International Goat Association

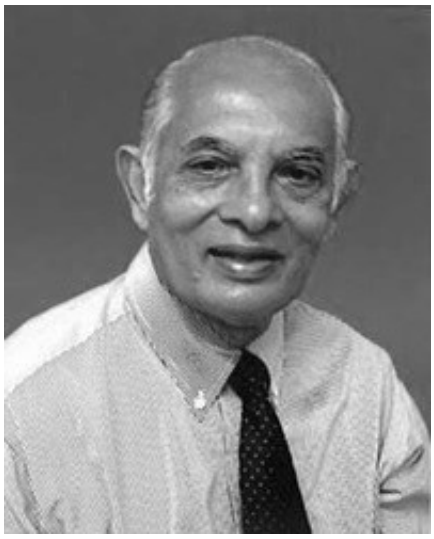
Newsletter, June 2021

INSIDE THIS ISSUE:

Dr. Canagasaby Devendra obituary

IGA is sad to announce the recent death of **Dr. Canagasaby Devendra** from Malaysia. He died peacefully on June 17, 2021 after a short illness in Kuala Lumpur, Malaysia with his wife by his side. He leaves behind his wife, son, daughter-in-law and two grandsons.

Known to everyone by his last name, Devendra or Dev, he played an essential role in IGA's development. He was one of the founders of IGA, an IGA Vice-President, and a member of the Board of Directors. In addition to his well-respected scientific research on all aspects of goat production, he was an outspoken advocate for environmentally sustainable livestock development that benefitted low-income families worldwide.



In January 1982, during the 3rd International Conference on Goats, Devendra was a member of the International Goat Association planning meeting. This meeting was a select group of internationally recognized leaders in the goat world who developed the foundations of IGA and included Christian Gall, Pierre Morand-Fehr, Jean Boyazoglu, and George Haenlein.

As a member of the first Board of Directors, Devendra helped establish IGA as an international entity and contributed to its development and success. He continued writing, teaching, mentoring, and publishing throughout his life and has over 19 books and approximately 496 mostly peer-reviewed publications

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2020 IGA Achievement Awards

Recognition of IGA's Most Active CRs and RDs

Every year the International Goat Association officially recognizes the most active Regional Directors (RD) and Country Representatives (CR). RDs and CRs are an essential part of IGA. We are sincerely grateful for all that they do: promoting IGA and our International Conference on Goats, organizing in-country and regional conferences, soliciting new members, preparing country reports for IGA's Newsletter, etc.

The Regional Director & Country Representative Committee recently selected the individuals who have done an outstanding job representing IGA in their region or country during the past year. We wish to congratulate them on their involvement and successes.

2020 was a stressful year for everyone, but these Country Representatives and Regional Directors went above and beyond. They accomplished so much and set a new standard for excellence.

The 2020 IGA Achievement Award recipients are **Clara Viviana Rúa Bustamante** (RD for South America) and for our Country Representative:

- **Angelika Stemmer** from Bolivia
- **Livio Costa Junior** from Brazil (Livio was a Country Representative in 2020, but was recently promoted to Regional Director for the Americas (Brazil, Las Guayanas and Las Islas de Cabo Verde)
- **Claudia Torres Pizarro** from Chile
- **Mónica Andrea Cardozo Herrán** from Colombia
- **Manuel Teodoro Pesantez Campoverde** from Ecuador
- **Rodrigo Arias Azurdia** from Guatemala
- **Doris Guadalupe Huamán Pasco** from Peru
- **Abner Rodriguez** from Puerto Rico
- **Alejandro Salvador Cáceres** from Venezuela

We also wish to give an honorable mention and special thanks to **Mamta Dhawan** from India for her contributions to IGA.

Learn more about our wonderful **Regional Directors** & **Country Representatives**. Thank you for all that you do.

IGA virtual conference, November 16, 2021

Goats of the World and World of Goats – Emerging from the Shadow of COVID-19

This virtual conference will take place from 2 pm to 6 pm European Time (Paris time).

New York	Paris	Dar es Salaam	Istanbul	New Delhi	Beijing
8 am	2 pm	4 pm	4 pm	6:30	9 pm

Goat breeding, as part of the livestock sector is a key contributor to food security, nutrition and livelihoods, especially for the world's most vulnerable populations. Since the global outbreak of COVID-19 in 2020, the world's goat production and the life of the farmers have been severely affected. The aim of the conference is to investigate the negative impacts (current and potential) of the pandemic e.g. reduced access to animal feeds, inputs and services; reduced processing capacities; compromised storage and conservation options; difficulties in inland and international transportation; animal health problems because of reduced testing and diagnostic capacity; lack of animal disease control programmes. Reports will be delivered on national and regional levels (by Country Representatives and Regional Directors of IGA), hoping to get a global overview by the end of the conference. The organisers would be more than happy to see some actions, how to mitigate the impact of COVID-19 on the goat sector.

Sustainable livestock development in low- and middle-income countries: shedding light on evidence-based solutions

1. Introduction

The livestock sector and its environmental impacts have been a subject of growing global concern, reflected in intensive public and scientific discussions. Since the publication of 'Livestock's Long Shadow' by the FAO (Food and Agriculture Organization of the United Nations) in 2006, livestock has been universally criticized for its large contribution to greenhouse gas (GHG) emissions, land use change, soil degradation, water use and loss of biodiversity (Steinfeld et al 2006, Herrero et al 2015, Hilborn et al 2018). Widely publicized recent reports, such as the EAT-Lancet report (Willett et al 2019), prompted a wave of media outreach arguing that one of the main solutions to the climate change and human health crises, globally, is to eat no or little animal source foods (ASFs).

Global media continues to be dominated by concerns about adverse environmental and health impacts of livestock, while the coverage of livestock's contribution to livelihoods has been declining (Marchmont Communications 2019). These negative narratives, mostly rooted in industrial livestock production systems and overconsumption of ASF in Western countries, overshadow the various complex and often positive roles livestock plays in low- and middle income countries (LMICs) in Africa, South America and South(-East) Asia. A singular focus on livestock associated environmental impacts ignores livestock's crucial livelihood functions in smallholder systems such as nutrition, income, asset provision, insurance, and nutrient cycling (Herrero et al 2013a). Institutions such as the FAO have been working towards higher awareness of the contributions of the livestock sector to the sustainable development goals, including economic growth, poverty reduction, ending malnutrition, gender equality and ecosystem service provision (FAO 2018). For example, the cereal-based diets of poor people in LMICs regularly lack bioavailable (micro)nutrients, which are highly concentrated in livestock products. Vulnerable groups in LMICs, such as pregnant and lactating women, and children, would benefit from more, and not less, ASF consumption to improve physical and cognitive health, and reduce stunting (Gupta 2016, Adesogan et al 2020, Shapiro et al 2019). In this perspective paper, we present results from novel analysis that demonstrate the urgent need for LMIC-specific evidence on livestock and the environment to inform a more nuanced global discussion and decision-making supporting sustainable livestock development.


ENVIRONMENTAL RESEARCH
LETTERS
Sustainable livestock development in low- and middle-income countries: shedding light on evidence-based solutions

Online Version

PDF Version

The status of native goat rearing in Qazvin Province

Mohammad Hossein Hadi Tavatori (1), Nader Papi (2) and Farhad Mirzaei (2)
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2) Agricultural Research Education and Extension Organization (AREEO), Animal Science Research Institute of Iran, Karaj.

History of goat rearing in the province
Goat farming has a long tradition in Qazvin province. This helpful animal produces valuable products such as meat, milk, skin, and hair fed by forage and roughages. Goat breeding in Qazvin province is specialized to highlands where there are challenging conditions to rearing other farm animals.

Geographic distribution areas
Areas of Qazvin Province have the largest goat population, including Eastern Alamut, Western Alamut, Lower Tarom (Tarom-e-Sofla), and rural of Qazvin. Also, in this province, about 5% of some sheep flocks are goats.

Population
Based on the current data, the goat population is over 158 thousand heads.

The types of rearing systems
The traditional goat keepers in Qazvin province are overwhelmingly rural and dependent upon mountainous pastures during warm seasons. In the spring, herds of goats feed on the village meadows, and they use fields upstream from mid-June to the end of the summer. In the cold seasons, they stay at the fold in their villages, and fodder is brought to them.

Job creation
About 1,000 households in Qazvin province are involved in goat rearing. Considering the dairy industry, spinning, and clothing, the number of native goat farming employees will go even further in Qazvin province.

The cultural, social, and economic relations with nomadic and rural communities
Rural communities in the province of Qazvin use milk, fiber, and meat from these animals. Native goats are often reared together with sheep, and in grazing livestock work as responsible leadership. Goat meat is of particular value in rural communities because it contains less fat than sheep meat.

Apparent features
Qazvin native goats have a medium body size, and their color is from white to light or dark brown, black, or a mixture. Their head and ears are of medium size, and they often have horns.

Export
Nearly all the products of Qazvin native goats are consumed within Qazvin province, especially in native goat breeding areas, including Alamut and Tarom-e-Sofla.

Items use of products
Native herders produce goat cheese in the spring and butter in autumn. Goat milk is converted to yogurt and Lour. Goat fibers are used to produce Shola (a type of local clothes), rope, socks, hats, and mats. Goatskin is utilized to make a container for producing cheese and Posttakht (flat skin) as a mat.

Measures for identifying and genetic improvement
No breeding program for Qazvin native goats has been implemented. Recently, researchers at the Agricultural and Natural Resources Research and Education Center of Qazvin province are developing a plan to identify and preserve these genetic resources.

Suggestions for ways to improve performance
- Registration and use of practical breeding
- Improvement of goat breeding units
- Positive publicity about the benefits of goat products

Special thanks to **Farhad Mirzaei** (IGA-CR Iran) for submitting this interesting article.

Table 1. Body dimensions of Qazvin native goat (cm)

Chest round	Wither height	Body length	Gender
88.7	74.9	79.5	Mutual male
83.8	65	74.6	Mutual female

Table 2. Annual production of Qazvin native goat (kg)

Carcass	Fibers	Milk	Lactation (days)
21.5	0.5	120	120

Table 3. Reproductive characteristics of Qazvin native goat province

Twinning (%)	Fertility (%)	Breeding age (months)
30	96	12

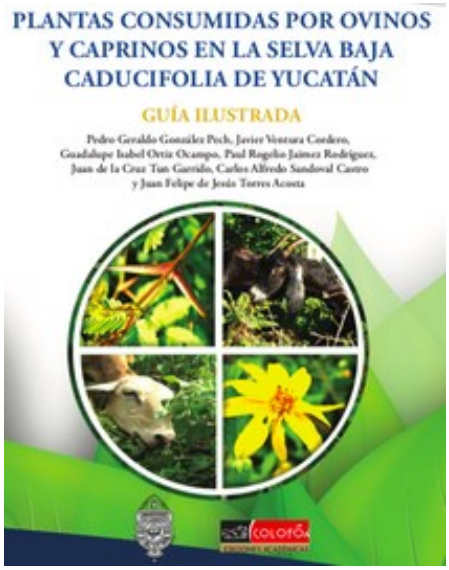
Table 4. Economic traits of Qazvin native goat

live weight (kg)				Gender
Mature	6 months	Weaning	Birth	
42.5	24	18.5	2.5	Male
35.6	19.5	15.2	2.2	female

Plantas consumidas por ovinos y caprinos en la selva baja caducifolia

El libro se puede obtener de manera gratuita, el material puede ser divulgado entre estudiantes y colegas interesados en el tema. El libro puede descargarse del siguiente link **https://www.researchgate.net/publication/335243610_Plantas_consumidas_por_ovinos_y_caprinos_en_la_selva_baja_caducifolia_de_Yucatan_Guia_ilustrada#fullTextFileContent**

The book can be obtained free of charge, the material can be disseminated among students and colleagues interested in the subject. The book can be downloaded from the following link **https://www.researchgate.net/publication/335243610_Plantas_consumidas_por_ovinos_y_caprinos_en_la_selva_baja_caducifolia_de_Yucatan_Guia_ilustrada#fullTextFileContent**



Esta vegetación heterogénea del trópico sub-húmedo, brinda servicios ecosistémicos y es indispensable en la lucha contra el cambio climático, su preservación debe basarse en reconocer su valor para un aprovechamiento sustentable. Aún si estigmatizada como maleza, ofrece diversidad de alimentos para cabras y ovejas cuyas capacidades de pastoreo y ramoneo son idóneas para su aprovechamiento. El libro es producto de 40 años de investigación y laboriosos trabajos de etología con observación cercana (<1m) de cabras y ovejas en circuitos de pastoreo de 6 a 12km al día en 112 ha de selva baja. Se integra la información de cada planta en 53 fichas con la descripción botánica, usos de la población, disponibilidad en período de lluvias o secas, consumo por cabras y/o ovejas, diversidad de tipos de bocados efectuados por ambas especies de rumiantes, aporte nutricional, presencia de taninos condensados muchos de ellos con efectos positivos en la salud animal. El formato de la obra es útil para técnicos, estudiantes, investigadores, público en general.

Botswana comes to Meredith Dairy Victoria Australia

Meredith Dairy is a family-owned enterprise in southern Australia, milking 10,000 does and manufacturing cheese and yogurt in a purpose-built facility on the farm. The farm and manufacturing enterprise is the venue for some significant goat dairy research under the supervision of Dr. Alexander (Sandy) Cameron and his wife Julie (IGA Country Representative for Australia)

This summer, the Dairy was visited by the Republic of Botswana High Commissioner to Australia and former Member of Botswana Parliament, Dorcas Kobela Makgato along with Counsellor Mr. Kesegofetse Unoda Mazongo and other delegates from Botswana.

Her Excellency, Ms. Dorcas Kobela Makgato was the former Minister for Trade and Industry in Botswana and has strived to make Botswana an attractive place to do business. She was also a Minister for Health and an advocate for the equality and protection of women. The Ambassador spoke of fond memories of farming and said the farm and animals reminded her of Botswana, family, and her childhood. The Commissioner wrote about her visit on social media, which reached wonderful feedback from the people of Botswana who are excited about the possibilities of Dairy goat Farming.

Her Excellency, Ms. Dorcas Kobela Makgato tours Meredith Dairy

Sustainable Utilization of Indigenous Goats in Southern Africa

Abstract: Goats have a key role in ensuring food security and economic livelihood to smallholder farmers in rural areas. Women play a vital role in goat rearing, promoting economic autonomy within households. Indigenous goats dominate and are of high significance due to their adaptive traits that are relevant for climate change and low maintenance. However, lack of emphasis on farmer-centered technology development and proper breed characterization remains a hitch to sustainable utilization and breed development of indigenous goats. This can be over come through proper linkage between market and production, workable regional and national agricultural policies, community breeding programs, collaborative research work within the region, and consistent government support.

Keywords: food security; goats; climate change; Southern Africa

READ MORE

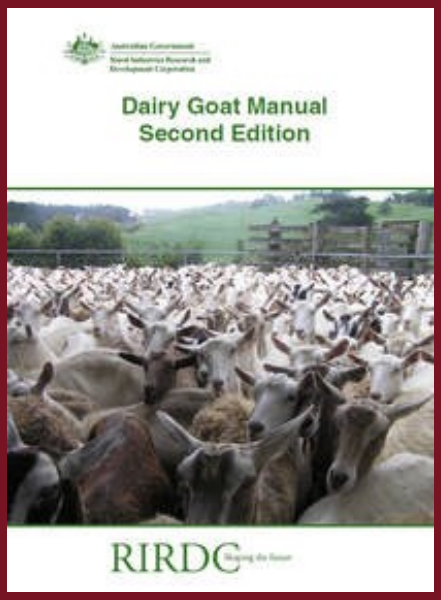
Dairy Goat Manual (Australia)

by Gaille Abud (IGA member) and Arthur Stubbs

Foreword
This revised edition of the "Dairy Goat Manual" was compiled as a guide to current recommended dairy goat farm management practices based on observations and information gained during the course of the RIRDC project "Farming and Marketing Goat and Sheep Milk Products".

Information contained in this Manual is provided as general advice only. For application to specific situations, professional advice should be sought.

RIRDC and its research agents have taken all reasonable steps to ensure that the information in these publications is accurate at the time of publication. Readers should ensure that they make appropriate enquiries to determine whether new information is available on the particular subject matter.



The project was funded from RIRDC Core Funds which are provided by the Australian Government.

This report, an addition to RIRDC's diverse range of over 1800 research publications, forms part of our New Animal Products R&D program, which aims to accelerate the development of viable new animal industries.

Most of our publications are available for viewing, downloading or purchasing online through our website:

- downloads at https://www.agrifutures.com.au/wp-content/uploads/publications/08-206.pdf
- purchases at https://www.agrifutures.com.au/product/dairy-goat-manual-second-edition/

Peter O'Brien
Managing Director
Rural Industries Research and Development Corporation

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and chapters in books. Recent additions are Goats: biology, production and development in Asia (2007), and Small farms in Asia: revitalizing agricultural growth, food security, and rural prosperity (2010).

We are the heirs to Dev's pioneering work, scientific rigor, and profound compassion that brought attention and respect to the goat sector.

Recently, we received an email from his son, Akash Devendra, who said, "His work and the camaraderie of his colleagues around the world gave him so much satisfaction in life. My mum and I will have had the good fortune to meet many of you over the years and extend our very best wishes and warmest regards."

We hope you will share your memories (**on the IGA Blog**) of his contributions to your professional and personal life as we mourn his passing.

How Goats (And Perhaps People) Make Up Their Minds

Why do animals — including people — behave the way they do?

That's a question long pondered by researchers.

A new study on this pressing topic, published this month in Royal Society Open Science, reveals an interesting insight into goats — and perhaps humans as well.

Daniel Sankey, who researches animal behavior at the University of Exeter in the United Kingdom, and Andrew King, associate professor of biosciences at Swansea University in Wales, wanted to follow up on a classic 1996 study of buffalo that drew a rather surprising conclusion (at least to those who don't give much thought to animal behavior).

READ MORE

The Goat Breeding Sector of Romania

Special thanks to Dr. Stela Zamfirescu, Country Representative for Romania, for sending in this report.

1) Introduction

In Romania, goat breeding represents an essential branch of zootechnics and has an old tradition and considerable economic importance. Goat breeding is also an activity with a long tradition of providing milk, meat, and processed products to the population. A third of the country's employed population works in agriculture, which situates Romania well above the 5.9% average of the EU countries. All these elements place Romania among the nations with high agricultural potential (above 30%). In 2019, Romania was third in terms of small ruminants. Currently, the goat sector counts over 2,045,000 heads, of which 1,320,000 are breeding goats, and 200,000 are mated juveniles, which led to an increase of the total number by 5.4% compared to 2018. Goat breeding belongs entirely to the private sector. The animals are reared in rural areas because there are favorable conditions for their breeding. They are also raised because of the higher demand from consumers. Of the total number, 83% of goat farms have up to 10 goats, and they also represent most of the total number, of over 37%.

The strong points of goat breeding in Romania are determined by:

- the exploitation of forage resources in the hard-to-reach alpine areas, by the rustic character and hardiness of local breeds,
- the tradition and experience in their breeding,
- the fact that the production obtained is mostly organic and,
- the fact that it contributes to the preservation of ecosystems.

The disadvantages of local breeds are low milk and meat productions and the degree of dispersion, which leads to the difficulty of applying modern methods and technologies of breeding and exploitation and poor marketing organization.

The priority areas for goat breeding in Romania are the western plains and the south-eastern zone, where over 80% of the animals are reared.

Romania joined the European Union in 2007, determined the complete openness of this sector, offering opportunities for intra-European exchange given the dependence on product competitiveness and consumer demand.

The breeding area of goats in Romania

2) Goat breeds reared in Romania

There are two breeds of local goats in Romania: Carpathian and White of Banat. These are characterized by morphoproductive polymorphism due to an empirical selection, the characteristic of the traditional breeding system, in which the affective component and the productive performance dominated.

Carpathian buck

The Carpathian breed

The Carpathian breed is the most common in our country, and until recently, it represented 85% of the total number of goats. Currently, due to intense half-breeding, this breed decreased to 32%. Rearing these goats is very lucrative in conditions of traditional breeding because they are easy to raise. They have adapted to diverse environmental conditions, especially plains and hill areas where various shrubs grow. The goats can exploit the food offered by poor quality grass, shrubs, foliage, etc. They withstand extreme temperatures and have excellent tolerance to diseases, requiring a straightforward and limited plan to prevent infectious and contagious diseases. It is a rustic and resistant breed, insufficiently improved, with a pronounced maternal instinct.

Carpathian doe

The external aspect is specific to non-improved breeds: small and elongated head, with big horns pointing backward and laterally, medium size, appropriately developed thorax, elongated body, narrow chest, ridged spine, narrow rump, and a well-developed build. The limbs are strong, with a poorly developed musculature but with high mobility and quickness. The coat is made up of under hair and relatively long hair, with a strong and variable chromatic polymorphism such as various shades of grey, reddish, white, or variegated. The body weight is approximately 38.5-52.5 kg in females and 50-65 kg in males.

The milk production depends on the level of lactation, degree of female selection, and the amount and quality of the feed. The milk production is highly variable, between 150 and 280 liters of milk in 5-7 months of lactation. IN 2019 the milk average milk production was 1580 g /day, in 210 days of lactation.

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The Goat Breeding Sector of Romania

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The prolificacy is between 125 and 150%, while the fecundity characteristic to this breed is 97%. At the age of 10-12 months, it registers 72% of the adult weight, which means it can be mated before one year old.

The Banat White breed
In the western part of Romania, the Banat White developed 130 years ago, called Banat, by the crossing between Carpathian does and German Noble bucks to increase productivity. They spread from that source area to other parts of the country and represent 15% of the total goats in Romania.

The body shape displays the characteristics of the dairy morphoproductive type: pyriform and elongated torso, fine head with laterally flattened horns pointing backward. The neck is medium length and thick, the torso is pear-shaped, the limbs are strong with well-developed bones and fine but strong musculature which offers increased mobility.

Banat White buck

The body weight reaches 50-70 kg in males and approximately 45 kg in adult females. The coat is uniform white. The fecundity of this breed is 97-99% while the average prolificacy is 160-175%. Sexual maturity is early, at around 7-8 months, so young does that reach 70% of the adult weight can be mated at 10-11 months.

The females have a well-developed udder, and the milk production is 250-450 kg on average but can exceed 500 kg over a lactation period of 150-270 days in good conditions of feeding and maintenance of selected goats, with wide variability, between 297 and 500 liters of milk in 247 (183-276) lactation days.

Imported goat breeds
Over 50,000 goats were imported to Romania during the past 20 years. Most were brought in from Europe (France, Austria, Spain, England, Germany), from several specialized dairy or meat breeds (Saanen, Alpine, Anglo Nubian, Toggenbourg, Muciana Granadina, Boer, and Angora) and whose morphoproductive characteristics are sufficiently known. These were used to improve the milk or meat aptitudes in local breeds. All imported breeds do not perform to the same genetic potential level as their countries of origin due to adaptation and different feeding systems.

3) Breeding systems
The extensive system
In Romania, breeders mostly use the extensive system, also called the traditional system, as the goats obtain their food requirements by grazing most of the time (7-8 months of the year). Depending on the number of goats and the feeding possibilities, one-two goats can be kept around the house, in separate tribes, or as part of sheep flocks. There are frequent situations when, for the grazing period in this rearing system, goat tribes are constituted per locality. The sheds are simple, of various shapes and sizes, often closed but warm. Inside, the feeding troughs are placed on a wall. In bigger sheds, these are placed on the sides of the main alley. Milking is done by hand or mechanically, depending on the number of goats. The feed is made up of fibrous forage plants (alfalfa hay, grass hay, corn cobs) and a wide range of cereals (barley, oat, corn, sunflower, and soy). Goats are mated naturally between September and the end of November. They remain together with the kids until weaning at the age of 2.5-3 months old.

The intensive system
Intensive breeding is practiced in farms with large numbers of goats, especially imported breeds Alpine and Saanen. The goats are kept in a shed all year round, are milked mechanically, and the feeding, drinking, and manure removal processes are all mechanized. The sheds provide at least 6 m3 of air, natural or mechanical ventilation, and an allotted space of a minimum 1.5 m2 for each adult goat. The females give birth in separate stalls, and weaning is done ultra-precociously or early. The kids are then transported to maternities, where they are fed powdered milk using various milk delivery systems (buckets with nipple or automatic distributors of powdered milk). The main feed is made up of good quality hay of all types, wheat or barley straw, and supplemented with pellets, especially for kids, weaned juveniles, and lactating. The number of farms with over 500 goats represents only 0.06 of the number of existing farms, with 120,000 goats and an average of 580 goats/farm. Beginning with the moment national and European support was given (approximately 20-25 euro/head/year), the breed structure has changed considerably: 34.6% Carpathian, 1.7% White of Banat, 1.1% other breeds, and 62.6% crossbreeds.

4) The market for goat production in Romania
The main productions obtained from goats are milk, meat, and processed products. The consumption of sheep and goat meat increased compared to the one registered in 2017 (1.9 kg meat/consumer) to 2.1 kg of meat/consumer in 2018. On December 31, 2019, the meat production was 25% larger (244 thousand tons) than registered on the same date in 2018 (195 thousand tons). The meat production reported on December 31, 2019 (244 thousand tons) approximately 20% represents family consumption, 70%

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Table 1. The dimensional structure of goat farms (by April 30, 2019)

SPECIFICATION	TOTAL SECTORS				
	No. of farms	% of total	Total heads	% of total	Heads per farms
TOTAL	**134069**	**100.00**	**1649765**	**100.00**	**12.31**
UNDER 10 HEADS	111275	83.00	611306	37.05	5.49
11 - 50 HEADS	16907	12.61	514550	31.19	30.43
OVER 50 HEADS	5887	4.39	523909	31.76	88.99

Source: MADR operative data

The Goat Breeding Sector of Romania

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was delivered directly to the market, and the remaining 10% was delivered to specialized units. Compared to 2016, the production of goat meat (26 thousand tons) in 2019 increased by 6% leading to a meat production of 29.12 thousand tons. The meat is used as carcass, pastrami, sausages, and raw-dried products.

Cheese telemea

Since 2016 (2063 thousand hl), milk production has increased constantly, reaching 2372 thousand hl in 2018, 15% more than the 2016 production. The average output per head of milked goat was 1.54 liters. The milk is turned into telemea cheese, lactic cheese, hard cheese, cottage cheese, and all the types of fermented products (yogurt, sana, and kefir).

In Romania, two dairy factories produce lactic cheese and three others that process all types of milk, including goat milk (La Colline, Olympus, Napoca, and Lact IQ). Over the studied years, there are differences among the technical and economic indicators because of price instability and lack of organized revaluation markets for goat productions. According to the zone, the goat milk revaluation price and forage purchase price were different: lower in areas with high goat densities (the southeast of Romania). The technical and economical actions will progress by improving the methods to identify the sheep and goat production systems.

5) Future strategies for the sustainable development of the goat sector

- to establish groups of producers that produce, industrialize and market dairy and meat products,
- to build in Euro regions dairy factories and slaughterhouses specialized in small ruminants,
- to establish networks for milk collection from small and middle-sized farms,
- to generalize mechanical milking in large farms,
- to promote the concept of Goat farms – family business,
- for associations to participate in sectorial projects,
- to give subsidies as biological material: cryopreserved material, reproduction goats, medicine specific to reproduction control and artificial weaning of the kids,
- to establish testing centers,
- to generalize artificial insemination for a rapid improvement of local breeds and rapid multiplication of the valuable genotypes,
- to intensely promote the goat productions,
- to improve the goat network.

Governmental support

- Subsidizing the acquiring, dissemination, and use of the gene pool that was permanently improved from the viewpoint of quantitative and qualitative performance,
- Subsidizing artificial reproduction of goats for the rapid improvement of local populations (collection, dissemination, and use of seminal material from buck of high genetic value in artificial inseminations),
- Financial support for the acquiring of reproduction material (pedigree males and frozen semen),
- subsidizing the production and exploitation of meat kids obtained from crossing with meat breeds (BOER and ANGORA),
- Expansion of reproduction biotechnologies (embryo transfer and frozen semen) for the rapid genetic improvement of local goat populations,
- Financial support for the purchase of milk collection and processing equipment and of feed production equipment.

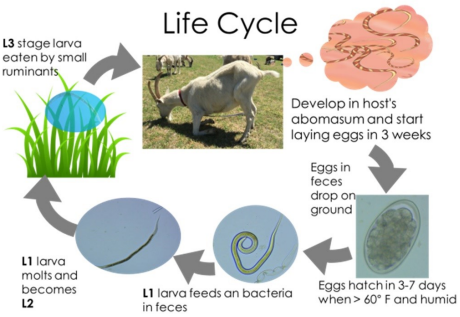
Acknowledgements
The author wishes to thank Ing. Toma Maria-Agricultral Ministery, Ing. Mandruta Mitu; National Agency for Zootechnie, Anghel Andreea-ANCC Romania for operative data about goats and thank you very much to Chirobocea Olivia Tudor for the English version of this article.

Bibliography
Data from: INS 2016, 2019; Operative data from MADR Bucuresti and DAJ from Romania county; Annual report 2017 ANCC Caprirom

Video Series: Goat Nutrition and Parasite Control Workshops

American Institute for Goat Research (AIGR), Langston University, held the Annual Goat and Hair Sheep Field Day in May. The AIGR hoped that Field Day would resume as usual in 2021. however, due to lingering and even spiking COVID 19 infections in Oklahoma and because of the slow pace of vaccinations in early 2021, the 2021 Goat and Hair Sheep Field Day was not held in person but held virtually via Zoom. The theme was "Goat and Lamb Cookery & More" and took place in smaller 2-to-4-hour segments spread over several weeks. Among the sessions, the two most popular workshops entitled "Internal Parasites and FAMACHA training in Small Ruminants" and "Goat Nutrition and LINC" were recorded and uploaded to the Langston University Ag YouTube channel http://www.youtube.com/user/taglu01.

Among those who attended the parasite workshop, more than 20 people worldwide received a FAMACHA certificate and a FAMACHA card. If you are interested in being certified, you can still do it by fulfilling the following requirements.
Watch the parasite workshop playlist, which includes "Primer on Parasites" and "Dewormers and Dewormer Resistance."
Register and take the quiz at https://goats.langston.edu/internal-parasite-workshop-and-famacha-training (the passcode for registration is AIGR#FAMACHA@2021), and Submit a demonstration video to AIGR via email. Detail processes are on the "Instruction for FAMACHA Training" video.



Among the workshop videos, the "Primer on Parasites" has been highlighted in Sheep & Goat magazine's (www.ranchmagazine.com) in June 2021 issue (Volume 29, No.5).

Watch the Videos

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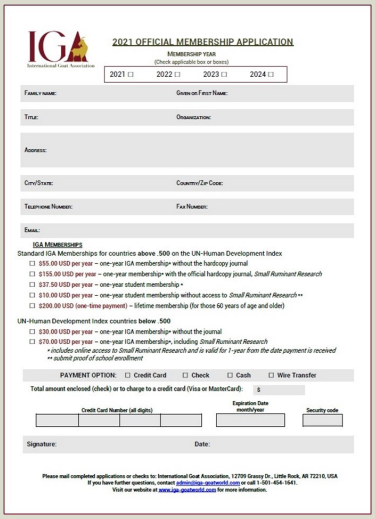
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