

# Israel: Application of the principles of the Israeli model for sustainable dairy production in the tropical region of Colombia

CONSTANT INNOVATION HAS TRANSFORMED THE ISRAELI DAIRY SECTOR INTO A MODEL FOR COUNTRIES THAT ARE IN THE PROCESSES OF EVALUATING OF METHODS FOR THE INTENSIFICATION OF PRODUCTION. WITHIN THE FRAMEWORK OF THE ISRAELI INTERNATIONAL COOPERATION PROGRAM, DAIRY EXPERTS PROPOSED PATHS FORWARD FOR THE TRANSFORMATION OF THE DAIRY SECTOR IN THE ATLÁNTICO DEPARTMENTAL REGION IN COLOMBIA, BASED IN THE PROCESS OF SUSTAINABLE INTENSIFICATION.

## AUTHOR

Daniel Werner

Foreign Trade and Cooperation. Ministry of Agriculture and Rural Development • Israel

✉ [danielw@moag.gov.il](mailto:danielw@moag.gov.il)

## ALIGNMENT WITH SDGS



The Israeli dairy sector is characterized by their intensive production system. The intensity of Israel's productivity is a direct result of the need to overcome a shortage of natural resources. The challenges of continuously adapting technology and management while operating with less investment per cow, and improving efficiency are all, parts of the process to achieve self-sustainability.

The dairy sector in the Departmental Atlántico region, Colombia, characterized by low values in their economical and professional indicators that rendered the dairy business unsustainable. Small and medium-sized milk producers, based on extensive models with dual-purpose cattle, with average production levels lower than 3.0 litres per cow, conveyed low yield and low-quality milk production. The challenges of transformation of the sector into an economically sustainable industry had to be based in the administration of semi-intensification, adoption of low investment technologies and, making use of the existing natural resources. Under these principles and the Israeli experience in management, technologies transfer and innovation a milk development program (Megaleche) was created.

Megaleche proposed to transform the dairy sector in the region, represented mostly by small and medium dairy producers, from a non-sustainable business to a modern sector capable of achieving economic sustainability. This transformation will increase the competitiveness of the sector based in a productive model adjusted to the local conditions.

## MOVING THE WHEEL

Local and Israeli professionals conducted a feasibility plan, and then led the work plan. There were 13 visits of Israeli experts in Colombia, as well as 5 visits of Colombian experts mainly in heat stress management. The program took a holistic approach in which the planned activities included primarily capacity building and training programs, as well as the dispatch of experts and consultants, technology and knowledge transfer, and any other relevant professional support needed such as: animal nutrition, fertility, milk quality, calf rearing, etc. The second stage included the assembly of a demonstration farm and demonstration plots under irrigation for the cultivation of cutting grass, hay, and silo forage. Furthermore, advice was offered on issues related to business plans and their feasibility.

Financing the project was the objective of the Israeli Ministry of Agriculture, Ministry of foreign affairs, Colombian farmers, local administrations, and Educational organization (SENA).

## HISTORY OF SUCCESS

Analysis of surveys and recorded data were collected between 2014-19. The number of producers involved in the project increased from 100 to 900, 70% of which had herds of up to 50 cows and 30% of which had between 51 and 250 cows. Milk production among smallholders increased from 3 to 6 litres, and from 4.5 to 8.5 in medium ones. 85% of smallholders are spread among 15 producers' associations that linked the local industry with the formal global supply chain and achieved a reduction in the informal sale of milk. Eleven associations are part of Associative Forage Banks to ensure forage supply in the dry period. The local Ministry of Agriculture installed 75 mechanical milking parlours. Net income increased among smallholders between 20-30%.

## PEOPLE WHO WORK ON DAIRY FARMS: THE MAIN BENEFICIARIES

This dairy development project allowed



## “Net income increased among smallholders between 20-30%”

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the consolidation of a specialized nucleus of medium and small milk producers with high standards, volume, quality, and efficiency of milk production. The 900 dairy farmers from 16 of the 23 municipalities that make up the Atlantic Department are the true beneficiaries of the Project. The supply of simple technologies and management techniques were key factors that contributed to the transformation of the milk business into a sustainable industry. It should also be mentioned that 85% of the producers are grouped into producer associations to commercialize the milk, and 11 of them have initiatives related to forage production and storage.

### **NEW OPPORTUNITIES**

Producers should continue to be incorporated into the formal milk production chain. It will be necessary to deepen the coordination among the different local institutions to avoid the

duplication of efforts and loss of funding sources. Next steps will also include the continued offer of services to the dairy farmers, such as: Feeding centres that will be able to provide rations or premixes with high additional value for producers and Artificial Insemination for genetic improvement. This will make it possible to strengthen the dairy production capacity of herds that specialize in dairy. Additionally, the possibility of replicating the project in other Colombian departments is being explored.

**Further information** can be found on the page of the [Agenda Presidencial de Cooperación Internacional](#), the page of [Consultores y Operadores Agroindustriales](#), and the page of [Gobernación del Atlántico](#).

