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# ICAR Brian Wickham Young Persons Exchange (BWYPEX) program: supporting excellence and knowledge exchange

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## Introduction

The International Committee for Animal Recording (ICAR) was established in 1951 under the auspices of the FAO to harmonise methods for milk recording and testing, which were becoming increasingly challenging. The harmonisation project was strongly promoted and supported by FAO at the European level first and then expanded smoothly to a global stage. Today, the community of 145 ICAR members in 55 countries publishes guidelines, recommendations, and standards on milk recording and related areas of livestock farming each year. These global standards, developed over decades, require strict and well-organised scientific and field-related collaboration. Topics and tools are addressed in ICAR subcommittees (SCs) and working groups (WGs), by a wide variety of scientists and experts, as well as animal breeders from member countries. The evolution of SCs and WGs, driven by innovative and enhanced young professionals, is part of an ongoing process of improvement and upgrading the ICAR community and its activities.

Since 2022, ICAR has increased efforts to support skills development, knowledge transfer, experience exchange, and networking capacity of ICAR young scientists through the Brian Wickman Young Persons Exchange (BWYPEX) Program. The program has supported 11 young researchers worldwide.

## Materials & Methods

The BWYPEX program has been built around 4 pillars supported by ICAR: mentors, hosts, partner organisations, and young scientists. ICAR's role is to coordinate the identification of topics of interest and the calls for participants. Additionally, it aims to provide proportionate funding and support to young scientists to integrate the program. At ICAR, a 4-person steering committee was appointed to support this role.

Partner organisations of the BWYPEX program are members of ICAR, and mentors are drawn from ICAR WGs, ICAR SCs, and/or member organisations. The criteria for young scientists to be eligible are to work at one of the partner organisations on one of the identified topics, be under 35 years old, and aim to interact with at least 2 partner organisations across different geographical areas.

Topics of interest are proposed by the 9 ICAR WGs and the 4 ICAR SCs and must align with ICAR activities and the joint interests of ICAR members. The fields of interest of ICAR members are listed in the published guidelines, which are organised into 22 sections and available on the ICAR-WIKI.

The funding model is essential to enable young scientists to travel and afford their stay in the host countries. It is a collaborative effort of donors, hosts, and ICAR itself.

The methodology for performing the BWYPEX program has been the same in the first two editions. It starts with a call for topics of interest through ICAR WGs and SCs. The BWYPEX committee selects topics and defines the criteria for the call for participants, based on the topics. The call for funders and hosting organisations is launched when the topics are known. When candidate selection is complete, the program can operate in the field. Young scientists have a

schedule to follow; from the research and learnt steps at the hosting organisations to the production of deliverables and their presentation to the ICAR community.

## Results & Discussion

The program has supported 11 young researchers worldwide in 2 periods. A first edition took place between July 2022 and the end of 2023, with 4 young people participating. The second, with 7 young researchers, started in July 2024 and is still ongoing.

The young researchers from the first edition each published a report on their work on the selected topic, presented the outputs to the relevant WG and/or SC of ICAR, and were encouraged to submit an abstract for an oral presentation at one of the technical sessions of the ICAR annual conference in 2023 in Toledo (Spain). In addition, a series of webinars was organised between 2023 and 2024 for the young researchers to share their work and experiences, and they were invited for a joint presentation at the plenary session of ICAR 2024, in Bled. For the second edition, the final reports are being prepared and should be available and presented at the annual ICAR conference in Verona in June 2026. The schedule for drafting this contribution for WCGALP 2026 didn't allow time to compile results from both editions. The first edition granted 4 topics of interest and 4 researchers. For the second edition, 6 topics were selected, and 7 researchers had access to the program. Table 1 lists the topics tackled by young scientists during the 2 sessions.

**Table 1.** Topics of interest: BWYPEX Program.

| **2022-2023** | **2025-2026** |
|---|---|
| Genetic improvement in Beef on Dairy | Analysis of measurements of actual feed intake recorded automatically by feed bins / in commercial herds. |
| Sensors for Animal Health and welfare (AHW) traits | Discovery, approval and management of genetic abnormalities in cattle |
| Mid infra-red (MIR) for fatty acids prediction : state of the art | Methane prediction by MIR |
| Feed efficiency and methane emissions | Tech comparison of methane measurements devices and alternative predictors |
| | International genetic evaluation of sustainability traits in sheep |
| | A survey to understand implementation of ICAR methods across milk recording organizations |

The 4 participants in the first edition were supported by 11 ICAR members funding the program and 7 mentors. They visited 15 countries and interacted with over 250 organisations worldwide. Regarding the dissemination of their work, they published 28 papers and obtained nearly 600 registrations for the series of webinars named BWYPEX[2]. By publishing their experience and findings on social media, they received over 45.000 impressions. The outreach of their experience contributed to a larger second edition, in which 7 young researchers participated and were supported by 9 mentors.

The results of their work have inspired concrete actions within the ICAR Community and contributed to the upscaling of their knowledge. The conclusions and recommendations on the role of genetic improvement in integrating the beef and dairy sectors have led to the launch of the Beef on Dairy (BoD) ICAR Task Force, which provides a forum for ICAR members to collaborate on production, recording, and genetic evaluation for BoD. The topic related to sensors for AHW has contributed to increasing the knowledge of the young scientists who is highly involved in the joint initiative between ICAR and the International Dairy Federation (IDF) on sensor data for functional traits. The ExtraMIR ICAR/IDF joint initiative has

benefited from the outputs of the MIR and fatty acids topic. A new topic on the use of MIR technology was proposed for the 2nd edition of the program. The feed efficiency and methane topics have largely contributed to the ongoing work of the Feed and Gas ICAR WG.
Regarding generation renewal, the 4 participants continued to be involved in ICAR activities after participating in the BWYPEX program by taking part in an ICAR WG or another strategic and collaborative group. They have also improved their knowledge and expanded their network to a wide range of professionals, from scientific institutions to farmers and breeders.
Results from the second edition will be presented at WCGALP 2026 and compared with the outputs from the 1st edition wherever possible.
In addition to the positive outcomes for the young scientists and ICAR groups in the BWYPEX program, participants have identified several areas for improvement, including reducing administrative burden, considering the post-doc status instead of the age criteria, better preparing for travel, and aligning the timeline and deadlines more closely with on-the-ground realities and work constraints, especially for publishing the reports. They have also proposed recommendations to improve the engagement and involvement of young scientists within the ICAR community and strengthen their skills and knowledge. These concrete recommendations will be explored during the presentation.

## Conclusions

The results presented show that concrete and coordinated action to support the next generation of scientists is highly welcomed by young scientists, mentors, and host organisations. There is a pressing need for organizations that promote scientific and on-field collaboration to invest in supporting such mentorship. In the case of the BWYPEX program, the outcomes and lessons learned from the first two editions should be considered when launching the 3rd edition later in 2026.
Looking further ahead, an effective long-term effort to improve knowledge exchange to young people should be part of the organisation's overall strategy. Increasing awareness to engage more members and young scientists in the program, providing adequate support at both professional and personal levels, exploring more innovative topics of interest, and creating partnerships beyond ICAR's borders could be the next steps for the BWYPEX program.

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