

Country Report - Ghana



**S.Y. Annor, University of Education,
Winneba
&
R. Osei-Amponsah, University of Ghana,
Legon.**

Presentation Format

- **AnGR related Activities**
 - ✓ **S.Y. Annor**
 - ✓ **Dr. Richard Osei-Amponsah**
- **Key limiting Factors/Challenges**
- **Changing the current situation**
- **Livestock Technologies and institutional arrangements**
- **Choice of Partners**
- **Discussion**

Characterization of Djallonke sheep

- 6 undergraduate students have developed Thesis out of research
- 2 articles published

(1) Annor, S.Y., Djang-Fordjour, K.T. and Gyamfi, K.A. 2007. Is growth rate more important than survival and reproduction in sheep farming in Ghana? *Journal of Science and Technology, Ghana*, **27(3)**: 23-32

Characterization of Djallonke sheep

- (2) Annor, S.Y., Djang-Fordjour, K.T., Kwenin, W.K.J., Ahiale, E.D., Brantuo, O. and Oklu, A.D. 2009. Viability of commercial sheep production in Ghana – Case study of Akana sheep farm in Gushiegu district. *Ghana Journal of Science and Agricultural Education*, 1: 52-65.

Characterization of the grasscutter (*Thryonomys swinderianus*) in Ghana

- PhD Thesis developed
- 6 articles and 2 books published

(1). Annor, S.Y., Kagya-Agyemang, J.K., Abbam, J.E.Y., Oppong, S.K. and Agoe, I.M. 2008. Growth performance of grasscutter (*Thryonomys swinderianus*) eating leaf and stem fractions of Guinea grass (*Panicum maximum*). *Livestock Research for Rural Development, Volume 20, Article #125*. Retrieved June 21, 2011, from <http://www.lrrd.org/lrrd/lrrd20/8/anno20125.htm>

Characterization of the grasscutter (*Thryonomys swinderianus*) in Ghana

- (2) Annor, S.Y. and Kusi, C. 2008. Factors influencing the adoption of grasscutter production in the Brong Ahafo region of Ghana. *Livestock Research for Rural Development, Volume 20, Article #141*. Retrieved June 21, 2011, from <http://www.lrrd.org/lrrd/lrrd20/9/anno20141.htm.htm>
- (3) Djang-Fordjour, K.T., Annor, S.Y., Kwenin, W.K.J. and Baah, B.N. 2009. Controlling worm infestation in grasscutter (*Thryonomys swinderianus*) colonies. *Ghana Journal of Science and Agricultural Education*, 1:106-112.

Characterization of the grasscutter (*Thryonomys swinderianus*) in Ghana

- (4) Boakye, L.G., Osei, C.K. and Annor, S.Y. 2008. Assessing the effect of grasscutter farming on the livelihood of small-holder farmers: A case study of ActionAid from the Asutifi District of Ghana. *Proceedings of the 29th conference of the Ghana Animal Science Association (GASA)*, College of Agriculture Education, University of Education, Winneba, Mampong-Ashanti, **August 6-9, 2008: .66-71.**

Characterization of the grasscutter (*Thryonomys swinderianus*) in Ghana

- (5) Annor, S.Y., Ahunu, B.K., Aboagye, G.S., Boa-Amponsem, K., Djang-Fordjour, K.T. and Cassady, J.P. 2011. The genetics of docility of the grasscutter (*Thryonomys swinderianus*). *Livestock Research for Rural Development, Volume 23, Article #176*. Retrieved September 16 2011, from <http://www.lrrd.org/lrrd23/8/anno23176.htm>.
- (6) Annor, S.Y., Ahunu, B.K., Aboagye, G.S., Boa-Amponsem, K., Djang-Fordjour, K.T. and Cassady, J.P. 2011. The genetics of morphological traits in the grasscutter (*Thryonomys swinderianus*). *Livestock Research for Rural Development, Volume 23, Article #16*. Retrieved September 16 2011, from <http://www.lrrd.org/lrrd23/8/Anno23167.htm>.

Characterization of the grasscutter (*Thryonomys swinderianus*) in Ghana

- (7) Akinnusi, F.A.O., Annor, S.Y., Borketey-La, E.B. and Kwenin, W.K.J. 2009. Grasscutter production. In: *Non-Traditional Agriculture Production*,. Wilas Press Ltd., Kumasi, 46-62.
- (8) Annor, S.Y., Adu, E.K., Donkor, J., Otsyina, H. and Ahiaba, J. 2009. *Grasscutter Production: A Handbook*. Qualitytype Ltd. Accra, Ghana, 109 pp.

Development of Partnership in Higher Education

- Coordinator of Value chains for poverty reduction in the dairy sector project in Ghana
- International project between University of Education (Ghana), Egerton University (Kenya), Obafemi Awolowo University (Nigeria) and University of Khartoum (Sudan).
- 10 Undergraduate students engaged in characterization of dairy cattle in Ashanti Region of Ghana

S.Y. Annor

Conservation and sustainable use of animal genetic resource in Ghana

- An Alternate Coordinator of AnGR in Ghana

Teaching

- Principles of Genetics - 2007-2011
- Principles of Animal Breeding 2007-2011
- Agriculture Biotechnology - 2010
- Molecular Genetics - 2008-2010
- Designed Master of Philosophy and PhD in Animal Breeding and Genetics Programmes
- Programmes mounted and new students are expected in 2012/2013 academic year

Dr. Richard Osei-Amponsah

AnGR Related Activities: 2001 - Date

- National Co-ordinator, AnGR 2003-2009
- Co-ordinated Preparation of Ghana's Country Report on AnGR
- Assisted in Preparation of Nigeria's Report on AnGR
- Participated in Global Meetings of NCs of AnGR in Rome

AnGR Related Activities - 2001 - Date

- Served on the ITWG on AnGR
- Participated in the 1st International Technical Conference on AnGR – Interlaken 2007
- Resource Person – Development of a National Breeding Programme for Ghana

Dr. Richard Osei-Amponsah

AnGR Related Activities - 2001 - Date

- Made inputs into the formulation of Ghana's LDP
- Formed a net-work of Alternate National Co-ordinators to update Ghana's data in DADIS
- Reviewed and presented the state of Ghana's AnGR in scientific meetings and also published articles on AnGR in the national dailies, etc.

AnGR Related Activities - 2001 - Date

- Moderated an electronic forum which helped to establish a SRFP on AnGR for WCA
- Participated in the 1st Workshop of the S-RFP on AnGR in Librville, Gabon
- Participated in the 1st Meeting of the SC of the S-RFP

Dr. Richard Osei-Amponsah

Research

- Survivability and Longevity Analysis of Beef Herds
- Reasons for disposal in Beef Herds in Southern Ghana

Research

- Phenotypic and Genetic Characterisation of local chicken ecotypes of Ghana
 - Morphology
 - Growth Performance
 - Carcass attributes
 - Resistance to SRBC antigens
 - Egg production and egg quality
 - Variance components analysis to estimate heritability and genetic correlations
 - Molecular characterisation based on microsatellite markers

Dr. Richard Osei-Amponsah

Research

- 1 PhD Thesis and 3 Undergraduate Dissertations
- 2 Papers published in Tropical Animal Health and Production Journal
- 1 Paper published in Animal Science Journal
- 3 Papers to be submitted to Animal Genetic Resources Journal by end of December, 2011

Dr. Richard Osei-Amponsah

Teaching

- Poultry Production
- Animal Physiology
- Introduction to Animal Breeding and Genetics
- Population Genetics
- Quantitative Genetics

Advocacy

- University of Ghana Inter-Faculty Lecture :
“ The Global Plan on Animal Genetic Resources – A Tool for Attaining Animal Protein Security in Ghana”
- Member of the Executive Committee of the Ghana Association of Animal Production – made suggestions to deal with the annual menace caused to farmers by nomadic Fulani Herdsmen and their Animals

Key limiting Factors/Challenges

- Our Institutions need:
 - Training for the HR
 - Equipment – molecular laboratory, field vehicles
 - Training in molecular genetics
- Work overload

Farmers and Farmer Organisations

- Motivation – meetings, assistance
- Organisational skills/Capacity need to be beefed up
- Basic on-farm recording skills

Country

- National Focal Point on AnGR needs to be strengthened
- NFP should have a budget line and be able to carry out its activities

Changing the current situation

- Already encouraging young scientists to join Animal Breeding and Genetics
- Preparing proposals to initiate projects in AnGR management
- Government support and monitoring by the S-RFP on AnGR , eg. Update of data in DADIS
- Source for funds to purchase molecular laboratory equipment

Livestock Technologies and institutional arrangements to enhance the effectiveness in teaching and applying AGB in Ghana

- Defining, establishing and implementing a Breed Industry Structure for each livestock species
- University – AGB Curricula
- ONBS
- GSAP
- NFP /APD
- Broad Stakeholder participation

- Software
- Selection programmes in some local AnGR
- Support to participating breeders – arrangement
- Livestock shows
- Livestock Farmers Award – improve on National One
- Young Livestock Researcher Award
- Encourage students to compete for Livestock Scholarships

Choice of Partners

- S -RFP AnGR WCA
- FAO, PROGEBEE, ILRI, INRA
- All the countries with interest in AnGR Management – eg. Togo, Nigeria, Senegal
- DURAS Project – Cote d'Ivoire, Benin
- Training of students – all countries
- RECs – ECOWAS/ECCAS

Acknowledgement

- FAO, ILRI, SLU
- NCs of AnGR in West and Central Africa
- Prof. Cheik Ly, Regional Animal Production Officer, FAO
- All of You



Thank You !!!