

Outcome of the survey “antiparasitic agents and resistance in terrestrial and aquatic animals” conducted in Middle East countries in June-July 2020

Christo Hilan



Survey on
**Resistance to anthelmintics in Middle
East countries, Septembre 2020**
Preliminary results

Afghanistan, Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Cyprus, Oman,
Palestine, Qatar, Saudi Arabia, Syria, Turkey, The United Arab Emirates, Yemen.

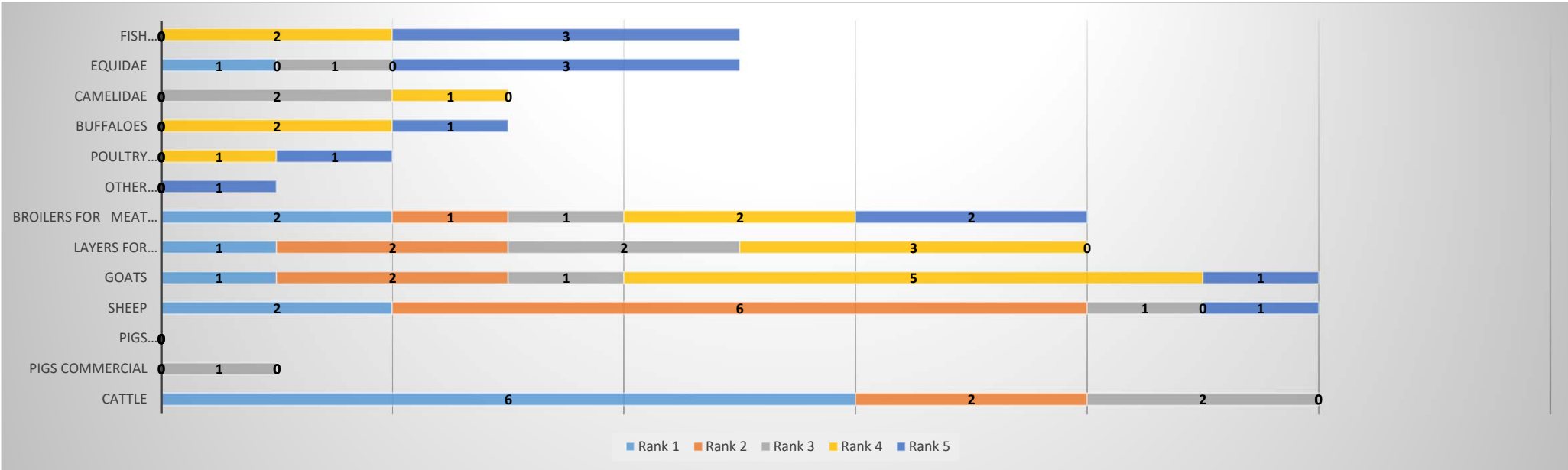
(n= 17 countries)

Presented by Christo Hilan



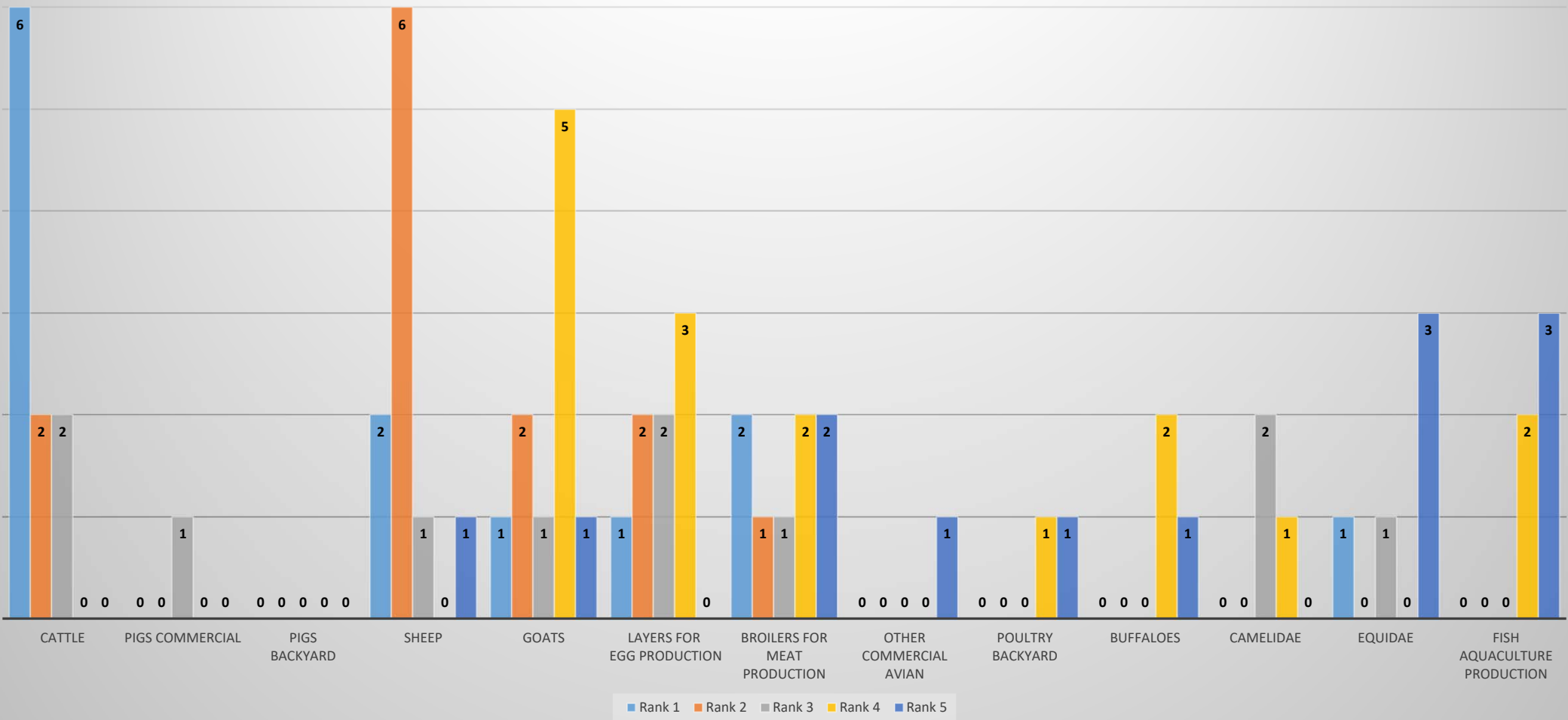
Afghanistan, Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Cyprus, Oman, Palestine, Qatar, Saudi Arabia, Syria, Turkey, The United Arab Emirates. Yemen.

Rank the five most economically important Animal species ('1' being the Most important, '5' being the least important)



	Cattle	Pigs commercial	Pigs backyard	Sheep	Goats	Layers for egg production	Broilers for meat production	Other commercial avian	Poultry backyard	Buffaloes	Camelidae	Equidae	Fish aquaculture production
Rank 1	6			2	1	1	2					1	
Rank 2	2			6	2	2	1						
Rank 3	2	1		1	1	2	1				2	1	
Rank 4					5	3	2		1	2	1		2
Rank 5				1	1		2	1	1	1		3	3
TOTAL	10	1		10	10	8	8	1	2	3	3	5	5

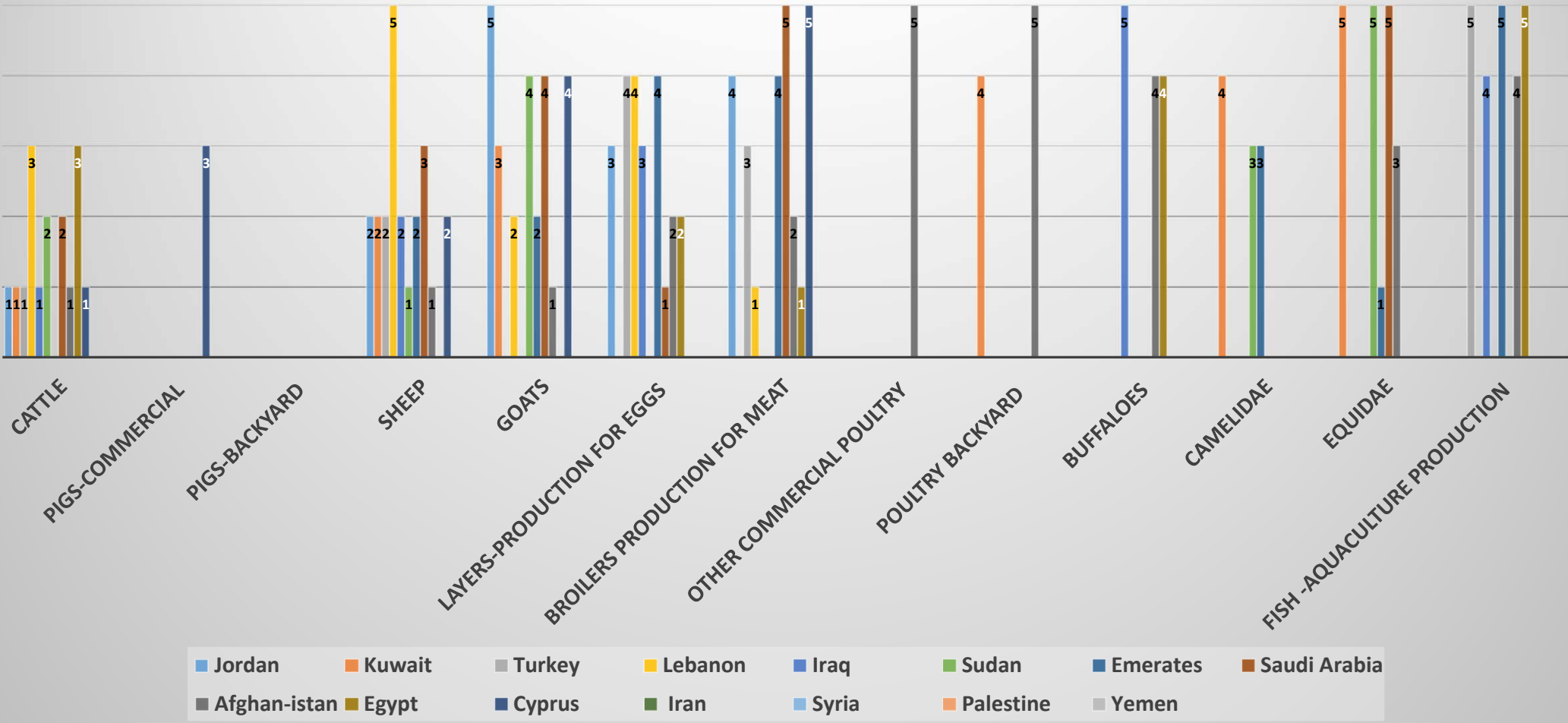
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Countries/ Rank	Jordan	Kuwait	Turkey	Lebanon	Iraq	Sudan	Emerates	Saudi Arabia	Afghanistan	Egypt	Cyprus	Iran	Syria	Palestine	Yemen
Cattle	1	1	1	3	1	2		2	1	3	1				
Pigs- commercial											3				
Pigs-backyard															
Sheep	2	2	2	5	2	1	2	3	1		2				
Goats	5	3		2		4	2	4	1		4				
Layers- production for eggs	3		4	4	3		4	1	2	2					
Broilers production for meat	4		3	1			4	5	2	1	5				
Other commercial poultry									5						
Poultry backyard		4							5						
Buffaloes					5				4	4					
Camelidae		4				3	3								
Equidae		5				5	1	5	3						
Fish - aquaculture production			5		4		5		4	5					

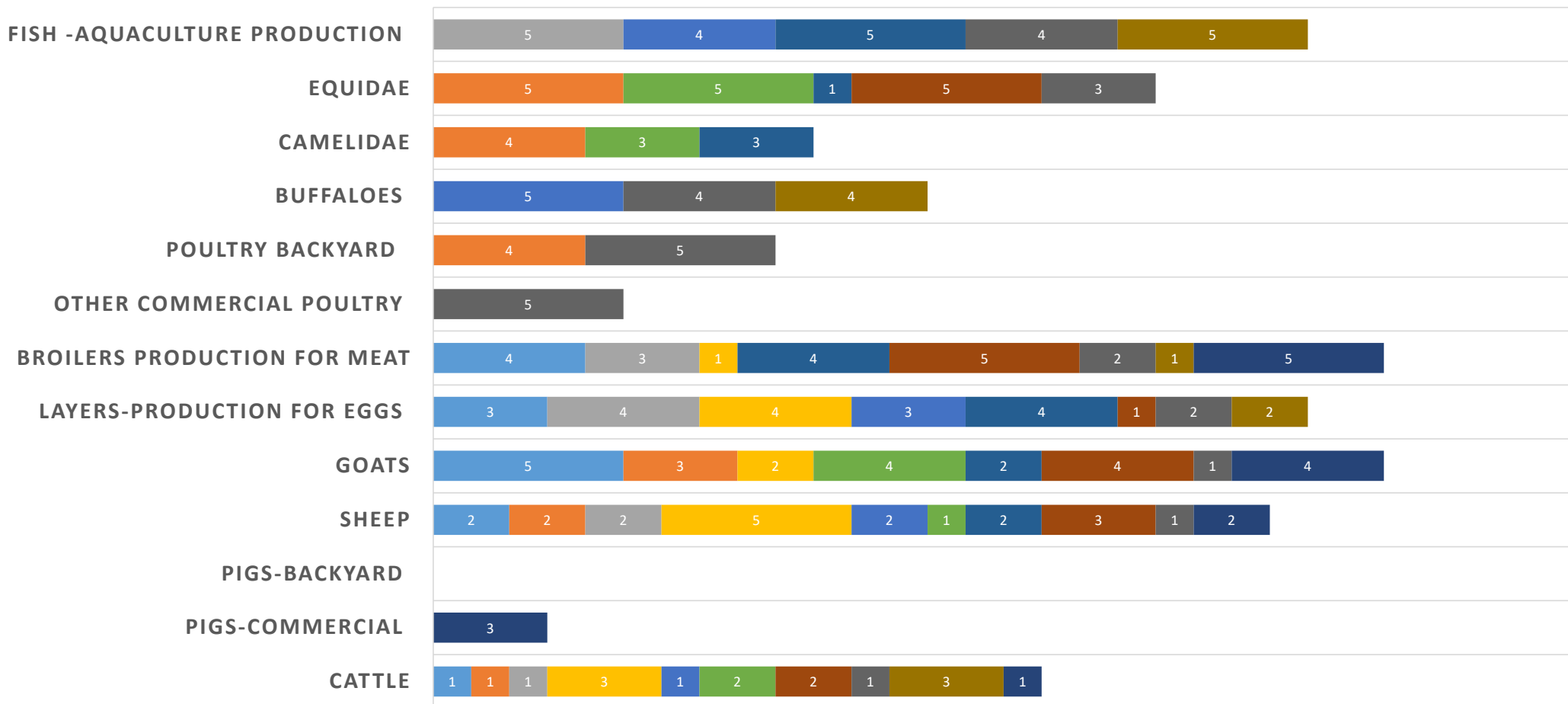
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Cattle	1	1	1	3	1	2		2	1	3	1		
Pigs-commercial											3		
Pigs-backyard													
Sheep	2	2	2	5	2	1	2	3	1		2		
Goats	5	3		2		4	2	4	1		4		
Layers-commercial production for eggs	3		4	4	3		4	1	2	2			
Broilers-commercial production for meat	4		3	1			4	5	2	1	5		
Other commercial poultry									5				
Poultry backyard		4							5				
Buffaloes					5				4	4			
Camelidae		4				3	3						
Equidae		5				5	1	5	3				
Fish -aquaculture production			5		4		5		4	5			

Rank the five most economically important Animal species ('1' being the most important, '5' being the least important)



Questions	Response summary, predominant answer
Rank economically important animals	Cattle (1), sheep (2), Goat (3), layers for eggs (4), broilers for meat (5)
Status of anthelmintic resistance	<ul style="list-style-type: none"> • At national level: mostly unknown (9/11), well described (1/11), known for some species (1/11) • At local level: mostly unknown (10/11) , known for some species (1/11)
Use of diagnosis (egg count reduction)	<ul style="list-style-type: none"> • do not know(4/11) • Very Low use (5/11) • only used on research facilities (1/11) • routine on advanced farms (1/11)
Availability of information	<ul style="list-style-type: none"> • Very little awareness or information (8/11) • assume that resistance is similar to other countries in the region (1/11) • some scientific expertise is available (2/11)
Rating of country regulatory environment	<ul style="list-style-type: none"> • registration does not exist/exists partly (1/11) • Registration policies are comprehensive (9/11) • Labels on anthelmintics are comprehensive (9/11) • Anthelmintics are sold in their original containers_(6/11) • Anthelmintics are sold directly to farmers (7/11) • Farmers have access to advice (Vets, drug shops..) (8/11)
Quality of anthelmintics for sale	<ul style="list-style-type: none"> • Unknown quality (3/11) • The majority are good (6/11) • Good if purchased from known providers (6/11) • Highly reliable (4/11)
Information that would assist control or resistance	<ul style="list-style-type: none"> • List of available anthelmintics and their indications for use (8/11) • Methods for prudent and responsible use of anthelmintics (10/11) • Non-chemical parasite control methods (5/11) • Methods for grazing management adapted to local conditions (2/11) • Methods for breaking parasite life cycles (9/11)
Biggest knowledge gaps	<ul style="list-style-type: none"> • Diagnosis of resistance (9/11) • Demonstrated control methods (1/11) • Knowledge of parasitic epidemiology (2/11) • Extension service based on advisors vets, veterinary paraprofessionals (4/11)



Any Questions ?