



RESEARCH
PROGRAM ON
Dryland Systems

**Report on demonstrations of fodder chopper in the
Cercle de Koutiala, ML**



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Introduction

Demonstration of the use of the stover chopper was carried out from **the 4th to the 13th of March 2015** in 9 villages in the Koutiala region : Koumbri, Finkoloni, Try, N’Gounkan, Karangasso et Kani. It was in the frame of the Dryland System program, relaised with ICRISAT- Mali and our NGO partner AMEDD base in Koutiala.

Person involved

- Sidi TOURE : Technicien de Recherche ICRISAT- Bamako
- Ousmane Dembélé : Chef Département M.N.R ONG- AMEDD Koutiala
- Arouna Bayoko : Responsable Technique ONG-AMEDD de Koutiala
- Abdoulaye Dembélé : Technicien ONG- AMEDD Koutiala,
- Moumine Touré : Technicien ONG- AMEDD koutiala,
- Farmers from the villages : Koumbri, Finkoloni, Try, N’gounkan, Karangasso et Kany
- Sidiki Diarra : Chauffeur ICRISAT- Bko,

Initially this demonstration should have taken place in Yagtuuri, Ghana. However due to our activities wih partners, we decided to first carry it out in the Koutiala region, and to reschedule the one in Yagtuuri potentially by the end of 2015 or in 2016.

Main objectives

The main objectives were:

1. To demonstrate and train farmers on the use of stover chopper
2. To identify farmers for the feeding trials
3. To identify a local artisan to reproduce the chopper, adapted to the local condition

Results

Stover chopped during the demonstration

130 farmers participated to the demonstration of the chopper. The details per villages are given in Annex 1. Overall the farmers were enthusiastic and ready to use this machine. This interest was particularly remarkable in the Koumbri village where farmers have a large quantity of fodder that they use to feed their animals.

An evaluation of the quantity of stover collected on the dual purpose sorghum trials was carried out to estimate the use of the chopper. Table 1 gives the overview of the need, considering only the activities from the Dryland Systems program. However we should note

that farmers were willing to use the chopper for their own stover. Discussion with the local blacksmith was then initiated to discuss the possibility to reproduce the machine locally.

Table 1 : Weight of stover to be chopped for the feeding trial.

Farmers' name	Village	Bags of chopped stover	Total weight(kg)
Abdoulay Dembélé	Koumbri	4	28,5
Souleymane Dembélé	Koumbri	7	75
Total			103.5
Tièba Coulibaly	Finkoloni	4	33,6
Siaka Coulibaly	Finkoloni	2	20
Samba Coulibaly	Finkoloni	2	17
Amidou Traoré	Finkoloni	6	80
Total			150.6
Mama Konaté	Try	8	77
Béma Baki Coulibaly	Try	7,5	61,19
Drissa Bengaly	Try	5	46,4
Adama Baba Coulibaly	Try	5	46,25
Total			184.44
Sékou N°1 Dembélé	N'Goukan	7	78,5
Seydou Dembélé	N'Goukan	7	54
Total			132.5
Bakary Dembélé	Karangasso	7	86.10
Mamoni Dembélé	Karangasso	5	48.30
Total			134,4
Adama Berthé	Kani	8	89.98
Adama Dembélé	Kani	5	63
Lamine Coulibaly	Kani	3.5	49.20
Total			202,18

Farmers' comments

The farmers appreciated the chopper, as they think that having chopped stover will be beneficial to the cattle and mostly to the older ones. They also proposed of using the chopper for other stover, such as cotton stems. However, they were concerned with the speed of the chopper, and such concern was, later discussed with the blacksmith, that suggested improvement. The farmers commented on the good production of the Fadda sorghum variety, having a lot of leaves, and leave that stayed green longer. They appreciated this work of combining the production of stover, for then doing feeding trials, which will be testing the efficiency of chopping stover (integration work). They also commented on the fact that Fadda could produce bigger panicles than their local varieties. They noticed that Fadda produced more than their local, especially when fertilizer was applied. The farmers

were keen on starting with the feeding trials, and therefore the scheduling of the chopper demonstration was timely. Farmers said that chopped stover could be consumed up to 90% while non chopped stover only to 60-65%.

Blacksmith comments and evaluation to reproduce the chopper

Blacksmith contact: Issa Diabaté, tél : 00223 75 41 25 13

The artisan confirmed that he could produce this same chopper, but he suggested some improvements to increase its performances. He recommends:

1. To use a 4 blades chopper rather than a 2 blade one as presently (see figure below)



2. To use an engine such as S1100 to increase the power of the chopper
3. To remove the driving belt and increase the dimension of the central arm to speed up the process of chopping (concerns from the farmers)

He estimated the confection of this new chopper with the suggested changes to a total of cost 710 000FCFA (about 1000 USD), detailed as follow:

- Central arm = 300 000F.CFA
- New engine = 200 000F.CFA
- The car = 110 000F.CFA
- Working time = 100 000F.CFA

The blacksmith said he could do 50 of those per month. We might plan to make a few available, if the budget permits.

Annex 1 List of participants to the demonstration

Koumbri 06/03/2014 ; Finkoloni, 07/03/2014 ; Try 08/03/2014 ; N’Goukan 09/03/2014 ; Karangasso le 10/03/2014 ; Kani 11/03/2014

N°	Nom	Prénom	Village
1	Sogoba	Mama	Koumbri
2	Dembélé	Yacouba	Koumbri
3	Dembélé	Abdoulaye	Koumbri
4	Dembélé	Tiémoko	Koumbri
5	Dembélé	Moussa	Koumbri
6	Dembélé	Lassina Président	Koumbri
7	Dembélé	Souleymane	Koumbri
8	Dembélé	Issa Niono	Koumbri
9	Dembélé	Mamoutou	Koumbri
10	Dembélé	Seydou	Koumbri
11	Dembélé	Abdoulaye Siramoukou	Koumbri
12	Dembélé	Yacou	Koumbri
13	Dembélé	Nouhoum Yaya	Koumbri
14	Dembélé	Lassina Djan	Koumbri
15	Dembélé	Siaka Bèguè	Koumbri
16	Dembélé	Madou Adama	Koumbri
17	Dembélé	Dramane	Koumbri
18	Dembélé	Gaoussou	Koumbri
19	Dembélé	Ousmane	Koumbri
20	Dembélé	Adama	Koumbri
21	Dembélé	Dramane	Koumbri
22	Dembélé	Oumar	Koumbri
23	Dembélé	Adama	Koumbri
24	Traoré	Abdoulaye	Koumbri
25	Coulibaly	Tènè	Koumbri
26	Coulibaly	Awa	Koumbri
27	Goïta	Drissa	Koumbri
28	Coulibaly	Youssouf	Koumbri
29	Coulibaly	Bamou	Koumbri
30	Diallo	Ladji	Koumbri
31	Sogoba	Fousseyni	Koumbri
32	COulibaly	Siaka	Finkoloni
33	Traoré	Amidou	Finkoloni
34	Coulibaly	Tièba	Finkoloni

35	Coulibaly	Yacouba	Finkoloni
36	Coulibaly	Fousseyni	Finkoloni
37	Coulibaly	Issa	Finkoloni
38	Coulibaly	Samba	Finkoloni
39	Coulibaly	Bakary	Finkoloni
40	Coulibaly	Arouna	Finkoloni
41	Traoré	Minata	Finkoloni
42	Keïta	Mamina	Finkoloni
43	Dembélé	Boubou	Finkoloni
44	Traoré	Djo	Finkoloni
45	Coulibaly	Chitan	Finkoloni
46	Coulibaly	Bakary N°2	Finkoloni
47	Coulibaly	Sidiki	Finkoloni
48	Coulibaly	Moussa	Finkoloni
49	Coulibaly	Fatoumata	Finkoloni
50	Coulibaly	Kèlè	Finkoloni
51	Coulibaly	Yaya	Finkoloni
52	Koné	Moniama	Finkoloni
53	Coulibaly	Baki	Try
54	Konaté	Mama	Try
55	Konaté	Abdoulaye	Try
56	Konaté	Salif	Try
57	Coulibaly	Kassoum	Try
58	Bengaly	Drissa	Try
59	Kané	Adama	Try
60	Coulibaly	Karim	Try
61	Coulibaly	Karim Sanji	Try
62	Coulibaly	Modibo	Try
63	Coulibaly	Daouda	Try
64	Coulibaly	Krotimou	Try
65	Dembélé	Karia	Try
66	Coulibaly	Oumou	Try
67	Coulibaly	Sidiki	Try
68	Coulibaly	Bakary	Try
69	Coulibaly	Seydou	Try
70	Coulibaly	Géré	Try
71	Coulibaly	Alou	Try
72	Coulibaly	Madou	Try
73	Coulibaly	Chaka	Try

74	Dembélé	Bassidi	N'Goukan
75	Dembélé	Moctar	N'Goukan
76	Dembélé	Diakaridja	N'Goukan
77	Dembélé	Sékou n°1	N'Goukan
78	Dembélé	Karim	N'Goukan
79	Dembélé	Lozine	N'Goukan
80	Dembélé	Bourama	N'Goukan
81	Dembélé	Moussa	N'Goukan
82	Dembélé	Issa	N'Goukan
83	Dembélé	Kalifa	N'Goukan
84	Dembélé	Maurice	N'Goukan
85	Dembélé	Seydou	N'Goukan
86	Dembélé	Yssouf	N'Goukan
87	Dembélé	Sékou n°1	N'Goukan
88	Dembélé	Mama	N'Goukan
89	Nom	Prénom	Village
90	Dembélé	Bakary	Karangasso
91	Dembélé	Karim	Karangasso
92	Dembélé	Adama	Karangasso
93	Dembélé	Sika Madou	Karangasso
94	Dembélé	Issa	Karangasso
95	Dembélé	Drissa	Karangasso
96	Dembélé	Soungalo	Karangasso
97	Dembélé	Wolème	Karangasso
98	Dembélé	Seydou	Karangasso
99	Dembélé	Seydou	Karangasso
100	Dembélé	Dibikôrô	Karangasso
101	Koloma	Moussa	Karangasso
102	Dembélé	Dramane	Karangasso
103	Dembélé	Ousmane	Karangasso
104	Dembélé	Abou	Karangasso
105	Dembélé	Massa Madou	Karangasso
106	Dembélé	Bourama	Karangasso
107	Dembélé	Karim	Karangasso
108	Dembélé	Bakary	Kani
109	Dembélé	Bourama	Kani
110	Berthé	Amadou	Kani
111	Berthé	Bourama	Kani
112	Dembélé	Diane	Kani

113	Dembélé	Witiè	Kani
114	Konaté	Machita	Kani
115	Konaté	Moussa Fing	Kani
116	Berthé	Issouf	Kani
117	Dembélé	Moussa	Kani
118	Dembélé	Adama	Kani
119	Berthé	Youssouf	Kani
120	Berthé	Niama Yacouba	Kani
121	Berthé	Nanégué	Kani
122	Berthé	Tomégué	Kani
123	Dembélé	Naya	Kani
124	Dembélé	Amidou	Kani
125	Berthé	Arouna	Kani
126	Coulibaly	Lamine	Kani
127	Berthé	Issa	Kani
128	Bouaré	Maimouna	Kani
129	Dembélé	Nigna	Kani
130	Coulibaly	Ousmane	Kani