

Shrub Forage Banks for African Dairy Farmers (SFBs project)

ABSTRACT

The research units Selmet, Aïda and their partner Cirades are conducting research to develop solutions to intensify, in an agro-ecological way, the forage systems of dairy farming systems in West Africa based on local farmers practices and advances in agroforestry research. Local dairy farmers traditionally prune fodder trees/shrubs during the dry season. We hypothesize that planting Shrub Fodder Banks (SFBs) is a possible option to enhance forage autonomy of these farms, while contributing to Climate Change (CC) adaptation. The SFBs are high-density plantations of forage shrubs (20,000 plants/ha), highly productive (10-20 t DM/ha/year) producing, in a sustainable way, quality green fodder during the dry season, and large fodder stocks to be dried during the rainy season, in a limited space (

Year : 2020

Project number : 2001-012

Type of funding : AAP ABS

Project type : AAP

Research units in the network : SELMET AÏDA

Start date : 2021-01-01

End date : 2021-12-31

Flagship project : no

Project leader : Eric VALL

Project leader's institution : CIRAD

Project leader's RU : SELMET

Budget allocated : 24800 €

Total budget allocated (including co-financing) : 24800 €

Funding : Labex

GOAL

The SFBs project will contribute to the agro-ecological transition of forage systems and the adaptation to climate change of local dairy farms in West Africa through the production of technical, economic and environmental references on an innovative agroforestry practice: the Shrub Fodder Bank (SFB).

The overall objective of the SFBs project is to demonstrate the concept of the SFB in the context of small dairy farms in the savannah areas of West Africa, by showing:

- 1) the potential for forage production in quantity and quality of SFBs;
- 2) the adaptation of the SFB technique to the financial capacities of local dairy farmers;
- 3) the sustainable nature of SFB thanks to the use of perennial plants and by the contribution of SFBs to the sequestration of C in the soil;
- 4) the adaptation of the SFB to satisfy the fodder requirements of dairy cows and thus to ensure a good level of milk production, while limiting CH₄ emissions.