

**International Journal of Current  
Microbiology and Applied Sciences  
(IJCMAS) NAAS RATING-5.38, ICV-95.39**  
**ISSN: 2319-7692 (Print) ISSN 2319-7706 (Online)**

**An International, Monthly, Online, Free Access, Peer Reviewed,  
Indexed, fast track Scientific Research Journal**

**Certificate of Publication**

This is to certify that the following article reviewed by editorial board and published in International Journal of Current Microbiology and Applied Sciences (IJCMAS) ISSN: 2319-7692 (Print) ISSN 2319-7706 (Online).

Int.J.Curr.Microbiol.App.Sci.2019.8.(9):2858-2868

<https://doi.org/10.20546/ijcmas.2019.809.328>

Effect of Peripartum Organic Zinc and Copper Supplementation on Blood Metabolic and Hormonal Profiling of Primiparous Buffaloes

Arashdeep Kaur<sup>1\*</sup>, Prahlad Singh<sup>1</sup>, Mrigank Honparkhe<sup>1</sup>, R. S. Grewal<sup>2</sup>, Ajeet Kumar<sup>1</sup>, Ashwani Kumar Singh<sup>1</sup>, Navdeep Singh<sup>3</sup>, Shahbaz Singh Dhindsa<sup>1</sup> and Ankit Kumar Ahuja<sup>1</sup>

<sup>1</sup>Department of Veterinary Gynaecology and Obstetrics, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana, Punjab, India

<sup>2</sup>Department of Animal Nutrition, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana, Punjab, India

<sup>3</sup>Directorate Livestock Farms, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana, Punjab, India



*Dr. M. Prakash*  
*Editor-in-chief*

*International Journal of Current Microbiology and Applied Sciences*

[www.ijcmas.com](http://www.ijcmas.com)

[www.excellentpublishers.com](http://www.excellentpublishers.com)



© International Journal of Current Microbiology and Applied  
Sciences (IJCMAS)

[www.excellentpublishers.com](http://www.excellentpublishers.com) [www.ijcmas.com](http://www.ijcmas.com)