

# WPSA Spring Conference 2020

## Guidelines for the Preparation and Submission of Summaries

31 March – 1 April 2020



A one-page summary allows the reviewers to referee your proposed paper for scientific content, ethics, presentation and relevance. It will be published in the series British Poultry Abstracts and must be suitable for use as a scientific reference. If the paper is not presented at the conference it will not be included in the edition of BPA. Previews or literature reviews will not be accepted. Only papers based on original research will be considered. Please ensure all authors are in agreement with being identified as being associated with the paper. The summary should be discussed with any co-authors and read critically by a colleague who has not been closely involved. Authors will be asked to rewrite substandard summaries or the summary may be rejected. Changes and corrections in titles and authors after submission, other than those requested, are to be avoided.

### **SUMMARY SUBMISSION DEADLINE - Tuesday 26 November 2019**

#### **COMMERCIAL PRODUCTS**

Where results on commercial products are being presented, authors should ensure, before submitting their summary that both their organisation and the commercial company involved give permission to publish. Any product names should only be used once in the text.

#### **CONTENT and FORMAT**

Summaries should be complete in themselves and may contain graphs/tables which will complement the text.

**SUBMISSION TITLE** The title should be descriptive, specific, and concise. It should also state the animal species concerned. The title should be a maximum of two lines (Times12 lower case Bold font) and **not** have a full stop (period) at the end. No abbreviations please.

**TEXT** Please use Times New Roman 10.

Please ensure that British - UK English spelling is used.

Different sections application, introduction, material and methods, etc.) should be separated by one clear line; section headings should be in bold and text should begin on the same line as the heading (see example summary).

**Application** should be a maximum of two lines of text and should explain the expected importance or commercial, economic, environmental and or social impact of the work using language readily understood by a non expert.

**Introduction** should state the background and objectives of the work.

**Material and methods** should describe clearly the methods used, including numbers and types of animals.

**Statistical analyses** Statistical conventions. A copy of this can be obtained at

<https://www.cambridge.org/core/services/aop-file-manager/file/575ad169948458cc2f2e9020/ANM-statsguide.pdf>

The experimental design and statistical methods must be clear: vague statements such as “the data were analysed using Minitab” are not acceptable. Experiments where treatments and pens (or groups) of animals are confounded are not acceptable.

**Results** obtained, together with relevant statistical analysis, should be presented in sufficient detail to support the conclusions drawn. Treatment means should be presented with appropriate standard errors of means or differences. The minimum number of decimal places required to demonstrate statistically significant differences should be used. Probability values must be presented to support conclusions. Probability levels of  $P > 0.05$  are NOT statistically significant.

The use of percentages should be avoided wherever possible; concentrations or compositions should be expressed as mass per unit mass or mass per unit volume; decimal proportions should be used for common ratios such as, for example, diet digestibility coefficients.

The results of surveys will be accepted if the work is original research, rigorously designed, executed and statistically analysed.

**Conclusion** should reflect the original objective(s) of the work and clearly state the author's view of the implications of the results to scientific understanding and practical use. Vague sentences are not acceptable. A discussion is not required.

**Acknowledgements** Please ensure that funders of the work are duly acknowledged

### References

Studies cited in the body of the summary should refer to the Author(s) and the year of the study. The list of references presented at the end of the summary should follow the recommendations of Animal:

Author(s) surname and initials, year, full title of the journal volume, pages. e.g.

Livesey C, Harrington T, Johnston A M, May S A and Metcalf J A 1998. Animal Science. 67, 9-16.

The title of a Journal article or abstract should **not** be included

References should be listed alphabetically by first author surname. No more than 5 references should be given

**TABLES** Should be numbered sequentially with a caption

**FIGURES** All coloured images/figures should be saved as a flat JPEG file with no layers.

Before submitting a summary please refer to the check list below

- ✓ Is British English used throughout the summary?
- ✓ Do the tables conform to guidelines?
- ✓ Do the graphs/images conform to guidelines
  - Borders: The graph/image should not be framed with a border
  - Colour: Graphs/images are presented as a single flat jpeg file with no layers
  - High resolution
- ✓ Do the results comply with the statistical conventions used for Animal?
- ✓ Have the funding organisations that supported the work been acknowledged?
- ✓ Have all authors (and relevant funding bodies and/or commercial) agreed to the submission and publication of this summary in its current form?

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### How to use the online summary submission system

#### Important information

- If you are submitting more than one summary you can use the same login for each summary.
- You can alter your summaries at any time up to the deadline
- Do not include author names in the title or body of your summary because a “blind” reviewing process will be used – you can enter the names online during the submission process.

#### 1 The submission process

- Click on the submission URL in the conference website.  
<https://app.oxfordabstracts.com/stages/1381/submissions/new>
- You will be taken to a login screen. Enter your email address to log in or register.
- Submitting a summary is a multi-step process. Each step asks several questions.
- If you have to stop part way through the process your submission will be incomplete until you return later and complete all the questions. Remember to ‘submit’ to save as you go along so that it does not time out.
- When you log in again you can click on your incomplete submission and amend.

#### 2 Amending a submission

You may wish to change your submission. You can do this at any time up to the deadline.

- You will see a list of the summaries that you have submitted. See the ‘amend’ button at the top of the screen. Click on the summary that you wish to change.
- Make your amendments then ‘Submit’.

## APPLICATION

Livestock farmers can make use of turmeric rhizome powder to ameliorate the effect of heat stress on broiler chickens.

## INTRODUCTION

Tropical climates is a harsh environment for broiler production as a result of high ambient temperatures and relative humidity (Farooq *et al.*, 2005) but dietary manipulation such as addition of antioxidants may ameliorate this in some months in the year (Flachowsky, 2002). The phenolic compound, turmeric (*Curcuma longa*), has known antioxidant properties (Ammon *et al.*, 1993) so this study investigated the influence of turmeric rhizome powder on physiological responses and performance under a tropical climate.

## MATERIAL AND METHODS

Two hundred and forty Marshall day-old broiler chicks, having been granted permission by the College ethical committee, were randomly assigned to four dietary treatments having 4 replicates of fifteen birds each in a complete randomized design. Broiler birds were fed maize-soybeans based basal diets and supplemented with 0, 4, 8 and 12g of turmeric powder/Kg of diet (CT, TG, FT and SG, respectively) for 8 weeks. Mash diets were formulated to meet NRC (1994) nutrient recommendations for the starter phase (0-4 weeks) and the finisher (4-8 weeks) feeding phase of the birds. Data were collected on feed intake and body weights weekly. Blood samples were collected from 8 birds per treatment at week 6 for the determination of haematochemical parameters.

## RESULTS

The results generally showed that turmeric at the dose of 8g/kg was optimum for broiler birds under hot humid conditions. This is in agreement with the findings of Isroli *et al.* (2017) who indicated that turmeric improved stress responses in chickens.

**Table 1.** Effect of different levels of turmeric rhizome powder on haematochemical parameters of broiler chickens

## CONCLUSION

Turmeric rhizome powder improved the physiological response of broiler chicken under hot humid tropical climate in a dose-dependent characteristic and the optimum supplementation rate of 8g/kg of diet was recorded.

## REFERENCES

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TABLE 1

Treatment	Turmeric doses (g/Kg diet)				SEM	P-Value
	0	4	8	12		
Packed cell volume, %	30.67 <sup>b</sup>	28.33 <sup>c</sup>	33.00 <sup>a</sup>	29.67 <sup>b</sup>	0.54	<0.001
Haemoglobin, g/dl	8.70 <sup>b</sup>	8.30 <sup>c</sup>	9.23 <sup>a</sup>	8.70 <sup>b</sup>	0.10	<0.001
Red blood cell (x10 <sup>12</sup> /l)	2.33 <sup>b</sup>	1.80 <sup>c</sup>	3.00 <sup>a</sup>	2.37 <sup>b</sup>	0.13	<0.001
White blood cell(X10 <sup>9</sup> /L)	10.47 <sup>c</sup>	12.63 <sup>a</sup>	12.83 <sup>a</sup>	11.90 <sup>b</sup>	0.03	<0.001
Heterophil.	31.67	30.33	29.33	30.00	0.38	0.153
Lymphocyte	68.67 <sup>a</sup>	66.67 <sup>b</sup>	70.00 <sup>a</sup>	69.33 <sup>a</sup>	68.67	0.017
Eosinophil	0.00	0.67	0.67	0.00	0.14	0.119
Basophil	0.00 <sup>b</sup>	0.67 <sup>a</sup>	0.00 <sup>b</sup>	0.10 <sup>a</sup>	0.01	0.006
Total protein	4.83 <sup>a</sup>	4.17 <sup>c</sup>	4.37 <sup>b</sup>	4.33 <sup>bc</sup>	0.09	<0.001
Albumin	2.77 <sup>a</sup>	2.00 <sup>c</sup>	2.93 <sup>a</sup>	2.30 <sup>b</sup>	0.11	<0.001
Globulin	2.17 <sup>a</sup>	2.10 <sup>a</sup>	1.40 <sup>b</sup>	2.07 <sup>a</sup>	0.10	<0.001
Glucose	153.67 <sup>a</sup>	131.67 <sup>b</sup>	124.33 <sup>c</sup>	136.00 <sup>b</sup>	3.32	<0.001
Triglyceride	94.33 <sup>a</sup>	75.67 <sup>c</sup>	84.33 <sup>b</sup>	68.67 <sup>d</sup>	2.97	<0.001
AST	62.67 <sup>a</sup>	62.67 <sup>a</sup>	45.00 <sup>c</sup>	54.33 <sup>b</sup>	2.32	<0.001
ALT	23.67 <sup>b</sup>	25 <sup>ab</sup>	27.33 <sup>a</sup>	19.33 <sup>c</sup>	0.94	0.001
FCR	2.35 <sup>a</sup>	2.05 <sup>b</sup>	1.79 <sup>c</sup>	1.85 <sup>c</sup>	0.061	<0.001

<sup>abc</sup>: means in the same row having different superscripts differ significantly (P <0.05)

## APPLICATION

In-feed larvacide is not recommended for use in poultry production practice due to its negative effect on animals and public health.

## INTRODUCTION

Larvacides are commonly used in poultry feed to alter the moulting stage of Houseflies (*Musca domestica*) which hatch on droppings, hence reducing the population of flies and smell nuisance in poultry houses. Cyromazine an active ingredient in larvacides has melamine as a metabolite which became a public health concern after the death of 9 infants and hospitalisation of 294,000 others after taking melamine tainted infant formula (WHO, 2008). However, cyromazine is widely used to reduce smell from poultry litter and to increase nitrogen content which usually translates to higher weight gains in broilers without the knowledge of its toxic effect on organs of animals. In this study, toxic effect of in-feed larvacide in broiler organs was investigated.

## MATERIALS AND METHODS

All protocols used in this study were approved by the Animal Care and Use Review Committee guidelines of Centre of Excellence in Agricultural Development and Sustainable Environment, Federal University of Agriculture, Abeokuta, Nigeria. One-hundred and sixty d-old Arbor Acre broilers of approximately 40g body weight were used in the study. Four diets were formulated to contain cyromazine at 0, 0.25, 0.50 and 0.75g/kg and were assigned to 4 dietary groups consisting of 4 replicates per treatment of 10 birds each. At the end of the 42-d feeding trial, one bird per replicate (4 birds/treatment) was sacrificed, the liver and kidney were harvested and stored in sample bottles containing 10% formalin. The tissues were dehydrated in 70% absolute ethanol for 2 h and in another 95% absolute ethanol for 2 h. Impregnation of tissue was done and embedded in molten paraffin wax, blocked after solidification and sectioned on microtome at four-micrometer thickness. The sections were stained with haematoxylin and eosine and then mounted on permanent slides which was observed under high power (X400) microscope lens.

## RESULTS

The liver of birds fed diets containing cyromazine was characterised by a focal area of lymphoid aggregates with disseminated necrosis of the hepatocytes and inflammatory cells (Figure 1B1-D1). Additionally, when cyromazine was added to the diet, the kidney was characterised by an interstitial infiltration of cells with tubular necrosis and desquamation (Figure 1B2-D2), which could cause increased renal pressure and subsequent failure. However, this was not observed in the kidney of control birds (Figure 1A2).

**INSERT** Figure 1. A histopathological view of liver (1) and kidney (2) tissues taken from broilers fed diets containing (A) 0g/kg cyromazine, (B) 0.25g/kg cyromazine, (C) 0.50g/kg cyromazine and (D) 0.75g/kg cyromazine. Arrows indicate necrosis of hepatocyte of the liver (A1-D1) and tubular necrosis and desquamation of kidney (A2-D2). Magnification 400X.

## CONCLUSION

It was concluded that in-feed larvacide dosed at 0.25 to 0.75g/kg resulted in a toxic effect on liver and kidney of broiler chickens. Therefore, the potential risk to both animal and human health should be considered and controlled when using larvacides.

## ACKNOWLEDGEMENTS

World Bank Centre for Excellence in Agricultural Development and Sustainable Environment in Nigeria and National Agency for Food and Drug Administration Commission are acknowledged for their financial support.

## REFERENCES

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**FIGURE 1**

