Survey on antiparasitic agents and resistance in terrestrial and aquatic animals in European region

Regional Webinar for OIE National Focal Points for Veterinary Products
(6th Cycle)

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WORLD ORGANISATION FOR ANIMAL HEALTH
Protecting animals, preserving our future

The objective of the survey

- To get a better understanding of the situation regarding anthelmintic resistance

- Survey to be used as a sample of global issues

- To provide input from the region for a document on "prudent and responsible use of antiparasitics" prepared by the electronic expert group on antiparasitic resistance (EEG APR).

Survey questionnaire

- The questionnaire was developed by the OIE with a focus on anthelmintic resistance (AHR).

- Eight questions:

  1. Ranking of the most economically important animal species,

  2. AHR status,

  3. Extent of use of diagnosis methods,

  4. Availability of information on AHR,

  5. Rating of the country's regulatory environment for anthelmintics,

  6. Quality of anthelmintics for sale,

  7. The nature of information needed to improve control of resistance,

  8. The biggest knowledge gaps for parasite control

Survey responders: 36 countries

- Armenia,
- Austria,
- Belarus,
- Belgium,
- Bosnia and Herzegovina,
- Croatia,
- Denmark,
- Finland,
- Georgia,
- Germany,
- Greece
- Hungary,

- Iceland,
- Ireland,
- Israël,
- Italy,
- Latvia,
- Lithuania,
- Luxembourg,
- Malta,
- Norway,
- Poland,
- Portugal,
- Romania,

- Russia,
- San Marino,
- Slovakia,
- Spain,
- Sweden,
- Switzerland,
- Tajikistan,
- The Netherlands,
- Turkey,
- Turkmenistan
- Ukraine,
- United Kingdom.

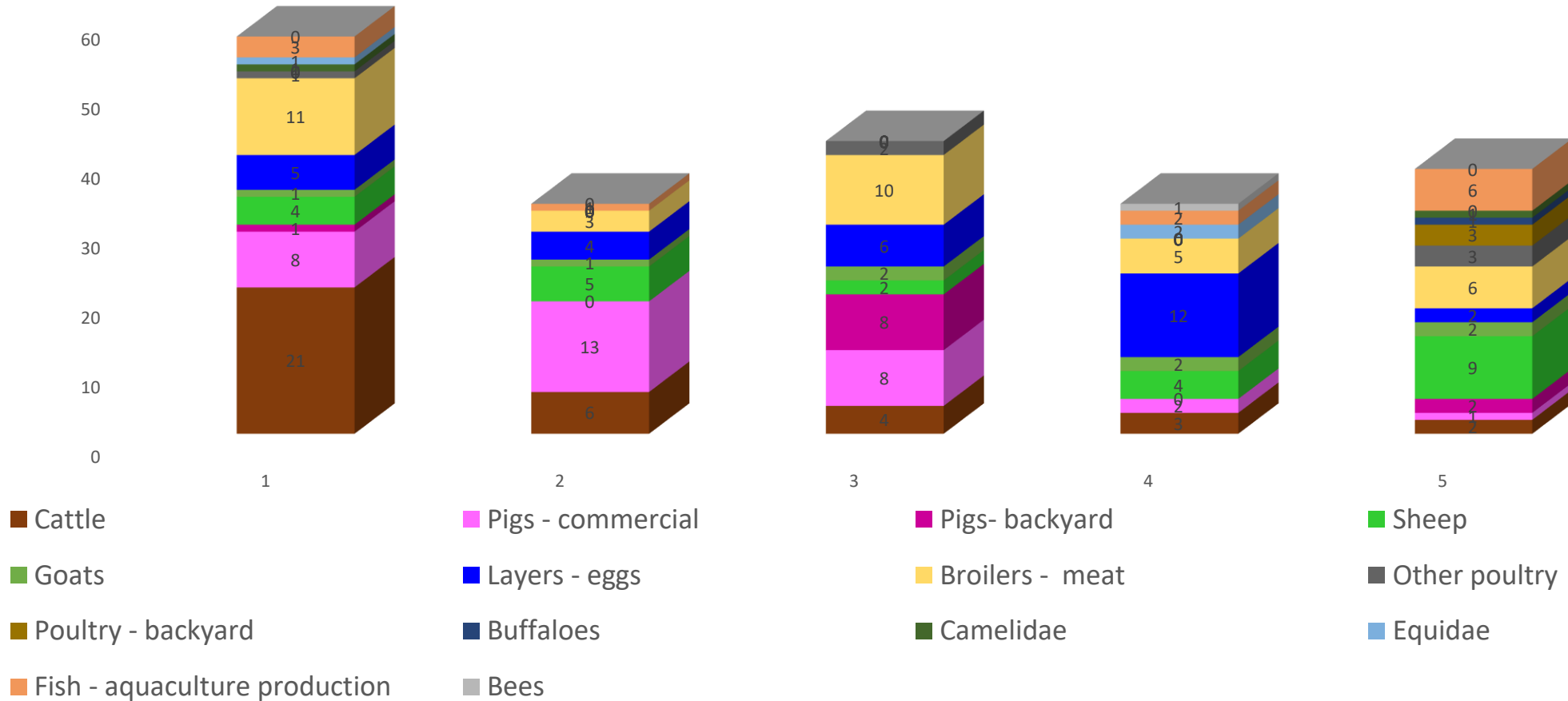## 36 out of 54 countries

Who replied?

- 30 focal points for veterinary products or delegates

- 8 others:

  - veterinarians (official state or not) or

  - Head or Deputy head of VMP department
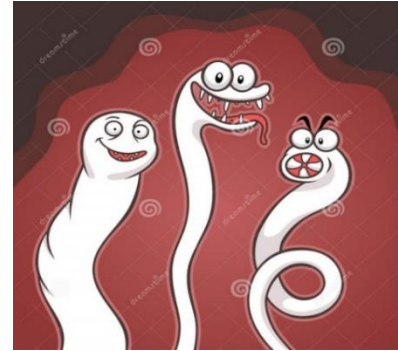
  - Research directors

2 people for two countries (but one questionnaire per country)

Outcome of the survey

1- Rank of the economically important species ('1' the most important, '5' least important)

Legend:
- Cattle
- Pigs - commercial
- Pigs- backyard
- Sheep
- Goats
- Layers - eggs
- Broilers - meat
- Other poultry
- Poultry - backyard
- Buffaloes
- Camelidae
- Equidae
- Fish - aquaculture production
- Bees

2- What is the status of anthelmintic resistance in your country?

	% responses	
	At national level	At local level
Mostly unknown	56 % (20)	63 % (20)
Known for some species	33 % (12)	28 % (9)
Known for most species	8 % (3)	9 % (3)
Well described	3 % (1)	0 %
Total	100 % (36)	100 % (32)

- The status of AHR is mostly unknown or known for some species
- Less responses (from 32 countries) at local level but similar outcome

3- How widely used are methods of diagnosis of resistance (such as FECRT) ?

	% responses
Do not know	14 % (5)
Very low use	33 % (12)
Only used on research facilities	28 % (10)
Occasionally used on commercial farms	17 % (6)
Routine on advanced farms	8 % (3)
Total	100 % (36)

- Methods of diagnosis are
  - not often used, mainly for research
  - Used occasionally in commecial farms according to 6 countries
  - Used routinely on advanced farms in 3 countries only

- **Anthelmintics are used without prior confirmation of diagnosis!**

4- Availability of information on anthelmintic resistance ?

	% responses
Very little awareness or information	37 % (13)
Assume that resistance is similar to other countries in the region	11 % (4)
Some scientific expertise is available	43 % (15)
Well-resourced and communicated	9 % (3)
Total	100 % (35)

The main objectives are :

- to raise awareness of AHR
- to communicate about the available scientific expertise

5- How do you rate the regulatory environment for anthelmintics in your country?

	% responses
Do not know	0 %
Registration does not exist or exists partly	3% (1)
Registration practices are comprehensive	92 % (33)
Labels on anthelmintics are comprehensive	81 % (29)
AH are sold in their original containers (e.g. with tamper-proof lids)	86 % (31)
AH are sold directly to farmers	11 % (4)
Farmers have access to advice (e.g. on the label, university, pharmacy)	72 % (26)
Total : 124 multiple responses (% of 36 responders)	100 %

6- How do you rate the quality of anthelmintic preparations for sale?

	% responses
Unknown quality (due to content, storage or interference)	3 % (1)
The majority are poor	0% (0)
The majority are good	22 % (8)
Good if purchased from known providers	44 % (16)
Highly reliable	69 % (25)
Total: 50 multiple responses (% of 36 countries)	100 % (36)

- 22 % responders think that the majority of VMPs are good

- 44 % responders think VMPs are good if purchased from known providers

- Only 69 % responders think that VMP are highly reliable !

7- What information would assist in improving the control of AH resistance in your country?

	% responses
List of available anthelmintics and their indications for use	25 % (9)
Methods of prudent and responsible use of anthelmintics	97 % (35)
Non-chemical parasite control methods	50 % (18)
Locally relevant methods of grazing management	53 % (19)
Methods for breaking parasite life cycles	61 % (22)
Total : 103 multiple responses (% 36 responders)	100 % (36)

There is a need for defining methods of prudent and responsible use of AH

8- What are the two biggest knowledge gaps in your country with respect to parasite control?

	% responses
Demonstrated control methods	33 % (12)
Diagnosis of resistance	72% (26)
Knowledge of parasite epidemiology	22 % (8)
Extension service based on advisors, vets, veterinary paraprofessionals	14 % (5)
Extension service based on internet	6 % (2)
Others (R on resistance mechanisms, treatment upon diagnosis, parasite cycle)	8 % (3)
Total : 56 multiple responses (% of 36 responders)	100 % (36)

LACK OF DIAGNOSIS AND CONTROL METHODS

Conclusion and perspectives

- ## What is the need?

  - Increase the knowledge on AH resistance (research on resistance mechanism, control and treatment, diagnostic tools etc.)

  - Raise awareness on AHR

  - Communicate and develop the use of diagnostic tools of resistance and control methods

  - Encourage targeted selective treatment and treatment upon diagnosis

- ## Conclusion

  - There is a need for defining methods for prudent and responsible use of AH !

Recommendations

Reflection paper on anthelmintic resistance

- CVMP

  - Treatment based on the confirmation of worm infestation pressure using appropriate diagnostic measures e.g. FECRT

  - Promote targeted selective treatment at farm level with ideally a post-treatment check-up

  - Harmonise prudent use warnings

  - Provide guidance on the resistance data to be included in MA applications

  - Promote increase availability of AH for minor species

  - Restrict use of combination products

  - Make a sufficient number of pack sizes available

Responsability of E.U. member states, Research & education (see the reflection paper)

Link : Reflection paper on anthelmintic resistance (europa.eu)

Any Questions ?