Aviapp

ANNUAL REPORT

Europe

2022

HUVEPHARMA®

Aviapp® is a well-recognised tool for evaluating the health status and performance of your flocks. In this report an overview of the coccidiosis pressure and trends in Europe are provided for the year 2022 and compared to 2021.

Methods

Estimates provided in this report are based on statistical models which take into account effects at the client level, seasonality, and age effects. Only users sharing data with Huvepharma® were included. The age range was restricted between 7 and 42 days of age. In addition, users needed to have entered at least 10 flocks in the last 2 years.

Number of observations

In Table 1, an overview is given of the number of birds and flocks included in this report.

Table 1. Number of birds, flocks, farms, and houses per year.

Region	Year	Birds	Flocks	Farms	Houses
Europe	2021	25572	3739	888	1739
Europe	2022	23495	4121	1079	1998

Discussion

The main difference noticed in 2022 compared to 2021 is the lower level of *E. maxima* scores. This is most clearly demonstrated in Figure 4 showing the average lesion score for *E. maxima* as a function of the age of the birds. The other two species (*E. acervulina* and *E. tenella*) have almost identical scores over the two years, *E. acervulina* being the most dominant species and *E. tenella* having very low scores in general. In December 2021, both the TMLS (total mean lesion score) and the dysbacteriosis score was low and increased during the first 6 months of 2022. In general the TMLS was very similar in 2021 and 2022 but the dysbacteriosis score increased in 2022 (0.64 versus 0.58).

Trends in *E. acervulina*

Figures 1, 2 and 3 demonstrate the evolution of *E. acervulina* over time comparing 2021 with 2022. In general there was little variation between 2021 and 2022 for *E. acervulina* as scores proved to be stable.

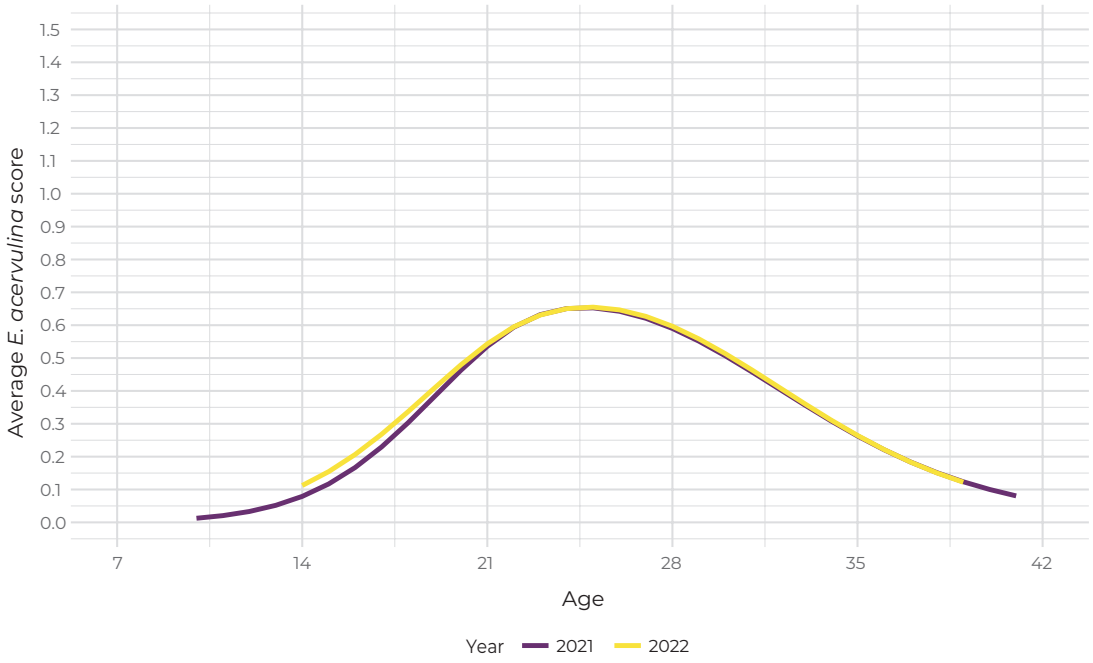

Figure 1. Average score of *E. acervulina* by the age of the birds.

There is very little difference between the age profile in 2021 and 2022. The average peak scores (0.65 and 0.66 for 2021 and 2022, respectively) were very similar at 25 days of age for both years.

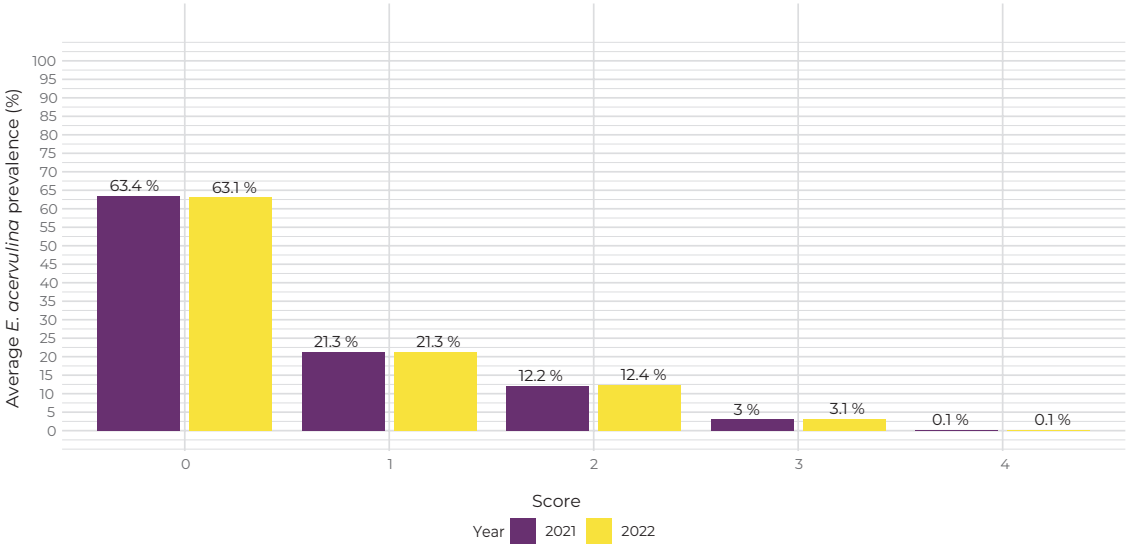

Figure 2. Distribution of different scores of *E. acervulina* in 2021 and 2022.

The distribution of the different scores shows very little difference in 2022 compared with 2021.

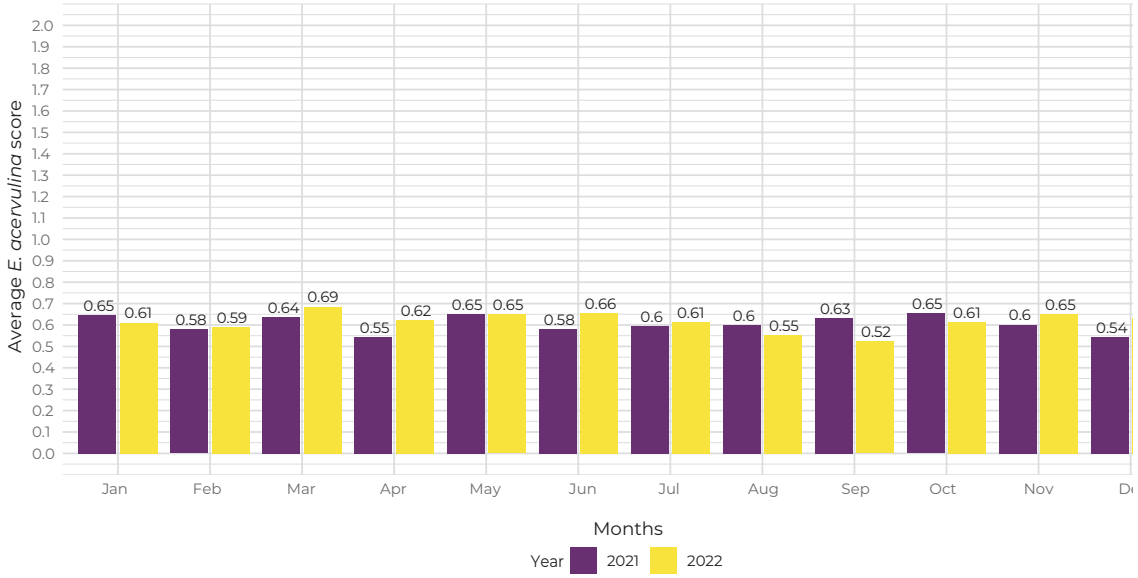

Figure 3a. Evolution of *E. acervulina* lesions over time per month.

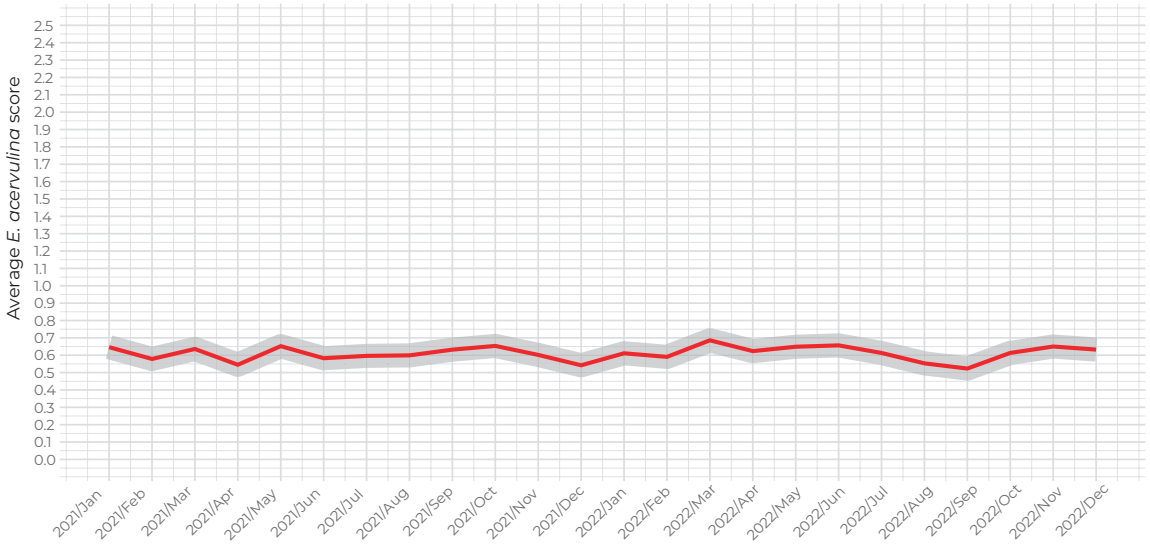

Figure 3b. Evolution of *E. acervulina* lesions over time continuously.

After a slight reduction at the end of 2021, the average *E. acervulina* score increased again. The scores in 2022 showed slightly more variation compared to 2021.

Trends in *E. maxima*

Figures 4, 5 and 6 demonstrate the evolution of *E. maxima* over time comparing 2021 with 2022. In general there was a reduction of *E. maxima* lesions at the end of 2022.

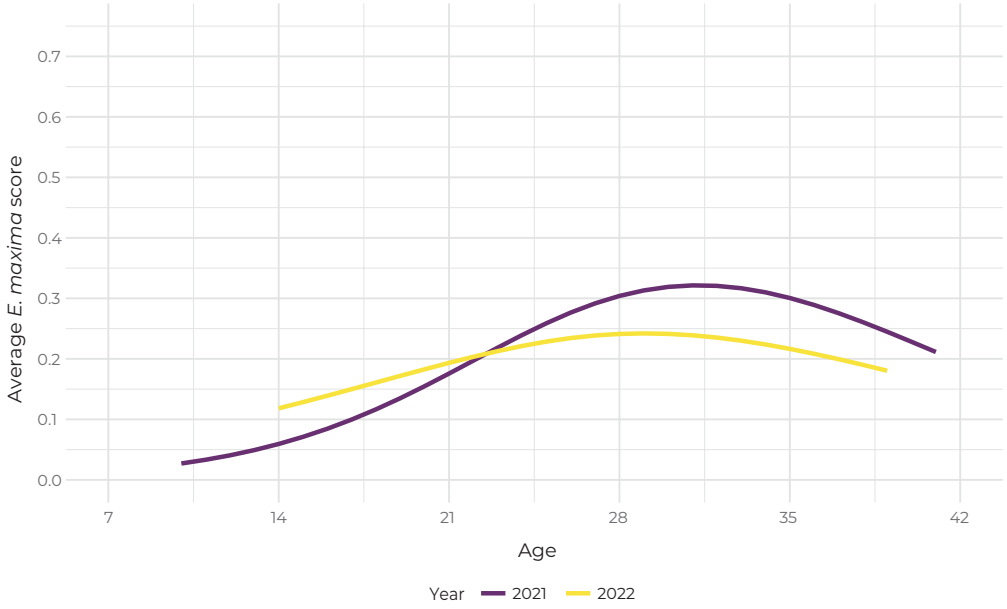

Figure 4. Average *E. maxima* score by the age of the birds.

The *E. maxima* age profile was notably lower in 2022 compared to 2021. The average peak score was slightly earlier in 2022 at 29 days of age (average score = 0.24) compared to 2021 which peaked at 31 days of age (average score = 0.32).

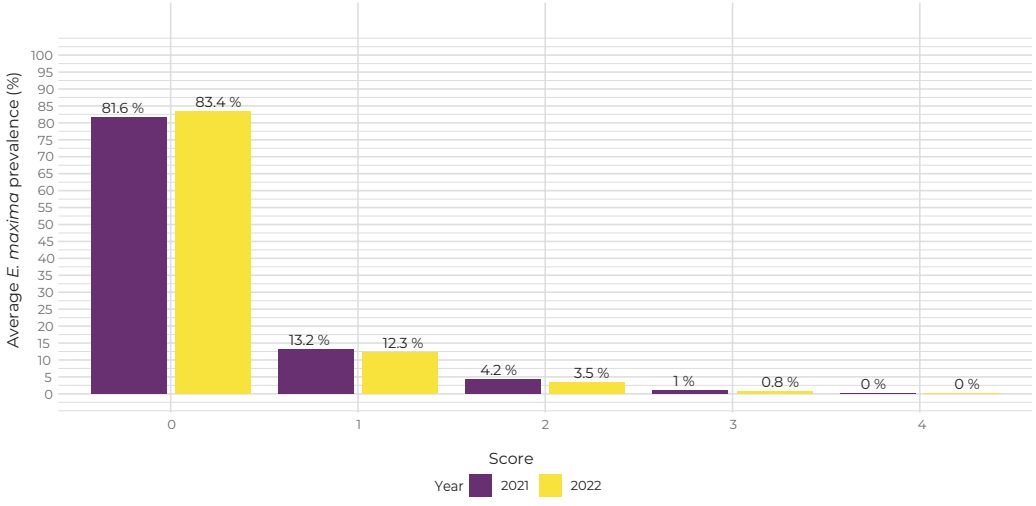

Figure 5. Distribution of different *E. maxima* scores in 2021 and 2022.

There was a higher percentage of 0 scores with an even reduction of the different scores 1 to 3.

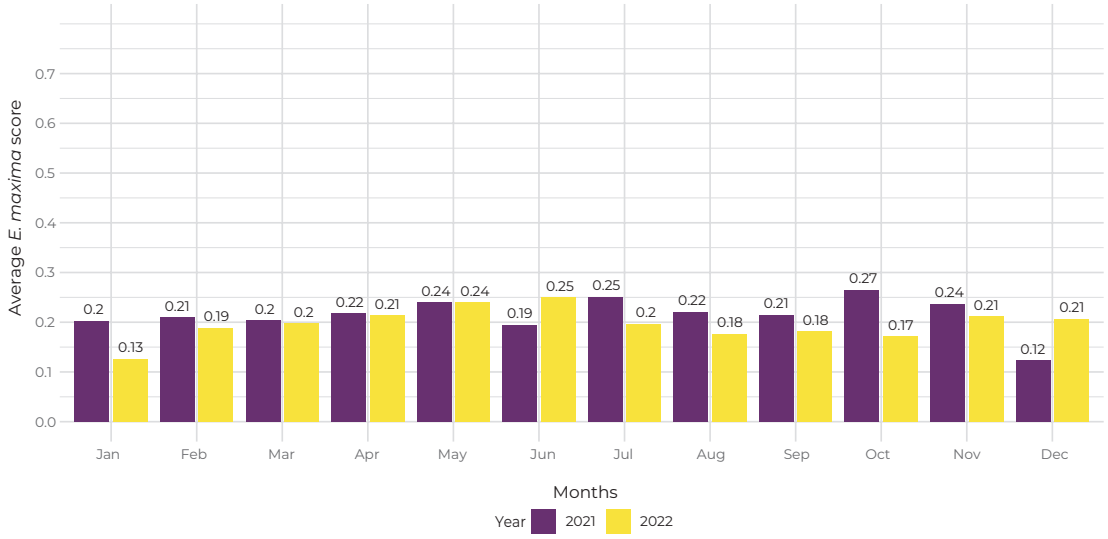

Figure 6a. Evolution of *E. maxima* lesions over time per month.

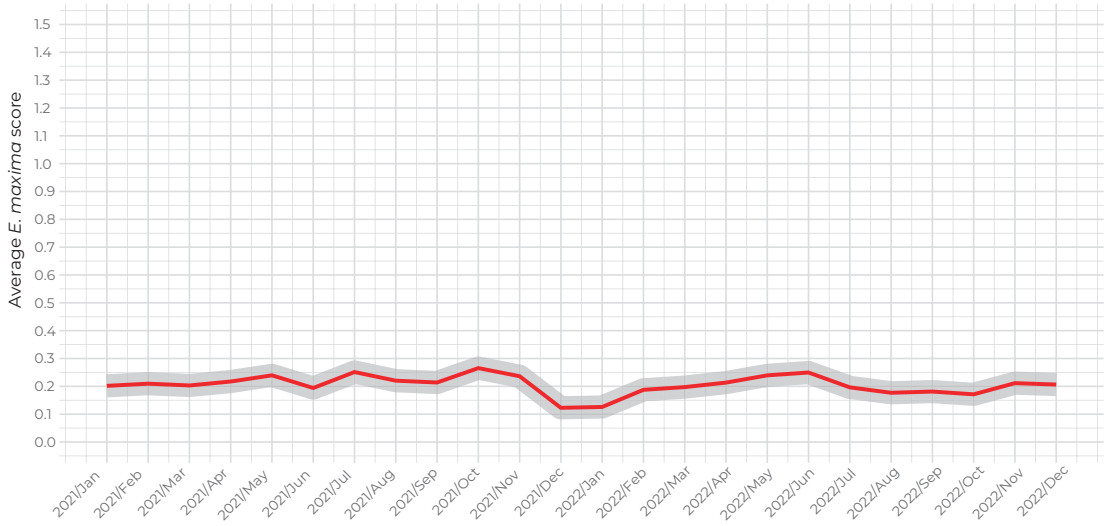

Figure 6b. Evolution of *E. maxima* lesions over time continuously.

The monthly average scores in the second half of 2022 were lower compared with 2021.

In 2021, a strong reduction in the average *E. maxima* score was seen in contrast to 2022 where an increase at the end of the year was observed.

Trends in *E. tenella*

Figures 7, 8 and 9 demonstrate the evolution of *E. tenella* over time comparing 2021 with 2022. In general there was little variation between 2021 and 2022 for *E. tenella* as scores proved to be stable.

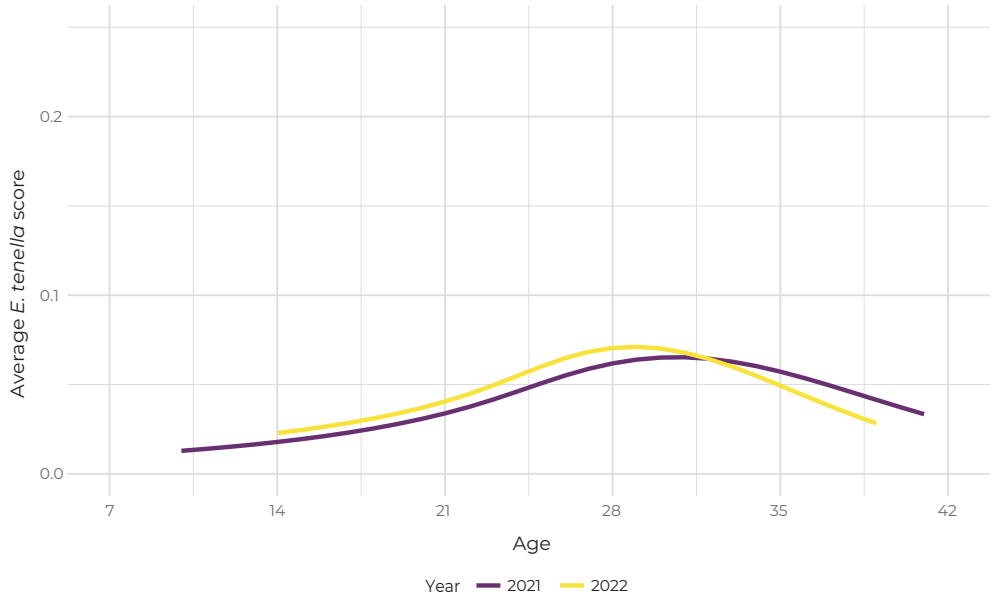

Figure 7. Average *E. tenella* score by according to the age of the birds.

In 2022, the *E. tenella* age profile showed higher scores at earlier ages, but lower scores in older birds.

The average peak score was slightly earlier in 2022 at 29 days of age (average score = 0.07) compared to 2021 at 31 days of age (average score = 0.065).

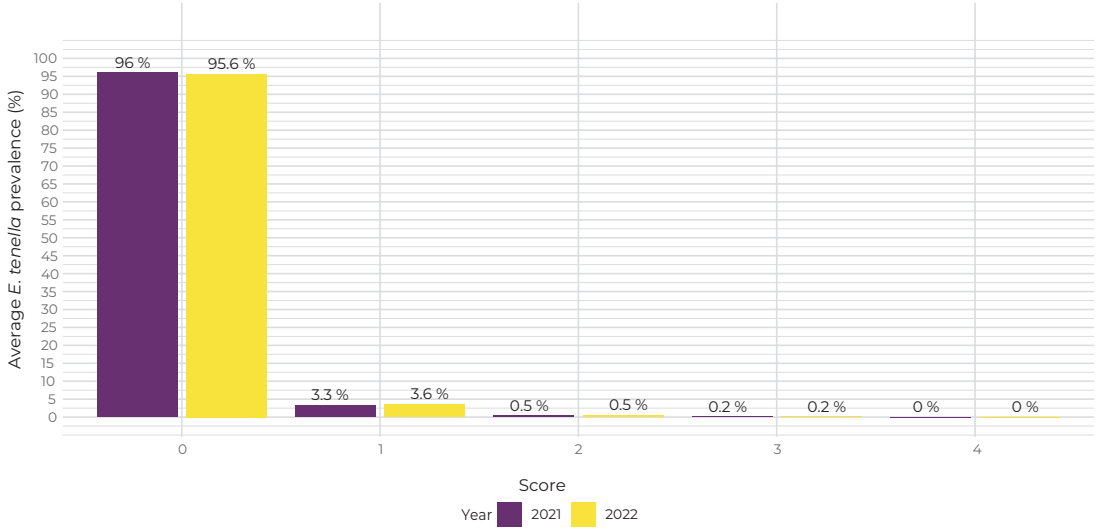

Figure 8. Distribution of different *E. tenella* scores in 2021 and 2022.

There was a slight increase in mild scores (score = 1) but in general, very few birds scored positive for *E. tenella* (+/- 5% of all investigated birds were scored for *E. tenella*) .

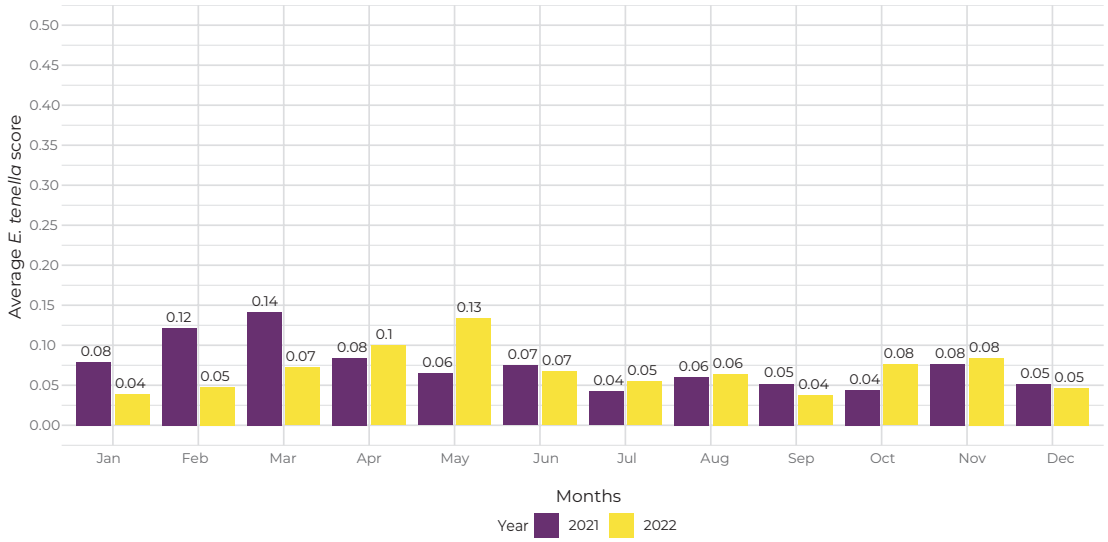

Figure 9a. Evolution of *E. tenella* lesions over time per month.

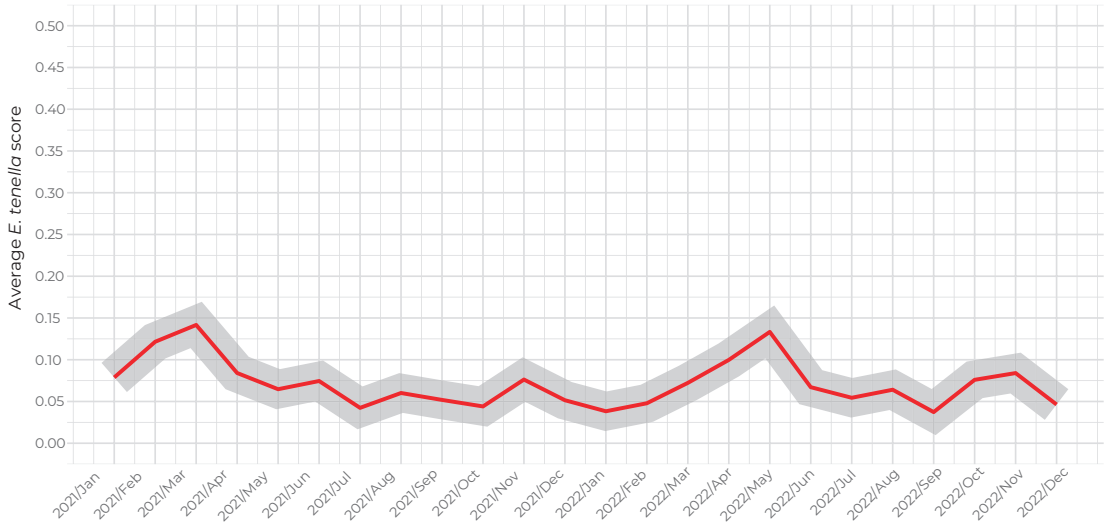

Figure 9b. Evolution of *E. tenella* lesions over time continuously.

Looking at the trend line over the last 2 years it seems there was more variation, but in fact the scores are very low which makes any small change look more important than the reality. As most birds received a combination product in the starter and grower feed we saw very few *E. tenella* lesions.

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TMLS in Europe

The trends in the Total Mean Lesion Score (TMLS), which is the sum of the *E. acervulina, E. maxima*, and *E. tenella* scores are provided in Figures 10 and 11.

Figure 10. Evolution of TMLS over time per month.

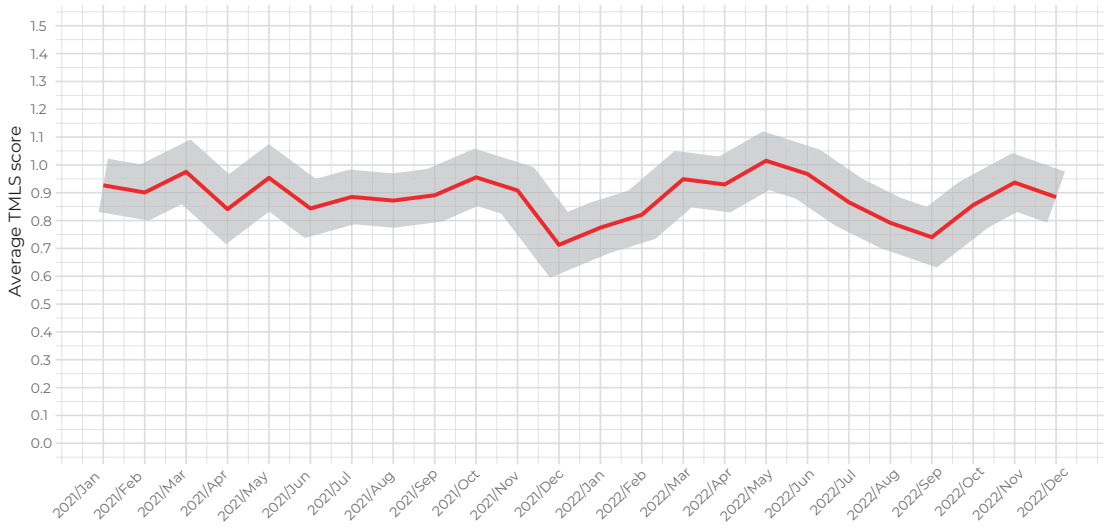

Figure 11. Evolution of TMLS over time continuously.

The TMLS showed a steep reduction at the end of 2021 followed by a sharp increase in the first 6 months of 2022. Overall, the trend over the last 2 years was stable with an average TMLS score of 0.89 in 2021 versus 0.88 in 2022. However, the strong reduction seen at the end of 2021 was followed by an increase during 2022 with higher monthly variability compared to 2021.

Dysbacteriosis in Europe

The trends in the dysbacteriosis score, which is the sum of the 10 intestinal health parameters, scaled by a factor of 2.5 to match the range of the coccidiosis scoring system, are provided in Figures 12 and 13.

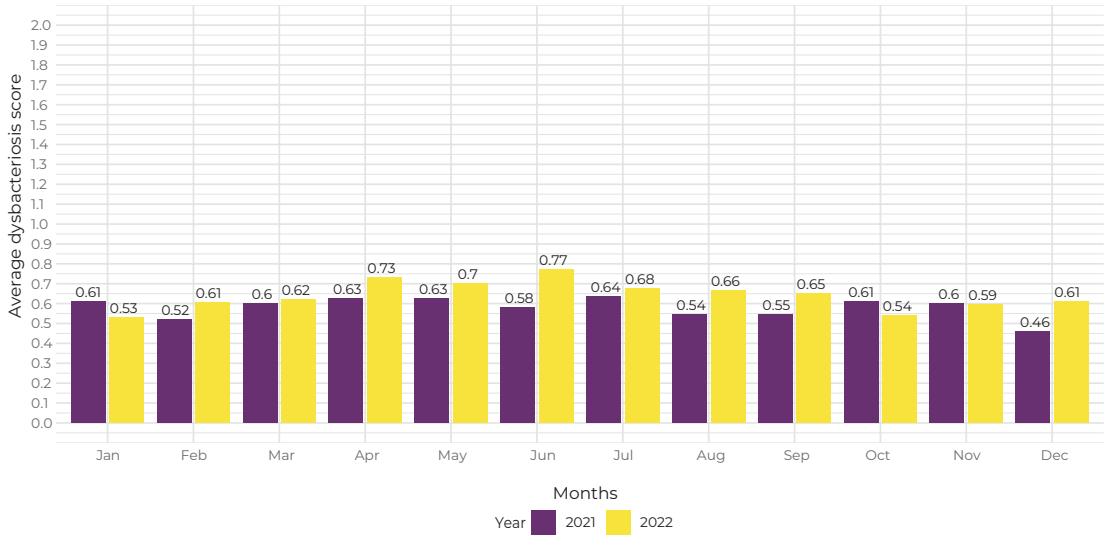

Figure 12. Evolution of dysbacteriosis over time per month.

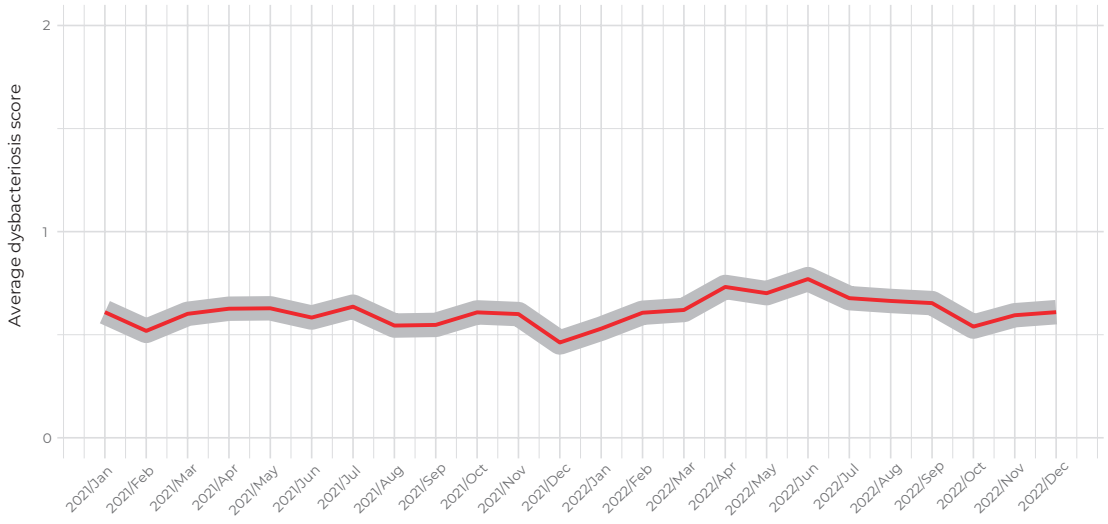

Figure 13. Evolution of dysbacteriosis over time continuously.

The dysbacteriosis score was stable in 2021 in contrast to 2022 where there was a sharp increase in the first 6 months of 2022. After the peak in June, a slight decrease was noticed. Nevertheless in 2022, the scores were increasing, with an overall higher average score of 0.64 versus 0.58 in 2021, and increased variability in the monthly averages compared to 2021.

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