





## Antimicrobial use in livestock production systems (AMUSE Livestock): Tool to harmonise data collection on knowledge, attitude and practices

This tool has been prepared by the Livestock Health flagship of the CRP LIVESTOCK Barbara Wieland, Michel Dione, Biruk Alemu Gemeda, Eric Fevre, Delia Grace, Louis Omoya, Gunilla Ström, Elisabeth Lindahl, Ulf Magnusson

	eria for selecting respondent: person who plays ORMATION ON ENUMERATION	s a major role in the management of livestock					
1.	Questionnaire ID						
2.	Date of Survey (DD/MM/YYYY)						
3.	Enumerator's name (First Name and Last Name)	List of names of enumerators					
4.	Interview done via interpreter	□1=yes □2=now					
5.	Enumerator's sex	□1=Male, (If list available then this should be automatically filed) □2=Female					
6.	Time interview started (HH:MM)	Will be automatically generated by the tablets					
7.	Time interview ended (HH:MM)	Will be automatically generated by the tablets					
8.	Consent received (signature on form if	□1=yes					
	literate)	□2=no					
FAF	RM BASICS AND LOCATION						
9.	District	List of all districts pre-coded					
10.	Sub-county	List of all sub counties pre-coded					
11.	Parish	List of all parishes pre-coded					
12.	Village	List of all village pre-coded					
13.	GPS Coordinates	Will be automatically generated by the tablets					
но	USEHOLD DEMOGRAPHICS	•					
14.	Sex of the Household head	□1=Male □2=Female					
15.	Sex of the respondent (if other than household head)	□1=Male □2=Female					
16.	Age of respondent (years)						
	Role of the respondent in relation to livestock (multiple answers possible)	<ul> <li>□1 Management</li> <li>□2 Marketing</li> <li>□3 Owner</li> <li>□4 None</li> <li>□ 5 other</li> </ul>					
18.	What is the main source of income for the household? (Mark one)	<ul> <li>1 crop farming</li> <li>2 cattle keeping</li> <li>3 pig keeping (inc. sales)</li> <li>4 small ruminant keeping</li> </ul>					









	□ 5 poultry keeping						
	6 salaried employment						
	□ 7 self-employed-off farm						
	□ 8 casual laboring						
	🗆 9 Boda-boda						
	□ 10 other (specify)						
	□ 1 To half or more of the household's income						
19. Livestock contributes to	2 To less than half of the household's income						
	$\Box$ 3 Does not contribute to the household income						
	□ 1 Never went to school						
	□ 2 Non-formal education (years)						
	□ 3 Primary education (P1-P7)						
20. What is the education level of the	□ 4 Secondary school (S1-S6)						
respondent?	□ 5 Vocational training (specify)						
	□ 6 University degree (undergraduate)						
	□ 7 Adult literacy						
21. Do you have hired workers on the farm	Yes 1						
	No, family members only 2						
FARM CHARACTERISTICS							
	□1Cattle (beef, dairy)						
	□2Small ruminants						
22. What livestock do you have? (filter question)							
□6Camel							
23. Who has the <b>main</b> responsibility (for each specie	25)						
1 Household head (man)							
2 Household head (woman)							
3 Joint responsibility (Couple							
4 Daughter							
□ 5 Son							
☐ 6 Employee							
□ 7 Other (specify)							
24. Herd flock size (mumber of animals for each spe	ecies)						
a) Poultry	Number						
b) Equines	Number						
	Adult males (>2 years)						
c) Cattle	Adult females (>2 years)						
	Calves/heifers						
	Sows						
	Boars						
d) Pigs	Growers/fatteners						
	Piglets (<3 moths)						
	Males (>1 year)						
e) Small ruminants	Females (>1 year)						
e) Small ruminants							
f) Correcto	Young						
f) Camels							









25. Ch	25. Characteristics of livestock production systems (single choice/most common practice throughout the year)						
	SE	□ 1= free-range					
	1. PIGS	□ 2= tethered					
		□ 3= housed					
	2. POUL TRY	□ 1= free-range					
		□ 2= housed					
		□1 = Zero grazing					
	ef	□2 = Fenced individual farm grazing					
	□Beef	□3 = Communal grazing					
		□4 = Pastoral					
3. Cattle							
3. C		□1 = Zero grazing					
	Dairy	□2 = Fenced individual farm grazing					
		□3 = Communal grazing					
		□4 = Pastoral					
	4. Small ruminants	□1 = Zero grazing					
		□2 = Fenced individual farm grazing					
		□3 = Communal grazing					
		□4 = Pastoral					
	5. Equines	□1 = Zero grazing					
		□2 = Fenced individual farm grazing					
		$\Box$ 3 = Communal grazing					
		$\Box 4 = Pastoral$					
	6. Camels	□1 = Zero grazing					
		$\Box$ 2 = Fenced individual farm grazing					
		□3 = Communal grazing					
		□4 = Pastoral					

26. Do you sell milk	🗆 Yes 1											
	□ No 2											
27. Which period of the year do you regularly	Througho	out th	e yea	r 🛛								
sell milk? (multiple choices are allowed for	Seasonal	(use o	calend	dar be	elow)							
the months)	J	F	М	А	М	J	J	А	S	0	Ν	D
,												
28. Do you sell eggs (multiple choices are	□ Yes 1											
allowed for the months)	🗆 No 2											
29. Which period of the year do you regularly	Throughout the year 🛛											
sell eggs? (multiple choices are allowed for	Seasonal (use calendar below) 🛛											
the months)for the months	J	F	Μ	Α	М	J	J	А	S	0	Ν	D
,												
30. Do you sell live animals ?	🛛 Yes 1	•	•	•	•	•	•	•	•	•	•	•
	🗆 No 2											









31. If yes, which species? Indicate during which	□1	Pigs										
months of the year you sell live animals	Thro	ougho	ut the	e yeai	r 🗆							
(multiple choices are allowed for the months)	Seasonal (use calendar below) 🗆											
(matiple choices are allowed for the months)	J	F	М	А	М	J	J	А	S	0	Ν	D
	□2	Poult	ry									
	Thro	ougho	ut the	e yeai	r 🗆							
	Seas	sonal	(use d	alenc	dar be	elow)						
	J	F	М	А	М	J	J	А	S	0	Ν	D
	□3	Cattle	9									
		ougho		•								
	Seas	onal	(use d	1		low)			•			
	J	F	М	А	М	J	J	А	S	0	Ν	D
		Small										
		bugho		•			_					
		sonal			1	elow)	1	-	-	-		_
	J	F	Μ	A	Μ	J	J	A	S	0	Ν	D
	□5 <b>Equines</b> Throughout the year □											
		•		•		السما	-					
	J	sonal F	M	A	M	low)	1	Α	S	0	N	D
	J	F	IVI	A	IVI	J	J	A	3	0	IN	U
		Came			ļ							
				2 1/02	~ <b>П</b>							
		Throughout the year □ Seasonal (use calendar below) □										
	Jeas	Julia	laser	arent		.10 vv j						
	J	F	М	А	М	J	J	А	S	0	Ν	D
						-	-		-	-		-

MA	MANAGEMENT OF MANURE, FEED AND WATER								
32.	32. Manure management (by species), tick the <b>most common</b> option for each species (single choice).								
Activity		1.Cattle	2.Small	2.Small 3. Equines		5. Pigs	6. Camel		
			ruminants						
a.	Leave on farm, do nothing								
b.	Discard into environment								
с.	Open air								
d.	Used as fertilizer								
e.	Use for fuel (incl. biogas)								
f.	Sold for cash								
g.	Taken by other farmers								









h. Other (specify)									
33. Feed products used per spe	l cies (mulnil	e answers	ner sne	L Incies nos	sihla)	tick			<u> </u>
Type of feed	1.Cattle	2.Sm		3. Equ	-	1	oultry	5. Pigs	6. Camel
	1.Cattle	-	nants	J. LYL			Juiliy	5.1 163	J. Carrier
Pasture/scavenging				1		1			
Waste (household/restaurant,	1					1			
etc)									
grains/crop residues	1								
Feed mixed at farm									
Commercial/pre-mix									
Other									
		I		1					1
ANIMAL HEALTH AND DISEASE	PREVENTIC	DN .							
34. What was the main ani	mal disease	problem	during t	he last :	12 mon	ths (c	ne disea	se per species	s)-if the
farmers says FEVER, probe f		•	-			-		· ·	
Clinical signs	1.Cattle	2.Goats		Sheep	4. Po		5. Pigs	6. Equines	5 7. Camel
a) Respiratory									
b) Digestive tract/intestinal									
c) Reproductive									
d) Mastitis									
e) Sudden death									
f) Skin disease/wounds									
g) External parasites									
h) Neurologic signs									
i) Other									
j) no disease problem									
35. Have any animals been	sick in the l	ast 2 week	s?			] 1 YE	S		
						] 2 NO			
36. If yes, which animal and	kind of dis	ease?						table of clinic	al signs by
						•		diseases in ar	
Clinical signs	1.Cattle	2.Goa	ats	3. She				5. Pigs	
a) Respiratory								U U	
b) Digestive tract/ intestinal									
c) Reproductive									
d) Mastitis									
e) Sudden death									
f) Skin disease									
g) neurologic signs									
h) Other									
37. Was the disease diagno	sed other t	han by you	rself?			] 1 YE	S 🗆 2 NC	)	
38. If yes, by whom?						] 1 Tra	aditional	healer	
					C	] 2 со	mmunity	animal healt	h worker
						∃ 3 pri	ivate vete	erinarian (Dip	loma, BVM)
								vernmental) v	
						] 5 Ot	her (spec	;ify)	

39. What do you do in response to diseases problems? (refer to the recent disease problems mentionned above)







Activity	1.Cattle	2.Goats	5	3.Shee	р	4.Poultry	5.	Pigs	6.Camel
a) Use traditional medicine									
b) Use medicine from the									
veterinary drug store (self-									
bought) c) Consult traditional healer									
d) Consult community animal									
health worker									
e) Consult private veterinarian									
f) Consult Government									
veterinarian g) Vet applied/left drugs									
h) Other, please specify									
40. From the drug categories shown (	nrovide ph	otographs	of com	monve	otorina	ny drugs for	oach	of the dru	a class)
how often (how many times) have to see packaging of commonly use	e you used	them for th	ne diffe	erent sp	ecies i	n the last 2 i			
Drug	1	2 Small		3 Equ		4 Poultry	5	Pigs	6 Camels
	Cattle	ruminan	nts					-	
1 Vaccines									
2 Antihelmintics (Albendazol, etc.)									
3 Arachnidicides (ectoparasites)									
4 Tetracyclines									
5 Sulphonamides									
6 Penicillin (and combinations with Penicillin)									
7 Fluoroquinolones									
8 Macrolides									
9 Aminoglycosides									
10 Other antibiotics (specify)									
11 Vitamins/Iron supplements									
12 Other drugs (specify)									
41. Do you have any particular means to protect animals from disease?									
42. If yes, how?	T								1
Activity	1.Catt le	2.Goats	3.Sh	neep	3.Pou y	ltr 4.Pigs	6	5.Equins	6.Camel s
a) Fencing									
<ul> <li>b) Not mixing with other herd/flock</li> </ul>									
c) Special feed									1
d) Vet drugs (incl vaccine)									
e) Do nothing									









f) Other, specify						
	f)	Other, specify				

ANIMAL HEALTH	SERVICES							
43. Does the farm	have access to p	rofessional anima	al	🛛 Yes 1				
health services	?			🗆 No 2				
44. If your farr which ones?	□1 State or government: □a) Fully trained veterinarian (BSc level) □b) Paraveterinarian □c) Other animal health care provider; □d) Don't know the training or qualification □2 Private full time animal health worker:							
				<ul> <li>□a) Fully trained veterinarian (BSc level)</li> <li>□b) Paraveterinarian</li> <li>□c) Other animal health care provider;</li> <li>□d) Don't know the training or qualification</li> <li>□3 Both state/government and private</li> <li>□a) Fully trained veterinarian (BSc level)</li> <li>□b) Paraveterinarian</li> <li>□c) Other animal health care provider;</li> <li>□d) Don't know the training or qualification</li> </ul>				
45. If you have access to animal health services, do the animal service include laboratory testing?				□ Yes 1 □ No 2				
46. If you have access to laboratory services, do				🗆 1 Yes, w	/hen needed			
you use it?				□ 2 Rarely □ 3 No				
47. If yes, for diag	nosis in which spe	ecies?						
1.Cattle	2.small ruminants	3.Equines	4.	Poultry	5.Pigs	6. Camels		
48. If you don't use them, why?				□ 1 Not available □ 2 Not efficient □ 3 Too expensive □ 4 Would like more □ 5 Other (specify)				
49. Is the farm	involved in a reg	gular animal heal	th	□ 1 Yes				
service program, like vaccination campaign etc run by			by	□ 2 No				
government and/or NGO?								
50. If yes to ab	ove, please nam	e						
51. Do you acc	ess pharmaceuti	cals/veterinary		🗆 1 Yes				
drugs?				□ 2 No				
52. If yes, which pharmaceuticals/		have you used ir	า	List them:.				







the last 4 weeks? (LIST PER SPECIES, PHOTOGRAPH)

VETERINARY DRUG USE: THE FOLLOWING QUESTIONS F	OR EACH SPECIES PRESENT IN THE FARM (ONE DRUG)
53. Which of the drugs is the most commonly used?	DROP DOWN LIST WITH VET DRUGS
(pictures or drug samples) (refer to Q52)	
55. Why do you use this drug?	□ 1 Disease prevention
	□ 2 Treatment sick animal
	□ 3 Fattening
	□ 4 Other (specify)
56. Via which channel do you access this	□ 1 Private vet
pharmaceuticals/veterinary drugs	□ 2 Public/official vet
	□ 3 Animal health worker
	□4 Veterinary drug store
	5 From human pharmacies
	□ 6 At markets
	□ 7 Feed providers
	□ 8 Other farmers
	□ 9 Via NGOs□ 10 Other (specify)
57. To which animals do you give the drug?	□ All of the same species
	□ Sick animals only
	□ Sick and in contact animals
	Before selling an animal
	Animals newly introduced into herd
	All animals in household
58. How long do you use the drug?	As advised
	Until animal(s) cured
	Until package empty
	□ As long as I can afford
	□ One time treatment
	Continiously over extended period
	Estimated average number days
59. Who adminster the drug?	
	□ 2 Vet
	□ Other (specify)
60. How is the drug applied/given?	□ 1 Injection
	🗆 2 Oral
	□ 3 with feed
	$\Box$ 4 with water
	□ 5 on skin
	□ 6 other (specify)









61. Do you get advice how to use the vet drugs?	🗆 Yes 1					
	🗆 No 2					
62. If yes to above, via which channel?	1 from the veterinarians					
	$\Box$ 2 from the animal health worker					
	3 from pharmacies or markets					
	4 from other farmers					
	5 via the feed provider					
	$\Box$ 6 from the package/label of he pharmaceutical					
	□ 7 Other, state who					
	🛛 8 No, own judgment					
63. When using veterinary drugs, whose instructions	□1 The Veterinarian's					
(kind, dose, length of treatment) do you follow:	□2 The animal health worker's					
	□3 The pharmacy's					
	□4 The feed company's					
	□5 Other farmer's					
	□6 My own judgement					
	□7 Other`s(specify)					

USE OF ANTIBIOTICS						
64. What does vaccination do?	□1 Cure sick animals					
(multiple answers possible)	□2 Prevent animals from becoming sick					
	□3 Cure sick animals and prevent animals from					
	becoming sick					
	□4 Fattening					
65. What do antibiotics do? (multiple answers	□1 Cure sick animals					
possible)	□2 Prevent animals from becoming sick					
	□3 Cure sick animals and prevent animals from					
	becoming sick					
	□4 Fattening					
If the subject understands what antibiotics (option 1 and 3) are based on the two questions above continue						
as follows:						
66. Do you consume milk, from animals who	🗆 1 Yes					
were just treated with antimicrobials.	🗆 2 No					
67. If No to the above, for how long time should						
those products be avoided (open) (in days)						
68. Do you consume eggs from animals who	🗆 1 Yes					
were just treated with antimicrobials.	🗆 2 No					









69. If No to the above, for how long time should those products be avoided (open) (in days)	
70. Do you consume meat from animals who were just treated with antimicrobials.	□ 1 Yes □ 2 No
71. If No to the above, for how long time should those products be avoided (open) (in days)	

72. Have you experienced situations where		□ 1 Yes, frequently						
drugs did not work			□ 2 Yes, sometimes					
			□ 3 No, never					
			-					
73. If you have experience with drug	g failure (YES	to Q	72), wh	ich drugs	did not work?			
Drug on pictures shown	1.Cattle	2.Poultry		3.Pig	4.Small	5.Equin	6.Camels	
0001				S	ruminants	е		
хххххх	х			х			х	
ссссс	х	х			х			
rrrrr		х						
If the veterinary drug do not work, do you know								
why?								
74. What do you do with expired veterinary		□1 Dispose off						
drugs?		□2 Return to pharmacy						
		□3 Give to other farmer						
		□4 Use for intended treatment						
			□5 Nothing					
			□6 Other (specify)					
75. FOR EACH SPECIES: What was your total			□1 Dewormer []					
expenditure in drugs during the last year in local		□2 Vaccination []						
currency (put 0 if none)		□3 Antibiotics []						
			4 Acaracides []					
			□5 Vitamins					

## NB: Note that the GIS may take some time to load approximately 5 minutes however they work

## List of annexes

- 1. List of pictures of drugs, organised into drug classes as specified in question 40.
- 2. List of clinical signs by syndrome
- 3. Groups drug used by de-wormers, vaccines, AB, vitamins
- 4. List of social events and festive seasons with the months they happen