

ISSN 2040-4700

APRIL 2013

VOLUME 4 PART 1



Innovation from Animal Science - a necessity not an option

Proceedings of the British Society of Animal Science
and the Association of Veterinary Teaching and Research Work
includes papers from the Rare Breeds Survival Trust
40th Anniversary Seminar and the Colloquium
for Equine Reproduction 2013



advances in
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UNIVERSITY PRESS

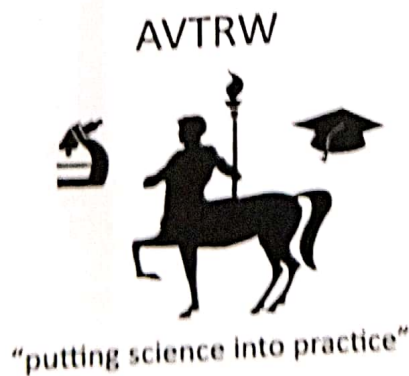
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2013

Advances in Animal Biosciences

This book is part of a series which is a companion to the journal ANIMAL



The Proceedings of the British Society of Animal Science constitute summaries of papers presented at the Society's Annual Conference, *Innovation from Animal Science - a necessity not an option*, held in Nottingham UK, 16-17 April 2013.

The meeting was organised jointly with the Association for Veterinary Teaching and Research Work and includes papers from the Rare Breeds Survival Trust, Colloquium for Equine Reproduction and COST (European Cooperation in Science and Technology).

The summaries have been edited. Views expressed in all contributions are those of the authors and not those of the BSAS or AVTRW.

This publication contains all the summaries that were available at the time of going to press.

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ISSN 2040-4700

CONTENTS

	PAGE
Summary List	i-xvi
Submitted summaries	1-214
Invited summaries	215-255
Author Index	I-V

DIETS, BIOMASS, BYPRODUCTS, GROWTH AND NEW ENTRANTS

- 34 The effect of a dietary addition of short and medium chain fatty acids on sow production parameters
C Stewart, A Millar, G Allan, V Beattie
- 35 High throughput sequencing of 83 candidate genes of the GH-IGF1 axis in DNA pools from dairy cattle divergent for somatic cell count
M P Mullen, C J Creevey, D P Berry, M S McCabe, D J Howard, D A Magee, D E MacHugh, S M Waters
- 36 Harvest yields from six biomass willow varieties grown for three years and irrigated with farmyard dirty water over two growing seasons
E G A Forbes, A R McCracken, D L Easson, J R G Meeke
- 37 Characteristics of recent new entrant dairy farmers to the Irish dairy industry
R McDonald, L Shalloo, K M Pierce, B Horan
- 38 Influence of three protein sources (soyabean meal, groundnut meal and blood meal) with or without fishmeal, on performance of growing greater cane rats (grasscutters)
V Attoh-Kotoku, E L K Osafo, A Donkoh, C C Athuahene, E Dagbui, W Akpadie
- 39 Evaluation of six feed resources developed from agro-industrial by products
O Akinfala, O Olagbaju
- 40 Simple procedure for converting abattoir and brewery waste into animal feed using wheat offal
A C Odewumi, O A Makinde
- 41 Effect of essential oil compounds on metabolism of dietary polyunsaturated fatty acids by ruminal microbes *in vitro*
T S Sgwane, R. J Wallace, S Chikunya
- 42 Performance of rabbits fed graded levels of roasted pigeon pea meal
K Akande, O Adeye
- 43 Pre-weaning calf growth in spring born, Limousin sired suckling steer and heifer calves and changes in cow liveweight and body condition score in their Aberdeen Angus crossbred dams
J J Hyslop, C-A Duthie, D W Ross, M Mitchell, C Michie, I Andonovic
- 44 Dry matter and crude protein digestibility of WAD Sheep fed *Newbouldia laevis*, *Ficus thonnigii* and *Mangifera indica* as supplement to *Panicum maximum* during the dry season
O A Isah, L A Omoniyi, O O Taiwo, A D Afolabi, A J Fernandez

FARM ANIMAL MEDICINE AND ANTI-MICROBIAL RESISTANCE

- 45 Comparison of antibiotic resistance exhibited by some gram-ve bacteria isolated from untreated and antibiotic treated bovine ejaculate
C Kilburn, D Rooks, A McCarthy, R Murray
- 46 *In vitro* validation of the antiparasitic properties of medicinal Ethiopian plant extracts
S Athanasiadou, S Terry, A Tolera, E Debelo, K Tolossa, T Connelley, S Burgess, J G M Houdijk
- 47 Evaluation of the glucose tolerance, insulin sensitivity and combined glucose and insulin tolerance tests for the assessment of glucose metabolism in Holstein dairy calves
G Curtis, D Grove-White, D Jones, R Smith, C Argo
- 48 Characterisation of Asinine Pulmonary Fibrosis and similarities to an emerging human interstitial lung disease
A Ies, N Du Toit, H Brooks, S Smith, W Wallace, C Dhaliwal, J Murchison, T Schwarz, N Hirani, C Haslett, K Dhaliwal, B McGorum

SELECTION, DIETS, MASTITIS, MANURE AND OBESITY

- 49 Effect of spent tea leaves on *in vitro* total gas production from rice straw-based ruminant diets
D Ramdani, A S Chaudhry, C J Seal

Performance of rabbits fed graded levels of roasted pigeon pea meal

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Introduction The pigeon pea plant as a whole has been found to be a useful feed source. Iorgyer *et al.* (2008) reported that boiled pigeon pea can be incorporated in diets for feeding rabbits without any deleterious effects on productive performance. There is dearth of information about the use of roasted pigeon pea as a protein source for rabbits; hence this study aims at looking at the effect of incorporating different levels of roasted pigeon pea meal in rabbit diet.

Material and methods Forty male and female Dutch x Chinchilla rabbits aged 5 - 7 weeks, with an average initial live weight of 725g were used in the study. The rabbits were assigned to four dietary treatments, balancing for breed, sex and weight. Each treatment was replicated five times with each replicate having two rabbits. The experimental design was the completely randomized design (CRD). The experiment was carried out at the Rabbit Research House of the Abubakar Tafawa Balewa University, Bauchi. Bauchi town is located at latitude 13° 30'N and longitude 11° 50'E in the Northern Guinea and Sudan Savanna zones of Nigeria. Roasting of pigeon pea at about 80°C took 3 - 5 minutes. The seeds were allowed to cool and then milled in a hammer mill. The heat treated pigeon pea meal (PPM) was used in compounding the experimental diets. Treatment 1 (control) was maize-soybean based diet with 0% PPM while treatments 2, 3 and 4 contained 10, 20 and 30% PPM in the diets respectively. Diets were iso-nitrogenous and iso-caloric. The rabbits were housed in a single tier rabbit cage located. The feeding trial lasted for five weeks during which data were recorded for feed intake and body weight. Data obtained from performance parameters were subjected to the analysis of variance (Steel and Torrie, 1980).

Results There were no significant effects of dietary treatments on all the performance parameters examined (Table 1). The results obtained in this study for Daily feed intake (DFI), daily weight gain (DWG), feed conversion ratios (FCR) and final live weight (FLW) agree with the findings of Iheukwumere *et al.* (2008) who reported that the DFI, DWG, FCR and FLW of rabbits fed diets containing boiled pigeon pea meal were not significantly different from the control diet.

Table 1 Effect of graded dietary levels of roasted pigeon pea meal on performance of rabbits

Parameters	Dietary levels of PPM (%)				SEM
	0	10	20	30	
Initial live weight (g)	865	788	875	748	56.0 ^{NS}
Final live weight (g)	1389	1435	1420	1284	96.0 ^{NS}
Daily feed intake (g)	54	58	54	42	2.2 ^{NS}
Daily weight gain (g)	14	16	13	12	1.1 ^{NS}
Feed conversion ratio	4	4	5	3	0.2 ^{NS}

SEM = Standard error of mean

NS = Not significant

Conclusion The results obtained from the experiment indicate that PPM could be included up to 30% in the diets of rabbits without negatively influencing performance of rabbits.

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