



– International Fund for Agricultural Development –
– Identifying and sharing innovation in Western and Central Africa –

– Localized application of small-ruminant manure –

I. Context

1. Name of the innovation

Localized application of small-ruminant manure

2. Country – Region

Niger: Maradi Region, Aguié Department

3. Organization

Project for the Promotion of Local Initiatives for Development in Aguié (PPILDA)

4. Who is the innovator?

The women of Takalamaoua (Aguié Department, Maradi Region)

5. Actors involved

- Women innovators
- Project team
- Village monitoring and evaluation committees
- Researchers
- Agricultural Service

6. Starting date

Trials carried out in 2004, 2005 and 2006

7. Type of innovation

Technological and indigenous practices

II. Key concepts

8. Summary

The localized application of small-ruminant manure is a strategy used by the most vulnerable groups, especially women, to fertilize their fields. This innovation enables people to cover the greatest possible area with little organic fertilizer: between 2 and 2.5 tonnes of small-ruminant excreta can be used for 1 hectare, compared with 7 to 10 tonnes proposed by research under Sahelian conditions. A dose of manure corresponding to the content of an adult's two joined hands (about 150 or 200 gr) is placed in a millet or sorghum planting hole. The strategy is currently used by women and the most vulnerable farmers who are unable to purchase mineral fertilizer or to keep several head of livestock to produce organic fertilizer.

9. What problems does this innovation seek to solve?

The innovation seeks to solve the following main problems:

- Low soil fertility
- Vulnerable groups' lack of access to mineral fertilizer
- Vulnerable groups' lack of sufficient quantities of organic fertilizer
- Lack of hygiene of livestock and their enclosures
- Fall in agricultural production

10. Factors for successful replication

- Ease of adoption by local people
- Semi-intensive livestock farming practised in the zone
- Existence of farmer extension workers
- Relatively low investment costs (CFAF 16,000 per hectare)
- Can be used with as few as two goats

11. Main results

- Large areas covered with little manure (2.5–3 tonnes per hectare, compared with the 7–10 tonnes recommended)
- Increase in agricultural production and hence in food security
- Accessibility to the most vulnerable people, especially women, who generally keep small ruminants
- Promotion of mixed farming through fodder production
- Increase in monetary income
- Promotion of sustainable environmental management

Trials of the innovation have shown an average quantitative increase in production of about 30 per cent and an increase of close on 50 per cent in the production of millet or sorghum stalks using small-farmer practices. In monetary terms, it gives a net income of about CFAF 21,000 per hectare.

12. Target group(s)

Vulnerable groups, especially women, who inherit small, distant, marginal fields.

13. Difficulties encountered

- Drying-out of seedlings if manure is applied without enough moisture
- Increased tillage time to dig in the organic manure

14. Financial aspects

Investment cost (organic manure): CFAF 6,000

Hoeing (twice) and harvesting: CFAF 15,000

Total: CFAF 21,000

III. Technical aspects

15.

Implementation of this innovation entails three main technical stages:

- Collection of excreta from small ruminants' pens; the manure must be rid as much as possible of other debris (stalks, sand etc.) and stored until it is to be used;
- Transport of the manure to the field during the winter season;
- Application to planting holes at two periods: advanced emergence stage after thinning out and growing stage, always in adequately moist conditions.

IV- Suivi :

16. Key contacts

Name	Organization	E-mail
Guéro Chaibou	PPILDA	gueromag@yahoo.fr
Saley Kanta	PPILDA	saleykan@yahoo.fr
Oumarou Wagé	Zabon Moussou Farmers' Organization	

17. Internet link

FIDAFRIQUE network, above addresses or ppilda@intnet.ne

18. Key documents (document title + link or contact or address)

Apport localisé de la fumure de petits ruminants: une innovation dans la gestion rationnelle de la fumure organique (= Localized application of small-ruminant manure: an innovation in the rational management of organic fertilizer)

Contact: saleykan@yahoo.fr

Telephone: office (00227) 2041 8533; cell phone (00227) 9628 6467