



Main topics:

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- ★ International and National Congresses
- ★ New WRSA branches

Dear WRSA officers and members,

Six months have passed since our twelfth Newsletter. A few months after we could finally celebrate our 7th American Congress in Rabbit Science, there are certain aspects that we want to inform you about and that will surely be of interest to you. We have tried to summarize the main news of these last six months in the current issue.

Letter from the WRSA President

Dear WRSA members and followers,

In the last six months, we have been able to observe how the international situation has affected the prices of raw materials and inflation in most of the world's countries. This has put the livestock sector in serious difficulties. Rabbit production is no stranger to this situation and, together with the legislative requirements that seem to be coming in the coming years, is causing the rabbit farming sector to face many challenges in the next decade.

To face all these challenges, rabbit farming needs science. In fact, it may even be an opportunity for the development of new science. These challenges will demand advances in digitization, precision livestock farming, new housing, animal welfare, alternative raw materials, reduction of the carbon footprint, etc. in rabbit farming. We are convinced that members of our association will take the baton, as they have always done, to develop all the knowledge and tools necessary to improve the viability and sustainability of rabbit production.

From the WRSA we commend you to continue with your magnificent work and commitment to rabbit science, which allows a new but hopeful future for this species.


Do not forget to use our discussion forum for every question to our community:

<https://groups.google.com/forum/world-rabbit-science-asso>

Publish in the WRSA journal, World Rabbit Science <http://polipapers.upv.es/index.php/wrs>

Visit our WRSA website <http://world-rabbit-science.com/> and our Facebook page <https://www.facebook.com/wrsaface/>

Best wishes

Juan José PASCUAL 
WRSA President
Universitat Politècnica de Valencia (Spain)

Last News of the World Rabbit Congress

It is with great pleasure that we announce the 13th World Rabbit Congress (WRC), which will take place for three days in Tarragona, Spain, between 2 and 4 October 2024.

The 13th WRC will take place at the Tarragona Exhibition and Congress Center. The Palace is located in the very center of Tarragona, a city recognized by UNESCO as a World Heritage Site. The city, characterized by its openness to the Mediterranean, has a wide range of hotels, leisure and culture.



All fields of rabbit sciences, from farming to deep biology will be presented at this congress, with main conferences, round tables, and short papers. This is an excellent opportunity for businesses in the industry to engage with scientists in the rabbit science research field. The Congress will attract a wide range of delegates, including both rabbit research scientists and stakeholders, and will include invited speakers from across the world.

The organizing committee of the 13th WRC is made up of the Institute of Agrifood Research and Technology of Catalonia (IRTA) and the Spanish Rabbit Association (ASESCU - Spanish branch of the WRSA).

Recently WRSA Executive Committee has appointed the Scientific Committee (SC) of the 13th WRC, which will be formed by

- Juan José **Pascual** (President of WRSA and ASESCU, and SC responsible, Spain)
- Mariam **Pascual** (Vice-President of WRSA and Manager of the 13th WRC, Spain).
- Yazmín Elisabeth **Felipe-Pérez** (Vice-President of WRSA, Mexico)
- Yinghe **Qin** (Vice-president of WRSA, China)
- Thierry **Gidenne**, (WRSA general secretary, France)
- Angela **Trocino** (WRSA treasurer, Italy)
- Saidu **Oseni** (WRSA secretary for less developed countries, Nigeria)
- Miriam **Piles** (IRTA, 13th WRC coorganizer, Spain).
- Juan Pablo **Sánchez** (IRTA, 13th WRC coorganizer, Spain)

We look forward to welcoming you to Tarragona in 2024.

Selected Publications

As you well know, **World Rabbit Science** (WRS) is one of the few indexed journals (IF: 1.000) that remains in the hands of academia (Universitat Politècnica de Valencia) and our scientific association. Thanks to this, WRS is a **free access** journal for readers **with no publication fees** for authors.

Currently, our institutions and PhD students ask us to publish in Q1 open access journals to increase our indexes. Consequently, publishers, that are aware of this situation, make us must **spend a significant amount of money** to publish our knowledge yearly. However, **we have the solution in our hands**, a journal that publishes in open access and without fees. We are completely sure that, if WRSA members send high quality papers to WRS for 2-3 years we would place it in Q1, solving all these problems forever.

Here you can find the most Popular Articles in World Rabbit Science (views in the last 180 days):

1. Consumer behaviour related to rabbit meat as functional food (1000 views) <https://doi.org/10.4995/wrs.2018.10435>
2. Sample preparation and storage effects on fatty acid profile of rabbit Longissimus thoracis et lumborum muscle (507 views) <https://doi.org/10.4995/wrs.2022.17160>
3. Partial diallel cross for assessing genetic merit of local rabbit breed (450 views) <https://doi.org/10.4995/wrs.2022.14990>
4. Cryopreservation of rabbit semen: impacts of permeable and non-permeable mixture of cryoprotectant, male group individuality, freezing rate, semen package size and antioxidant bovine serum albumin on rabbit semen freezability (415 views) <https://doi.org/10.4995/wrs.2022.17303>
5. Investigation of significant microRNA-mRNA pairs associated with nonspecific digestive disorder in rabbits (412 views) <https://doi.org/10.4995/wrs.2017.6839>

Other publications in the last 6 months (the 5 first in the function of the cites and position in Google Scholar):

1. Aspects of social behaviour and reproduction in the wild rabbit–Implications for rabbit breeding? World Rabbit Sci <https://doi.org/10.4995/wrs.2022.15954>
2. Composition of the wild rabbit nest and its implication for domestic rabbit breeding. Appl Sci <https://doi.org/10.3390/app12041915>
3. Purchasing habits, sustainability perceptions, and welfare concerns of Italian consumers regarding rabbit meat. Foods <https://doi.org/10.3390/foods11091205>
4. Expression of genes and localization of enzymes involved in polyunsaturated fatty acid synthesis in rabbit testis and epididymis. Scient Rep <https://doi.org/10.1038/s41598-022-06700-y>
5. Application of protein nutrition in natural ecosystem management for European rabbit (*Oryctolagus cuniculus*) conservation. Biodivers Conserv <https://doi.org/10.1007/s10531-022-02426-5>

International and National Congresses

In the last six months, WRSA has news about three events held around the world.

7th American Congress in Rabbit Science (Varadero, Cuba)

On October 12 and 13, 2022, the VII American Congress of Rabbit Science of WRSA took place within the framework of the 2022 Animal Production and Agro-Development Convention, which was held from October 10 to 14, 2022 at the Plaza América Convention Center in Varadero, Matanzas, Cuba. The VII American Congress of Rabbit Science was developed in a hybrid way (in person and online) and summoned specialists, researchers, professors, students, breeders and producers from different latitudes, related to cuniculture. Throughout the conference, a total of 50 congressmen attended in person and 15 online, mainly from Cuba, Mexico, Argentina and Spain. The objective of the meeting was to "Motivate the exchange of experiences and results in rabbit production systems in the Americas, their technical, economic, environmental and social sustainability, and strategies for the improvement, conservation, use and characterization of animal genetic resources for rabbit farming". The congress opened with a lecture by Juan José Pascual, president of the WRSA on the current state of rabbit



farming, followed by three other invited lectures, 18 scientific communications, and a round table on viral hemorrhagic disease, as well as a total of 21 posters. These scientific contributions were directed both to the fundamental areas of knowledge (feeding, genetics, reproduction, pathology), but also to other important aspects in America such as socioeconomics, the value chain, and the use of rabbit farming as a tool for fight against hunger. During the first day, aspects of the vertical integration of rabbit production, the production and commercialization of rabbits in Cuba, feeding costs and limitations for obtaining raw materials, and concerns about not total slaughtering of the rabbit mass, the virus outbreaks occurred, the political will to eradicate this disease, increase the productivity of the species, the components of the value chains and the need for a correct articulation between all the links in the chain, were discussed. On the other hand, during the second day there was a debate mainly on aspects related to the role of rabbit farming in society, not only for the production of quality meat, but also for its gender approach, the use of existing local resources in the Latin American countries, and the positive experiences of producers in the promotion of rabbit breeding. The congress closed with good attendance in the room, with a representation of students, producers, specialists, researchers and representatives of state production units and the Cuban Ministry of Agriculture (Director of the National Center for Animal Health and President of the livestock business group).



By Lisete fernández Paramo ad Yoleisy García Hernández

Annual conference ASIC 2022 “Special envoys to Nantès” (Castelfranco, Italy)

Last September 14, 2022, the Italian Branch of the WRSA, the Italian Rabbit Scientific Association (ASIC), held its Conference at Castelfranco Veneto (Italy). During the conference the results of the 12th World Rabbit Congress, held at Nantès (France) the last year (3-5 November 2021), have been presented by the young researchers awarded the ASIC scholarships. The conference aimed to offer an update on the main topics discussed in the World conferences on the different sessions. The meeting was opened by Dr. Luigi Ricci (Director of PIUE VI Office, Animal Production Sector, General Directorate for Policies and European Union of the Ministry of Agricultural, Food and Forestry Policies), who addressed the plan and maneuvers that the Italian government is applying to support the rabbit sector.



Prof. Gerolamo Xiccato presented a scientific report of the 12th World Rabbit Congress underlined the higher participation: 315 registration from 30 countries (11 EU country and 19 extra-EU), with 21 Italian delegates and 27 accepted papers, mainly in the Quality of products section (29% of Italian Authors) and Pathology and Hygiene (20% of Italian Authors). Furthermore, the 12thWRC has seen a high participation of Italian researcher in the invited papers (38% of Italian Authors). Dr. Simona Mattioli in co-participation with Dr. Margherita Maranesi and Dr. Lorenzo Capucci have been the invited speakers of Reproduction and Pathology and Hygiene session, respectively. Dr. Simona Mattioli during the ASIC conference highlighted the innovative approaches in the ovulation inductions for rabbit does point out the attention on the use of more animal



friendly-techniques. Dr. Lorenzo Capucci focused the attention on the novel vaccinations against the viral haemorrhagic disease, arousing a heated debate from farming and industrial participants. Prof. Angela Trocino presented, as Italian Session Referee of Ethology & Welfare, a summit of the invited paper (Prof. H. Rödel), the conclusions of the round table chaired by Dr. L. Maertens, K. De Greef, L. Fortun-Lamothe and some oral presentations on the topic, grouping the discussed topic in four thematic areas: i) promotion and development of alternative systems in groups-rearing system, ii) group rearing systems for rabbits does, iii) alternative farming systems for growing and fattening rabbits and iv) tools for assessment of welfare on farms.



Others sections have been presented by young scientists, winners of the ASIC scholarship: Dr. Marco Biolo addressed the importance of alternative diets (i.e. high fiber or low-input ingredients) for does and weaning-rabbits (Nutrition & Feeding session); Dr. Matteo Cornaggia and Dr. Luca Palazzolo presented some contributes focusing on two main rabbit disease: Myxomatosis and Pastourellosis. They also underlined the problem of the persistence of antibiotic residues on environment (Pathology & Hygiene session). Finally, Dr. Simone Mancini summed up the main strategies used to improve the quality of raw or processed (burger, balls) rabbit meat, i.e. dietary supplementation of bioactive compounds or additives (Quality of products session). The conference was chaired by Prof. Angela Trocino (ASIC president) and Prof. Massimiliano Petracchi (ASIC vice-president).

The program, presentation in pdf and the speakers 'presentations available at https://www ASIC-wrsa.it/convegno2022_nantes.php.

By Angela Trocino

China Branch of WRSA co-organized the 11th annual China Rabbit Industry Development Conference

The 11th Annual Conference of China Rabbit Industry Development was held in Jinan City, Shandong Province, People's Republic of China on August 25-26, which was jointly organized by China Branch of WRSA, Rabbit Branch of China Animal Agriculture Association (CAAA) and Jinan local government. The theme of this year conference is Green and health, Technological Innovation, High Quality and Efficiency, and Rural Revitalization. The council meeting of the Rabbit Branch of CAAA was also held during the conference and new council committee were elected. Prof. Yinghe Qin was again elected as the president of the fifth council committee.

This is the first face-to-face conference since the outbreak of Covid19 in 2020. Around 400 representatives participated the conference physically. In order to meet the demands of more rabbit breeders and other participants, the conference was organized with different sessions, including academic report, experience-sharing, rabbit industry roundtable, indoor and outdoor exhibition, and the online visit to the rabbit farms.



In the academic report session, the organizer received more than 100 papers, these papers cover areas of breeding, feed and nutrition, pathology and hygiene, technological innovation, management and economics, and rabbit culture etc., of which 73 papers were compiled in the proceedings, and 22 papers were presented orally, moreover, Prof. Yinghe Qin, Prof. Laping Wu and other eight experts were invited to give lectures respectively from general development of rabbit industry, environment control, information service and marketing etc.

In the experience-sharing session, seven companies shared their experiences on the integrated industrial chain of meat rabbit, intelligent rabbit raising equipment, detection of respiratory diseases, automatic feeding system, fine management and healthy breeding system etc.

In the rabbit industry roundtable session, seven chairmen or general managers of flagship rabbit breeding companies in China were invited to interact with audience, share their experiences and answer the questions.

During the conference, the indoor and outdoor exhibitions were also held. More than 40 companies of breeding, feeding, medicine and equipment exhibited their products. Some companies also signed contracts in rabbit breeding, feeding, environmental control equipment, veterinary medicine, organic fertilizer processing, slaughtering and processing, fur processing, etc.

Due to the pandemic, instead of field visit, at the end of the conference, the organizer arranged the online visit to two rabbit farms, at the same time, the whole conference was also streamed live online.

By Dr. Guozhong Xie and Professor Laping Wu.



UPCOMING 2023 CONGRESSES:

2nd National Rabbit Congress (Bulacan, Philippines)

The second edition of the National Rabbit Congress, organized by the Association of Rabbit Meat Producers, Inc. (ARaMP), will take place on February 23 and 24, 2023 at the Bulacan Agricultural State College (BASC) in Pinaod, San Idelfonso, Bulacan (Philippines).

This event will consolidate the gains of the rabbit Industry and will be a tripartite meeting of the significant sectors cooperating to push the emerging industry to greater heights. The academe will present and share their latest works on rabbit related researches. The Department of Agriculture attached agencies will participate to present and explain the guidelines and programs currently in the pipeline for the industry. Industry stakeholders will in turn share their most relevant practices and applications that will truly realize the potentials of raising rabbits for meat, bannered in the theme "Rabbit industry for food sufficiency and better nutrition".



Google Forms Registration Link: <https://forms.gle/VtXKsq9GcpoYAR9D9>

19èmes Journées de la Recherche Cunicole (Le Mans, France)

The next edition of the Journées de la Recherche Cunicola will take place on March 22 and 23, 2023 in Le Mans (France).

The Rabbit Research Days (Journées de la recherche Cunicole) have been organized since 1973 by ITAVI and INRAE, with the participation of the ASFC. They make it possible to present to all actors in the rabbit sector (breeders, groups of producers, cooperatives, manufacturers of food and equipment, slaughterhouses, professional organisations, etc.) the most recent results of research and to discuss them. They concern all the major areas of rabbit breeding and meat production: feed, genetics, pathology, reproduction, breeding techniques, growth, meat and carcass quality, economy, etc.

From ITAVI we invite the entire sector to meet in Le Mans

<https://evenements.itavi.asso.fr/evenement/19emes-journees-de-la-recherche-cunicole>

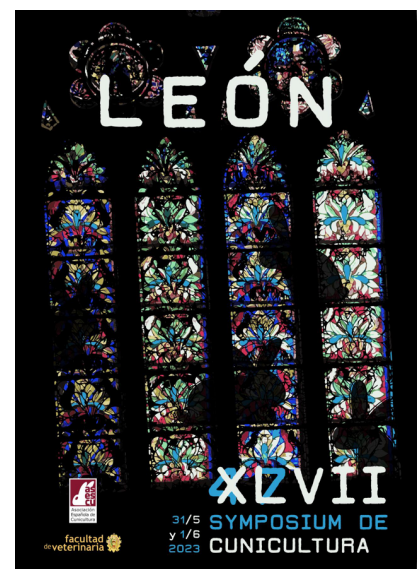


47th ASESCU Symposium of Rabbit Farming (León, Spain)

On May 31 and June 1, 2023, the Spanish rabbit sector is summoned to the 47th edition of the ASESCU Rabbit Symposium. This edition is co-organized with the Faculty of Veterinary Medicine of the University of León, which will host us in the beautiful city of León.

The objectives of the forty-seventh edition of the Rabbit Farming Symposium are to publicize the reality of rabbit farming in the province of León and in the region of Castilla y León in general, to serve as a meeting point for rabbit breeders, technicians, salespeople, companies, professionals, teachers and researchers to analyze the current situation of the rabbit farming sector in Spain and serve as a stage for the presentation of the advances in research and technological development that have occurred in the field of rabbit farming since the previous Symposium.

From ASESCU we invite the entire sector to meet in León
<https://asescu.com/symposiumleon2023/>



International Conference on Rabbit Production in Tropical Climate (Kuala Lumpur, Malaysian).

The Malaysian Rabbit Breeder Association (WRSB branch Malaysia) announces the celebration of their International Conference on Rabbit Production in Tropical Climate on September 8, 2023 in Kuala Lumpur (Malaysia). The theme for this conference seems to be dedicated to "Rabbit for a sustainable food system". The organizers expect more than 200 attendees (researcher, students, industry players and representatives from related local government agencies). As we have more information about the congress, we will inform you.



New WRSA branches

Finally, we did not want to close this newsletter without informing that our colleague Dr. Zdenek Volek has informed us that the Czech Rabbit Science Association has recently been established, which claims to be the Czech branch of the WRSA.

At the moment, the association is preparing the documentation to be included as a new branch of the WRSA in the next general assembly of the WRSA.

You can find all the information about the association at www.cvka.cz

From the WRSA we just want to congratulate and welcome you.



Best regards and wishing you a great Chinese year of Rabbit 2023

Juan José Pascual
President of WRSA



Valencia (Spain), January 30, 2023