

NUNOA PROJECT VETERINARY TEAM WORK

JANUARY 2019



Nunoa Project Work with Peruvian Alpaca Farmers

Nunoa District, January 7-9, 2019

On January 7th the team travelled by bus for 5 hours from Urubamba (Cusco) to Nuñoa town (Puno) and then 1.5 hours more to the Tambo. The Tambo is a government facility that offers services and coordinates with public and private institutions to support local farmers. The local area of influence is called Anansaya Puna and has 7 alpaca breeder associations (Alto Anansaya, Musujalpa, Huaycho, Facuyuta, Pucarapata, Accupujio, and Huaripiña), with an average of 40 farmers in each one. The veterinarian in charge requested an agreement between MIDIS (Ministerio de Desarrollo e Inclusion Social – National Government), local alpaca breeder associations, and Nuñoa Project. This has been completed. Farmers are interested in fencing and water management for their pastures, and in using quality breeding males. We do not provide pasture infrastructure but may be able to connect them with others who do. We can loan them quality breeding males to improve their herds as we have been doing for several years in Nunoa and other areas in Puno. Herd health studies have not been conducted yet, but they estimate 15% cria losses due to enterotoxemia (acute, fatal diarrhea) and many abortions during dry season (unusual for Puno) as the main problems. We intend to start working directly with one association, Alto Anansaya, and then to expand the work to the remaining 6 breeder associations in the area. Initial herd evaluations are scheduled for June 2019.

On January 8th the team visited two farmers in Alta Anansaya. They performed standard evaluations for body condition score (BCS), age, fiber, pregnancy status, and testes conformation. The team found adequate BCS indicating good nutritional status. Huacayas and Suris were pastured together as is common in the altiplano and one farmer reported that sometimes the Huacaya/Suri mixed crias have better fiber quality. Semen was collected and analyzed for one working male and was found to be normal for active breeding males.

On January 9th the team evaluated a semen sample it collected from the best male at another farm which was also found to be normal. Team leaders Drs. Gerardo Diaz and Gisela Marcoppido gave a training seminar at the Tambo for 15 farmers from the Alto Anansaya breeder association. The meeting was productive, and farmers eagerly participated. They asked for help from Nuñoa Project and committed to provide food and transportation for the team when they were there for the next trip. Many aspects were discussed including animal health problems and reproduction management. After lunch, the team found a random case of uterine prolapse in an alpaca after recent birth labor in the field. It was efficiently resolved by one of the team members, Dr. Heather Jenkins Brazzell. The owner was very grateful since she was about to kill the female because this case is very rare and farmers do not know how to resolve it. They also do not have local veterinary assistance.

Pucara and Lampa Districts (January 10–13, 2019)

The team travelled to Pucara very early in the morning of January 10th. They started with a coordination meeting with local farmers with whom we have worked in the past. Unfortunately, farmers from Sapamccota did not show up, so scheduled but unconfirmed work with them had to be cancelled as there was no way to contact them. Work in Pucarayllu was reconfirmed. Farmers from Alto Pucarayllu, despite what they had agreed to in advance by phone, had moved their animals to new pastures much farther away from the access road. However, the team decided to go the next day assisted by a guide to show them the correct path.

On January 11th the team started very early on the trip to evaluate the animals at this farm. Despite the guide, they became lost multiple times, and also got stuck in the middle of a muddy stream. The trip had at that point required about 2 hours of driving. The leaders decided to cancel the work because the road was in very bad condition and the guide said that 30 minutes more driving and 1.5 hours of hiking would be needed to arrive at the herd location. The current plan is to visit those farmers in June 2019.



On January 12th the team drove to the town of Lampa and then up into the mountains to the community of Coarita. The night before it was raining heavily and the roads were muddy and slippery, but the team did reach the community. 35 females were hand bred to 3 Nunoa Project males in 2018. 5 were taken for meat, 15 were not found or the animals lost their ear tags, and 15 were presented for evaluation. Standard evaluations were performed on those animals and others presented to the team. The team found very good nutritional condition in the evaluated animals, however, pregnancy rate was low. The team discovered that this was due to fewer farmers being involved with the association. Consequently, they did not have enough people to perform their previous effective breeding management scheme (3 days breeding and 5 days resting) for the males. In 2018 they had started a new breeding management scheme (1 day breeding and 6 days

resting). It seems like, as in some other communities, the enthusiasm of people may be decreasing because alpaca production is not a very profitable business. People may seek other sources of income (working in town, etc.) and they do not have sufficient time for alpaca farming. The team recommended that the association should return to the old breeding management scheme or to try another one requiring fewer people to manage it to increase the pregnancy rate.

On January 13th the team had scheduled work for morning (Pucarayllu) and afternoon (La Union). However, health issues for the team leaders and the very difficult travel on bad roads resulted in the cancellation of the work for the afternoon. The team did evaluate herds with two farmers scheduled for that day in the morning, going through all of one herd. They also ear tagged and evaluated females for another farmer who is borrowing a Nunoa Project male. Three team members worked in heavy rain to help a small and tired female who was in labor. They delivered a live cria which they recommend be put in a shelter until the rain stopped. In the afternoon the team met with a local representative of the US non-profit Chijnaya Foundation to discuss the future work of this group with alpaca farmers in the area. Nunoa Project has been providing assistance to alpaca farmers in their area of influence at their request for 5 years.

The bad weather and roads made it very difficult to accomplish the scheduled work which Dr. Gerardo Diaz had arranged in advance and confirmed just before the team arrived in Pucara. This was disappointing to team members, but we recognize it is also part of working in the altiplano. On the next visit to Coarita the team would need two 4WD trucks not 1 truck and a taxi as the road from Lampa continues to deteriorate. The contract that Nunoa Project has with the farmers who borrow our males is that their herds need to be available for evaluation. We will continue to try to improve on their follow through on this condition or they will not be able to use our males. We paid for transportation of those males to their communities in December of 2018 and we will pay for their removal in April 2019. Some of our older males were replaced by younger ones at the request of the farmers, in spite of good pregnancy results and cria production. We understand it is the custom not to use very mature males, but age really is not the limiting factor. We are attempting to keep the farmers happy while we help them to improve production.



Future plans for Pucara and Lampa include herd evaluations in June 2019 for farmers who have used our males. We are also interested in meeting and working with new farmers which Chijnaya Foundation may identify to help solve their animal health problems and improve their production. We are available for consultations for farmers throughout the year, and also to support any animal health professionals which Chijnaya Foundation may put in place to assist alpaca farmers in the area.

Nunoa Project Work with Peruvian Llama Farmers

The trip started with all the team meeting at Cusco airport on January 3rd. They rested for two days for altitude acclimatization in Urubamba at 2,875 meters. During the morning of the second day they met the Llama Pack Project (LPP) team with whom we have been working for 5 years and discussed the scheduled work. LPP explained why it is important to reintroduce llamas on the traditional Inka trails and emphasized how important the presence of the NP team in the communities is due to the barrier that needs to be broken between communities and veterinary care to their animals. Using llamas as pack animals for tourists can improve their life quality in a variety of ways by increasing income. Everybody exchanged important ideas about llamas, conservation, and future opportunities for the communities.

Maucau and Cuncani (January 5-6, 2019)

The main tasks for the llama herds in Maucau and Cuncani were to collect data on BCS, age, and pregnancy status of adult females and to select the better ones for breeding to a superior male from LPP in November 2019 in order to start pack animal improvements. This strategy was adopted by LPP based on the success of it as used by Nunoa Project with alpaca breeders in the Department of Puno. These two communities were the most reluctant for herd evaluations to attain animal improvement. For that reason, the data that the NP team collected was very valuable.

On the first day started with two hours driving to Maucau (4200 meters) the team evaluated the animals of one farmer on arrival. They selected 15 female llamas for breeding with a superior LPP male. The main cause of cria mortality the team found was predation by foxes. The females were a decent size but had a low BCS (mostly 1 out of 5) probably because of bad pasture quality or not enough pasture and/or water access. After one more hour of driving, the team arrived in Cuncani (3800 meters) where everybody had lunch and then started work. The llamas of two other farmers were also evaluated. Most of the llamas were large and they selected the best for packing prospects based on conformation and BCS from those. They found adequate BCS in the animals, which means the nutrition (and probably parasites) are not the main animal health issues there.

The next day, 5 families' animals were evaluated.

- Family 1: the males and females of different farmers are in pasture together all the time so even if they do not have a male, the females could get pregnant from another male during pasture. This reproduction management was not good, and alpacas and llamas were also kept together. BCS was low (poor nutrition).
- Family 2: The team found one female with vaginal discharge, 8 years old and just 1 cria in her records. They also found two old females that never got pregnant. The team suggested that old females with no crias should go out of the herd, but the farmers argued that these animals were for packing only, and also they use their feces as fertilizer for their crops.
- Family 3: They had small animals and they have alpacas and llamas pastured together. They said the males are too young to breed females, however the team noted an alpaca male trying to breed a female llama. BCS (nutritional status) was satisfactory. They also had many castrated males which try to breed females and prevent the younger males from breeding.
- Family 4: They had more alpacas than llamas because the breeding male was an alpaca. They cannot keep them separate because they do not have enough people to do it. This mix between alpaca and llamas are turning all their animals in "Huarizos" or mix breed. They asked for alpaca males for loan which is not part of the LPP program. They were not interested very much in packing llamas which is the target animal species of the project.
- Family 5: The owner arrived after lunch and was the team's last work before going back to Urubamba. It was important to show our commitment to the work, because she brought her herd from a considerable distance to be evaluated. The evaluation results were not very good, with many alpacas in the herd. The reproduction is not well controlled because these animals were mixed in the pasture with other males and females so the owner could not determine who was the father of her crias (alpaca or llama).

Canchacancha (January 15-16, 2019)

This is a difficult community to get to as it requires a 3-4 hour hike up into the mountains after a 1 hour truck ride. Fortunately, acclimatization to altitude is mostly complete at the end of the trip, and also llamas are used to carry most of the equipment. After reaching the community center, most farmers' herds require more uphill hiking to reach. The team stayed at 4000 meters in tents to work for two days here. Six different farmers had their herds evaluated. Herd size was small as is usual, varying between 5 and 11 animals. The farther into the mountains the people live, the more help they seem to need. Most often these farmers have never had any access to veterinary evaluations and have no familiarity at all with ultrasound equipment for pregnancy diagnosis. They are wary of new people and procedures as is to be expected. Initial contacts with farmers are important to set the stage for future work and to establish trust and a team attitude between Nunoa Project, Llama pack Project and the farmers.

Similar problems of low BCS and small animals were found in Canchacancha. Future work is planned to see what help can be extended to improve these herds.

The mountain scenery there is spectacular, and the hike back down is shorter but no less arduous.



Summary

This team work trip was similar to that of many veterinary teams in the past. There are many challenges to working in remote farming communities at high altitude including daily schedule changes, challenging access roads and trails, and the physically demanding work required at high altitude. This team did an excellent job. The progress made with farmers is the usual slow but steady. Our goals remain unchanged as we expand into new areas and meet new farmers. I am very thankful for the members of this trip and for all those who have gone before them.

Sincerely,

Stephen R. Purdy, DVM

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