

IGA Newsletter December 2015

INSIDE THIS ISSUE:









- Kiko Meat Goats: The Full Story of the Development of Kiko Meat Goats
- Community-Based Insurance for Goats Experiences and Learning from Ibtada
- Article examines gender roles and processes of smallholder goat production
- Small Ruminant Developmental Programmes An Overview
- Most Downloaded Small Ruminant Research Articles
- Promoting Access to CCPP Vaccine and Vaccination in Tanzania
- ADGA Research Proposal Request
- Small Ruminants Sustain Livelihoods in Rainfed Areas
- VI Curso Internacional de Entrenamiento en Transferencia de Embriones
- XXXIV Curso Internacional de Entrenamiento en Congelamiento de Semen

Kiko Meat Goats: The Full Story of the Development of Kiko Meat Goats in New Zealand from 1978 to 1994

Written by Garrick Batten IGA member*

There are several versions in the USA of the origin and development of Kiko goats in New Zealand and imported to USA in 1994/5. Even the direct quotes in USA literature of the original paper presented at the 3rd International Goat Conference in Brazil in 1987 has errors. Plus true stories have been interpreted for marketing reasons by the original importers and subsequent breeders in ways best suited to their marketing objectives. In addition, there have been

mistaken whispers that turned facts into port goat meat prices were directly resomething else. lated to size. Bigger equalled more

The Caprinex objective in 1978 was for a meat goat best suited to New Zealand hill country pastoral conditions for brush weed and pasture control and meat production that met on-farm requirements of low input, low cost and high profit.

From observation and studies of New Zealand feral goats it was clear that there was a size range in the estimated 300,000 feral goats in the 1970's. Ex-

port goat meat prices were directly related to size. Bigger equalled more money for meat and skin. Bigger goats were likely to be more effective in controlling brush weeds. Feral goat breeding and scope offered opportunities not available in existing dairy goat populations that were then largely farmed in very small hobby herds.

Caprinex decided that there was a need for a New Zealand meat goat to capitalize on goat meat market opportunities and the brush weed control on hill

Continued on Page 2

Community-Based Insurance for Goats - Experiences and Learning from Ibtada, India

With the objective to incentivize goat rearing as a steady source of income for small holders, who are often compelled to begin from scratch on account of high rates of mortality of livestock, Ibtada initiated the community-based insurance model in the year 2012 in Thanagazi block of Alwar district, Rajasthan. A strong network of local Pashu Sakhis had been established prior to this initiative, which was responsible for advising goat-keepers on improved husbandry practices and provision of veterinary care services, following which the mortality rates in goats had dropped from about 30 percent to under 6 percent.

READ MORE...

Article examines gender roles and processes of smallholder goat production and marketing in Mozambique

Despite emerging public and donor attention on women and agriculture, relatively few studies are based on gender analysis of sexdisaggregated quantitative data, particularly on women's involvement in marketing of livestock products.

This article investigates gender roles and processes of smallholder goat production and marketing in Inhassoro District, Mozambique.



Kiko Meat Goats (continued from Page 1)

country. The focus was to be on a maternal breed to produce lots of quick growing progeny to suit New Zealand pastoral farming conditions and management. The then market, as it is today, had no specifications for meat quality other than weight, so carcass and meat was of less importance. This also meant that there were fewer selection factors.

As it has turned out, Boer goats that became available in the 1990s can provide a terminal sire for better carcass confirmation if that is required. That does not necessarily mean higher meat yield. Developing a dual purpose animal was not part of our objectives. Animal production parameters emphasises growth rate and weaning percentage as significant meat production factors. Animal management emphasises factors such as feet/hoof shape and lack of disease, udder shape, attachment support and teat placement, teeth and jaws, and temperament. We set a meat breeding objective of maximum meat production per kg of breeding doe before the first winter. Under New Zealand pastoral conditions goat weight plateaus

from 8-12 months of age and slaughter animals are desirably off the farm by that stage.

Initially we screened about 10,000 feral goats collected from various districts over 1978-79. That number is not guaranteed but there were over 5,000 on one farm. From them we selected about 1,000 for close inspection. We chose larger does that had kidded and this is quite important because in the feral state does will get pregnant as soon as they are able and lifetime size will be stunted. Selected animals had to be structurally sound in mouth, feet and udder. We deliberately exclude does that showed difficult behavioural tendencies in the yards. One notable characteristic was that grey roan animals that we call "blue" were wilder than others. We chose blocky body shape as best able, and good udder attachments, and udder size as the only visual reflection of milk production. And we selected goats that I liked. Being happy with the animals that you work with is a very important aspect of livestock farming. Clearly none of these initial physical and subjective selection factors are particularly effective but that was the best that could be used in the circumstances.

The 20 selected does plus 6 that were already on hand had an average liveweight of

32kg at first mating compared with the average feral goat liveweight of 25-27kg. We knew that feral goat milk production was not high with an average of 1.5 litres for a 3-5 month lactation. Yet milk supply is directly related to kid growth rate, and early growth rate was critical to meet our breeding objective.

As Secretary of a cooperative group of 17 dairy goat farmers and a dairy goat judge, I had the opportunity for several years to identify dairy does of various breeds (British Toggenberg, Saanen, Anglo Nubian, and British Alpine) and select buck kids from them. While the emphasis was on large, meaty type high milk producing dairy does with sound confirmation, the problem was avoiding faults associated with dairy farming that would not fit our free ranging, tough, go

Small Ruminant Developmental Programmes - An Overview

Presented by Dr. Pranav Kumar, Assistant Professor Division of Veterinary & A.H. Extension Education F.V.Sc & A.H., R S Pura SKUAST-Jammu

Introduction:

Throughout the developing countries, small ruminants make a very valuable contribution, especially to the poor in the rural areas.

These contributions range from precious animal proteins (meat & milk) to fibre and skins, draught power in the highlands, food security and stable households.

They are closely linked with the poorest people in pastoral systems and complex crop livestock systems, and convert low-quality resources to high quality protein.

Relatively low level of Research and development investments to improve the SR production which do not match their potential importance, the contribution to nutritional insecurity and livelihoods of the poor in rural areas.

READ MORE...

Small Ruminant Developmental Programmes : An overview







Continued on Page 3

Presented by Dr. Pranav Kumar

Assistant Professor Division of Veterinary & A.H. Extension Education F.V.Sc & A.H., R S Pura SKUAST-Jammu

Kiko Meat Goats (continued from Page 2)

anywhere, eat anything meat goat animal objectives. Intensive dairy goat farming does not automatically generate this sort of animal. In addition, the Anglo Nubian and British Alpine breeds have a very narrow genetic base in New Zealand, so limiting the available genetic potential. My daughter raised 10 or so of these buck kids each year, we evaluated them and used 2 or 3 new ones each year for mating with the doe flock. The crossbred dairy feral progeny formed the basis for the Kiko breed.

Selection parameters then and always were growth rate and farmability. Growth rate is relatively easy to measure after allowing for birth dates and multiple births. Farmability is a mixture of survivability under reasonably stressful management and nutritional conditions such as the ability to handle 25% browse content in the diet, walk hills daily in search of feed, resist parasites and foot problems, adjust to minimum husbandry and management regimes and produce as much profit as possible each year. The labour constraints of New Zealand hill country farming were constantly in mind. Profit is a very important concept in an unsubsidised industry, reflecting both costs of husbandry and management, meat income and synergistic weed and pasture control benefits. That in turn is influenced by goat growth rate, number of kids, losses of does and their progeny and doe lifetime performance.

There were some deliberate policies to test and evaluate farmability. For example, each winter goats spent time on a heavy, wet clay soil property to challenge their feet. Goats that went lame were either culled directly or their subsequent production levels fell below the required standard. Lame goats have more difficulty walking enough each day to get enough to eat for their potential so they do not perform.

The dairy breed crossing programme

continued from 1979 to 1986. We were retaining the best 20% of buck kids born each year for evaluation and from 1984 using the top ones when we started interbreeding the crossbreeds. During this time we also added outside does that met the selection criteria, and selected from the retained doe kids that were in the top 50% for growth rate of those born, using independent culling levels and criteria such as having to produce twins at first kidding and growth rate. These were added if they were superior to the does already in the herd. By 1986 the herd had grown to 150 does.

As a staff member of the Ministry of Agriculture and Fisheries, I had access to MAF geneticists and their advice which was to "keep it simple". So the breeding philosophy was to use population genetics to focus on as few selection parameters as possible, measure and keep good records, and mate best to best. We chose to use independent culling levels. We were also able to capitalise on the independence of MAF staff to verify records.

The concept of population genetics is quite different to pedigree or family based genetics. Keep in mind that it is the basis of this breed. It is a technical topic and not necessarily easy to grasp and needs to be dealt with separately. Population genetics is based on numbers and 150 does were not enough. In 1986, Caprinex became involved with five other people and formed GOATEX GROUP LIMITED (not LLC).

A veterinarian and an animal exporter, both of whom were also farmers, and three large scale hill country farmers, one of whom later became a goat livestock agent for the largest farm servicing company in New Zealand, became shareholders. We were all committed to the same Caprinex objectives and methods of achieving them. Immediately the herd increased to 600 does over 4 farms, increasing to 1,000 in 1987. From this base an

elite, open nucleus central herd of 100 does were selected and run on one farm, and it was re-evaluated each year to be the best 100 does available. From this came the bucks used for breeding in all herds including the central herd. So a USA literature statement that after three generations the crossbreds were interbred to fix a composite breed is a questionable interpretation.

Introducing the breed to the 3rd International Goat Conference increased offshore interest and GOATEX GROUP LTD continued to export genetic material and goats. This also enabled us to evaluate Kiko goats in a range of climatic and management conditions ranging from tropical to Nepalese mountains. The first American Kiko imports were four bucks that Dr. An Peischel imported to Hawaii in 1991. They ranked number 2-5 of the male kids of that year's birth. Four major events occurred in the intervening years from 1986 to 1994 that should be kept in mind. Firstly, there were two distinct lines of goats that were being developed of a polled, blocky type animal, and a more angular horned animal. There is some research evidence that polled animals are 7% + more productive than horned animals. Secondly, there was a huge influx of new genes into the breeding herd in the late 1980's, and thirdly, independent culling levels had moved on from feet as a major culling factor to include parasite tolerance. Shareholders were reduced from six to three.

In the early 1990's circumstances changed on some of the shareholders' farms and the project was reduced to only the 100 doe central herd that by 1994 had been reduced to about half. However, the breeding policies of few selection factors, an open nucleus, independent culling levels and breeding best to best were continued by the three remaining shareholders. The GOATEX GROUP LTD company's shares Continued on Page 4

Kiko Meat Goats (continued from Page 3)

were sold in 1994, including this doe herd plus some yearling does and bucks, and records of one generation of parentage only, despite subsequent North American Registry details. Some of these were the animals imported into the United States in the mid 1990's where they formed only part of the animals sold as Kiko. Construction of their four generation pedigrees and of their relationship with other animals imported was imaginative. State-

ments to the contrary are misleading. The new GOATEX GROUP LTD share-holders who imported the animals into United States had no involvement in the company, its activities or events prior to their purchase in 1994. Caprinex had limited knowledge and takes no responsibility for subsequent breeding and marketing activities.

History of the Kiko breed as presented in the USA seems to have taken the

story presented by GOATEX GROUP LLC, who were the original USA sellers, and patched it onto the paper presented at the 3rd International Goat Conference in Brazil of the 1984 situation. It ignored what had happened in the following years because GOATEX GROUP LLC had no involvement or knowledge of that.

*© 2013, Garrick Batten

Kikos: The Meat Goat of New Zealand

Written by Megan Vanderpol*

The Kiko goat breed was developed in New Zealand during the late 1900's. There is a large amount of myths concerning the origins of the Kiko Breed, including confusion on dates, people and places. At this time, I recommend looking into Garrick Batten's article "Kiko Meat Goats: the full history" for a look into the beginnings of the amazing breed of Kikos.

The question I'm posing today is: why are Kikos so well fitted to a free range, organic farming situation?

The majority of goat breeds nowadays are dependent on a large variety of medicines, de-wormers and drugs in order to stay healthy. The original Kiko Breeders realized this, and wanting capitalize on the resilient characteristics of the feral goats, culled severely for parasite and disease resistance in the herd they selected from the feral goats. Kikos are now known for their ability to thrive without being heavily de-wormed and



medicated throughout the animals'

lifetime. Small scale farmers recognize the value of this important aspect; as it results less time spent on managing this side of a goat herd and more time enjoying them.

The New Zealand breeders selected for rapid weight gain on native vegetation, as one of the key characteristics of the Kiko breed. Since Kiko kids gain weight rapidly on forage based diets, they are ready for marketing in less time, and with less effort expended, than the average kid. This equals a quicker return on investment, with less money spent, as supplementation is not a requirement for Kikos. Kiko kids also have exceptional conversion ratios; both of these are major advantages for low-input farmers.

Kikos crossed with other breeds, such as Nubian or Boer, produce kids with various qualities of the Kiko breed. Boer/Kiko cross kids have been shown to gain faster than the Purebred Boer but slightly less than the Purebred Kiko; while Kiko/Dairy cross kids have increased disease resistance and rate of gain.

Kiko does have a tendency to be excellent mothers, with good milk production and well attached udders. Most likely stemming from their feral ancestors, their mothering instinct is a strong one. Kiko does are attentive mothers; cleaning and feeding kids soon after birth without human intervention. Kiko does are also known for



kidding without complications, consistent twinning, and vigorous kids from birth. Kids are energetic, active, and up soon after birth.

Unthrifty, slow growing kids with poor conformation were culled; as were overly aggressive bucks and does. Both of these led to Kikos that are well fitted for a homestead type situation; as unruffled, fast-growing goats are much appreciated in both commercial and hobby farm scenarios.

The original breeders also selected for several other factors. Foot and hoof shape were important as the goats in New Zealand roamed the hills to forage their food. Poor feet equaled poor growth. The teeth and jaws also played into feed consumption and growth, as loose teeth or over-shot jaws led to reduced forage intake.

*Note that all rights are reserved on both the article and the pictures by the author, Megan Vanderpol.

Recent Open Access Small Ruminant Research Articles

The latest Open Access articles published in Small Ruminant Research.

Longitudinal Dichelobacter nodosus status in 9 sheep flocks free from clinical footrot

November 2015, Volume 132, Pages 128-132

Iwan Locheremail, Deborah Greberemail, Kerstin Holdeneremail, Rita Lüchingeremail, Christina Haerdi-Landereremail, Gertraud Schüpbach-Regulaemail, Joachim Freyemail, Adrian Steiner

Footrot is a widespread problem in Swiss sheep farming. The objectives of this study were to determine whether flocks which were clinically free from footrot carry virulent strains of Dichelobacter nodosus, and to describe the infection dynamics for flocks and individual sheep. To this purpose, a new PCR-diagnostic tool was used, which is able to distinguish benign from virulent D. nodosus. Nine farms were examined three times at intervals of 6 months. Cotton swabs were used to collect samples from the interdigital skin to analyze for the presence of virulent and benign strains of D. nodosus. Additionally, epidemiological data of the farms were collected with the aid of a standardized questionnaire. On four farms, benign strains were diagnosed at each visit; in one farm, benign strains were detected once only. Two flocks revealed sheep infected with virulent D. nodosus throughout



the study but without clinical evidence of footrot. In two flocks, the virulent strains of D. nodosus were introduced into the flock during the study period. In one farm, clinical symptoms of virulent footrot were evident only two weeks after the positive finding by PCR. Only individual sheep with previously negative status, but none with previously benign status became infected with virulent strains during the study. The newly developed competitive RT PCR proved to be more sensitive than clinical diagnosis for detecting footrot infection in herds, as it unequivocally classified the four flocks as infected with virulent D. nodosus, even though they did not show clinical signs at the times of sampling. This early detection may be crucial to the success of any control program. Both new infections with virulent strains could be explained by contact with sheep from herds with virulent D. nodosus as evaluated from the guestionnaires. These results show that the within-herd eradication of footrot becomes possible using the competitive PCR assay to specifically diagnose virulent D. nodosus.

Effect of vitamin E supplementation to ewes in late pregnancy on the rate of stillborn lambs

April 2015, Volume 125, Pages 154-162

I. Dønnem, Å.T. Randby, L. Hektoen, F. Avdem, S. Meling1, Å.Ø. Våge2, T. Ådnøy, G. Steinheim, S. Waage

This study evaluated the effect of supplemental vitamin E to ewes in late pregnancy on the rate of still-born lambs. Ewes in 19 flocks in 5 regions of Norway were daily supplemented the 6-7 weeks before average expected lambing date with either (1) 360 IU of vitamin E (supplemented), or (2) placebo (control). The daily supplement was given in addition to the daily basal diet of forage, concentrate and mix-

ture of minerals and vitamins in each flock, assuming that forage contained on average 40 mg α-tocopherol/kg DM. Information about the basal diets was collected via analyses of forage samples and questionnaires. Blood was collected from a sample of ewes in each flock 1 week pre-treatment (7-8 weeks before lambing), and from some flocks 1-2 weeks after initiation of supplementation (5-6 weeks before lambing) and 1-2 weeks after lambing. The body condition score (BCS) of the ewes was assessed 4-6 weeks before lambing. Mean content (\pm SD) of α -tocopherol in the forage of the 19 flocks was $25 \pm 17 \text{ mg/kg DM}$. Mean daily intake of vitamin E of the ewes from the basal diet was 153 ± 44 IU. Vitamin E supplementation increased serum concentration of α tocopherol (P = 0.0002) 5-6 weeks before lambing. After lambing there was a higher ratio of α -tocopherol to cholesterol in serum of supplemented ewes compared with control ewes (P = 0.02). Ewes with one or more stillborn lambs had lower serum αtocopherol concentrations than ewes without stillborn lambs in litters with \geq 3 lambs (P = 0.01). For ewes with \geq 3 lambs there was a significant lower stillbirth rate for vitamin E supplemented than for control ewes (P = 0.0004), while there was no effect on the stillbirth rate for ewes having ≤2 lambs. Ewes with low BCS had a higher stillbirth rate than ewes with medium or high BCS (P = 0.001). The results of this study indicate that daily supplementation of vitamin E during the last 6-7 weeks before lambing decreases the stillbirth rate of ewes having ≥3 lambs.

Milk protein variants are highly associated with milk performance traits in East Friesian Dairy and Lacaune sheep

October 2014, Volume 121, Issues 2-3, Pages 382-394

Continued on Page 6

Recent Open Access Small Ruminant Research Articles

The latest Open Access articles published in Small Ruminant Research.

I.J. Giambra, H. Brandt, G. Erhardt

In total, 403 milk samples of East Friesian Dairy (EFD) and Lacaune (LAC) sheep hold in three different flocks in Switzerland and Germany were analysed for milk protein variability at protein level by isoelectric focusing and at DNA-level by different DNA-based tests. Isoelectric focusing of all milk samples led to the identification of the alphas1-casein (αs1-CN; CSN1S1) alleles C and H, αs2 -CN (CSN1S2) A, B, and C, as well as beta-lactoglobulin (B-LG; LGB) A and B. All animals were monomorphic for alpha-lactalbumin (α-LA; LALBA) A and kappa-casein (k-CN; CSN3), and within beta-casein (B-CN; CSN2) only differences in the intensity and not in Additionally, associations between

the position of the bands could be identified.

DNA-based tests differentiated as1-CN C into CSN1S1*C' and C", typed for CSN1S2*G, for an A > G single nucleotide polymorphism (SNP) in exon 7 of CSN2, for an A > G SNP in exon 2 of ovine CSN3, and for a microsatellite within intron 3 of CSN3. CSN1S2*G and the A > G-SNP within CSN2 occurred only in LAC, whereas the A > G SNP in CSN3 was identified only in EFD sheep. In total, 11 CSN3 microsatellite alleles were observed. Furthermore, 8 and 11 CN haplotypes (CSN1S1-CSN2-CSN1S2-CSN3) were identified in EFD and LAC sheep.

milk performance traits and milk pro-

tein alleles and genotypes were analysed using 150-day-lactation data. Significant effects of milk protein alleles and genotypes on protein content were identified. In both dairy sheep breeds CSN1S1*C" is significantly associated with a higher protein content. In EFD significant effects of the CSN3-SNP and the CSN3 microsatellite on protein percentage and of the LGB-SNP on protein and fat percentage were additionally identified. Further research is needed to clarify in more detail the effects of milk protein variability on milk performance also in other dairy sheep breeds, to aim the implementation in future sheep breeding programs.

A New Meat Goat Breed

Written by Garrick Batten, IGA member

ABSTRACT: A program has been carried out in New Zealand to develop a new meat goat breed by capitalizing on the dynamics of a large base population. Feral goats are relatively small with typical live weights at weaning and maturity of 12/25kg and 16/40kg for does and bucks respectively. For example, one feral population studied in a farmed environment for over one year, at weaning time had mean live weights for 61 mixed age adult does of 27.48kg (SD 4.01kg), 26 doe kids 13.0kg (SD 2.2kg), 14 mixed age adult bucks 28.2kg (SD 5.43kg), 19 buck kids 14.18kg (SD 1.99kg). The new Kiko breed is based on does screened from the large feral population mated to bucks from Anglo Nubian, British Toggenberg and Saanen breeds. With further crossbreeding, and interbreeding at F2 and F3 generations, stock have been selected solely for survivability and growth rate in a hill country pastoral environment.

In the 1985/86 season, at weaning time, mean live weights for 102 adult does was 48.6kg (SD 10.45kg), 60 doe kids 22.28kg (SD 6.5kg), 92 buck kids 29.6kg (SD 5.33kg), and adult bucks exceeded 100kg. Mean live weights at eight months of all 1985 born kids in the central flock were 37 does 29.36kg (SD 5.8kg) and 42 bucks 35.26kgs. Farmed under typical New Zealand hill country pastoral conditions, Kiko kid growth rate from birth to

weaning averaged 166gms/day compared to Romney lambs 160gms/day. Kiko goats have been exported to Pacific Island countries. In Western Samoa, 15 maiden does produced 33 kids with average birth weights of does 2.53kg and of bucks 2.44kg. Subsequent growth rate to weaning averaged 180gms/day (140-245gms/day).

INTRODUCTION: Goats suit a wide range of agricultural systems throughout the world,



being versatile and adaptable; their role in improved nutrition and income is being increasingly recognized (Devendra1982, Raun 1982). They are already an important source of meat being eaten by a wide range of people in many countries where the 400 million goats are farmed primarily for meat production.

However, meat production per animal is not high, although it could be increased dramatically through breeding, feeding and animal health (FAO 1985).

Promoting Access to Contagious Caprine Pleuropneumonia (CCPP) Vaccine and Vaccination in Tanzania

This study was carried out in order to i) establish the extent of the CCPP problem in Mbulu, Babati, Hanang, Kiteto & Simanjiro districts, ii) understand the knowledge, attitudes and practices (KAP) on the methods of prevention of CCPP, iii) understand the CCPP control measures that are currently being used in the districts, iv) establish the status of CCPP vaccine distribution and use. Results from the study would form the basis for the GALVmed long-term objective of promoting access to CCPP vaccine and vaccination in Africa.

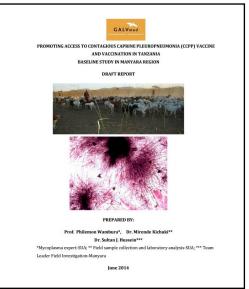
Executive Summary

Contagious caprine pleuropneumonia (CCPP) is a highly contagious and severe respiratory disease of goats. It is characterized with high morbidity of up to 100% and mortality of 70% (Rurangirwa et al., 1987, Centre for food security and Public health 2011). The disease is caused by the bacteria called Mycoplasma capricolum subspecies capripneumoniae.

CCPP is widespread in most of the

eastern and central African countries. The disease has been suspected to be present in Tanzania since the early 1980's (Nyange and Mbise, 1983; Msami, 1991) and was confirmed by isolation of Mycoplasma capripneumonia in 1998 (Msami et al., 1998). During this period the disease was confirmed in Arusha, Dar es Salaam, Kilimanjaro and Tanga (Kusiluka et al., 2000). Since then there has been increasing numbers of reports of CCPP suspected outbreaks in many parts of the country including Manyara region.

The widespread occurrence of the disease in Tanzania indicates lack of systematic control measures to contain the disease. Vaccination has been shown to be the most effective method for controlling CCPP since it provides effective prophylaxis and is affordable to farmers (ref). Despite this, use of the vaccine against CCPP in Tanzania is limited. GALVmed expressed the intention to minimize the socio-economic losses caused by CCPP



by ensuring sustainable availability of the vaccine. As a first step towards achieving this goal, GALVmed funded execution of a CCPP baseline study in Manyara region which would support formulation of a comprehensive CCPP vaccination programme.

READ MORE...

ADGA Research Proposal Request

The American Dairy Goat Association Research Foundation announces the request for research proposals focused on the health, management, welfare, nutrition or productivity of dairy goats in the United States. The due date for applications is January 15, 2016 as noted in the guidelines; applications must be submitted by the close of the business day. Proposals can be electronically mailed or faxed or sent to PO Box 475, Truchas, NM 87578.

Please request the requirements and directions for submission from: Lisa Shepard, Administrative Staff performanceprograms@adga.org or adgaresearchfoundation@adga.org

Small Ruminants Sustain Livelihoods in Rainfed Areas

Gol-SAPPLPP multi-stakeholder consultations on 'Strengthening Small Ruminant Based Livelihoods' underscore synergies between livestock and land-based livelihoods

The significance of goat and sheep in sustaining livelihoods and supporting food security in arid and semi-arid rural localities has never been more appreciated than in recent times when yields from agriculture are unpredictable and declining. To highlight the significance of this crucial agriculture-animal husbandry linkage among policy makers, and advocate greater budgetary allocation for promotion of small livestock-based rural livelihoods in rainfed regions, the National Livestock Mission, Government of India has fa-



cilitated organization of regional workshops around the country, in close collaboration with the South Asia Pro-Poor Livestock Policy Programme, which is funded jointly by the NDDB and FAO of the UN.

VI Curso Internacional de Entrenamiento en Transferencia de Embriones en Ovinos Vitrificación de Embriones en Ovinos

Lugar y Fechas: EEA INTA Bariloche, Argentina, 5 al 18 de Marzo del 2016

Organiza: Area de Producción Animal: Grupo de Reproducción Rumiantes Menores

Informacion e Inscripcion:

EEA INTA Bariloche

Mail: gibbons.alejandro@inta.gob.ar Tel. 0294 4422731 /4429862/ 4429863

Fax: 0294 4424991- 4429600

Objetivos:

- Brindar capacitación práctica intensiva en técnicas reproductivas a profesionales considerados potenciales usuarios.
- Difundir conocimientos sobre

técnicas de gran impacto en el mejoramiento genético de los ovinos y caprinos, probadas en nuestras condiciones de explotación y de fácil implementación.

Contenido General del Curso:

Fisiología de la reproducción. Métodos de sincronización de estros. Evaluación seminal. Congelamiento de semen. Inseminación artificial vaginal y laparoscópica (demostrativa).

Participantes:

Debido a la disponibilidad de tiempo y por ser un curso de entrenamiento, se dispone de 9 vacantes (cupos limitados). Las prácticas comprenderán alrededor del 80% del tiempo. Se proveerá de manuales de procedimientos.

Inscripcion:

Los interesados deberán enviar a la brevedad su curriculum vitae para registrarse como PREINSCRIPTO. Debido al cupo limitado, se realizará una evaluación de los postulantes y se les comunicará personalmente su participación, 30 días antes de iniciarse el curso.

Fecha de cierre de Preinscripción: 14/2/2016

Arancel: US\$ 400 (equivalente en pesos según cotización dólar vendedor del Banco Nación del día de realización del pago)

XXXIV Curso Internacional de Entrenamiento en Congelamiento de Semen y de Inseminación Artificial en Ovinos y Caprinos

Lugar y Fechas: EEA INTA Bariloche, • Argentina, 5 al 8 de Abril del 2016

Organiza: Area de Producción Animal: Grupo de Reproducción Rumiantes Menores

Informacion e Inscripcion:

EEA INTA Bariloche

Mail: gibbons.alejandro@inta.gob.ar Tel. 0294 4422731 /4429862/

4429863

Fax: 0294 4424991- 4429600

Objetivos:

- Brindar entrenamiento intensivo en transferencia y vitrificación de embriones ovinos a profesionales considerados potenciales usuarios.
- Difundir los conocimientos sobre las técnicas de gran impacto en el mejoramiento genético de los ovinos, evaluadas como eficientes y de fácil implementación.

Contenido General del Curso:

- Fisiología hormonal de la reproducción en el ovino.
- Principios y consideraciones generales sobre la transferencia de embriones.
- Estimulación hormonal para la ovulación múltiple.
- Factores que intervienen en la respuesta a la ovulación múltiple.
- Tratamiento de sincronización del estro entre donante y receptora.
- Fecundación de la hembra donante.
- Colecta, Búsqueda, Clasificación y Transferencia Quirúrgica o Semi - laparoscópica de embriones.
 - taparoscopica de embrione
- Vitrificación de embriones.

Participantes:

Debido a la disponibilidad de tiempo y al ser un curso de entrenamiento se dispone de 9 vacantes (cupos limitados). Las prácticas comprenderán alrededor del 80% del tiempo. Se proveerá de manual de procedimientos.

Inscripcion:

Los interesados deberán enviar su curriculum vitae a la brevedad para registrarse como PREINSCRIPTO. Debido al cupo limitado, se realizará una evaluación de los postulantes y se les comunicará personalmente su participación, 30 días antes de iniciarse el curso.

Fecha de cierre de Preinscripción: 5/3/2016

Arancel: US\$ 800 (equivalente en pesos según cotización vendedor del Banco Nación del día de realización del pago)

<u>Don't forget to</u> <u>renew your</u> membership today