 0.48% calcium carbonate (calcito), 0.32% magnesium oxide (oxido de magnesio), and 0.40% selenium premix (selenio). This appeared to offer a very good mixture to supplement grass and/or corn silage for the cows.

The pastures were quite dormant due to a prolonged dry season, and the amount of corn silage was low—perhaps only 2 weeks remaining. The best part of the farm visit was observing the new pasture management system. Although interrupted temporarily because of short pastures, posts were set for division into 0.25 ha paddocks—an estimated daily supply of pasture. It was encouraging to see someone trying an intensive pasture system. I encouraged him to observe carefully and regulate daily allotments according to pasture availability. During seasons of rapid growth, cows can rotate through fewer paddocks. The maturing pasture should be harvested and stored for eventual use or for sale. This project needs some careful attention by professionals. [Dr. Ron Morrow is planning to come to Bolivia in May, and he should visit this farm.] More management and higher inputs of fertilizer will be needed. The biggest advantages of intensive rotational grazing are improved quality of forage and increased utilization of land resources, i.e. either more animals per hectare or improved output (milk or stored forage) from fewer hectares of land.

Juan Carlos Roca has a large dairy farm near Montero, north of Santa Cruz. I was told that he had purchased a large herd of cows from a Swiss corporation and that he selected the best cows to remain in his herd. He had worked in Wisconsin at a dairy farm during the early 1990s. They were milking while I was there. The holding area is open for good air movement. The shady covering has plastic pipes to spray the cows during hot weather. Indeed, the cows were of obvious high quality genetically and were producing well. He has corn silage available for the animals and does not feed hay. We looked at the milking cows, calves and heifers. He has had trouble raising the Brown Swiss calves, but I could see no apparent reasons for their death rate compared to Holstein calves. There were no older Brown Swiss heifers, so he may have sold them in conjunction with his decision to change to only Holsteins to achieve higher milk production. The calves and heifers appeared to be growing well, including those purchased from Argentina. Some older heifers were of short stature and were from a home-grown bull. We discussed the risks of using bulls that were not tested genetically. However, he is raising some

bulls—apparently for sale to other farmers. I think he is heavily committed to artificial insemination for his own cows. He is feeding corn silage to some young calves, but they are doing well—perhaps because of a good supplementation program. The typical recommendation is to wait until calves have the rumen capacity to accommodate large volumes of forage that includes 65% water. The silage was cut properly at early dent stage of maturity, and it was fermented well in the concrete trench silo. We discussed the need for minerals for dairy animals. I also answered questions about the management and nutrition of the cows during the transition that occurs when cows have a calf and begin milking. They have some retained placentas, and that is usually due to a marginal deficiency of selenium. Injecting selenium plus vitamin E at least 3 weeks prior to calving should supply the need of each cow, but selenium can be included in the grain for cows. They did not think that selenium could be causing the death of the Brown Swiss calves (white muscle disease). I do not know if there is a difference in the response to selenium between the breeds. However, it would be easy to inject every other cow with Se and vitamin E about 1 month before calving. This herd probably has the best management of those that I saw in Bolivia.

On Thursday morning I met **Daniel Priest**, owner of a dairy herd in extreme northern Bolivia, at breakfast in the hostel. He explained his approach to crossbreeding cows and talked about the approaches in Bolivia, Brazil, and Australia. He never settled on a specific breed and expressed the need for a large project in the southern United States, similar to efforts in other countries. He had developed a press to remove most of the oil from brazil nuts to provide a high-CP, high-phosphorus, meal for cows. While he achieved some increase in milk production, the primary success was a dramatic increase in fertility of the cows.

The **Hernan Saavedra** dairy herd near Montero was visited with Miguel Cortez on Friday afternoon. This herd is also managed well. His forage program was especially impressive, considering the extended period of dry weather. The advantage of some irrigation is very evident this year. The workers were chopping Cameron verde and Cameron roja in a 50:50 combination with morera, the legume tree. That should yield a very good mixture of forages for the cows. He stated that Cameron verde is far superior to roja for dairy cows. The decision has been made to grow corn silage next year. He has some of the equipment needed, so it may not be an overwhelming investment. Only a few cows were at the barn, and it was not clear if they were representative of the herd. His daughter has a very attractive stable and exercise area for quarter horses.

On Saturday Miguel and I visited two dairy farms north of Montero with two men from the Cooperative. We went first to the farm of **Zenon Flores**. It is a very good farm near the river with a separate rotational pasture system for Jerseys and Brown Swiss cows, however the supply of grass was nearly exhausted for the first time in 21 years according to Sr. Flores. The serious shortage of forage has caused him to consider several long-range

alternatives. First, he is considering installing an irrigation system for grass. The water is available, and that appears the best alternative to me. He is leaning toward that decision as opposed to the harvesting and storage of silage or hay. I suggested the immediate alternative of purchasing high-fiber feeds, such as soyhulls. He showed us his commercial production of guinea pigs, a meat source demanded by some Bolivians. It is apparently quite profitable, and he grows small patches of alfalfa as part of their feed.

Another dairy farm of **Rosendo Paz** was visited in a more remote area near Montero. They were crossbreeding Holsteins and Brown Swiss cattle. Corn silage was being fed, and again it had too many large particles. Cows were eating the silage well, but there is opportunity for cows to sort the large pieces. We had a nice lunch at the farm.

On Saturday evening we took a very delightful trip to Samaipata, a town in the mountains west of Santa Cruz. On Sunday we visited Inca ruins at El Fuerte. I appreciated the opportunity to see the mountainous area.

University. On Monday morning I visited the Veterinary Medicine College and talked with some of the professors. I provided them some material on trace minerals and animal health.

Dairy Cooperative Seminar. On Monday afternoon Fernando and I spoke to about 20 members of the Dairy Cooperative near Montero. I talked about basic ruminant nutrition and the requirements of dairy cows. Fernando followed with specific information about their forages and supplemental feeds. During the discussion about protein supplements that could be purchased locally, I noticed that expeller soybean meal is quite high in RUP. This would make it an ideal supplement for their cows. In the United States we typically include a small amount of fish meal, but it is not available in Bolivia.

CIAT: I had a good visit with research personnel in the Laboratorio de Rhizobiologia at the Centro de Investigacion Agricola Tropical (CIAT).

Dairy Farm Visits. More farms were visited during the second week. One very attractive farm had experienced problems with low production by dairy cows. Their facilities were excellent, and they had solar panels for heating water. The new manager had improved the average milk production from 8 to 13 liters/day. We discussed several long-range solutions. They were feeding a milk replacer to calves that had low fat (10%). I recommended that they change to whole milk unless they could arrange for 20% fat in the milk replacer. Whole milk should be more economical, I think.

Another dairy had a distinct drop in growth and appearance of calves after they were weaned from milk. Older heifers were growing better. It appears that a diet based on grass pasture is too low in CP, and especially in RUP. Again, the expeller soybean meal is apparently the best available supplement.

On Wednesday, Fernando and I went with **David Wright** to the University Dairy Farm. That was my first farm visit and it was good to circle back after seeing the other farms. I do believe that their cows need more energy in their

ration to achieve a more optimum body condition.

We also visited the very attractive farm of **Roger Vaca Diaz**. His farm has about 250 milking cows. It is the highest producing herd in Bolivia. Last year one of his cows produced nearly 10,000 liters of milk (roughly 22,000 pounds). He had 60 of the 100 top cows that were tested. The cows were in excellent body condition. They were being fed some chopped sugar cane with the corn silage because of the extended drought. Cows were grouped according to production. His milking facility was the only parallel parlor that I saw. Some cows in a separate pen were lame, and I recommended trace minerals (especially zinc methionine) to help prevent and treat the hoof problems. The hoof problems are often associated with feeding high levels of grain. However, it is obvious that the farm manager is doing a great job of caring for the cows.

Symposium. On Thursday the 4th Symposium on Milk Production was well attended. Over 300 farmers, consultants, and students were at the 2-day event. As mentioned above, my topic was trace minerals for grazing dairy cattle. The paper was published in Spanish in the proceedings. I very much appreciate the excellent assistance of Dr. and Mrs. Pereira in translating my slides into Spanish. There was good opportunity to visit with some farmers during breaks. One mentioned that he was using primarily pasture and accepting relatively low milk production from the cows. Other speakers addressed topics on pastures, reproduction, health, management systems, genetics, and economics. The demand for information was obvious by the interest and attention of the audience. Many questions were raised for the speakers.

Conclusion. It was a very interesting and enjoyable trip to Eastern Bolivia. I have had limited recent experience with tropical forages, and it was educational for me to observe the progress they are making. The excellent management of several dairy farms was obvious to me. Some assistance is needed in improving the energy, protein, and mineral content of diets for cows. Cows need some ADF (poorly digested fiber), but most tropical grasses are so high that feed intake is limited. Microbial digestion of fiber also generates more heat than other nutrients, and that complicates the high ambient temperatures. Additional feeding of corn silage will help on most farms. Increasing tallow or protected fats (not oils) in the grain mixture of the highest producing cows would help, but the technical aspects are complicated. Much of the recent progress made in USA milk production has been due to balancing protein sources to provide the correct ratio of RDP and RUP. Expeller soybean meal is available and may be the best option for supplementation. Finally, trace minerals have not received much attention, and it appears that zinc and copper are deficient in forages produced in Bolivia. These can be corrected with supplements, and the organic forms (zinc methionine and copper lysine) are preferred. More mineral analyses of local feeds needed.

Acknowledgements. I appreciate the invitation by Partners of the Americas and arrangements by Miguel

Cortez, Antonio Pereira, Fernando Cadario, and others. I also appreciate the hospitality of Dr. Miguel and Gladys. The stay with them and their grandchildren was a very special event for me. The meals provided by Miguel and Martha Cortez, Antonio and Cinthia Pereira, and the dairy farmers were also appreciated! I am grateful for the arrangements and transportation to farms by Miguel Cortez, Fernando Cadario, Antonio Pereira, and others. The owners, managers, and directors of farms were very generous with their time, and that is also appreciated.

2002 Annual Meeting

Margaret Clark furnishes us with the following report on the Annual Meeting:

The 2002 Annual Meeting of the Arkansas-East Bolivia Partners of the Americas started on Friday evening, October 15, 2002 with an "Asado" at the home of **Phil** and **Mary Alice Serafini**. A large number of Bolivian students and members and friends of our partnership were in attendance.

On Saturday, the Annual meeting proper took place in the St. Paul's Episcopal Church. The people in attendance were greeted by our hostesses **Gwen Millager** and **Jane Scroggs** along with a generous and healthy continental breakfast. At the beginning of the meeting, Margaret Clark, the Northwest Arkansas Vice President, presented a proclamation from Fayetteville Mayor **Dan Coody** naming October 16 as "Arkansas-East Bolivia Partners of the Americas Day" in Fayetteville.

The meeting centered on the theme: "Education - Key to the Future of our Partnership." The morning was divided up into three sessions. In the first session, there were reports from recent travelers: **Don Dombek** reporting on the Farmer-to-Farmer meeting in Guatemala, **Bill Millager** reporting for **Carol Corning** on her Farmer-to-Farmer trip to Guatemala and her trip to Bolivia in the area of education; and **Thecia Taylor** and **Bob Frans** reporting on the meeting of the three partnerships in La Paz.

In the second session, there was a panel presentation on Latin American Hemispheric perspectives: Economic, Political, and Environmental. **Dr. Eric Wailes** from the Department of Agricultural Economics and Agri Business painted an economic picture in need of help. **Dr. Jefferey Ryan** from the Department of Political Science described the political situation in which he noted the decrease in democracy on the continent, and **Dr. Kim Smith** from the Department of Biological Sciences ended with an overview of environmental issues and concerns, particularly noting the decrease in the number of birds and bird habitats on the continent. Although all of them provided a general view of Latin America, each one included specific information on Bolivia.

In the third session there was a second panel presentation on "Perspectives on Bolivia." It was given by Bolivian doctoral students from the University of Arkansas, Fayetteville. **Amilcar Medina** from the Department of Political Science with a major in Public Policy, **Karen Susana Gomez** from the Department of Biological Sciences with a major in Cell and Molecular Biology, and **Ingrid Arinez** from the Department of Political Science with a major in Public Policy. Each one discussed the Bolivian situation from the perspective of their home cities: La Paz, Cochabamba and Santa Cruz. The last session ended with a presentation on the East Bolivian Partners' perspectives given by our visitor from Trinidad, **Victor Hugo Callaú Balcazar**.

At lunchtime, members and guests were encouraged to attend both Autumnfest on the Fayetteville Square and/or the Hispanic Heritage Program of music, food, dance,, and stories at the Fayetteville Library.

The evening activity began with a fellowship hour at 6:00 p.m. with beer, wine and hors d'oeuvre. Northwest Arkansas Vice President Margaret Clark presented an Arkansas Travelers plaque signed by **Governor Mike Huckabee** to Victor Hugo and President **Thecia Taylor** presented the Kumpe Award for Personal Achievement in Partners to Bill and Gwen Millager for their work in arranging for the participation of Partners in other organization in Northwest Arkansas, especially the Hispanic Women's Organization of Arkansas, and for the outstanding publicity and visibility of Partners in the Northwest community.

After a delicious dinner catered by Barbara Hendricks (anchochili brisket, coconut crusted chicken tenders with sweet and sour dipping sauce, lime cole slaw, smoked cheddar polenta casserole, hot rolls, layered coconut torte, layered chocolate torte, coffee/tea, and then the treat of the evening began – a family performance by "Marabunta." Our member, **Rafa Acosta**, had organized an outstanding performance of Latin tunes played by his sons **Pavel Acosta** on guitar (classical) and **Berimbo** and **Johnny Blanco** on congo drums and bass guitar, along with his daughter **Carolyn Blanco**, vocalist. Rafa sang and also played the guitar and the cuarto. They were "excelente!"

On Sunday, the weekend closed with a Board meeting in the lobby of the Graduate Education Building of the College of Education & Health Professions. One again, Gwen Millager was responsible for a continental breakfast of fruit, coffee, tea, muffins, etc. At the conclusion of the meeting, most of those in attendance went back to St. Paul's Episcopal Church for a soup lunch provided by the Hispanic Women's Organization of Arkansas.

A note from Sue Heily

I attended the leadership conference held before the Quito International Conference and it was full of enthusiasm, energy and helpful ideas. For example, I had no idea that there were partnerships who pay an Executive Director who has a full time secretary. Wisconsin/Nicaragua partnership does. I obtained a deeper sense of gratitude for what our Executive Director, Bob Frans, does! (Editor's note: Thanks Sue!)

I loved the Colorado/Minaus groups approach regarding new partners: recruit, retain and recognize. First they invite, second they introduce, third they induct, fourth they indoctrinate with training and fifth they involve their new members. We had a discussion with this group about how they (and we) retain new members. Their response was to interact with them frequently and to personalize their involvement.

There was also a group workshop on the qualities that volunteer leaders must have. I really needed to be reminded of those and made to realize that we are all ONLY on our way to obtaining them: flexibility, cheerfulness, being uplifting, to be able to motivate, to be versatile, to keep everyone on task, to be supportive, to be non-judgmental and to listen. Well, Santa or saint I'm not but there were lots of good ideas and things for all of us to think about in this new year. If any of you get a chance to go to a leadership conference of POA, do it!

Bolivian students graduating

This past year several of our Bolivian students graduated from the University of Arkansas. The International Affairs Office provided us with this information about them:

Ingrid Arinez - LM in Agricultural Law

Susana Gomez - MS in Agronomy

Arum Han - BS in Food Science

Carlos Justiniano - BS in Business Economics

Casandra Nunez - MS in Health Sciences

Gustavo Pereyra - BA in Architecture

Moirá Pino-Ichazo - double major, BA's in German and Communication

Carolina Ponce - BS in Elementary Education

Pedro Ribera - MS in Industrial Engineering

Antonio Salinas - BS in Business Economics

Yuriko Yara - BS in Computer Systems Engineering

Jose Zankiz - BS in Computer Engineering

We would like to offer our heartiest congratulations to each of these graduates and to offer them our best wishes in their future endeavors.

New Members

It's also been a while since we listed new members. We all need to make these folks welcome and to get them involved. Here are some of the new ones:

Kyle Brunen - 1391, Bernice Dr., Fayetteville AR 72703, H-479-521-4189, O-479-575-3650, kbrunen@uark.edu

Sherry Butler - 403 County Ave., Lincoln AR 72744, 479-824-2501

Don Dombek - 3355 Cato Springs Rd., Fayetteville AR 72701, 479-442-6950, ddombek@uark.edu

James & Julia Gibbons - 1505 Red Bud Ln., Stuttgart AR 72160, 870-672-7163

Heather Maria Harper - 2379 Markham Hill, Fayetteville AR 72701, 479-251-7812

Wayne Kellogg - 709 Maria, Springdale 72762-5115, 479-758-6965, wkellogg@uark.edu

Joe & Jody Rath - 2309 Riverbend Rd., Heber Springs AR 72543, 501-887-9291

A BIG welcome to you all - we're glad you're on board. Please call on any of the Officers and Board members for further information.

FINALLY!! That's about it for now. As promised in the beginning, we had a lot to catch up on. Hopefully, the next issue will be a little more timely and not so big.