Improving Smallholder and Industrial Livestock Production
for Enhancing Food Security, Environment and Human Welfare

Proceedings
Full Papers


The 15th AAAP Animal Science Congress
26-30 November 2012, Thailand
Asian-Australasian Association of Animal Production Societies

Scope of AAAP: AAAP is established to devote for the efficient animal production in the Asian-Australasian region through national, regional, international cooperation and academic conferences.


Organization of AAAP:
- President: Recommended by the national society hosting the next biennial AAAP Animal Science Congress and approved by Council meeting and serve 2 years.
- Two Vice Presidents: One represents the present host society and the other represents next host society of the very next AAAP Animal Science Congress.
- Secretary General: All managerial works for AAAP with 6 years term by approval by the council.
- Council Members: AAAP president, vice presidents, secretary general and each presidents or representative of each member society are members of the council. The council decides congress venue and many important agenda of AAAP.

Office of AAAP: Decided by the council to have the permanent office of AAAP in Korea. Currently # 909, Korea Sci &Tech Center Seoul 135-703, Korea.


Current 19 Member Societies of AAAP:
- AAAP (Australia), BAHA (Bangladesh), CAASVM (China), IAAP (India), ISAS (Indonesia), JSAS (Japan), KSAST (Korea), MSAP (Malaysia), MLSBA (Mongolia), MASA (Nepal), NZSAP (New Zealand), PAHA (Pakistan), PNGSA (Papua New Guinea), PPIAS (Philippines), SLAAP (Sri Lanka), CSAS (Taiwan), AHAT (Thailand), AHAV (Vietnam).

Previous Venues of AAAP Animal Science Congress and AAAP Presidents

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15 AAAP PRESIDENT’S REPORT

Sawatdee krup!

Greetings to all 15 AAAP attendants:

It’s our great honor and pleasure to welcome you to the 15 AAAP Animal Science Congress, being held during 26-30 November 2012 at the Rangsit campus of Thammasat University, Bangkok, Thailand. The AHAT (Animal Husbandry Association of Thailand under the Royal Patronage of H.R.H. Princess Maha Chakri Sirindhorn), as the official host of the 15 AAAP Congress, has collaborated with the other three significant government agencies as the co-hosts of this Congress, these are the Department of Livestock Development (Ministry of Agriculture and Agricultural Cooperatives), Kasetsart University (KU), and Thammasat University (TU). The Rangsit campus of TU, situated in the northern outskirt of Bangkok, which is under the jurisdiction of Pathum Thani province, is the beautiful venue of this Congress.

The 15 AAAP animal Science Congress programs consist of scientific and technical programs and social and cultural activities. The scientific and technical programs offer 4 enlightening plenary sessions, 9 significant symposia, one-day mid-Congress study tours, and numerous scientific sessions (both oral and poster presentations), as well as other scientific meetings. The most significant symposium is “The Human-Chicken Multi-relationships Based on H.I.H Prince Akishino Research Project under the Royal Patronage of H.R.H. Princess Maha Chakri Sirindhorn”.

It is expected that around 1,200 scientists, livestock producers, development personnel, as well as graduate and undergraduate students from 38 countries will attend 15 AAAP Congress; and more than 700 research papers in all fields of animal production and related fields will be presented and discussed at the Congress. Very interesting and exciting one-day mid-Congress tours on 28 November 2012, consisting 7 alternative routes at your preferred choice, are offered for learning experiences which could be useful for future technical understandings.

The social and cultural programs of the 15 AAAP Congress are as important as the scientific and technical programs since the promotion of friendship and future scientific cooperation are also central to this AAAP Congress. Reception party and opening ceremony will offer selected exciting Thai cultural shows from all regions of the Kingdom. On 28 November 2012, immediately after the mid-Congress tour, the Loy Kratong Festival, a very significant annual festivity of Thailand as being organized by TU, will allow all participants to join this Thai traditional activity, which is full of fun and excitement.

The fantastic farewell party will be offered on the night of 29 November 2012. Participants from each and every country will have a chance to enjoy traditional and cultural exchange in order to strengthen friendship and future cooperation. We do hope that you will not miss this opportunity.
Beside all these colorful programs, spouse programs and other recreational and sports activities are made available for your pleasure at your own convenience.

You can be assured that, in our hospitable Thai way, we will try our best to make your brief visit to our country a very pleasant and memorable one.

Wish you all a very happy and most enjoyable stay in Thailand.

Sawatdee krup,

Chayanon Kittayachaweng
President
Asian-Australasian Association of Animal Production Societies
REMARK FROM CHAIRMAN OF 15th AAAP NOC-TEP

Dear Distinguished Scientists and Ladies and Gentlemen,

It is overwhelmingly heart-felt impressive to receive all attention and high interest from all scientists and friends from all over the world to participate in this important the 15th AAAP Congress being organized in Bangkok, Thailand. This is a good indication of the great concern and interest of the animal scientists to share and learn experiences among each others to help solve the problems in animal production as well as for future research and development collaborations.

You can also agree with me that the Congress is accommodating with high quality of the invited plenary papers, invited lead-papers as well as all short oral and poster presentations. Furthermore, the many Symposia encompassing very important and hot issues dealing with animal production and development are being held by a number of organizations who have been experiencing in the respective fields and by the eminent scientists around the world. It is the great forum for all participants to learn and enrich as well as to interact among one another.

One high-light is to observe the high attendance of the participants especially by the young scientists which is the imperative for them to interact and to link-up for the future research collaborations.

The Congress is not to avail all participants to enrich the high standard of research merits, but also open up the scenario for all to enjoy the social and cultural environment during the Congress. The highly successful and fruitful outcomes of the programs are of concerted efforts contributed by all parts and organizations including from the government, private sector, all participants and with the continuous hard work of the Scientific Committee Members. The special contributions from the Symposia Organizers and their supporters are highly acknowledged and appreciated.

Finally, may I on behalf of the Scientific Committee Members and all associates, wish all the participants to highly achieve the participation expectations and successful in your deliberations as well as to mutually enjoy and interact with all scientist fellows during the Congress.

The great support from all sectors especially from the Congress site host, the Thammasat University, Rangsit Campus, is gratefully acknowledged for their concern, close cooperation and for the available facilities for the Congress.

Special thanks to my Scientific Committee and the Advisory Board Members especially the Vice Chairs and the Secretary of the NOC-TEP of the 15th AAAP Congress are sincerely thankful for their great contribution to make the program the high-caliber one.

Looking forward to meeting all participants in the future Congresses to continue.

With best wishes and warm regards,

Metha Wanapat
Professor Dr. Metha Wanapat
Chairman, National Organizing Committee for Technical Programs (NOC-TEP)
The 15th AAAP Animal Science Congress
The Effect of Using Dried Distillers Grain with Soluble (DDGS) with Lower Energy in Feed on Carcass, Abdomen Fat and Liver of Broiler

Faculty of Animal Science University of Gadjah Mada

An experiment was conducted to find out the effect of use of Dried Distillers Grain with Soluble (DDGS) with low energy diet on carcass, abdomen fat and liver of broiler throughout 35 days growing period. This experiment was conducted using 125 one day old chicks. The birds were randomly divided into five dietary treatments. Each dietary treatment was assigned to five replicate pens of five chicks. Diets were contain of 0, 20, 30, 40 and 50% DDGS. At 35-days old, 25 birds were weighted and slaughtered, then the carcass, abdomen fat and liver were weighted. This experiment used the Complete Randomized Design (CRD) and the data were analyzed by One way Anova. The Duncan’s New Multiple Range Test(DMRT) used if there were the significant differences. There were significant effects of DDGS level on carcass weight and percentage, abdomen fat and percentage, and liver weight. Carcass weight of broiler chicken of R 0, R 20, R 30, R 40 and R 50 were 625.40 ± 55.38, 608.60 ± 55.61, 568.20 ± 123.87, 422.80 ±55.97 and 401.80 ± 47.53, respectively, carcass percentage were 61.79 ± 1.83, 61.70 ± 2.78, 60.17 ± 2.57, 57.19 ± 2.22 and 56.68±3.61%, respectively, abdomen fat weight were 15.60±3.28, 15.00 ± 4.00, 13.20 ± 5.63, 5.60 ± 3.28 and 4.20 ± 2.86 gram, respectively, abdomen fat percentage were 1.56 ± 0.42, 1.53 ± 0.46, 1.37 ± 0.46, 0.77 ± 0.47, and 0.61 ± 0.42%, respectively, and liver weight were 22.20 ± 2.94, 21.80 ± 3.96, 20.80 ± 0.39, 15.80 ± 2.77 and 15.80 ± 1.92 gram. Conclusion the use of DDGS up to 30% level could maintain the carcass, but the use of 40% DDGS level decreased carcass weight and percentage, as well as the abdomen fat and liver.

Key Words: Dried Distillers Grain with Soluble (DDGS). Broiler chicken, Carcass, Abdomen fat, Liver