American College of Poultry Veterinarians
2022 ACPV Workshop
Sensor Data and Analytics for Poultry Health, Welfare, and Food Safety

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Fundraising Chair: Dr. Tina Wang, **anproCampus:** Federico Etcheverry

Final report:

The 2022 ACPV Workshop was a hybrid program with an online portion offered from March 7 to May 15 and one in-person session held on April 3rd in Vancouver, Canada. A total of **94** people registered for the workshop, and **46** attended the meeting at the Vancouver Marriott Pinnacle Downtown Hotel. The list of participants is attached with a financial report. There was a net profit for ACPV of $5,628.

Travel restrictions due to the pandemic and flight issues played a role in the attendance of participants and some of the speakers. Some of the talks were delivered virtually with Q&A sections live. The Vancouver session was recorded and has been available to watch on demand at the ACPV website since June. Seven registrants have completed and received Certificates for using this online material.

Comments collected during the workshop indicated that the meeting in person met expectations and contributed to acquiring a new perspective on using electronic sensor technologies and data analyses. The speakers in the workshop provided an overview of applications and ideas to overcome some of the issues commonly observed or perceived. Participants seemed motivated to learn and collaborate in this area to advance the poultry industry and research.

The interactive virtual course online was titled Introduction to Data Analytics for the Poultry Industry. This online course was an overview of only 8 modules from a more extensive Course of 32 modules offered by NC State University and anproCampus called Data Analytics for the Poultry and Swine Industries. The course had examples and exercises with statistical software that was provided.

Despite five messages inviting registered participants in the workshop to use the Course online, only 48 opened it once (51%), 46 initiated it, and only 32 finished it and obtained the certificate. This final result is only 34% of people registered in the workshop and 67% of participants that opened the course. We consider it a deficient use of this educational system that has been previously well qualified by almost two hundred professionals worldwide.

The evaluation survey of this Course indicated that 33% of the participants considered the contents excellent, 44% very good, and 18% good. Participants indicated to be very satisfied (33%) or satisfied (51%) with the course, and 92% indicated the course length was appropriate. There was an open Forum and help available on the platform of the Course, but participants never used it regardless of the multiple invitations to utilize it. 28% of the participants indicated that this was the first time taking an interactive online course, and 20% of the active participants (11) manifested

difficulties downloading or installing the statistical software provided, but only five people requested help by email.

We had comments about the interactive course that varied from "***This was one of the best online webinar style online courses I have taken. It was engaging, and I liked the interaction***" or "***This was a great short course for an introduction***", but others indicated, "*Is this class organized to target the right audience?*". In general, most participants wanted to have more examples, more tutoring, more explanations, and a longer course. However, since the Online Interactive Course did not provide RACE Certification and we had limited time to cover these topics, we did not add more information for this Introductory version of the Course. We consider the objective of motivating our colleagues to learn more about data analytics was accomplished.

Most participants had low prior knowledge of statistics, no previous contact with statistical software, and indicated that they currently don't work with big data sets. Some participants found the three modules on predictive modeling and machine learning complex due to the lack of introduction to these techniques provided in the complete course on Data Analytics. The objective of those modules was to provide an overview and idea of the most advanced methods and the need to learn more techniques before talking about the most advanced machine learning and artificial intelligence. We help participants identify their learning needs.

Considering that the need for data analyses of big datasets will increase in the near future, the use of electronic sensors is becoming widespread, and automatic data collection will grow exponentially in poultry production, it is recommended to create more educational programs on this topic for Poultry Veterinarians. Mathematical and statistical methods are not common in the training of Veterinarians anywhere. Training should be taken with anticipation and not only to face immediate responsibilities. The current technological tendencies indicate that all professionals involved in a production system must be involved in the appropriate use of data to make better decisions in all the links of a supply chain.

We appreciate the opportunity to conduct this initial training for the American College of Poultry Veterinarians.

2022 ACPV Workshop

EXPENSES

Speaker Travel Costs	$ 2,050.67
AV Fees	$ 5,200.36
AnproCampus Fees (access to online modules) $50/Registrants	$ 4,700.00
Meals (Breakfast, 2 Breaks)	$ 4,852.87
Management Travel Expense (Flight, Hotel, Meals)	$ 1,855.41
Programs	$ 96.74
RACE Certification	$ 670.00
Total	**$ 19,426.05**

INCOME

Sponsors (11)	$ 13,700.00
Registrants (94)	$ 11,355.00
Total	**$ 25,055.00**

REGISTRATION CATEGORIES

Registration Member	$ 150.00
Registration Non-Member	$ 175.00
Student	$ 40.00

Total Profit/Loss	**$ 5,628.95**

NOTABLE COMMENTS FROM ATTENDEES

Very nice idea to also provide the self-study modules.

I enjoyed the majority of the workshop. I understand that personal circumstances made it impossible for some speakers to attend and so their lectures had to be delivered digitally. However, these talks were much harder to follow particularly where it was unclear what the structure and purpose of the lecture was meant to be. In these instances, I think the audience would benefit from a more obvious structure to the presentation e.g., a clear contents slide and references to where the discussion had progressed to at regular intervals. A second minor issues which could be improved was that a lot of infographics were included but many did not have any labels or explanation of what they portrayed and so were challenging to interpret. Some infographics also were too detailed and included text that was too small to read in the audience. Supplying the audience with copies of the presentation slides beforehand (to examine on their own computers) may help this.