

Info Note

Youth in livestock, the engine for change: strategic partnerships with a private company (CIAT/CCAFS-Alquería)

The beginnings, incentives, and objectives of the Herederos de Tradición (Heirs of Tradition) initiative carried out by Alquería's farmer training programs.

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Key messages

- The low level of schooling in rural areas presents a determining factor for the productivity of dairy farms in Colombia. To close this gap, an education program that meets the needs of the rural population is being provided by a private company within the same field of work.
- The technical support derived from a joint (and voluntary) effort of producers and extensionists of the dairy companies is central to the development of diagnostic, planning, and monitoring capacities in livestock farms. In the long run, such capacities will foster sustainable competitiveness of the producers involved.
- The gradual and sustained aging tendency of the rural population in Colombia of recent decades threatens the viability and competitiveness of the dairy sector, and does not allow for learning opportunities and the adoption of modern tools, such as climate change mitigation and adaptation strategies and the appropriate management of dairy production systems, which are of vital importance in addressing today's urgent issues.
- Including youth in technological and social training programs can help contain the problems of generational renewal, poor access to education and the gender gap. Investments in agricultural education will empower the future of rural Colombia, in the context of climate change.

In 2012, the private dairy company Alquería launched its first pilot training program for small-scale milk producers, MACA. The name MACA derives from the pilot's initial test region in the municipalities near the Macarena

mountain range in El Meta, Colombia. This particular area has been identified for the urgent need to tackle the low rates of schooling of its producers, and the need for a technification of the livestock farms to increase their productivity and, in turn, the quality of life of their managers.

In dealing with this issue, Alquería's Livestock Development department exposed indisputable realities from which the Colombian countryside (still) suffers. Most of the producers (including their families, who are also involved in the work of production on the farms) lack the adequate support and technical training that would increase their productivity and improve the quality of their produce, and consequently, their profits and quality of life. Yet, this would also be of great benefit to the private company and to Colombia's dairy value chain. It thus became evident that the need for producer training and support demanded immediate attention.

The pilot initiative MACA was implemented in the El Meta administrative department, one of the regions most devastated by the Colombian armed conflict. It is no coincidence that the chosen target area is one where economic stability, land tenure, and farmers' capacities to produce are constantly under threat by warfare. Rather, the area was carefully selected by the professionals of Livestock Development, who realized that productive, modern and sustainable stock farming was fundamental for the at-risk populations of the region. As such, MACA came to exist precisely where it was most needed.

In addition to boosting dairy productivity in the area, MACA also focused on strengthening relations between

Alquería and the small producers who make up a vital segment of their suppliers. Establishing important links between the company and its suppliers, as well as creating solid relationships with individuals and productive guilds (gremios), formed the primary strategy of promoting continuous procurement of optimal raw material. In the pursuit for increased productivity, MACA began by establishing (in partnership with the Colombian Ministry of Agriculture) a cold chain network to benefit municipalities such as La Uribe, Mesetas, San Juan de Arama, Vista Hermosa, Puerto Lleras and Puerto Rico. What this revealed, however, is that among the shortage of basic services such as electricity and road access, a graver deficiency was hidden; that of education.



Second promotion of the 'Heirs of Tradition' initiative in Mosquera, Cundinamarca. Photo: Fomento Ganadero-Alquería.

Despite the obvious benefits that came with the setting up of the cold chain, the staff in Livestock Development observed that other hurdles persisted: improper handling of milk during collection; unproductive or overloaded farms; lack of organization among local producers; and a strong influence from informal buyers of raw milk, among others. Faced with such challenges that were far from being resolved with technological solutions, the Livestock Development department created FOCA, a farmer training program with which it sought to tackle, on different fronts, the bottlenecks that stand in the way of the sector's productivity. The objective of FOCA is to promote the competitiveness of the dairy sector by ensuring that organizations and producers that supply Alquería obtain better access to educational tools and technology transfers. In the words of Mauricio Ariza Aya, National Project Coordinator of Livestock Development: **"We are convinced that if the people are better educated, everything will work better in this country."**

This brief will delve into the most relevant aspects of the *Herederos de Tradición* (Heirs of Tradition) program – an initiative carried out by Alquería within its farmer training programs – analyzing its origins, incentives, and objectives. The brief will also introduce the nascent partnership between CIAT and Alquería, within the

framework of this initiative, and mention the activities slated to take place in 2020.

An idea born in the field: the start of the initiative *Herederos de Tradición*

Other companies from the livestock sector in Colombia besides Alquería also offer networking and training programs to producers with the aim of improving the quality of their milk and democratizing the benefits gained from better administered cattle farms. FOCA is situated as part of the Livestock Development department, within one of the teams dedicated to working directly with producers on tasks ranging from milk supply to commercial activities.

Since its inception, FOCA sought to go beyond focusing merely on technical issues such as quality monitoring and establishing cold chains, and centered on generating direct relationships with the producers, facilitating the analysis of their farms, and conveying essential knowledge to help them be more competitive. Alquería sells the milk of 3,200 suppliers, which affects about 11,000 families as the suppliers include associations of small producers. This group of suppliers provides the company with about one million liters of milk a day. The company's plants are located in Cajicá, (savanna region), Palmira (western region), Antioquia and the Caribbean coast region.

Initially, FOCA centered its activities on two major fronts: ECAS or field schools (*Escuelas de Campo*) and the *Plan Finca* (farm plan), an educational initiative that introduces tools to facilitate the planning and improvement of farms. The field schools serve a double purpose. In the first place, they instruct the target population on various subjects. Talks are given on the sale of milk, its composition, the legislation that regulates its price, and other subjects, informing the producers on matters relevant to their profession.

Secondly, the schools reveal the critical issues on which the producers are insufficiently informed, but also those on which they are very knowledgeable and experienced with, such as pasture and soil management, and cattle and animal feeding, among others. By exposing the needs and strengths of the producers, the ECAS provide the Livestock Development staff with a more precise picture, allowing them to offer producers assistance (voluntary) that is timely, useful and that responds to their specific needs. In turn, ECAS also contributes, at least in part, to the bridging of the gaps in access to information, which is so characteristic of rural Colombia.

The ECAS were and continue to be the foundation of a community approach that enhances the scope and impact of the farm plan, which provides interested producers with personalized technical assistance directly on their farms.

As its name suggests, the focus of the plan is to promote planning, strengthen social networks in the area (empowering the leaders or those in a potential leadership capacity who can re-convey the acquired knowledge), and increase the income of participants, who have voluntarily enrolled in the program.



Program participant helping to install a biodigester at a farm in Sesquilé, Cundinamarca. Photo: Fomento Ganadero-Alquería.

The following elements are of fundamental importance: the development of a participatory appraisal, the drawing up of a work plan of activities, the calculation of time and investment required to reach the targets proposed, having a relevant set of indicators to gauge progress achieved (measuring factors related to feeding, reproduction, production and sanitary management of animals), milk quality and the farm's financial statements. Together, these factors will serve to explore and deepen the understanding of the environment.

The *Plan Finca* includes scheduled visits with which it seeks to demonstrate to the producers the potential and limitations of their lands, build their capacity on various topics and have them apply what they have learned to better their quality of life, which will in turn benefit the company. By offering a space for meeting and discussion, which allows for a more personalized plan for increased productivity, Livestock Development professionals saw a high and continuous participation of young people.

The sons and daughters of farm owners and managers were also attending the meetings organized by Alquería, showing interest in the proposed methodological dynamics and taking advantage of the lessons being learned. The participation of this group, together with the low levels of schooling already observed among the producers and their families, and the aging rural population and rural-urban migration, were what triggered the birth and consolidation of the Herederos de Tradición (Heirs of Tradition) initiative, the company's training program aimed specifically at youth.

The overall goal of the initiative is in fact to maintain the traditions of the rural areas. In addition to betting on the cultural wealth of the livestock trade, by way of this initiative, ***Alquería seeks to empower the future generations with improved and more accessible transfer of technologies, and useful and much needed know-how so as to boost sustainable competitiveness of the dairy industry in Colombia.*** After all, the young people who inspired the formation of this program represent the future farmers and managers that Alquería as well as other similar companies will have to count on. They constitute the ideal group that can put into motion social programs that see them not only as guardians of tradition, but rather as agents of change.

The field schools and the farm plan thus served as vehicles that forge closer ties between the company and the community, but they also acted as social research centers. They brought to light one of the biggest problems facing the sector to date, and that is the uncertainty of an intergenerational handover. Researchers have constantly called for greater attention in addressing this challenge, which is unequivocally present in many of the agricultural regions of Latin America (Triana & Burkart, 2019).

From Argentina to Central America, the rapidly aging small farmer population and the impoverishment of the rural areas have resulted in a decisive decline in livestock employment, which is further exacerbated by the tendency of young adults to migrate to the cities. (Gumucio et al., 2015; Toruño-Morales, 2012; Vázquez-García, 2015; Gallo y Peluso, 2013; Graña, 1996).

The numbers speak for themselves. The National Administrative Department for Statistics of Colombia (DANE in Spanish) estimates that the ***age of the farmer population in Colombia ranges from 40 to 54 years of age.*** It also indicates a ***very low level of schooling*** among this population (according to the 2014 census, 60% of producers have completed only primary education). Moreover, a significant portion of those participating in the ECAS and the farm plan were found to be women producers, mothers who are head of households, and daughters, revealing the silenced truth that women are – and always have been – productive agents in livestock, and have suffered more acutely from a lack of access to resources and education.

Thus, with these convictions along with the established principle that education is the driving force for competitiveness, the Heirs of Tradition initiative first launched in 2012. ***The objective is that “young farmers from different parts of the country be trained on livestock practices at no cost and enhance their knowledge and skills on management of soil,***

animals, and the environment”.¹ Alquería strengthened this training initiative by partnering with SENA (Spanish acronym for the National Training Service). The latter would take over some of the training in its centers while the rest would be given by staff from Livestock Development as well as Human Management, thus also placing an emphasis on ‘soft’ skills related to social relationships, effective conflict resolution and life plans.



Program participants testing their knowledge in Pacho, Cundinamarca.
Photo: Fomento Ganadero-Alquería.

The initiative's first edition received about 300 applications from all over the country. With only 25 spaces available, this large number of applicants demonstrated a clear interest from the producers and their families in obtaining the tools that would allow them to make the best possible use of their farms. The program lasts a total of two years and awards its participants with the title of Livestock Production Technologist. In the first eighteen months students receive their training at the SENA educational centers in Cundinamarca or El Meta (Pacho, Mosquera and Villavicencio respectively). The last six months are then dedicated to practical on-the-job experience (paid for by Alquería) in which they implement, on a given property, a model similar to that of the farm plan (with diagnostic, planning and monitoring stages) applying what they have learned at the training centers.

Such initiatives are important not merely for the opportunities they present to rural youth by helping them develop important skills in planning and production, but also because they represent a microcosm that exposes the various social dynamics and cultural barriers, which have an impact on livestock farming. The ups and downs of everyday social relations, the youth's response to the educational tools and methods, the relationships they build with each other and the process of their inclusion into the workforce during their semester of practical training show how profound the problems such as generational renewal and the prevalence of a gender gap in the livestock sector are.

Aside from the countless positive aspects of the venture undertaken by Alquería, there are also a number of essential lessons learned. First, it is vital to continue training future generations of farmers in Colombia by way of tools that enhance the productivity of their dairy farms and thus their quality of life. Second, the low level of schooling in rural areas must be tackled rigorously as it is a major impediment to reaching the objectives of a profitable and sustainable dairy industry. Moreover, the education should cover a wide range of issues from the deconstruction of cultural barriers and regional and gender stereotypes to proper soil management and animal care. Third, the training programs have to benefit not only the target population but other producers as well, who will have the opportunity to work jointly with the young people now trained in the trade and with the skills to take over the reins of a livestock farm.

Although gender discrimination persists on many occasions, fueled by the common understanding that livestock farming is a male-dominated activity, programs such as the Heirs of Tradition initiative are responsible for gradually dismantling these assumptions by ensuring impartiality and equal access to education.

Partnerships and lessons learned: opportunities and challenges for 2020

The *Herederos de Tradición* initiative, with its course of action being focused on urgent matters such as working with the Colombian youth, triggered a fruitful partnership initiated in 2019 between Alquería and CIAT-CCAFS (CGIAR Research Program on Climate Change, Agriculture and Food Security, <https://ccas.cgiar.org>) to take effect by 2020 (and continue in 2021) within the framework of the “[Agricultural innovation for the development of low-emissions cattle value chains in Latin America](#)” project. The initiative interests CIAT-CCAFS as a platform for disseminating knowledge on environment, productivity and socioeconomics as well as for its strength in capacity building.

The project's role will focus on offering students a practical and theoretical training on the identification, selection, management, and utilization of medium and low tropical forage germplasm, soil management, and forage conservation practices during critical times, which enable a more adequate response to the challenges posed by climate change, and the needs for adaptation and mitigation. The CIAT Forage Quality and Animal Nutrition Laboratory will be made available for the analysis of forage samples selected by the program participants during the implementation of the *Plan Finca*. The result of this bromatological analysis will be used for the assessment, proposal, and evaluation of an

¹ Interview with Mauricio Ariza Ayala, National Project Coordinator / Alquería, Livestock Development.

improvement plan that is 'tailor-made' to the needs of the farm.



Graduation ceremony of the fourth cohort 2018-2019.

Photo: Fomento Ganadero-Alquería.

The youth and extension workers will also be trained on the use of the *Tropical Forages* web-based tool (formerly SoFT, www.tropicalforages.info). The interactive tool brings up a narrowed-down list of suggested forage materials most suitable for a farm's location based on inputted environmental and geographic information. Furthermore, a link with the CIAT Genetic Resources Bank will be established so that once the forage materials – that facilitate productive and environmental improvements of the farm – have been selected, the user will then be able to request the chosen species directly from the Bank.

As for the environmental component, the agreement covers training on the calculation and analysis of the carbon footprint (per farm), which are to be included in the *Finca Plan* implemented by the youth trainees. This will enable the application of key concepts concerning the mitigation of greenhouse gases. Additionally, climate change adaptation will be addressed and this work will be linked to the approach of the CIAT/CCAFS-led Local Technical Agroclimatic Committees, which will facilitate the access to relevant agroclimatic information for students, extension agents and producers by way of the periodically published newsletter. Additionally, participants can obtain training on the Participatory Integrated Climate Services for Agriculture (PICSA) approach, designed to make agroclimatic information produced in the technical committees accessible to farmers. Likewise, workshops will be held on topics relevant to climate change, such as basic concepts of climate variability, vulnerability, adaptation and mitigation, climate-smart agriculture (CSA) and CSA practices regarding livestock farming.

The socioeconomic component will include workshops on value chains that facilitate the understanding of the contexts in which productive activity takes place, the bottlenecks, and the opportunities of the Colombian livestock and dairy industry. This component will comprise theoretical and methodological observations on

the need to focus livestock farming and youth employment according to current challenges (increase in demand, sustainable intensification, and climate change, among others), which accentuate the need for greater technification.

Documentation on the lessons learned throughout the program, aiming to evaluate the relevance of investing in the education of the rural youth, and the participation of women and minority populations, will be promoted. This documentation will be key for the design of higher impact strategies that promote future work with young farmers, and help improve the process of decision-making regarding the program in the short term. Likewise, it will support the design of a monitoring and evaluation system on two levels: at the student level (to determine if they continue with careers related to the sector) and at the level of the producer, who will have the students working on their farms, using the indicators used in the *Finca Plan* and including others of a social nature (labor relations, intra-household relations, decision-making capacity on the control over and efficient use of resources, etc.).

A proposal was made for awareness raising, among the young students of the program and the owners of the farms where they work, ***on the significant role of women in livestock farming and the importance of transforming gender stereotypes for the sake of equitable productivity***. Finally, it was agreed that training would be carried out in artisanal seed production, and forage conservation as an independent business model, boosting income generation, employment and the transformation of the dairy sector to being more sustainable and resilient to climate change.

This partnership between the research for development sector and the private company seeks to complement the solid technical training that the program participants receive by also instructing them on other urgent issues such as climate change mitigation strategies, and productivity-enhancing and socioeconomic tools. These will prepare the *heirs of tradition* to develop equitable, sustainable and competitive business models.

Both Alquería and CIAT-CCAFS recognize that their joint effort of empowering youth as agents of change in the face of the critical junctures that put the sustainable growth of Colombian livestock farming at risk is a vital contribution to rural development. Direct contact with the community, the effective transfer of knowledge that empowers young farmers and their families, and the possibility of continuing (and linking to) education, will constitute an important seed of change that seeks to leave a mark where it is most urgent, rural Colombia.

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As part of the CGIAR Research Program on Livestock (LIVESTOCK), this brief summarizes the beginnings of Herederos de Tradición, an initiative carried out by Alquería and its Farmer Training programs, analyzing its objectives, implications and results to date. It also includes a description of the future plans of the CIAT/CCAFS – Alquería partnership.

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