Reducing antimicrobial use in rabbit production. Portugal and Spain.

Notes for this round table.

Introduced by Joan ROSELL DVM, PhD www.cunivetservice.com/en

> Tarragona, Spain 2-4 October 2024



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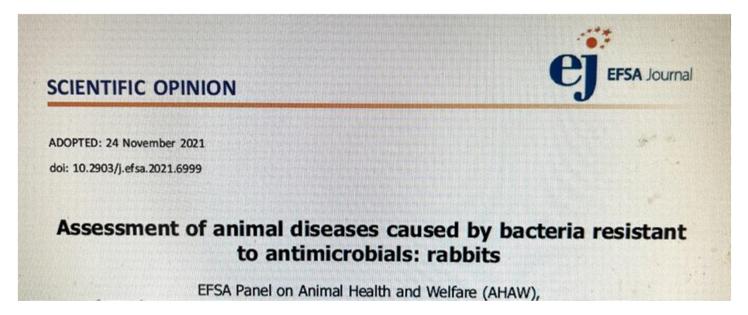
Thanks to the 13th W.R. Congress organizers, in particular to Dr. Luca BANO, for inviting me to this round table; and to you, the attendees, for being there!

Juan María ROSELL PUJOL



What's new since the last congress held in Nantes in Nov. 2021*? An update.

(1) There is scientific information concerning antimicrobial resistance (AMR). For example,





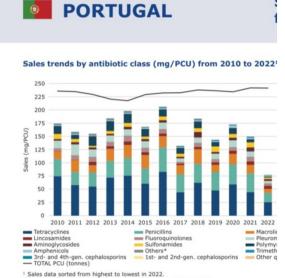
<u>https://www.cunivetservice.com/wp-</u> <u>content/uploads/2022/01/wrc_round_table_1_191121.pdf</u>



What's new from November 2021?

(2) There is information of antimicrobials consumption by country, species and farm.





Sales data sorted from highest to lowest in 2022.
 No sales of other quinolones were reported in either 2020 or 2022.

³ Sales in 2010–2014, 2017 and 2019 are underestimates, due to underreporting. * The class 'Others' includes sales of the following sub-classes: imidazole derivatives (metro

The class 'Others' includes sales of the following sub-classes: imidazole derivatives (metro nitrofuran derivatives (furazolidone) and other antibacterials (furaltadone, bacitracin, rifax spectinomycin). Of note is that some of the sales could be for non-food-producing animals

Since 2011:

51.5% overall annual sales (from 159.2 mg/PCU to 77.1 mg/PCU in

- C 25% 3rd- and 4th-generation cephalosporin sales (from 0.32 mg/PC
 - 0.24 mg/PCU in 2022)



20 November 2023 EMA/392230/2023



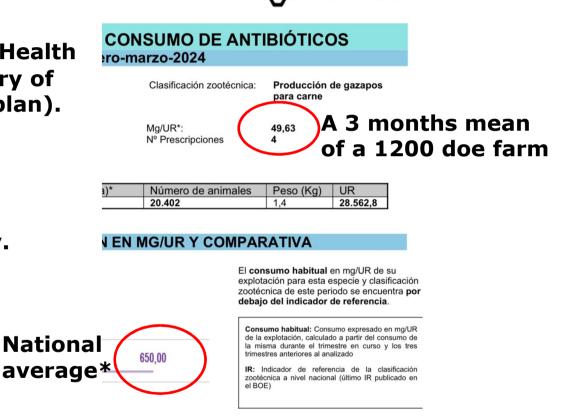


An update from November 2021

(2) information of antimicrobials consumption, and action plan!

Spain: AEMPS (Ministry of Health Agency) & MAPAMA (Ministry of Agriculture): PRAN (action plan).

There are 700 commercial rabbit farms approximately.





*Mean from January until March. April 2024. It has improved but must be reduced, for sure.

46,92

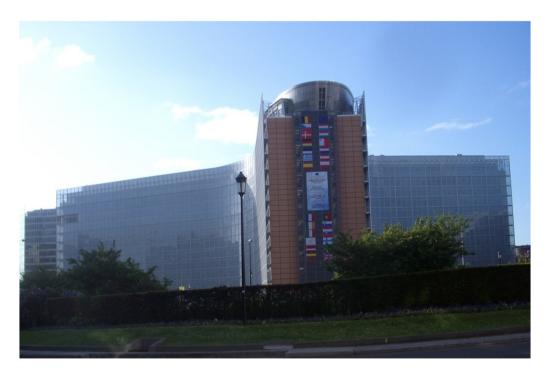
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What's new?

(3) Consequently, there is European legislation (<u>http://data.europa.eu/eli/reg/2019/6/oj</u>). In addition, (4) the rabbit sector decision (producers and veterinarians attending rabbitries/AVECU. Action plan: REDUCE, ARAC). And, (5) for intransigents: the pressure from Administrations (e.g., warnings, fines, or both).







What have we experienced during these 3 years?

*We made 901 visits (inside) to 124 farms (including 3 AI centers, excluding visits to facilities with rabbits for biomedical research and abattoirs).

- * Median size of visited doe farms: 868 (mean 1057 does).
- * Most were visits without relevant problems.
- * Nevertheless, we made several urgent visits:
- 71 visits due to Enter.-Diarr., Muc. Enterop. or both (AM).
- 64 due to mastitis, staphylococcosis or both (AM).
- 40 visits due to myxomatosis.
- <u>33 due to salmonellosis (8 farms) (AM).</u>
- 31 visits due to rabbit hemorrhagic disease.
- And so on (<u>respiratory /AM</u>, <u>reproductive</u>, dermatologic disorders...)



AM /ANTIMICROBIALS were used in these cases



On-farm variables influencing health

With scientific, technical evidence, or both:

- 1. <u>Rabbit line (3 degrees of predisposition to disorders)</u>.
- 2. <u>Housing</u> enables (separated from their feces, growers and adults in different barns, density of growers, foot rest in breeding rabbits, air speed/ temperature/rel. humidity).
- 3. <u>Watering</u> (mainly sanitation, also distribution).
- 4. Other <u>preventive</u> measures (vaccines, pest control...).
- 5. <u>Diet</u> (nutrients, sanitary quality of raw mat., additives)
- 6. Practical feeding (types of diets, restriction).
- <u>Reproductive management</u>: rhythm of service (better ≥ 32 days after kindling). Weaned rabbits staying "home".
- Staff: number of does/ person (according to on-farm design); AND: effort, competence, approach and attitude.
 In summary: implementing Biosecurity measures.





How to improve antimicrobial use? Have we seen on-farm practices enabling rabbit health?

Yes, preventing diseases. Evidently, by knowledge and effort !



Fasting was often useful in digestive disorders





In what variables have we seen changes that have enabled health?



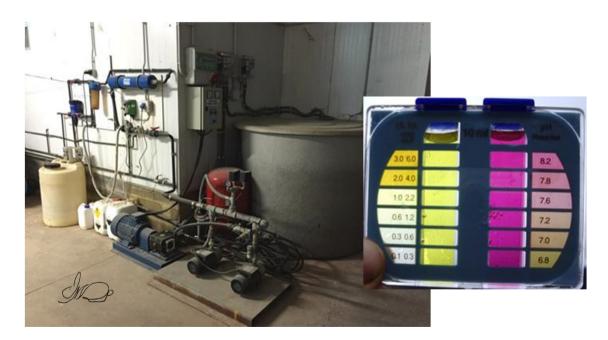
Diet composition and feeding influence, evidently.





Not everything was new. For example, hygiene practices (currently, biosecurity)

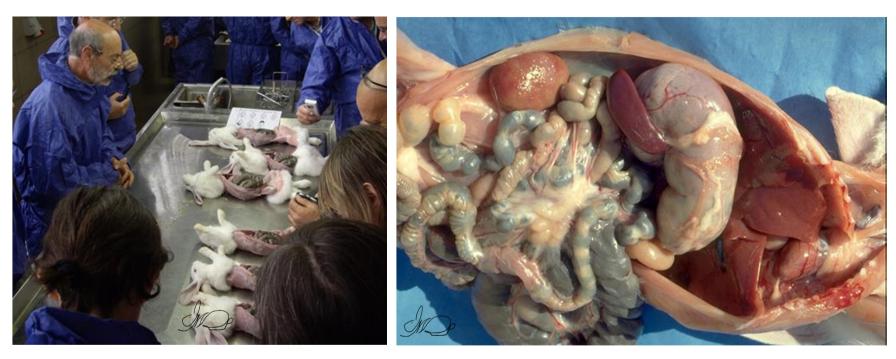
Sometimes we had to remind the producers water management, its sanitation with chlorine and eventually corrections with acids (orthophosphoric, acetic) or alkalis (sodium bicarbonate).







We paid special attention to coccidiosis and encephalitozoonosis to avoid co-morbidity with bacteria.



Dr. D. Licois in our memory

Rabbit grower with normal content of the digestive system, but nephritis, reactive mesenteric lymph nodes and splenomegaly, due to encephalitozoonosis.





Extensive reproductive rhythms (≥ 32 days) are beneficial for the health of producers and their animals. Where is the economic limit?

We have been visiting this producer's farm since 1985. Forty years ago he served the 600 does with mating 24 hours after parity. For the last three years he served 1000 females with AI at 120 days after kindling (three batches/ year !). This is a counterpoint, do you agree?



Dashboard of the farm





Why work with a slower reproductive rhythm?

Because we should use models in which rabbits are not at health risk and thus reduce the use of antimicrobials.

Besides, the rabbit is not an animal predisposed to diseases, *delicate*. "The rabbit is an animal that lives fast"*. Human beings, in general, live slowly.

* <u>http://www.cuniculture.info/Doc</u> <u>s/Biologie/Biologie-50.htm#3</u>





This has important consequences in practice....



...because rabbit producers should have time to approach, reflect, <u>react quickly</u> and, in relation to health, to communicate with their veterinarians.









One Health, also in rabbit farming !





Do we need something else to find the North?





Thank you for your attention! Now it's your turn!

Juan María ROSELL PUJOL

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