



Zinpro® Availa® ZMC Improves Bone Mineralization of Hatching Chicks

Study Objective



Determine the effect of feeding Availa Zinpro ZMC to broiler breeders on embryo quality and bone development.

Animals



- 600 Cobb 500 broiler breeder hens and 60 Cobb 500 broiler breeder males, 22 wk of age
- 1,920 Cobb 500 embryos

Treatments

Corn-soybean meal basal diet supplemented with:

Treatment	Sulfates, ppm			Zinpro Availa ZMC, ppm		
	Zn	Mn	Cu	Zn	Mn	Cu
Sulfates	100	100	10	—	—	—
Zinpro Availa ZMC Iso	60	60	3	40	40	7
Zinpro Availa ZMC On Top	100	100	10	40	40	7

Study Duration



46 weeks

Location



Universidade Federal do Rio Grande do Sul, Porto Alegre, Rio Grande do Sul, Brazil

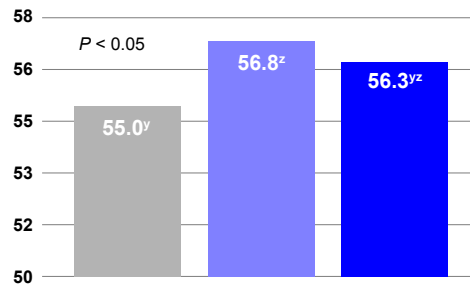


Results Summary

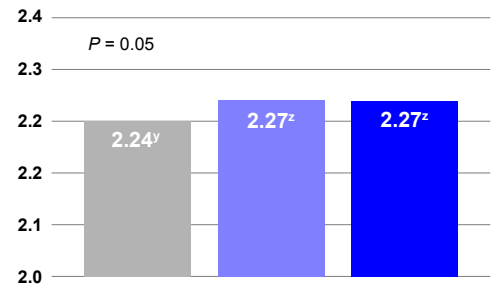
Feeding Zinpro Availa ZMC to broiler breeders had the following effects on their eggs and embryos:

- Increased egg Zn content
- Increased tibia and femur width and calcification
- Improved tibia breaking strength

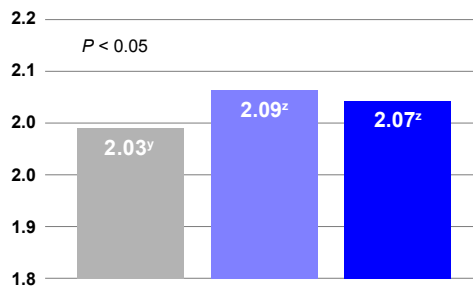
Egg Zn Content, mg/kg



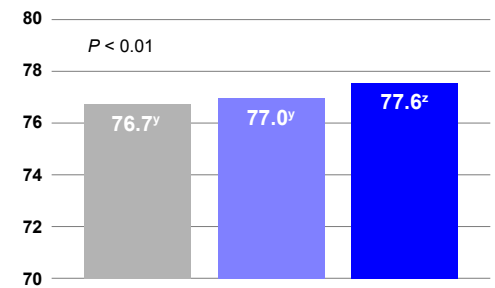
Chick Tibia Width, at Hatch, mm



Chick Tibia Width, at 18 DOI, mm



Tibia Calcification, at 18 DOI, %



■ Sulfates ■ Zinpro Availa ZMC Iso ■ Zinpro Availa ZMC On Top

Publication

Favero, A., S.L. Vieira, C.R. Angel, A. Bos-Mikich, N. Lothhammer, D. Taschetto, R.F.A. Cruz, and T.L. Ward. 2013. Development of bone in chick embryos from Cobb 500 breeder hens fed diets supplemented with zinc, manganese, and copper from inorganic and amino acid-complexed sources. Poult. Sci. 92(2):402-411.

