



8th International Feed Conference
Present and Future Challenges

FEED 2023

Milan, October 9-10



UNIVERSITÀ
DEGLI STUDI
DI MILANO



divas
DIPARTIMENTO DI MEDICINA
VETERINARIA E SCIENZE ANIMALI

ABSTRACT BOOK

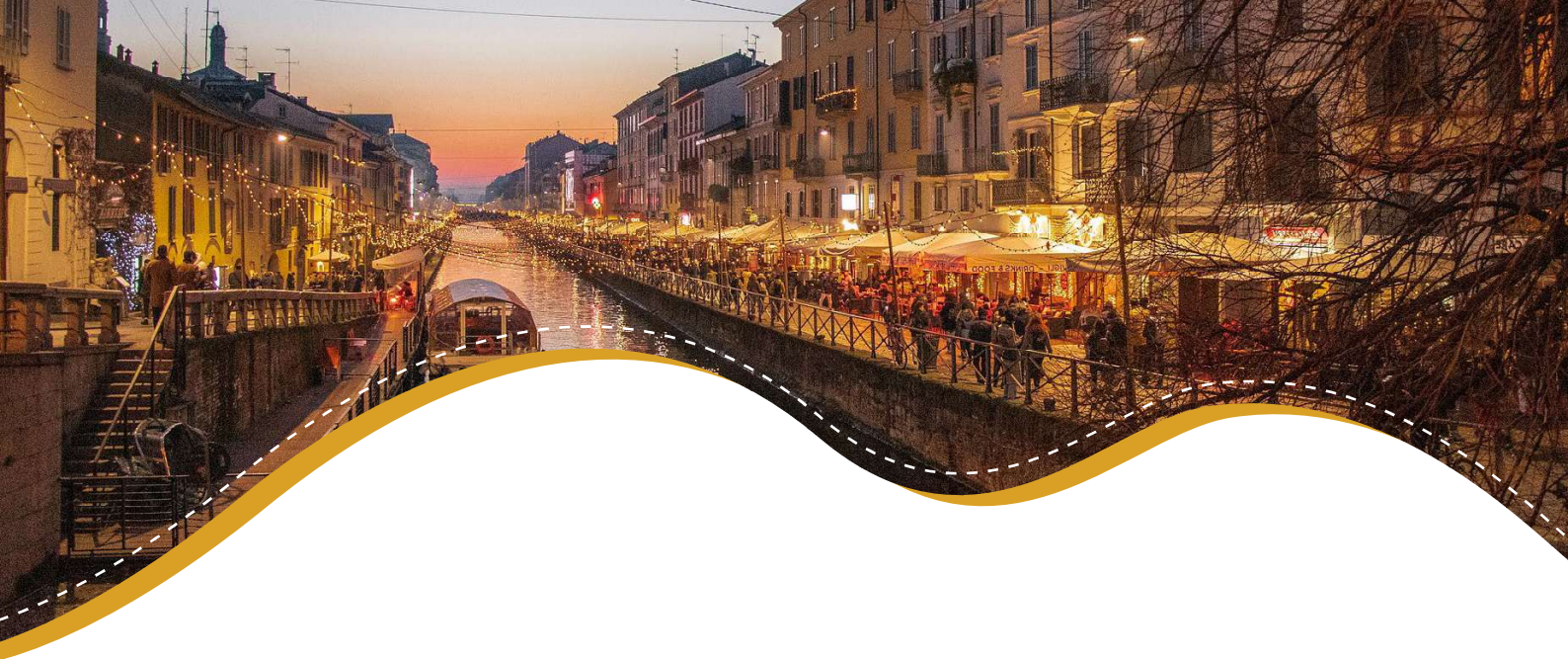


Chair: Prof. Luciano Pinotti
Chair of the Organizing Committee and
Chair of the Scientific Committee



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Dear Colleagues and Friends,

On behalf of the Local Organizing Committee, it is my pleasure to welcome you to the 8th **International Feeding Meeting “Present and Future Challenges”**, at the Università degli Studi di Milano (Italy) October 9-10, 2023.

As seen in 2021, the availability of sufficient and safe feedingstuff is still a key challenge in modern agriculture. While the topic of undesirable substances in feed remains a major issue, the globalisation of the feed business has further reinforced the need for efficient tools for traceability of feed ingredients. Moreover, the constantly increasing demand for food from animal origin, along with limited resources, triggers the need for evaluating new sources of feed ingredients such as insects and efficient feed production. Additionally, the impact of climate change on feed production should be also taken into account. Keeping the feed safe and sustainable therefore requires a multidisciplinary approach, bringing together all stakeholders, including industry.

The 2023 International Feed Conference covers all the current interesting areas for animal feed, which will be presented in the following two sessions:

- Circular feed and additives
- Feed quality, safety, authentication and traceability

In today's world, sharing scientific knowledge, research findings, laboratory methods and strategies within the scientific community has become a necessity. The aim of this conference is to bring together, at a single event, scientists, researchers, laboratory personnel, policy-makers from governmental and non-governmental organizations and people from industry where they can share their knowledge, scientific experiences and experiments on subjects crucial to animal feed. With the participation of international experts, we hope that productive discussions will stimulate new creative ideas to translate new discoveries into better practices and applications.

For this eighth edition - FEED2023 – participants can attend in both online or directly at the venue.

Keynote and regular speakers will deliver their presentations in front of the audience in Milan.

Discussions will only be open to the audience in the conference venue.

Welcome to FEED2023!

Prof. Luciano Pinotti
Chair of the Organizing Committee and Chair of the Scientific Committee

Scientific Committee



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Circular Feed and additives

PROCESSED FORMER FOODSTUFF BASED ON BAKERY BY-PRODUCT INCLUDED IN COMPOUND FEED DIET DESTINED TO POULTRY CAN ENHANCE BROILER PERFORMANCE WITHOUT IMPAIRING MEAT SENSORIAL PROPERTIESK. Srikanthithasan³, G. Andrea², G. Marrita³, E. Diaz Vicuna³, E. Fiorilla³, R. Rosalba¹, F. Gasperi¹, A. Schiavone³, V. Massa², C. Forte³¹Center Agriculture, Food, Environment (C3A), University of Trento, Trento Italy²Dalma Mangimi Spa, Marene (CN), Italy³Department of Veterinary Sciences, University of Turin, Turin, Italy

Reduction of feed-food competition is nowadays recognised as one of the most effective solutions to increase livestock sustainability and improve circularity in animal feed. Among the proposed strategies, recent studies suggested that the use of Former foodstuff (FF) as feed ingredients could be a win-win strategy for both food and feed industries. Within the FFs, bakery by-products (BBPs) have been investigated in ruminants and swine diets as sustainable ingredients with positive results. The present work aims at filling the gap concerning their use in poultry. For this purpose, 200 one-day-old male ROSS-308 chicks were assigned to four dietary treatments balanced by average live weight (LW) ($38.0 \text{ g} \pm 0.11$ - 5 replicates, 10 birds/pen). Within each diet BBP were included as replace for corn-soybean meal on a w/w ratio obtaining 4 different feeds: control (CTR: commercial feed), L-BBP (6.25% BBP), M-BBP (12.5% BBP), and H-BBP (25% BBP). In vivo LW and Average daily feed intake (ADFI) were registered, and average daily gain (ADG) and feed conversion rate (FCR) were calculated. At day 36, birds were slaughtered, and chicken breast samples (n=5/group: for each analysis) were taken and stored at -20°C . A discriminant analysis were then used involving consumers in two section in a binomial test. Performance data were analysed by one-way ANOVA using polynomial contrasts to test the linear and quadratic responses to increased BBP inclusion rate. Sensorial data were analysed using ANOVA and considered significant for $P < 0.05$. No differences emerged in LW and ADG, while ADFI (CTR: 62.52, L-BBP: 60.59, M-BBP: 60.67, H-BBP: 57.53, $P = 0.026$) and, consequently, FCR (CTR: 1.57, L-BBP: 1.49, M-BBP: 1.54, H-BBP: 1.39, $P = 0.002$) resulted positively affected by the higher dose of BBP. Discriminant analysis revealed no difference between dietary groups. For our panel, the different inclusion levels of BBP in the broiler diet did not influence the perception of the final product. Results obtained are encouraging. The decrease in feed intake and the absence in final LW can result in important advantages for the breeder in terms of both economic and environmental sustainability. On the other side, the absence of differences highlighted by the discriminant analyses are crucial for the final consumer accustomed to buying a product of constant quality. Overall, even if more data are needed and more studies should be performed to confirm, we can state that including up to 25% of BBP in poultry diets can represent an effective new sustainable nutritional protocol for broilers farming. Furthermore, the LCA data of the two diets supplied during the test have been evaluated with an important environmental saving in terms of water consumption, CO_2 emissions and reduction of land use.