

How data can have a big impact on small farms

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Whereas the dairy industry often speaks about improving sustainability of the dairy industry by herd management changes on large dairy farms, statistics actually show us that most dairy cows on this planet are kept in herds of small holders in developing countries. So when we want to have a global impact we should also take a look at these countries.

An example of such a developing country is Ethiopia, where you can find more than 15 million dairy cows. This is more than the number of dairy cows in the US and Canada together. While so many of us are focussing on improving results of these large farms that are already producing lots of high quality milk, with a low footprint per kg of product. Small adaptations in dairy farms in developing countries will let them take huge leaps in milk quality results and productivity, having major impact on the income of the farmer, food supply, carbon footprint and the local economy.

If we take a deeper look at the example of Ethiopia we can see that their domestic milk production is increasing, from 3 billion liters in 2016 to 4.96 billion liters in 2021. However, this growth has been insufficient and, at times, inefficient, because while some larger, commercial farms exist, almost 95% of dairy cows are kept by rural, smallholder farmers with fewer than five head of cattle per household. A typical cow produces just 1-2 liters of milk a day, which are either consumed at home or sold through informal market systems with little or no quality control. These farmers struggle to access inputs and services needed to improve their herds - such as feed, veterinary care, and artificial insemination - and there is little incentive for them to sell to the formal market. (Hughes, 2023)

Having more tools to manage data can be an essential part of these leaps in development. However, it is obvious that the tool used by a farmer with 1000 cows has no use for a farmer with 25 cows. With simple decision support tools a farmer can take better care of the cows health, fertility and productivity and with that increase their income and decrease the environmental impact of 1 Kg of Milk. Besides, the consultants that are advising these farms will be able to work much more efficient when data is available and bring more added value. Although this all sounds simple there are big challenges in countries where internet, technical devices and agricultural knowledge is not always at hand. As UNIFORM-Agri we have seen that it is possible to improve herd management on these farms by providing a simple registration application for smartphones that connects what is happening on the farm to the consultant at the dairy factory.

Hughes, N. R. (2023, July 31). Green milk? Sounds good to Ethiopia's dairy industry. From: <https://blogs.worldbank.org/en/africacan/green-milk-sounds-good-ethiopia-dairy-industry>

List of references