

# SILVOPASTORAL DAIRY FARMING IN SOUTHERN COLOMBIA



Nestlé

**Creating Shared Value**

Nutrition | Water | Rural Development

By Daniel Suarez

Nestlé believes that for a business to be successful in the long term, it must create value not only for its shareholders but also for society, including farmers who play a vital role in local communities across the world. Nestlé calls this Creating Shared Value and focuses efforts in three key areas: nutrition, water, and rural development.

Nestlé has a long history of helping farmers become more prosperous suppliers, and therefore it is impacting the incomes and health status of large numbers of people in rural areas. The company's commitment to working directly with farmers in rural development is central to its business strategy: to ensure a stable, high-quality, and safe supply of agricultural raw materials. This is particularly true for our two major ingredients of milk and coffee, but also for other important crops.

## Southern Colombia

Since its arrival in this southern region of the country more than 35 years ago, Nestlé has been the main dairy company permanently active in Caquetá. The area was identified as a region with high potential for milk production and has since embedded dairy culture in the community.

Milk purchasing began in 1974 and a pre-condensing plant was built in Florencia (Caquetá's capital) in 1978. To cope with the increasing number of



collection points, cooling tanks were installed at strategic points in 1995 and, in 1999, 170 new units belonging to the local dairy associations were installed. The region has now evolved into a dairy district, where Nestlé works closely with farmers to provide advice on the latest technologies, animal nutrition, animal genetics, and farm infrastructures.

Cattle farmers of Caquetá have their milk permanently collected by simple but ingenious means such as animal-drawn carts, trucks, or canoes, and have now managed to consolidate one of the most promising dairy districts in the south of Colombia. Importantly, livestock farming also constitutes the main source of legal income in a region suffering from armed conflict and narcotics cultivation.

### Silvopastoral System

With the aim of increasing fresh milk production volume, reducing the amount of land use, and introducing environmentally sustainable practices, Nestlé Colombia started to work with 13 pilot Caquetá cattle farms to gradually introduce a new system called “Silvopasture”.

This system protects the soil and the environment by combining pasture land with trees and shrubs, increasing profit for the farmer along with milk quality and quantity (liters/hectare).

Furthermore, the introduction of leguminous shrubs to the traditional grasslands brings a multitude of benefits: enhances the productivity of the land without increasing livestock borders; improves pasture fertility because the trees extract water and nutrients from soil horizons; and provides direct benefits such as fruits, firewood, and timber. Additionally, tree cover offers a favorable microclimate for the animals – keeping them cool and therefore maximizing productivity.

### The project so far...

This project is currently in its first phase, with 234 acres across 13 farms in environmental reconversion. These farms have

made strong environmental commitments: to not deforest, to generate new pasture areas, and to correctly manage their water supplies.

The initial results speak for themselves:

- Milk production per cow has increased from three- to five-and-a-half liters per day.
- The average number of cows per hectare has increased from 0.6 to 1.3.
- Overall milk production has increased from 1.8 to 7 liters per hectare.
- The average liters per farm has increased from 117 liters/day to 203 liters/day, increasing milk production across the 13 farms by 74 percent.
- Each of the 13 farms has been able to employ an average of two new staff.
- The monthly increase of farm profit is \$650, equivalent to a 47-percent rise.

Nestlé is looking to expand the project to 130 farms in the second phase over the next two-and-a-half years – if the conditions are appropriate for the development of shrubs – and to ultimately work with more than 1,300 farms to implement the Silvopasture System across southern Colombia.

The Silvopasture System works at three levels of vegetation: first are the pastures, second the shrubs, and third the trees. We can see that the advances in levels of vegetation in the first stage are:

- Level 1: 100%
- Level 2: 50%
- Level 3: 98%
- Total: 82%

Nestlé has invested more than \$140,000 in this project already, providing technical support and credit loans for the small cattle farmers. Over the next 10 years, the project aims to increase milk production by 242 percent and jobs by 50 percent in the Caquetá region. Nestlé will work closely with local farmers to achieve this ambition and will encourage farmers to use the support and knowledge on hand from the Center for the Investigation

in Sustainable Systems of Agricultural Projects (CIPAV).

This project Creates Shared Value, as we can identify benefits for all:

- Farmers enjoy increased milk production per hectare with enhanced nutritional content and microbiological quality. Improved milk has the added benefit of improving the weaned calves' weight.
- There is an improved environmental impact due to the reduction of pre-Amazonas deforestation, the slowed advance of the agricultural border (loss of fertile land), the reduction of erosion, and enhanced biodiversity.
- The local community profits from a sustainable dairy farming market in a region suffering from armed conflict and narcotics cultivation.
- Nestlé experiences the tangible increase in quantity of milk collected without having to match the increase in pasture area.

As a consequence, more milk can be collected per kilometer traveled.

### UN Millennium Development Goals and Global Compact Principles

The project contributes to the realization of the United Nations Millennium Development Goals by providing jobs and sustainable income in one of the poorest regions of Colombia (MDG 1), as well as helping to ensure environmental sustainability by reducing biodiversity loss, soil erosion, and expansion of the pre-Amazonas livestock borders (MDG 7). It also implements the spirit of the UN Global Compact's environment principles.

Around the world, Nestlé is helping farmers in 32 markets improve earnings and ensure the supply of quality raw materials in the Sustainable Agriculture Initiative Nestlé (SAIN) programs and dairy districts. ■

*For more on Nestlé's commitment to sustainable rural development, visit: [www.creatingsharedvalue.org](http://www.creatingsharedvalue.org)*