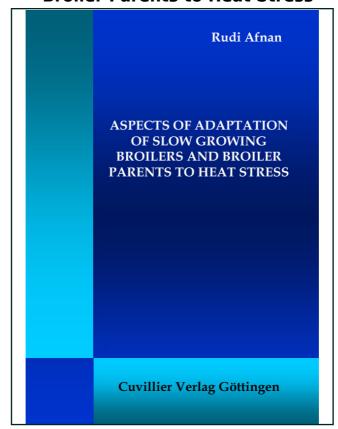


Rudi Afnan (Autor)

Aspects of Adaptation of Slow Growing Broilers and Broiler Parents to Heat Stress



https://cuvillier.de/de/shop/publications/1952

Copyright:

Cuvillier Verlag, Inhaberin Annette Jentzsch-Cuvillier, Nonnenstieg 8, 37075 Göttingen, Germany

Telefon: +49 (0)551 54724-0, E-Mail: info@cuvillier.de, Website: https://cuvillier.de

TABLE OF CONTENTS

		Page
	LIST OF CONTENTS	i
	LIST OF TABLES	iv
	LIST OF FIGURES	viii
	LIST OF APPENDICES	ix
	ABBREVIATIONS	X
	SUMMARY	xi
1	Introduction	1
2	Literature	3
2.1	Thermoregulation	3
2.2	Adaptation responses to heat stress	3
2.2.1	Ontogenetic adaptation	3
2.2.2	Behavioural and physiological adaptation	4
2.2.3	Genetic adaptation	4
2.3	Body temperature	5
2.3.1	Rectal temperature	5
2.3.2	Body surface temperature	6
2.4	Thyroid hormones	6
2.5	Productive respond to heat stress	7
2.5.1	Body weight and weight gain	7
2.5.2	Feed intake and conversion	8
2.5.3	Carcass traits	8
2.5.4	Egg production	9

2.5.5	Egg quality	9
2.5.6	Quality of hatching eggs	9
3	Experiment 1: Reaction of different genotypes of slow growing broilers to short-term heat stress	11
3.1	Animals, Material and Methods	11
3.1.1	Growth performance	14
3.1.2	Short-term heat challenge	14
3.1.3	Statistical analyses	19
3.1.4	Results	20
3.2.1	Growth performance	20
3.2.1	Short-term heat challenge	23
3.3	Discussion	31
3.4	Conclusion	34
4	Experiment 2: Productive performance and heat adaptation of slow growing broiler parents under long-term heat stress	35
4 4.1	•	35
	broiler parents under long-term heat stress	
4.1	broiler parents under long-term heat stress Animals, Materials and Methods	35
4.1.2 4.1.3	broiler parents under long-term heat stress Animals, Materials and Methods Treatments	35
4.1.2 4.1.3 4.1.4	broiler parents under long-term heat stress Animals, Materials and Methods Treatments Growth performance	35 38 38
4.1.2 4.1.3 4.1.4	broiler parents under long-term heat stress Animals, Materials and Methods Treatments Growth performance Laying performance	35 38 38
4.1.2 4.1.3 4.1.4 4.1.5	broiler parents under long-term heat stress Animals, Materials and Methods Treatments Growth performance Laying performance Hatching egg quality	35 38 38 38
4.1.2 4.1.3 4.1.4 4.1.5 4.1.6	broiler parents under long-term heat stress Animals, Materials and Methods Treatments Growth performance Laying performance Hatching egg quality Statistical analyses	35 38 38 38 39 41
4.1.4 4.1.3 4.1.4 4.1.5 4.1.6 4.2	broiler parents under long-term heat stress Animals, Materials and Methods Treatments Growth performance Laying performance Hatching egg quality Statistical analyses Results	35 38 38 38 39 41 43
4.1.4 4.1.3 4.1.4 4.1.5 4.1.6 4.2 4.2.1	broiler parents under long-term heat stress Animals, Materials and Methods Treatments Growth performance Laying performance Hatching egg quality Statistical analyses Results Productive performance	35 38 38 38 39 41 43

5	of the progeny of slow growing broilers under long-term heat stress	/0
5.1	Animals, materials and methods	70
5.1.1	Treatments	71
5.1.2	Growth performance	73
5.1.3	Carcass quality	73
5.1.4	Thyroid hormones	74
5.1.5	Statistical analyses	75
5.2	Results	77
5.2.1	Growth performance	77
5.2.2	Body temperature	84
5.2.3	Panting	91
5.2.4	Carcass traits	93
5.2.5	Thyroxine (T_4) and triiodothyronine (T_3)	96
5.3	Discussion	97
5.4	Conclusion	104
6	General Conclusion	106
7	References	107
8	Appendices	114
Q	Acknowledgements	