



The Republic of Uganda

MINISTRY OF AGRICULTURE, ANIMAL INDUSTRY AND FISHERIES

DIARY FOR AGRICULTURAL EXTENSION OFFICERS

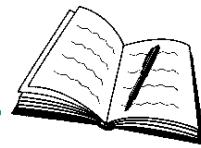
January to December 2018

Content Overview



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4. Objectives of Extension Services
5. Monthly Schedule
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Introduction



Purpose of the dairy

The Agriculture Diary of Extension Officers has been developed by the Ministry of Agriculture, Animal Industry & Fisheries (MAAIF) to enable extension officers to effectively plan and implement agricultural extension activities. It is also a supervision tool for the district leadership. The diary highlights the vision and mission of the National Agricultural Extension policy, the objectives of an extension worker, Calendar, work plans for daily extension activities, Monthly report formats and field reference notes on different agricultural commodities.

Mission and Vision Statements

The new strategic direction is to have a well-coordinated and pluralistic agricultural extension service delivery system. The vision and mission of the National Agricultural Extension Strategy are as below.

Vision Statement

Prosperous farmers and other agricultural actors for socio-economic transformation and welfare of the population.

Mission Statement

Promote application of appropriate information, knowledge and technological innovations for commercialization of agriculture.

Profile

Fill in your personal information and basic understanding of your command area. This includes information on the demographics of the farmers. A list of popular and potential crops, livestock and fish is also critical for you to decide on which agricultural commodities to be promoted. “Popular” means that most farmers practice, while “Potential” means that most farmers think has potential despite it not practiced by many.

Objectives for Extension Service

Give the annual objectives of your extension service and key output per quarter. Please take this information from your work plan. The common key indicators among others are:

- 1) Target number of the farmers to be served,
- 2) Target number of demonstrations / field days,
- 3) The specific agricultural commodities to be promoted.

The objectives are the compass of planning your extension activities.

Monthly Schedule

At the beginning of the month, you fill this form to set a target to achieve according to your planned activity. The Monthly schedule consists of both the planned and completed activities per month. The Planned Activities should be filled in before the target month starts and in consultation with the subject matter specialist. The completed monthly activities should be filled in at the end of the month and signed by extension officer, the sub-county chief and the subject matter specialist. For easy reporting a copy of the planned and completed monthly activities should be kept on file by both the sub-county chief and subject matter specialist. For the daily activities, each day should include the activity to be carried out, where it will be done and number of farmers reached. In addition it should include the name and phone number of the farmers reached or a reference farmer in case of a farmer group. This information helps not only you, but also your colleagues and supervisors to contact farmers in your area. This list also works as proof of your connectivity with the target farmers.

Frequently Asked Questions

When you are asked the same or similar questions from many farmers which are important for extension, you record the questions. Some questions may be answered in consultation with your District officials.

Profile



My Personal Information

Name: Job title:

Telephone: Email:

District: Sub county:

Gender:

Highest Academic qualification

Years of working experience.....

Years working with Agricultural government extension services.....

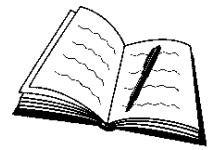
Area (sub-county) Profile

	Parishes	Villages	Beneficiary Groups	Beneficiaries	
				Male	Female
Total number in your Area					
Number currently served					

List of Popular and Potential Crops/Livestock/Fish species (in order of importance)

No.	Popular Crops	Potential Crops
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
	Popular Livestock	Potential Livestock
1		
2		
3		
4		
5		
6		
	Popular Fish species	Potential Fish species
1		
2		
3		
4		
5		
6		

Objectives of Extension Services in my Area



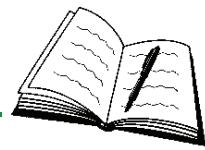
Annual objectives {Please take from work-plan}

No.	Objective1
Objective1	
Objective2	
Objective3	

Output per quarter {Please take from work-plan}

Quarter	Key Outputs per quarter	Key Indicators	Targets
January- March			
April- June			
July- September			
October- December			

2018 Calendar



January						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

1st New years Day

26th Liberation Day

February						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

16th Arch Bishop Janan Luwum Day

March						
S	M	T	W	T	F	S
					1	2
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

8th Women's Day

30th Good Friday

April						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

1st Easter Sunday

2nd Easter Monday

May						
S	M	T	W	T	F	S
			1	2	3	4
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

1st Labour Day

June						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

3rd Martyrs' Day

9th Heros' Day

July						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

August						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

September						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

December						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

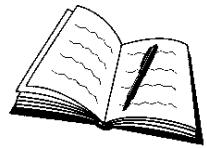
25th Christmas Day

26th Boxing Day

9th Independence Day

16th World Food Day

January



January: Monthly Planned Activities (to be filled with and signed by Supervisors)

No.	Activity	Topic	Planned No. of Times	No. of Target Beneficiaries
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Signature:

Extension Officer

Subject matter specialist	Sub-county Chief
Name:	Name:
Sign:	Sign:

January



January: Monthly Completed Activities (to be signed by Supervisors)

Was activity carried out? (Yes/No)	No. of Times carried out	No. of reached beneficiaries	General Remarks
			Lessons Learnt
			Recommendations
Additional Activities carried out			

Signed.....

Extension officer

Supervisor Signature	Remarks by Supervisor
Signed..... Subject matter specialist	
Signed..... Sub-county chief	

January: Daily Activities

Date	Day	Activity	Topic	Location (Village)
1	Mon			
2	Tue			

Notes:

January: Daily Activities

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
3	Wed			
4	Thur			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
5	Fri			
6	Sat			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
7	Sat			
8	Mon			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
9	Tue			
10	Wed			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
11	Thur			
12	Fri			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
13	Sat			
14	Sun			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
15	Mon			
16	Tue			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
17	Wed			
18	Thur			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
19	Fri			
20	Sat			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
21	Sun			
22	Mon			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
23	Tue			
24	Wed			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
25	Thur			
26	Fri			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
27	Sat			
28	Sun			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
29	Mon			
30	Tue			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

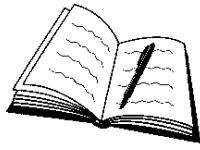
Date	Day	Activity	Topic	Location (Village)
31	Wed			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

February



February: Monthly Planned Activities (to be filled with and signed by Super Extension Officer)

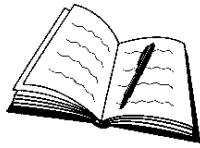
No.	Activity	Topic	Planned No. of Times	No. of Target Beneficiaries
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Signature:

Extension Officer

Subject matter specialist	Sub-county Chief
Name:	Name:
Sign:	Sign:

February



February: Monthly Completed Activities (to be signed by Supervisors)

Was activity carried out? (Yes/No)	No. of Times carried out	No. of reached beneficiaries	General Remarks
			Lessons Learnt
Additional Activities carried out			Recommendations

Signed.....

Extension officer

Supervisor Signature	Remarks by Supervisor
Signed..... Subject matter specialist	
Signed..... Sub-county chief	

February: Daily Activities

Date	Day	Activity	Topic	Location (Village)
1	Thur			
2	Fri			

Notes:

February: Daily Activities

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
3	Sat			
4	Sun			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
5	Mon			
6	Tue			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
7	Wed			
8	Thur			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
9	Fri			
10	Sat			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
11	Sun			
12	Mon			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
13	Tue			
14	Wed			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
15	Thur			
16	Fri			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
17	Sat			
18	Sun			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
19	Mon			
20	Tue			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
21	Wed			
22	Thu			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
23	Fri			
24	Sat			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
25	Sun			
26	Mon			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
27	Tue			
28	Wed			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

March



March: Monthly Planned Activities (to be filled with and signed by Supervisors)

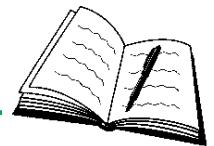
No.	Activity	Topic	Planned No. of Times	No. of Target Beneficiaries
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Signature:

Extension Officer

Subject matter specialist	Sub-county Chief
Name:	Name:
Sign:	Sign:

March



March: Monthly Completed Activities (to be signed by Supervisors)

Was activity carried out? (Yes/No)	No. of Times carried out	No. of reached beneficiaries	General Remarks
			Lessons Learnt
Additional Activities carried out			Recommendations

Signed.....

Extension officer

Supervisor Signature	Remarks by Supervisor
Signed..... Subject matter specialist	
Signed..... Sub-county chief	

March: Daily Activities

Date	Day	Activity	Topic	Location (Village)
1	Thur			
2	Fri			

Notes:

March: Daily Activities

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
3	Sat			
4	Sun			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
5	Mon			
6	Tue			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
7	Wed			
8	Thu			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
9	Fri			
10	Sat			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
11	Sun			
12	Mon			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
13	Tue			
14	Wed			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
15	Thur			
16	Fri			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
17	Sat			
18	Sun			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
19	Mon			
20	Tue			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
21	Wed			
22	Thu			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
23	Fri			
24	Sat			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
25	Sun			
26	Mon			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
27	Tue			
28	Wed			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
29	Thur			
30	Fri			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
31	Sat			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

April



April: Monthly Planned Activities (to be filled with and signed by Supervisors)

No.	Activity	Topic	Planned No. of Times	No. of Target Beneficiaries
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Signature:

Extension Officer

Subject matter specialist	Sub-county Chief
Name:	Name:
Sign:	Sign:

April



April: Monthly Completed Activities (to be signed by Supervisors)

Was activity carried out? (Yes/No)	No. of Times carried out	No. of reached beneficiaries	General Remarks
			Lessons Learnt
			Recommendations
Additional Activities carried out			

Signed.....

Extension officer

Supervisor Signature	Remarks by Supervisor
Signed..... Subject matter specialist	
Signed..... Sub-county chief	

April: Daily Activities

Date	Day	Activity	Topic	Location (Village)
1	Sun			
2	Mon			

Notes:

April: Daily Activities

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
3	Tue			
4	Wed			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
5	Thu			
6	Fri			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
7	Sat			
8	Sun			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
9	Mon			
10	Tue			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
11	Wed			
12	Thu			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
13	Fri			
14	Sat			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
15	Sun			
16	Mon			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
17	Tue			
18	Wed			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
19	Thu			
20	Fri			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
21	Sat			
22	Sun			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
23	Mon			
24	Tue			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
25	Wed			
26	Thu			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
27	Fri			
28	Sat			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
29	Sun			
30	Mon			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

May



May: Monthly Planned Activities (to be filled with and signed by Supervisors)

No.	Activity	Topic	Planned No. of Times	No. of Target Beneficiaries
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Signature:

Extension Officer

Subject matter specialist	Sub-county Chief
Name:	Name:
Sign:	Sign:

May



May: Monthly Completed Activities (to be signed by Supervisors)

Was activity carried out? (Yes/No)	No. of Times carried out	No. of reached beneficiaries	General Remarks
			Lessons Learnt
Additional Activities carried out			Recommendations

Signed.....

Extension officer

Supervisor Signature	Remarks by Supervisor
Signed..... Subject matter specialist	
Signed..... Sub-county chief	

May: Daily Activities

Date	Day	Activity	Topic	Location (Village)
1	Tue			
2	Wed			

Notes:

May: Daily Activities

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
3	Thu			
4	Fri			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
5	Sat			
6	Sun			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
7	Mon			
8	Tue			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
9	Wed			
10	Thu			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
11	Fri			
12	Sat			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
13	Sun			
14	Mon			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
15	Tue			
16	Wed			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
17	Thu			
18	Fri			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
19	Sat			
20	Sun			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
21	Mon			
22	Tue			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
23	Wed			
24	Thu			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
25	Fri			
26	Sat			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
27	Sun			
28	Mon			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
29	Tue			
30	Wed			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

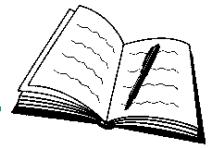
Date	Day	Activity	Topic	Location (Village)
31	Thu			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

June



June: Monthly Planned Activities (to be filled with and signed by Supervisors)

No.	Activity	Topic	Planned No. of Times	No. of Target Beneficiaries
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Signature:

Extension Officer

Subject matter specialist	Sub-county Chief
Name:	Name:
Sign:	Sign:

June



June: Monthly Completed Activities (to be signed by Supervisors)

Was activity carried out? (Yes/No)	No. of Times carried out	No. of reached beneficiaries	General Remarks
			Lessons Learnt
Additional Activities carried out			Recommendations

Signed.....

Extension officer

Supervisor Signature	Remarks by Supervisor
Signed..... Subject matter specialist	
Signed..... Sub-county chief	

June: Daily Activities

Date	Day	Activity	Topic	Location (Village)
1	Fri			
2	Sat			

Notes:

June: Daily Activities

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
3	Sun			
4	Mon			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
5	Tue			
6	Wed			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
7	Thu			
8	Fri			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
9	Sat			
10	Sun			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
11	Mon			
12	Tue			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
13	Wed			
14	Thu			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
15	Fri			
16	Sat			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
17	Sun			
18	Mon			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
19	Tue			
20	Wed			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
21	Thu			
22	Fri			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
23	Sat			
24	Sun			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
25	Mon			
26	Tue			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
27	Wed			
28	Thu			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

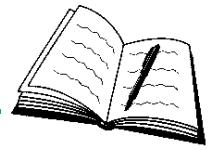
Date	Day	Activity	Topic	Location (Village)
29	Fri			
30	Sat			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

July



July: Monthly Planned Activities (to be filled with and signed by Supervisors)

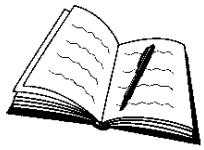
No.	Activity	Topic	Planned No. of Times	No. of Target Beneficiaries
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Signature:

Extension Officer

Subject matter specialist	Sub-county Chief
Name:	Name:
Sign:	Sign:

July



July: Monthly Completed Activities (to be signed by Supervisors)

Was activity carried out? (Yes/No)	No. of Times carried out	No. of reached beneficiaries	General Remarks
			Lessons Learnt
Additional Activities carried out			Recommendations

Signed.....

Extension officer

Supervisor Signature	Remarks by Supervisor
Signed..... Subject matter specialist	
Signed..... Sub-county chief	

July: Daily Activities

Date	Day	Activity	Topic	Location (Village)
1	Sun			
2	Mon			

Notes:

July: Daily Activities

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
3	Tue			
4	Wed			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
5	Thu			
6	Fri			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
7	Sat			
8	Sun			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
9	Mon			
10	Tue			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
11	Wed			
12	Thu			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
13	Fri			
14	Sat			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
15	Sun			
16	Mon			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
17	Tue			
18	Wed			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
19	Thu			
20	Fri			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
21	Sat			
22	Sun			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
23	Mon			
24	Tue			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
25	Wed			
26	Thu			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
27	Fri			
28	Sat			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
29	Sun			
30	Mon			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

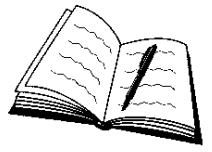
Date	Day	Activity	Topic	Location (Village)
31	Tue			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

August



August: Monthly Planned Activities (to be filled with and signed by Supervisors)

No.	Activity	Topic	Planned No. of Times	No. of Target Beneficiaries
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Signature:

Extension Officer

Subject matter specialist	Sub-county Chief
Name:	Name:
Sign:	Sign:

August



August: Monthly Completed Activities (to be signed by Supervisors)

Was activity carried out? (Yes/No)	No. of Times carried out	No. of reached beneficiaries	General Remarks
			Lessons Learnt
Additional Activities carried out			Recommendations

Signed.....

Extension officer

Supervisor Signature	Remarks by Supervisor
Signed..... Subject matter specialist	
Signed..... Sub-county chief	

August: Daily Activities

Date	Day	Activity	Topic	Location (Village)
1	Wed			
2	Thu			

Notes:

August: Daily Activities

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
3	Fri			
4	Sat			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
5	Sun			
6	Mon			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
7	Tue			
8	Wed			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
9	Thu			
10	Fri			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
11	Sat			
12	Sun			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
13	Mon			
14	Tue			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
15	Wed			
16	Thu			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
17	Fri			
18	Sat			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
19	Sun			
20	Mon			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
21	Tue			
22	Wed			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
23	Thu			
24	Fri			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
25	Sat			
26	Sun			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
27	Mon			
28	Tue			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
29	Wed			
30	Thu			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

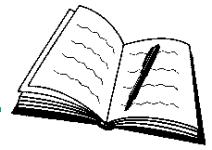
Date	Day	Activity	Topic	Location (Village)
31	Fri			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

September



September: Monthly Planned Activities (to be filled with and signed by Supervisors)

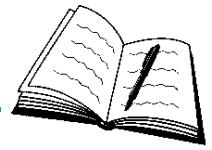
No.	Activity	Topic	Planned No. of Times	No. of Target Beneficiaries
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Signature:

Extension Officer

Subject matter specialist	Sub-county Chief
Name:	Name:
Sign:	Sign:

September



September: Monthly Completed Activities (to be signed by Supervisors)

Was activity carried out? (Yes/No)	No. of Times carried out	No. of reached beneficiaries	General Remarks
			Lessons Learnt
Additional Activities carried out			Recommendations

Signed.....

Extension officer

Supervisor Signature	Remarks by Supervisor
Signed..... Subject matter specialist	
Signed..... Sub-county chief	

September: Daily Activities

Date	Day	Activity	Topic	Location (Village)
1	Sat			
2	Sun			

Notes:

September: Daily Activities

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
3	Mon			
4	Tue			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
5	Wed			
6	Thu			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
7	Fri			
8	Sat			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
9	Sun			
10	Mon			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
11	Tue			
12	Wed			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
13	Thu			
14	Fri			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
15	Sat			
16	Sun			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
17	Mon			
18	Tue			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
19	Wed			
20	Thu			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
21	Fri			
22	Sat			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
23	Sun			
24	Mon			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
25	Tue			
26	Wed			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
27	Thu			
28	Fri			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

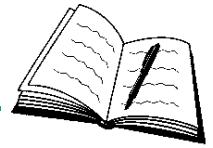
Date	Day	Activity	Topic	Location (Village)
29	Sat			
30	Sun			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

October



October: Monthly Planned Activities (to be filled with and signed by Supervisors)

No.	Activity	Topic	Planned No. of Times	No. of Target Beneficiaries
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Signature:

Extension Officer

Subject matter specialist	Sub-county Chief
Name:	Name:
Sign:	Sign:

October



October: Monthly Completed Activities (to be signed by Supervisors)

Was activity carried out? (Yes/No)	No. of Times carried out	No. of reached beneficiaries	General Remarks
			Lessons Learnt
			Recommendations
Additional Activities carried out			

Signed.....

Extension officer

Supervisor Signature	Remarks by Supervisor
Signed..... Subject matter specialist	
Signed..... Sub-county chief	

October: Daily Activities

Date	Day	Activity	Topic	Location (Village)
1	Mon			
2	Tue			

Notes:

October: Daily Activities

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
3	Wed			
4	Thu			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
5	Fri			
6	Sat			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
7	Sun			
8	Mon			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
9	Tue			
10	Wed			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
11	Thu			
12	Fri			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
13	Sat			
14	Sun			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
15	Mon			
16	Tue			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
17	Wed			
18	Thu			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
19	Fri			
20	Sat			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
21	Sun			
22	Mon			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
23	Tue			
24	Wed			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
25	Thu			
26	Fri			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
27	Sat			
28	Sun			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
29	Mon			
30	Tue			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
31	Wed			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

November



November: Monthly Planned Activities (to be filled with and signed by Supervisors)

No.	Activity	Topic	Planned No. of Times	No. of Target Beneficiaries
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Signature:

Extension Officer

Subject matter specialist	Sub-county Chief
Name:	Name:
Sign:	Sign:

November



November: Monthly Completed Activities (to be signed by Supervisors)

Was activity carried out? (Yes/No)	No. of Times carried out	No. of reached beneficiaries	General Remarks
			Lessons Learnt
Additional Activities carried out			Recommendations

Signed.....

Extension officer

Supervisor Signature	Remarks by Supervisor
Signed..... Subject matter specialist	
Signed..... Sub-county chief	

November: Daily Activities

Date	Day	Activity	Topic	Location (Village)
1	Thu			
2	Fri			

Notes:

November: Daily Activities

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
3	Sat			
4	Sun			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
5	Mon			
6	Tue			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
7	Wed			
8	Thu			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
9	Fri			
10	Sat			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
11	Sun			
12	Mon			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
13	Tue			
14	Wed			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
15	Thu			
16	Fri			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
17	Sat			
18	Sun			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
19	Mon			
20	Tue			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
21	Wed			
22	Thu			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
23	Fri			
24	Sat			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
25	Sun			
26	Mon			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
27	Tue			
28	Wed			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

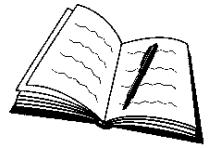
Date	Day	Activity	Topic	Location (Village)
29	Thu			
30	Fri			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

December



December: Monthly Planned Activities (to be filled with and signed by Supervisors)

No.	Activity	Topic	Planned No. of Times	No. of Target Beneficiaries
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Signature:

Extension Officer

Subject matter specialist	Sub-county Chief
Name:	Name:
Sign:	Sign:

December



December: Monthly Completed Activities (to be signed by Supervisors)

Was activity carried out? (Yes/No)	No. of Times carried out	No. of reached beneficiaries	General Remarks
			Lessons Learnt
			Recommendations
Additional Activities carried out			

Signed.....

Extension officer

Supervisor Signature	Remarks by Supervisor
Signed..... Subject matter specialist	
Signed..... Sub-county chief	

December: Daily Activities

Date	Day	Activity	Topic	Location (Village)
1	Sat			
2	Sun			

Notes:

December: Daily Activities

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
3	Mon			
4	Tue			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
5	Wed			
6	Thu			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
7	Fri			
8	Sat			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
9	Sun			
10	Mon			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
11	Tue			
12	Wed			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
13	Thu			
14	Fri			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
15	Sat			
16	Sun			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
17	Mon			
18	Tue			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
19	Wed			
20	Thu			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
21	Fri			
22	Sat			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
23	Sun			
24	Mon			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
25	Tue			
26	Wed			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
27	Thu			
28	Fri			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
29	Sat			
30	Sun			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

Notes:

Date	Day	Activity	Topic	Location (Village)
31	Mon			

Notes:

No. of beneficiaries reached		Name of reference beneficiary	Phone number reference beneficiary	Signature Reference Beneficiary
Male	Female			

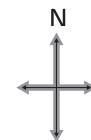
Notes:

Knowledge and information base

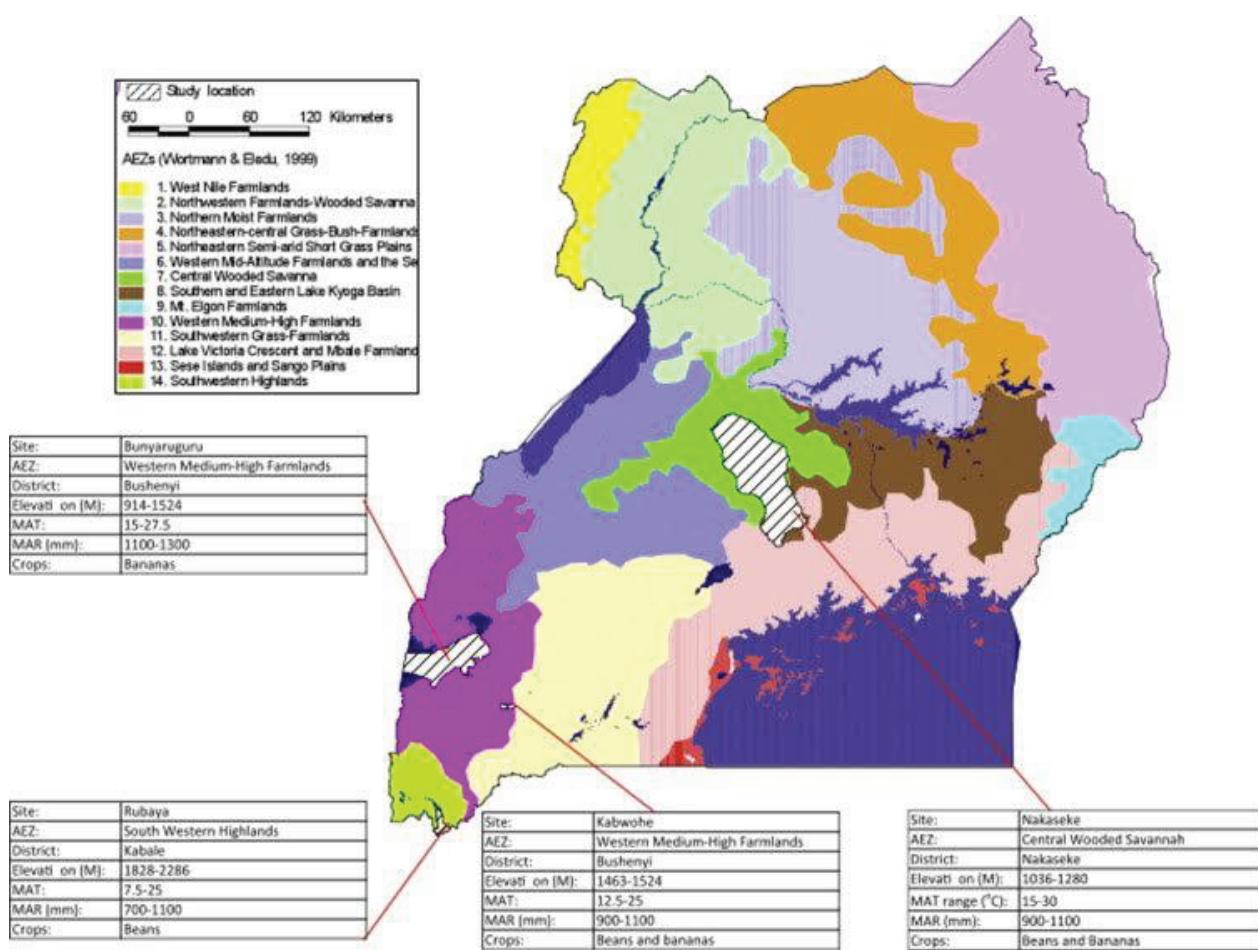


Field References for Extension Officer

This is a list of technical information for major agricultural commodities, which can be referred to in the field. It is general information which does not necessarily reflect local specialties in your area, so it is recommended to use it in consultation with the Zonal Agricultural Research Development Institute (ZARDI) in your region.



AGRO-ECOLOGICAL REGIONS



FIELD REFERENCES (Crops)

MAIZE

Varieties: Longe 9H, Longe 10H, Longe 11H

When to plant:

At onset of rains. Dry planting can be done when rains are expected. In general, in Uganda, there are two rainy seasons: the first season is from Mid-February or March to June, and second from mid-August to December. However Rainy seasons have changed a lot due to climate change.

Planting Spacing and depth:

- Maize should be planted in lines/ rows so that there will be more plants per area, it easier to weed, spray and harvest.
- When planting maize alone use either of the spacing recommended below: When this spacing is used the amount of seed required is 25 kg per hectare or 10 kg per acre.
- Spacing option I: 75 cm x 30 cm (2ft x 1ft) for one seed per hole, after germination and thinning
- Spacing option 2: 75 cm x 60 cm (2ft x2ft) for 2 seeds per hole.
- Depth: If the soil is wet/moist, plant 2-3 cm below the ground. If the soil is dry, dig 5-10 cm deep to plant the seed so that it does not dry up.

Fertilizer Recommendation: Two types of fertilizers are recommended.

- At planting use DAP (Diammonium Phosphate). A farmer will need 50kg per acre
- Urea is applied by top dressing when the maize is about 3-4 weeks after planting.

Weed Control:

- Weeds can be controlled using hoes or herbicides.
- If a hand hoe is used, maize should be weeded at least twice. First weeding should be done at 3 weeks after planting and the second at 8 weeks after planting.
- Herbicides: lasso-atrazine, or primagram or Alazine. Apply the herbicide by spraying in between the rows within two days of planting maize.

Crop Protection

Common Diseases

Disease	Symptom	Treatment
Maize Streak Virus	Broken narrow yellow lines along leaf veins	<ul style="list-style-type: none"> ○ Avoid late planting in the high rainfall areas. ○ Choose resistant varieties.
Rust	Small rusty raised spots on leaves in periods of high humidity	<ul style="list-style-type: none"> ○ Varietal resistance is adequate
Grey Leaf Spot	Elongated lesions appearing as streaks at first, then develop into dark grayish brown rectangular shapes	<ul style="list-style-type: none"> ○ Varietal resistance ○ Crop rotation ○ Burn crop residues

Pest	Chemical	Rate/ha
Larger grain borer	Actellic Super (This is a dust)	28 g/50 kg shelled maize

Harvest: Physiological maturity occurs at approximately 30 percent moisture.

Yield: Farmers have improved maize yields from 1,000Kg/ha to 3,000 -5,000 Kg/ha using the recommended technologies.

BEANS

Varieties: NABE 13, NABE 14

Climate and Soil Requirements: Adapted to a wide range of climatic conditions. Beans will grow best on well drained soils with pH 4.6 – 5.0.

Planting Spacing and depth:

Variety type	Seed rate	Sowing depth	Plant spacing		Days to maturity	Utilization
			In	Plant to		
Large seeded	30-35 Kg/acre	2-3cm but not deeper than 5cm	50cm	10cm Or	85-90	Fresh market/ export
Small seeded	25-30 Kg/acre		25cm	20cm	85-90	Market/ Consumption

Weed Control: One weeding operation at about 3 weeks after planting.

Pest: The most important pests of beans are; bean stem maggot (bean fly), aphids, flower beetles, foliage beetles, cut worms and bruchids (storage pests).

Pest management:

- Plant improved resistant varieties against stem maggots
- Plant earlier within three weeks from the on-set of rains
- During first weeding earth up the plants
- In severe attack apply insecticide, endosulfan, dimetheote. Follow the manufacturer's instructions.
- Plant treated seeds
- Conducting regular monitoring

Disease: Beans are attacked by many diseases such as common blight, fusarium root rot, rust, bean common mosaic virus, angular leaf spots, halo blight, powdery mildew and root knot nematodes.

Disease management:

- Buy improved and certified pest and disease-free seeds
- Carry out crop rotation and removal of diseased plants
- Practice proper good weed control
- Use organic and inorganic fertilizers to improve soil fertility
- Practice deep ploughing
- Chemicals such as Mancozeb 80wp, Ridomil, Victory 72 wp can be used to control most of the fungal diseases
- Spray aphids which transmit viral diseases with Dimetheote, Pyrinex

Harvest: Harvest your bean pods in the 7th or 6th week depending on the variety and date of planting.

Yields: Some can yield up to 2 tonnes/ha.

CASSAVA

Varieties: NASE 13, NASE 14, NASE 15, NASE 16, NASE 17, NASE 18, NASE 19

Planting Spacing and depth:

- Planting is done by cuttings. These are parts of the stem which should be from a mature plant, especially the middle part. They should be 30-45 cm long and 2.5–4 mm thick with buds above the leaf scar.
- Cuttings may be buried in a horizontal position 7.5–10 cm deep or buried half way into the soil. In pure stands (without intercropping), a spacing of 1.5 m x 0.9 m is recommended.
- When intercropped, interplant with a cover crop of beans or groundnuts at a spacing of 50cm x 20cm. This combination gives maximum yields of both cassava and bean or groundnuts.

Weed Control: Keep the crop weeded in the early first 3 months. Intercropping also helps to suppress weeds.

Diseases: Common cassava diseases are: Cassava mealy bugs, cassava green mites, cassava red mites, African cassava mosaic virus and cassava bacterial blight

Cultural control: This involves the planting of clean material that can be obtained from clean crop. Use tolerant clones.

Harvest: From 12- 36 months depending on the variety, climate and soil conditions. Some quick growing

cultivars can be harvested in 6-7 months, but good yields are normally obtained after 9-12 months.

Yields: Yields also vary depending on variety and soil type. Average yields are 10 –30 tons/ha.

BANANA

Varieties: Banana hybrid-2 up to 8.

Soil Requirements: Well drained with high organic matter. Soil pH of 5.5 to 6.5.

Climate Requirement: Optimum temperature is 25-30°C, below 10 causes chilling.

Planting Material: Propagated vegetatively (suckers).

Spacing: 3m x 3m giving 1,300 plants/ha.

Fertilizer Requirements: Large quantities of compost or manure are needed per year (10 -15t per year). At planting apply 50g D-compound /per hole. or a dressing of 500 gm of single superphosphate, (SSP) 500 gm muriate of potash (MOP) and 500 gm of calcium-ammonium-nitrate (CAN) at planting.

Desuckering: Only three plants per station should be allowed to grow.

Weed Control: weeds must be controlled either by mechanical weeding or by herbicides e.g Grammaxone. For a mature established field mulching with coffee husks, elephant grass or other dry seedless grasses is a recommended practice against weeds

Crop Protection

Insect Pest	Infected parts	Control
Banana weevil	Stem	Spray dieldrin on soil surface around stems. Dilution rate 60ml/10 litres water.
Nematode	Roots	<ul style="list-style-type: none">Dipping planting material into a suitable nematicide.Treatment of planting material by placing the bases in hot (62-65°C) water for 10 minutes.Extract from Neem tree leaves are effective to control it.

Diseases

Disease	Symptoms	Control
Banana Bacterial wilt	<ul style="list-style-type: none"> • Dull yellow wilting leave • Fruits ripen unevenly when bunch is still young • Yellow puss oozes from cut stem • Fruits show brown stains when cut 	<ul style="list-style-type: none"> • Remove male bud with a forked stick • immediately last cluster has formed • Use clean planting materials • Disinfect tools with fire or iik
Panama Disease	<p>Yellowing of lower leaves which later hang downwards.</p> <p>Purple discolouration of the vascular tissue inside the stems and rhizomes.</p>	<ul style="list-style-type: none"> • Use of resistant banana varieties.
Cigar end rot	Tips of fruits (banana fingers) look like the ash on the end of a cigar.	<ul style="list-style-type: none"> • Remove ends of the inflorescence beyond the developing fruits

Harvesting: Ready for harvest 9 to 18 months after planting.

Yield: Average yields is 1000 –1200 bunches/ha/annum under medium husbandry practices and 1250 bunches under excellent husbandry practices.

COFFEE

Varieties: Coffee-1 up to 7

Planting Spacing and depth:

Dig circular holes of 60cm (2ft) in diameter and 60cm (2ft) in depth at the marked points at least 3months before planting. This allows for better water and root penetration through the soil because it has had time to loosen.

When digging the holes, keep the fertile topsoil separate from the subsoil.

Refill the holes with topsoil about a month before planting. Where possible, mix the top soil with a 20-litre basin of well-decomposed manure before refilling each planting hole.

Fertilizers:

One 20-litre basin of decomposed manure (cow dung, chicken litter, household waste, compost) should be added to the soil when planting to improve soil fertility.

Mix in one handful of TSP, SSP or DAP. Phosphorus stimulates root growth.

For existing coffee trees, 3-5kg of manure should be added around each tree once a year.

Do not heap manure between the trees.

Pruning:

- Use secateurs (or a pruning saw) to remove dead, weak or unproductive branches and small suckers.
- Also remove tertiary branches, dead primary branches and the skirt of lower primary branches that touch the soil surface to avoid infestation from the soil.
- Pruning encourages new growth and improves productivity.

Stumping:

Stump coffee to renew the stem cycle either by clean or staggered stumping. It should be at least 45° and sloping away from the breather stem.

Staggered stumping involves cutting down non-productive stems at the end of every season.

Clean stumping involves cutting down all coffee stems after 7-9 years, starting by leaving one breather stem which should be removed after about 6 months, soon after suckers have sprouted from the stumped stems.

Pests:

Pest	Control
Root mealy bug	<ul style="list-style-type: none">• Remove Uproot heavily affected or dead trees and burn them. They will not recover.• Treat trees showing early signs of attack and surrounding ones with 10g of Dursban powder (Chloryrifas) mixed into soil around the tree or Actara (Thiamethosin; 16gs per 20 litres of water) as a soil drench.
Coffee berry borer	<ul style="list-style-type: none">• Pruning coffee and shade trees to open up the canopy and promote control by natural enemies• Picking all ripe cherries frequently and regularly.• Removing and burning any cherries that have fallen on the ground
Coffee lace bug	<ul style="list-style-type: none">• Only if the infestation is heavy, spray with Super Sumithion at 1.25ml per litre of water regularly and fertilize coffee trees with manure and/or inorganic fertilizers.

Harvest:

- Do not strip all cherries off the branch. Harvest only fully ripe (brick red) cherries. Including unripe cherries results in black coffee beans. Overripe cherries can result in discolored coffee beans and fermented flavors when the coffee is brewed. Ripe cherries give better quality coffee and therefore more money.
- Keep harvested coffee cherries in containers such as baskets.
- Do not dry the coffee on bare earth because this causes the coffee to acquire an earthy smell and soil microbial contamination.
- Sort out immature, diseased, pest infested or overripe cherries and process them separately. Remove all extraneous materials such as twigs, leaves, stems and stones.

TEA

Cultivation:

- Three considerations in planning a tea estate are climate, soil acidity, and labor availability.
- Tea is a predominantly grown crop in places of high altitude that have a chill climate all year round.
- Suitable climate has a minimum annual rainfall of 45 to 50 inches (1,140 to 1,270 mm), with proper distribution. If it's a cool season, with average temperatures 20 °F (11 °C) or below those of the warm season, the growth rate will decrease and a dormant period will follow, even when the cool season is the rainy one.
- Tea soils must be acidic; tea cannot be grown in alkaline soils. A desirable pH value is 5.8 to 5.4 or less.
- A crop of 1,500 pounds of tea per acre (1,650 kg per hectare) requires 1.5 to 2 workers per acre (3.7 to 4.9 workers per hectare) to pluck the tea shoots and perform other fieldwork.
- Mechanical plucking has been tried but, because of its lack of selectivity, cannot replace hand plucking.
- Tea bushes are planted from 1 meter to 1.5 meters apart to follow the natural contours of the landscape, sometimes growing on specially prepared terraces to help irrigation and to prevent erosion. Young plants are raised from cuttings obtained from a mother bush and they are carefully tended in special nursery beds until 12 – 15 months old.

Pruning:

Pruning eases, the harvesting of tea leaves and allows easier budding. It also allows branching in a superior pattern which will enable the plant produce more leaves plus buds. Also pruning helps you remove the unproductive wood from the tea plant. This entire process requires good quality work to properly shape the plants and effectively stimulate the rightful hormone in charge of vegetative plant growth.

Harvesting:

To generate good quality tea, it is advised that you pluck only the second and the third leaves together with their bud. This plucking method is referred to as the fine plucking. With this technique, chances are high that the produced tea will be of excellent quality. Plucking of more than two leaves together with the bud is called coarse plucking and the tea quality produced from this technique is very low. Fine plucking technique certainly produces better quality tea, whereas coarse plucking produces more quantities of tea.

RICE

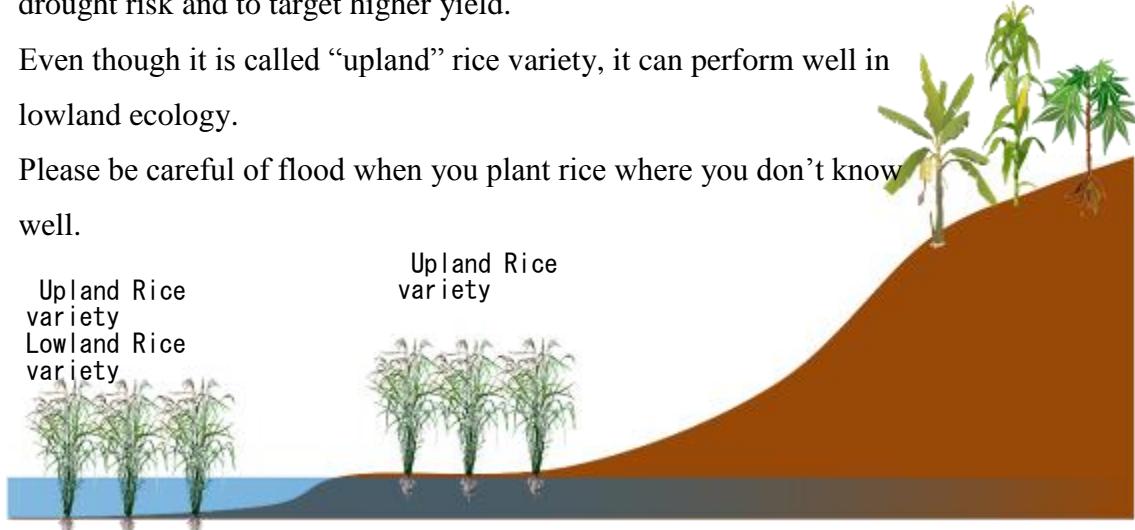
Site Selection

Rice requires more water than other crops.

It is recommended to plant rice in lower parts of the field to reduce the drought risk and to target higher yield.

Even though it is called “upland” rice variety, it can perform well in lowland ecology.

Please be careful of flood when you plant rice where you don't know well.



Variety Selection

There are several registered varieties in Uganda.

Upland variety	Lowland variety
NERICA 4 (High yield in upland rice)	WITA 9 (Tolerant to RYMV)
NERICA 1 (Aromatic)	OKILE
NERICA 10 (Early maturing period)	AGORO
NAMUCHE 1-6 (High yield in upland rice)	KOMBOGA (Aromatic)
NARIC 1	NERICA 6 (Tolerant to RYMV)
NARIC 2	

If your field is infected by RYMV (Rice Yellow Mottle Virus), planting tolerant varieties is recommended.

Seed Preparation

Germination Test

1. Count 100 seeds > 2. Soak seeds for 24 hours
- > 3. Wrap seeds in wet paper for 48 hours
- > 4. Count the number of seeds that have germinated.



If germination rate is lower than 80%, either use other source of seeds with higher germination rate or more seed than recommendation rate.

Seed Selection

It is difficult to identify seed viability with the naked eyes.

It is advisable to carry out seed selection using flotation method.

Separate sunken seeds (filled grain) which have higher germination rate and better growth potential from those floating seeds (empty grain) that are of poor viability

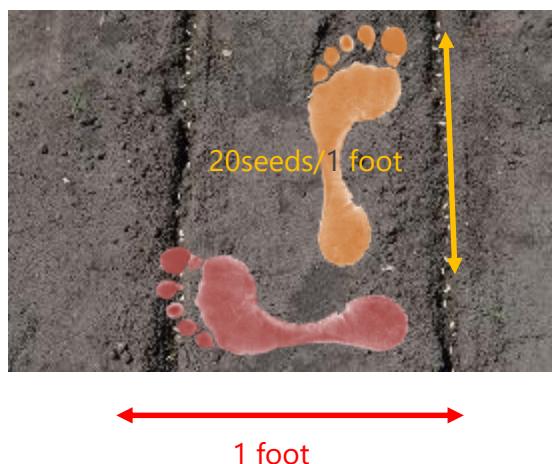
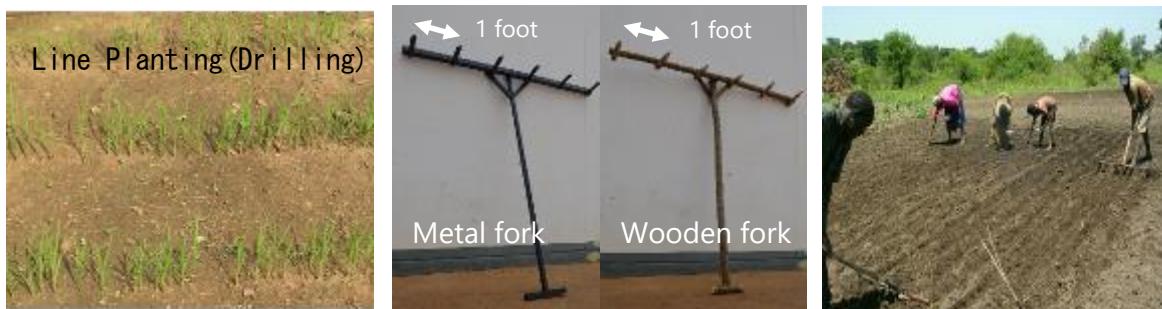


Plant establishment

Fundamentally different technology to grow Upland rice and Lowland rice.

Sowing Method (Upland rice):

Line planting (Drilling) is recommended for ensuring optimum seeding depth, plant population and easier weed control.



Planting fork can reduce the time of planting and ensures the proper distance between the lines.

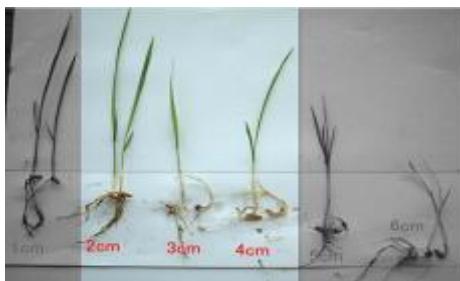
Spacing, Seeding Rate:

Between lines = **1 foot = 30cm**

In the line = **20 seeds/1 foot (30cm)**

20 kg/Acre is optimum seeding rate

Planting Depth (Upland rice)



It is recommended that upland rice be planted at a depth of **2 - 4 cm**.

Deep planting causes low germination and delayed maturity.

Shallow planting has risks of drought and bird damage.

Making Nursery Bed (Lowland rice)

Pre-Germination

After seed selecting, it is recommended to incubate seeds before making nursery bed with following procedure. 1) Soak seeds for 24 hours in fresh water. 2) Incubate the seeds for 36-48 hours by keeping it in a sack with wet condition.

Bed Making



Recommended width of nursery bed is **100cm (1m)** and width between the beds is **40-50cm**.



Level and smooth the nursery bed surface
the seedbed surface

Sowing



1) Sow pre-germinated seeds on the nursery beds.

2) Cover seeds with soil and pushing down gently



3) Cover beds with banana leaves or rice straws
(can be removed after 3-5 days)

4) Keep shallow water level and the seedling will
be ready 18-21 days after sowing

Seeding Rate

For healthy seedling growth, seeding rate on the nursery bed is supposed to be 100 – 200 g/m². If the seeding rate is high, late transplanting damage will be increased.

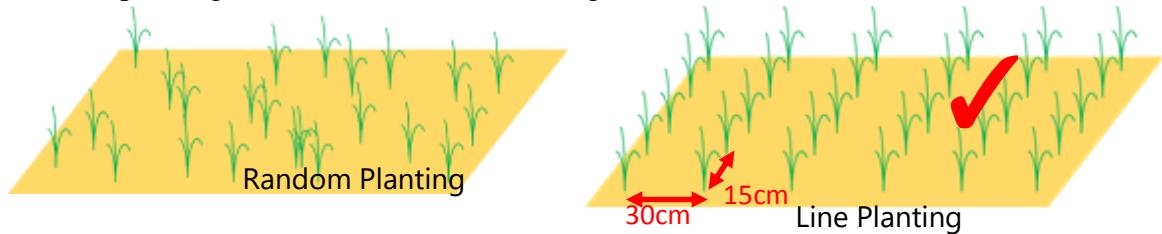
Transplanting (Lowland rice):

Seedling Age

It is recommended to start transplanting about **3 weeks after sowing**. Rice starts tillering in this stage and if they are still in the nursery bed they will not be able to get enough nutrients to tiller properly.

Planting method

Line planting is recommended for uniformed plant growth, easier weeding, and better diseases and pests control. Recommended spacing is **30cm x 15cm** that has more advantage to reduce transplanting work and better weed management.



Harvesting (Upland and Lowland rice)

The stems of the rice should be cut close to the ground using serrated sickles. This method of harvesting is faster than harvesting panicles using a knife. Harvesting should be done when **80 - 85 %** of the grains are yellow-coloured and the grains of the lower part of the panicle are in the hard dough stage.



Threshing (Upland and Lowland rice)

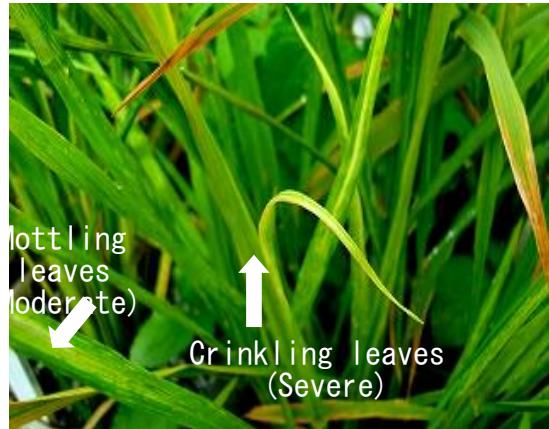
Threshing can be done by beating to logs, with sticks or using a thresher. Threshing by beating increases the chances of broken grains at milling. It is recommended to use a thresher where possible.

Diseases

Rice Blast (Upland and Lowland rice): It is one of the most destructive fungal diseases of rice. The fungus produces spots or lesions on leaves, nodes, panicles and grains. The spots are usually elongated and pointed at each end. Damage is often characterized by 50% of yield reduction. Control can be done by planting resistant varieties like NERICAs and avoiding excessive nitrogen application.

Rice Yellow Mottle Virus (RYMV) (Lowland rice):

It can be found in lowland rice field and shows the symptoms of stunning, and yellowish on new leaves. There is no chemical which can kill this virus and only solution is to plant tolerant/resistant varieties like WITA9 or NERICA6. Direct sowing also can reduce the damage.



Chemical Use

Fertilizers

Upland Rice 3 weeks after germination: Urea (20 kg/Acre) DAP (20 kg/Acre)
8 weeks after germination: Urea (20 kg/Acre)

Lowland Rice At transplanting: Urea (25 kg/Acre) DAP (25 kg/Acre)
8–10 weeks after transplanting: Urea (25 kg/Acre)

* Please be careful to apply fertilizer to upland rice. The rice plant usually becomes taller and requires more water when fertilizer applied. Insufficient rain after rice plants get big would give rise to drought damage of rice.

Herbicides

Common herbicides available in Uganda is shown below.

Glyphosate: Non-Selective, Pre-plant, Foliar applied (Round Up, Weed Master etc.)

Butachlor: Selective, Pre-emergence, Soil applied (Butanil-70, Butanil-S)

Benthiocarb: Selective, Pre- & Post-emergence, Soil applied (Hasunil, Satunil)

2,4-D: Selective, Post-emergence, Foliar applied (2,4-D) *

Propanil: Selective, Post-emergence. Foliar applied (Butanil-70, Hasunil, Satunil)

* 2,4-D is going to prevent tillering of rice also, it is recommended to use when the rice is at late stage
(2 months after planting)

If you want to know more details, please refer to “Rice cultivation handbook” NaCRRI-PRiDe 2015.

GROUNDNUTS

Varieties:

Variety	Characteristics
Red beauty	Small seeded red groundnuts. Susceptible to rosette and leaf spots. Suitable for confectionery. Matures in 90-110 days, yield potential of 900Kg/acre and has excellent marketability features
Serenut 2	Large seeded tan variety. Resistant to rosette, leaf spots and moderately tolerant to drought. Matures in 100-110 days, yield potential 1000Kg/acre under good management. Oil content 42%
Serenut 3R	Large red seeded variety. Resistant to rosette and leaf spots. Matures in 100-105 days, yield potential of 1000kg/acre under good management. Oil content 47%
Serenut 4	Early maturing 90-100 days: small seeded tan variety. Resistant to rosette and leaf spots. Yield potential 1000Kg/acre under good management.
Serenut 5R	Virginia type, deep red, medium seed with white helium, Moderately drought tolerant and resistant to leaf spots
Serenut 6T	Spanish botanical type, medium sized seed, tan in color, Moderately drought tolerant
Serenut 7T	Virginia botanical type, very good recovery from leaf miner attack, soft shell big pods and seeds, Resistant to virus and leafspots
Serenut 8R	virginia botanical type, big pods and seeds, Drought tolerant and rosette and leaf spot resistant
Serenut 9T	Virginia botanical type, big pods and seeds, very sweet, very high seed weight (48.3/10) and high shelling return (66.1%), very sweet, best variety for confectionery, Rosette and leaf spot resistant, tolerant to thrips attack, low leaf miner attack
Serenut 12 R	Virginia botanical type, big pods and seeds, high shelling return (68.8%) and a good replacement for Serenut 1R, Drought tolerant and rosette and leaf spot resistant
Serenut 13T	Virginia botanical type, big pods and seeds, high crude protein (30.42) and a good replacement for Serenut 2, Drought tolerant, Rosette and leaf spot resistant
Serenut 14 R	Dark green leaf colour, dark red seeds, high shelling return and a good replacement for Serenut 1R, Drought tolerant, Rosette and leaf spot resistant

Sowing guide:

Seed Rate	Sowing Depth	Spacing (depends on growth habit and variety)		
		Growth Type	In Rows	Plant to plant
40-50Kg/ha	5-6cm	Bunch type (e.g. Red beauty)	40-60cm	7.5-10cm
		Semi-erect type (e.g. Igola1, Serenut 1 & 2)	45cm	15cm
		Serenut 3 & 4	40cm	10cm

Common Pests:

Aphids, Root knot nematodes, thrips, termites, white grubs, millipedes are common pests of groundnuts.

Pest Management:

- If the infestation is severe spray with insecticides such as contra-z, dimetheote, cypermethrine.
- Practice crop rotation.
- Plant early at the onset of rains.
- Destroy nearby anti-hills to control termites.
- Proper land preparation.
- Seed dressing prior to planting with fungicides like thiram, carbendazim, captan.

Common diseases: Groundnut rosette virus, early and late leaf spot, rust.

Disease Management:

Use of resistant varieties for planting.

Cultural practices: early sowing, high density sowing.

Proper weed control.

Control aphids with systemic insecticides such as dimetheote applied at interval.

GROUNDNUTS

Varieties:

Variety	Characteristics
Sesim 1	Purple stem, resistant to cercospora leaf spots and non-shattering. Matures in 105-110 days. Yield potential 400-500Kg/acre with good management
Sesim 2	Small and white seeded variety suitable for confectionery. Purple leaves, stems and capsules at maturity. Resistant to lodging, tolerant to gall midge and webworm, high oil content 42%, and non-shattering. Matures in 105-110 days, yield potential of 400-500Kg/acre

Sowing guide:

Seed Rate (seed requirement)	Sowing Depth	Plant Spacing	
		In Rows	Plant to plant
2-4Kg/acre row planting	1.5 -2.5cm	30-45cm	Drill then, thin to 10-15cm

Common Pests: Gall midge, webworm, aphids.

Pest Management:

- Practice Plant resistant varieties.
- Crop rotation.
- In severe attack spray with insecticides: contra-z, pyrinex, endosulfan.

Common diseases: Groundnut rosette virus, early and late leaf spot, rust.

Disease Management:

- Use certified disease free-seeds
- Practice early planting at the onset of rains
- Apply copper based fungicides for leaf spots and sulphur dust for mildews

FERTILIZERS

Fertilizers – The contents of NPKS and trace elements

Nutrients Commodity	N %	P2 O5 %	K2 O %	Boron %	Sulphur (Approx) %
Mixture					
A	2	18	15	0.1	10
C	6	18	12	0.1	10
V	4	18	15	0.1	10
R	20	20	-	-	10
X	20	10	5	-	10
D	10	20	10	-	10
Nitrogenous Fertilizer:	-	-	-	-	-
Ammonia Nitrate (A/N)	34	-	-	-	-
Sulphate of Ammonia (S/A)	21	-	-	-	-
Urea	46	-	-	-	24
Nitrate of Soda	16	-	-	-	-
Phosphate Fertilizer:	-	-	-	-	-
Single Super	-	-	-	-	-
Phosphate (S.S/P.)	-	19	-	-	-
Triple Super	-	-	-	-	-
Phosphate (T.S/P.)	-	44	-	-	-
Potash Fertilizer:	-	-	-	-	-
Potassium Chloride	-	-	60	-	--
Potassium Sulphate	-	-	50	-	-

Nutrient Content for Manure

The following figures can be used when manure is compared to fertilizer. The nutrient content for manure varies much depending on age, litter contents etc., and loss of nitrogen may be substantial during storage.

Manure	Nutrient in Kilograms per tone		
	N	P2O5	K2O
Poultry in Cages			
Wet. 75% Water	10	8	5
Dry. 15% Water	40	30	20
Pigs			
Solid	6	4.6	4.4
Cattle			
Solid	3	2	1.6

Equivalent rates of fertilizer application for hectares and m²

The following Table is just a help when converting rates in Kg per hectares into grams or tablespoons per m². All recommendations of fertilizer are given in kg per hectare, though some farmers only grow a very small area of some crops, vegetables for example.

Application per Hectare		Application per m ²		
Kg	Pockets (50kg each)	Grams	Tablespoons	
			Level (15 grams each)	Level (15 grams each)
50	1	5	0.3 (1/3)	N/A
100	2	10	0.7 (2/3)	N/A
150	3	15	1.0	N/A
200	4	20	1.3	N/A
250	5	25	1.7	N/A
300	6	30	2.0	1.0
350	7	35	2.3	1.2

Application per Hectare		Application per m²		
400	8	40	2.7	1.3
450	9	45	3.0	1.5
500	10	50	3.3	1.7
600	12	60	4.0	2.0
700	14	70	4.7	2.1
800	16	80	5.3	2.7
900	18	90	6.0	3.0
1000	20	100	6.7	3.3

FIELD REFERENCES (Food and Nutrition)

VEGETABLE AND FRUIT PRESERVATION TIPS

Introduction

A variety of fruits and vegetables are produced in Uganda. During the rainy seasons, some edible wild fruits and vegetables are available throughout Uganda. Fruits and vegetables with their rich contents of minerals, vitamins, and dietary fiber as well as anti-oxidants are categorized as protective foods. They are highly perishable in nature due to high moisture content (70-95%).

They also get infested easily with micro-organisms like fungi, bacteria and insects. Hence, the need for these fruits and vegetables to be preserved and protected from deterioration. Preservation of fruits and vegetables increases their availability throughout the year and can also be an income generation activity.

The preservation of fruits and vegetables can reduce bulkiness, easier transportation and improves storage ability. Some of the preservation methods used at farm level in Zambia are:-Drying, sugaring, smoking, fermentation, cooling, pickling, salting, blanching, steaming, par boiling and frying.

Basic tips on fruit and vegetable preservation

1. Selection

Fresh fruits and vegetables should be carefully selected before preservation to ensure that quality of the raw material is good. Selection should be in terms of fruit or vegetable quality e.g. avoiding fruits that are bruised, avoiding fruits that are over ripe etc. Selection of suitable varieties is important when making jams, pastes and other preserves.

2. Pre-Preservation

Some fruits and vegetables may need cooling before processing to enhance the quality of the final product. Fruits such as mangoes and pawpaws need to be put under a shade or put in cold water to cool them before preservation.

3. Food Safety and Hygiene

Food safety and hygiene should be observed to reduce on contamination and foodborne diseases. Fruit and vegetables should thoroughly be cleaned before preservation. Hand washing before any processing operation should be ensured. All utensils and equipment must be properly cleaned before and after use. Finally, packaging materials e.g. bottles or containers must be washed with a soap and hot water or sterilized.

4. Reservation Practices:

Application of good preservation practices ensures nutrient retention, quality preservation and a long self-life of the preserve e.g.

- During preparation include the stem of the vegetable, as part of the preserve to avoid nutrient lose. (the nutrients are concentrated there) and avoid shredding of vegetables as they lose most of the nutrients
- Process the fruits and vegetables as soon as possible as they lose their nutritional value easily.
- As such as possible select preservation methods that can help retain nutrient in the preserve e.g steaming
- When drying-avoid direct sun drying as much as possible, spread vegetable or fruit on the reed mat on a raised platform to dry under a shade or use the solar drier
- Turn the preserve frequently to facilitate drying and do not leave the preserve outside overnight during the drying process as this affects the flavor and color of preserve.

5. Testing:

To test for dryness, the preserve can be subjected to a moisture content test. This can be done by putting preserve in an empty colorless plastic for some time. Clouding in the plastic is a sign that the moisture content is high and further drying should be done. Most vegetables preserves are deemed dry when they are crispy and can easily be broken by the crushing with fingers. In Jam making, testing can also be done. When set the jam will slide slowly from cooking stick or when put on a lid of the pot it will slide slowly.

6. Storage:

To ensure that preserves are stored well good storage containers should be used. These can be modern or traditional containers. Traditional methods have disadvantages such as short shelf life as they allow attack from insects, rodents and molds. Modern storage containers are expensive but allow for good storage. Some modern air tight containers available in local communities include plastic drums, plastic buckets with lids, sealable polythene bags, bottles and plastics. Most vegetables should be stored in dry cool clean suspended place.

FIELD REFERENCES (Livestock)

DIARY

Breeds of Dairy cattle

Breed	Characteristics	Average milk yield in liters (305days lactation)
Friesian	<ul style="list-style-type: none">• Good dairy breed, but also ideal for beef.• Heavy animals; 500-600kg live weight.• Highest milk producer.• Black and white.• Demands very good management	3825
Jersey	<ul style="list-style-type: none">• Average 350 kg body weight.• Hardy animal. Early maturing.• Brown color normally.• Bulls can be blackish in color.• Produces concentrated milk.• Eats less than the Friesian, and• adapts well to hot climate	2970
Ayrshire	<ul style="list-style-type: none">• Color is light to deep cherry brown or combination of both.• Very efficient grazer.	3375
Guernsey	<ul style="list-style-type: none">• Milk production is between Friesian and Jersey.• The color is brown with white markings.• Milk quality is good (concentrated)	3150

Disease Management

Disease	Clinical	Signs
Navel ill	<ul style="list-style-type: none"> • Umbilical inflamed region • Joints swell 	<ul style="list-style-type: none"> • Dress umbilicus with antiseptic at birth • Maintain good hygiene at parturition
Calf scours (Calf diarrhea)	<ul style="list-style-type: none"> • Dirty tail, • Diarrhoea (which may contain blood), • Loses weight • Moves slowly 	<ul style="list-style-type: none"> • Firstly, treat the diarrhea • Rehydrate the calf with fluids with electrolytes and nutrients. • Give only clean water and do not give milk or starter meal. • Contact a veterinarian.
Helminths	<ul style="list-style-type: none"> • Poor body condition • Starring coat • Pot belly 	<ul style="list-style-type: none"> • De-worm calves regularly particularly at beginning of the rains • Use recommended de-wormers (consult veterinarian)
Calf pneumonia	<ul style="list-style-type: none"> • Sneezing and coughing • Difficult breathing 	<ul style="list-style-type: none"> • Provide clean, airy and uncrowded conditions

ROUGHAGE /FORAGE

Pasture conservation ensures a more efficient animal production by making use of wasted pasture surpluses in the growing season. By utilizing conserved feed in the dry months, weight losses are minimized, productivity is enhanced and cattle mortality may be prevented. Hay is one easy method for conserving stock feed.

Hay Making

Hay can be made either from improved or natural grasses. Hay may be conserved as; long hay (standing hay left in the field), Shredded hay, chopped hay, baled hay or loose hay

Important Points to keep in mind while hay making;

- The grass for hay making should be leafy with tender and thin stems.
- It should contain about 7-10% protein and 0.5% calcium.

- The harvested crop should be dried in field till its dry matter content reaches 60 per cent. It should be dried up to 80-85% dry matter
- The hay to be stored should not contain more than 15% moisture.
- Dry hay as early as possible to preserve nutrients present therein.
- There should be no loss of leaves during the act of harvesting, transportation and drying.
- The suitable crops for hay-making should be harvested at flowering stage. At this stage, they are rich in carotene, protein, digestible carbohydrates and minerals.
- The best time for harvesting is early morning this helps in proper spreading and drying of grasses over the fields under sun rays.

Hand Method Hay Making Process

Steps to follow when making a bale of hay:

Step 1: Cut grass with a sickle when half of it has flowered

Step 2: Spread the grass on the ground to dry and turn it once a day for 3 days.

After 3 days tie (bale) the dried grass using a simple wooden box and strings.

Step 3 and 4: Prepare the bale box for baling

Step 4: Fill bale box with cut grass

Step 5: Pack and press grass in the box to make a tight bale.

Step 6: Tie the grass in the box into bale

Step 7: Lift the box to release baled grass. Start the process again to make more bales.

Step 8: Store hay bales and cut grass fodder on storage racks above the ground to avoid wastage by termites.

MOLASSES-UREA LICK-BLOCKS FOR RUMINANTS

Ingredients for a 30kg block	
Molasses	15.0
Urea	3.0
Salt	1.5
Quick lime	3.0
Bran	7.5
Other mineral*	
Total	30.0



(Unit measures in kilograms)

Steps to follow

1. Make a pre-mixture of salt, binder and a little bit of water;
2. Add the other ingredients in the order indicated above;
3. Mix thoroughly;
4. Put the mixture in moulds made from plastic sheets;
5. Allow the blocks to harden for a few days;
6. After drying, remove the blocks from the moulds and give them to the animals;
7. *Other extra minerals may be added to blocks to improve the mineral balance.

PIGGERY

Clipping Piglets

This is the removal teeth in piglets to minimize injury on teats of the sow and amongst the piglets themselves.

- Use a stainless-steel cutter with a flat cutting edge on one side and beveled on the other.
- Disinfect the cutter using surgical spirit before the operation
- Best age to cut piglets' teeth is at day old.
- Carefully press open a piglet's mouth with thumb and forefinger.
- Support piglet on your thigh while keeping its mouth open.
- Insert clippers into the mouth from the front. Keep flat side of blades close to the gum, but take care not to cut its lips or the tongue.
- Without twisting or pulling, clearly clip off the upper teeth first and then the lower teeth
- Afterward run your finger inside the piglet's mouth to check if there are needle-sharp edges left.

Managing a Boar

A boar in pig production is considered to be half the herd. It is therefore very important that a boar is well managed so that it effectively performs.

- Use a boar for mating when it is 8 months of age at a mating ration of 1 boar to 25 sows in a year.
- A boar can be used for 3-4 years but making sure that there is no inbreeding.
- A new boar brought in the pen should be put near other pigs but should not be used immediately. It should be given time to settle in the new environment. At least three weeks are adequate.
- Feed boars 2 kilograms of feed per day although individual variations are there.

- A sow on heat should be taken to the boar.
- Young boars serving for the first time should be given plenty of time to adjust and properly handled. They may fail to mount or locate the vagina; in such situations assistance is required. However, sows must be allowed to tease the boar.
- If the boar does not serve a sow within 15 minutes, remove the sow and bring it back later.
- The boar should be allowed to serve 4-6 times per week and give them one week off every month.
- Do not use a boar that is unwell; has some lameness or injury to the feet and general illness, rest the boar until it gets well.
- Do not use too large boars on small sows or gilts as they cannot stand the weight of the boar.
- Keep boars in individual pens to avoid fighting.
- Boars should always be handled by the stockmen so that they get used to human beings. Individual boar habits must be known. Boars may become savage due to poor handling or injury.
- Boars must be treated for worms and mange on a routine basis (at least every six months).

POULTRY

What to consider for Housing:

- Building a large poultry house ideal for chicken
- Be rainproof and secure from windy rains
- Have smooth surface walls to stop mites and other pests from hiding
- Periodically spraying the poultry unit with insecticide and disinfectants
- Periodically removing the dropping/cleaning the poultry house regularly

- Have good ventilation and in hotter areas at least 2 sides should be partly chicken wire mesh
- Preferably have cemented floor for ease of cleaning and disinfecting
- Be rat-proof
- Using plenty of litter after cleaning the poultry house
- Keeping the right number of birds in poultry houses
- Separating chicks from old birds

Management of chicks:

- Before chicks arrive at home; make sure that;
 - A brooder is in place
 - Paraffin lamps/electric bulbs/charcoal stove is available
 - Litter for the floor is available. 1m will accommodate 20 chicks up to 4 weeks old.
- Temperature control: 35°C for day-old chicks, 24-27°C for 1 week. Reduce heat as they grow especially at night.

Feeding Exotic chicken:

- Broilers - 1 to 3 weeks feed with chick mash, 3 to 6 weeks feed with broiler starter, thereafter with broiler finisher.
- Layers - 1 to 8 weeks feed on chick mash, after 8 weeks introduce growers mash gradually, then with layers mash after drop of first egg.

Management of Layers:

- Allow for good air circulation in laying house
- Layer needs on average 120 gm of food per day
- Distribute food troughs and water troughs evenly (one basin/50 birds)
- Provide grit at 20 weeks
- Laying nests must be kept in dark places, collect eggs 3 times a day, allow a nest/5 hen

- Provide soft clean litter
- Store eggs with small end down.
- Debeaking at onset of lay
- Culling when egg production drops below 40%

General Disease Control Practices:

- Vaccination and Providing disinfectant at entrance to house
- Don't overcrowd brooders.
- Adequate ventilation, Clean poultry house
- Use good quality feed, Give clean water ad-lib
- Don't mix young and older birds
- Dispose of dead birds quickly and isolate sick ones

FIELD REFERENCES (Aquaculture)

FISH

Fish Pond Design and Construction

Ponds are built for a variety of reasons, but two basic rules remain the same. The pond must be sited on suitable soils and properly constructed to hold water, and there should be enough water available to fill the pond but not in great excess. Careful attention and expert advice on pond site selection and construction are essential. Once a pond is built, proper maintenance extends its useful life and beauty. In addition, most farm ponds depend on runoff from their watershed (land uphill from the pond) to fill and maintain the water level. Protecting the watershed ensures a quality supply of water to the pond.

For ponds built for recreational fishing, there is no advantage in deep ponds (over 12 feet to 14 feet deep) or to a deep area within the pond. Deep ponds are not more productive and tend to have more oxygen problems. Ponds should not have extensive shallow areas (less than 3 feet deep) unless aquatic plants are desired. Constructing ponds to drop off rather quickly to a depth of at least 2 1/2 feet helps prevent aquatic weed growth

Pond Management Options

Before a pond is stocked, deciding which species you would like to raise and which would do best in your pond is important. There are alternative management strategies for farm pond fisheries that rely on other species and more intensive management schemes. Some of these combinations are relatively untried or work well only under certain specific conditions. Pond owners should be aware that they might need to contract with a private farm pond consultant to properly implement and maintain such alternative fisheries.

In small ponds (< 1 acre), the All-Purpose management strategy is not recommended because it is difficult to maintain a balanced predator: prey community. In these ponds, single-species fisheries tend to work best.

Aquatic Vegetation

Weeds are simply plants in the “wrong” place. Many types of aquatic plants are beneficial for wildlife, and plants form part of a healthy pond. Farm pond owners may consider leaving vegetation in and around ponds to provide cover and food for wildlife. However, excessive growth of plants can interfere with other uses of the pond, such as watering cattle, fishing and swimming, making the plants “weeds.” Floating weeds, such as duckweed, can become so abundant that the pond surface becomes covered, cutting off light and oxygen to the fish below. On occasion, weeds can literally take over a pond and cause serious problems for the farm pond owner.

Physical Techniques for Weed Control

Shallow areas where light reaches the pond bottom are ideal for the growth of rooted aquatic weeds, and plants can be expected to grow in these areas. In most cases, measures to control weeds in such shallow water are futile. Deepening pond edges so that the water depth quickly reaches 2 1/2 to 3 feet helps reduce weeds.

This may not be an appropriate option for ponds close to homes where the safety of children is a concern. An alternative is to use pond dye, which provides a shading effect and prevents light penetration to the bottom where rooted plants attach and grow.

Drawing down the water level 3 to 4 feet during the late fall and winter can help control rooted weeds and is also good to reduce overpopulation of prey fish. Shallow weeds are exposed during drawdown and subjected to drying and freezing. An expensive alternative

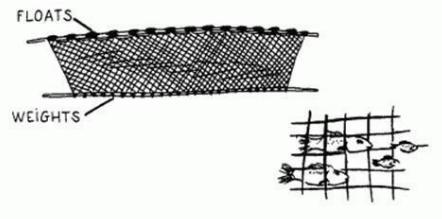
is to use a pond liner which prevents plant roots from penetrating the soil. This option must be installed before filling the pond, or the pond must be drained.

Harvesting Fish

Harvesting is the collection of fish from a pond for sale at market, or for cooking and preservation for family use. Harvesting can refer to collecting all the fish or to taking out only some of the fish (this happens often in tilapia ponds having both young and adult fish). If the pond can be drained, harvest the fish by draining the pond into the catch basin and collecting the fish with a scoop net. If the pond cannot be drained, drain out as much water as possible and use a series of nets to catch the fish.

Types of Nets

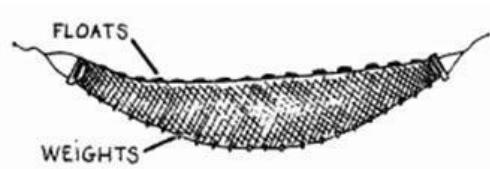
There are different kinds of nets which can be used in ponds. Some nets, such as the one shown here are gill nets. Gill nets often have mesh sizes from 2-3cm; they are often used to harvest the largest fish in a pond and leave the smaller fish until they grow larger.



They are called gill nets because the fish pokes his head through the net mesh, and is caught around the gills as he tries to wiggle through the net.

Another net used to harvest fish is the seine.

A seine can collect all the fish in the pond at one time because it has smaller openings (mesh size) than the gill nets, and it is usually made of heavier fibers to hold the fish.

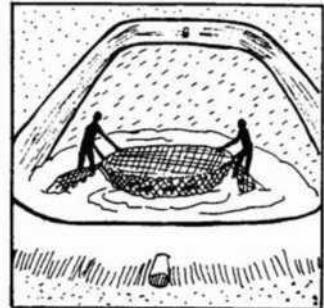


Both seines and gill nets have lead sinkers (weights) attached to the bottom ropes. These weights hold the nets at the bottom of the pond (so the fish cannot escape underneath the nets as they are pulled).

Seines and gill nets also have floats attached to the top ropes to help the net form an enclosure: the entire pond is netted with one sweep of the net.

Netting a Pond

Let out as much water as possible. Never let the water out completely. As the fish have less and less water in which to live, they become excited and use up more oxygen when there is less available. Plan on harvesting while the water is draining out so the fish are caught before they are stressed. Or, drain the pond almost completely, and then let water slowly trickle through while netting the fish.



Using a Seine

Place the net at one end of the pond and slowly draw the edges down the sides of the pond. Bring the middle of the net across the pond. When near the other side, begin pulling the edges up onto the bank so that the net forms a u-shape in the pond. Pull up the bottom rope of the net along the pond bottom until it breaks the water surface. At this point the net is a bag shape and will hold the fish in (some seines already have a bag woven into them). Pick the fish up one by one and transfer them to buckets or tubs of clear water for later weighing and transport.

After Harvest

After the pond is harvested, it should be prepared for the next stocking of fish:

- Plough the bottom of the pond, Clear out predators, sticks, rocks, etc.
- Dry the pond bottom until the soil cracks, Put lime on the pond bottom.
- Wait two weeks, add water to the pond, Check the water quality.
- Put new fish into the pond, Begin daily and monthly management of fish and ponds.
- Breed, Market, Harvest.
- Repeat

FAQs Report Sheet

List of Visitors

List of Visitors

Date	Name	Contact	Purpose of Visit	Signature

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