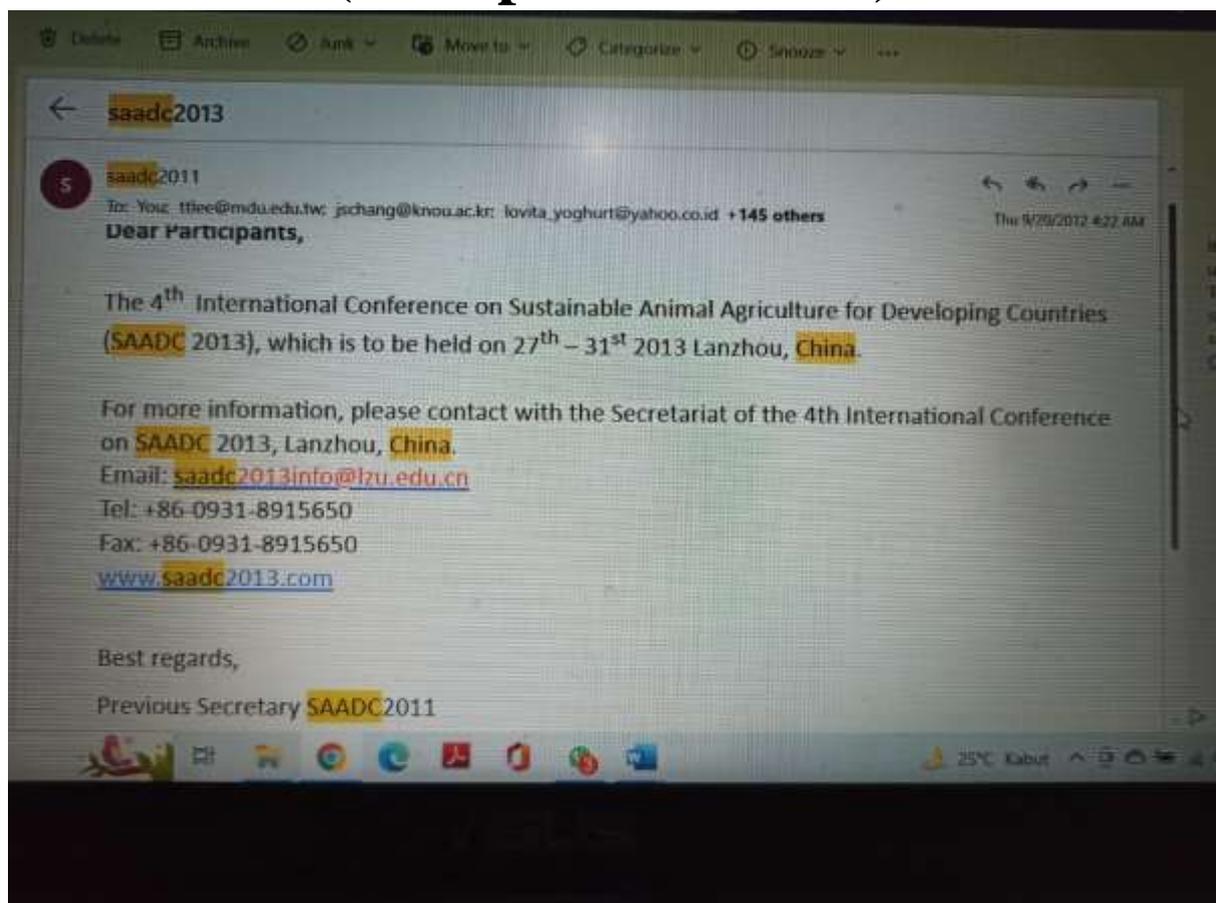


**BUKTI KORESPONDENSI**  
**ARTIKEL DI PROSIDING INTERNASIONAL**

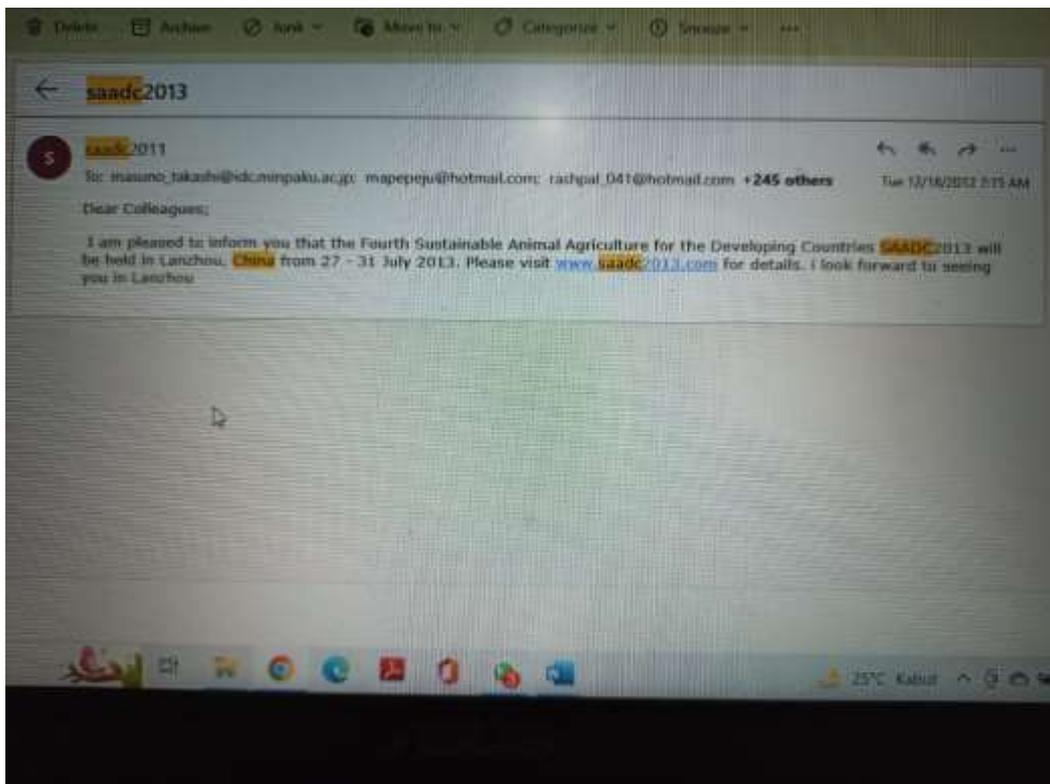
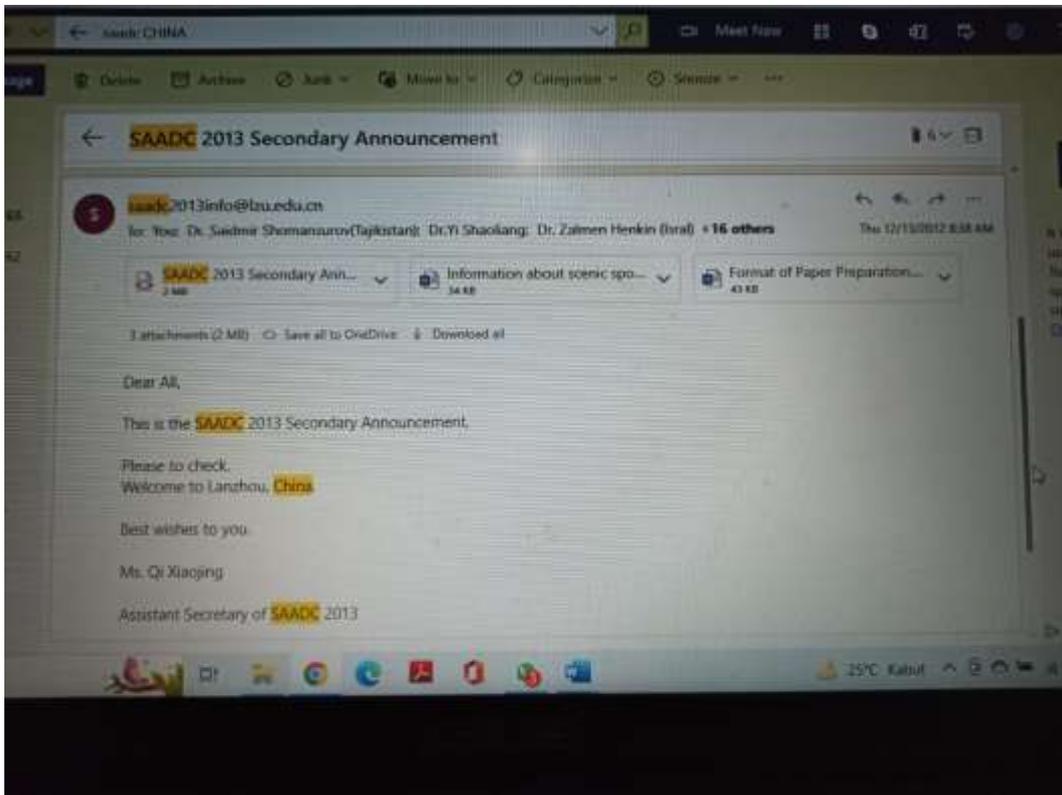
Judul Artikel : The Growth of Indonesian Local Sheep in Rural Production Systems  
 Prosiding : Proceedings The 4<sup>st</sup> International Conference on Sustainable Animal Agriculture for Developing Countries. Lanzhou University. Lanzhou, China 2013 (hal 438-439) – 27 sampai 31 Juli 2013  
 Penulis : Endang Purbowati dan Agung Purnomoadi

No	Perihal	Tanggal
1.	Informasi The 4 <sup>st</sup> International Conference on Sustainable Animal Agriculture for Developing Countries di Lanzhou University. Lanzhou, China tanggal 27 sampai 31 Juli 2013	20 September 2012
2.	Info ke-2 beserta file (1) SAADC 2013 Secondary Announcement; (2) Information about scenic spots of the Tour; (3) Format of Paper Preparation	13 Desember 2012
3.	File artikel yang dikirim	
4.	Info ke-3 beserta file (1) Third Announcement 31 Jan; (2) Registration Form	31 Januari 2013
5.	Kirim File Registration Form	
6.	Financial Support of SAADC 2013	1 Februari 2013
7.	Pemberitahuan perpanjangan pengiriman artikel	5 Februari 2013
8.	Application for Partial Sponsorship to Attend SAADC 2013	22 Maret 2013
9.	Message from the Secretariat (SAADC 2013)	22 Maret 2013
10.	Poster Presentasi SAADC 2013	27 Juli 2013
11.	Certifikat SAADC 2013	31 Juli 2013
12.	Prosiding SAADC 2013	31 Juli 2013

**Informasi The 4<sup>st</sup> International Conference  
on Sustainable Animal Agriculture for  
Developing Countries di Lanzhou  
University. Lanzhou, China  
tanggal 27 sampai 31 Juli 2013  
(20 September 2012)**



**Info ke-2 beserta file (1) SAADC 2013 Secondary Announcement; (2) Information about scenic spots of the Tour; (3) Format of Paper Preparation (13 Desember 2012)**

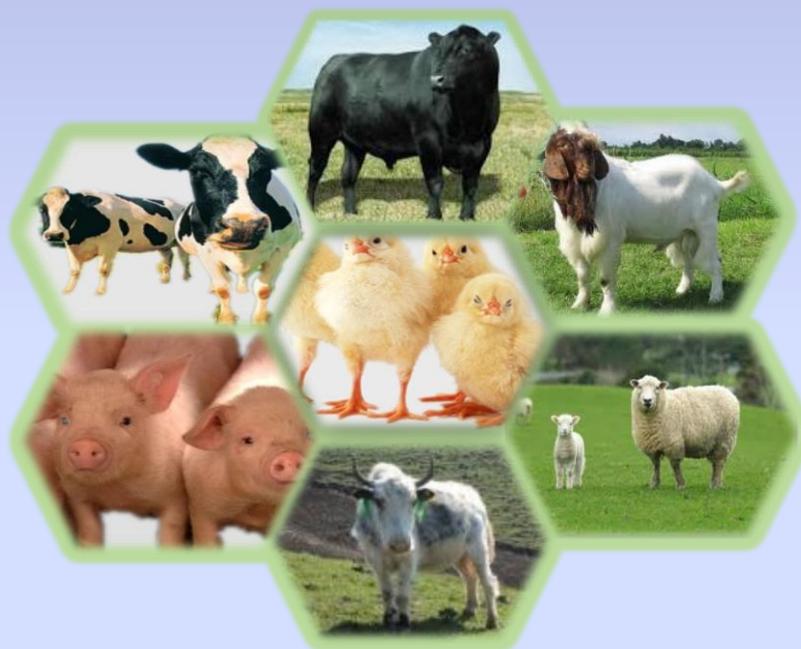


# SAADC 2013



## THE 4<sup>th</sup> INTERNATIONAL CONFERENCE ON SUSTAINABLE ANIMAL AGRICULTURE FOR DEVELOPING COUNTRIES

27 – 31 July, 2013, Lanzhou, China



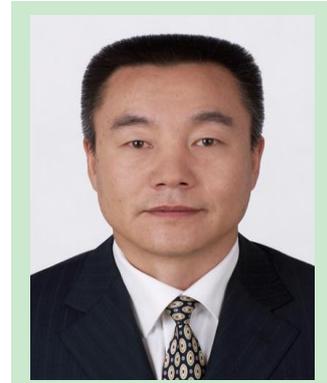
Diversity For Sustainable Animal Agriculture



## INVITATION

### Dear friends and colleagues:

I am pleased to announce that the fourth Sustainable Animal Agriculture Conference for Developing Countries (SAADC) will be held in Lanzhou, Gansu province, China on 27-31 July, 2013. Based on the success of the last three SAADC held in China, Malaysia and Thailand, we expect about 500 participants from more than 40 countries to attend the SAADC2013.



The primary objective of SAADC2013 is to provide a venue for animal agriculturists (academicians, researchers, administrators, extension workers and livestock producers), particularly from the developing countries, to share experiences and developing collaboration to enhance development of sustainable animal industries in their respective countries. We also welcome our colleagues from the developed countries to contribute to achieve the above objective. The overall conference theme is diversity for sustainable animal agriculture. The emphasis of SAADC2013 will be to discuss issues and to provide recommendations on how animal agriculture should be developed to meet the challenges that developing countries are facing in the continually changing globalized market. Among the issues to be discussed are:

- a. climate change and environment
- b. animal and livelihood
- c. genetic and production system

On behalf of the Organizing Committee of the 4<sup>th</sup> SAADC I extend to you a warm welcome and I look forward to seeing you in Lanzhou in July 2013.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Long Ruijun', written over a horizontal line.

**Prof. Dr. Long Ruijun**

President, the 4<sup>th</sup> SAADC2013 organizing committee

Director, International Centre for Tibetan Plateau Ecosystem Management, Lanzhou University

Head, Tibetan Rangeland and Yak Research Institute, Lanzhou University

Executive Dean, Cuiying Honors College, Lanzhou University

## ORGANIZATION

### Organized by



Lanzhou University

### Co-Organized by



Chinese Grassland Society

### International Advisory Committee

**Chair:** Prof. Dr. Pongchan Na-Lampang (Thailand)

**Secretary:** Prof. Dr. James Chin (Australia)

**Committees:**

Dr. Liang Juan Boo (Malaysia)

Prof. Dr. E.R. Ørskov (UK)

Prof. Dr. J. Takahashi (UK)

Prof. Dr. J. Balcells (Spain)

Dr. Harinder Makkar (FAO, Rome)

Prof. Dr. Peter Wynne (Australia)

Prof. Dr. Pietro Celi (Australia)

Prof. Dr. Hsia Liang Chou (Taiwan)

Prof. Dr. Reza Valizadeh (Iran)

Prof. Dr. Long Ruijun (China)

Prof. Dr. Ge Changrong (China)

Dr. Chalermpon Yuangklang (Thailand)

Prof. Dr. Wiranda G. Piliang (Indonesia)

### Scientific Committee

**Chairperson:** Prof. Ren Jizhou (China)

**Co-Chairperson:** Dr. Liang Juan Boo (Malaysia)

**Committees:**

Prof. James Chin (Australia)

Prof. Mohamad Ariff Omar (Malaysia)

Prof. Dr. E.R. Ørskov (UK)

Prof. Dr. J. Balcells (Spain)

Dr. Harinder Makkar (FAO Rome)

Prof. Andre-Denis G. Wright (USA)

Prof. Peter Wynne (Australia)

Dr. Pietro Celi (Australia)

Prof. Jothi Malar Pannandam (Malaysia)  
Dr. Chris McSweeney (Australia)  
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Dr. Vincenzo Tufarelli (Italy)  
Prof. K G Saxena (India)  
Dr. Liang Luohui (UN)  
Prof. Hsia Liang chou (Taiwan)  
Mr. Imran Inam (Pakistan)  
Dr. Yi Shaoliang (Afghanistan)  
Prof. Dr. Junichi Takahashi (Japan)  
Dr. Saidmir Shomansurov (Tajikistan)  
Mr. Maksatbek Anarbaev (Kyrgyz)  
Dr. Zhongtang Yu (USA)  
Dr. Elizabeth Wina (Indonesia)  
Prof. Karsten Wesche (Germany)  
Prof. Dr. Reza Valizadeh (Iran)  
Prof. Immanuel Bitto (Nigeria)  
Mr. Farid Ahmad (ICIMOD, Nepal)  
Prof. Wu Ning (ICIMOD, Nepal)  
Prof. Jean Tourrand (France)  
Prof. Karsten Wesche (Germany)  
Prof. Paul Iji (Australia)  
Mr. Adibe L. Abdalla (Brazil)  
Prof. Dr. Liao Xindi (China)  
Prof. Dr. Liu Jianxin (China)  
Prof. Dr. Chen Yulin (China)  
Prof. Dr. Luo Qiujiang (China)  
Prof. Dr. Zheng Yucai (China)  
Dr. Li Xiang Zi (China)

### Organization Committee

**Honorary Chairperson:** Prof. Zhou Xuhong (President of Lanzhou University;  
Academician, CAE)  
Prof. Li Wenqing  
Prof. Nan Zhibiao (Academician, CAE)  
Prof. Chen Fahu  
**Chairperson:** Prof. Dr. Long Ruijun

**General Secretary:** Dr. Shang Zhanhuan, Prof. Dr. Li xiangkai  
**Assistant Secretary:** Dr. Ding Luming, Dr. Guo Xusheng, Dr. Han Jing, Ms. Qi Xiaojing

**Treasurer:** Ms. Wang Yang, Mrs. Wang Wen, Ms. Long Yu

**Accommodation:** Dr. Zhang Dawei, Mr. Gong Jianfeng, Dr. Xu Pengbin

**Members:**

Prof. Hou Fujiang, Prof. Li Jia, Prof. Meng Xingmin, Dr. Du Shengyi, Dr. Han Yanmei, Prof. Sheng Yuying, Prof. Guo Zhenggang, Prof. Li Fadi, Mr. Nolan Virgo, Dr. LiuXingyuan, Dr. Wang Yan, Dr. Wang Hucheng, Dr. Xiao Jinyu, Ms. Zhang Ying Ms. Huang Xiaodan, Ms. Ding Wurong, Ms. Dong Xiaofan, Mr. Zhou Jianwei, Ms. Zhang Rui, Mr. Mi Jiandui, Mr. Cheng Junqiang, Mr. Zhang Ying, Mr. Hou Yaochen, Ms. Qing Liping, Mr. Chen Xiaopeng, Ms. Shi Chao, Ms. Ma Lina, Mr. Ke Wencan

## THEME OF THE CONFERENCE

Diversity for sustainable animal agriculture

## CALL FOR ABSTRACTS AND PAPERS

All participants intending to present scientific papers (oral or poster) at the Conference must submit an extended abstract of not more than 2 pages (inclusive of Tables and Figures). Keynote addresses and plenary and lead papers (only by invitations) should be no more than 6 pages (inclusive of Tables and Figures). The deadline for submission abstract is **February 1, 2013**.

All submissions must be prepared in digital format using Microsoft Word following the standard "Format for Paper Preparation" provided by the organizer. Extended abstracts must be submitted as attached files by email to the organization committee at [saadc2013@lzu.edu.cn](mailto:saadc2013@lzu.edu.cn)

### Special assistance for young scientists and graduate students

The Organizing committee has established an in-house editorial board to help young scientists and graduate students who wish to expand their extended abstracts into full papers for submission to an appropriate ISI listed journal. Authors who wish to do this must, in addition to submitting their 2-page extended abstracts, provide additional information to be assessed by the in-house editorial committee. This must be done as a separate mini-paper (no more than 6 pages) with an Abstract, Introduction, Materials and Methods, Results and Discussion. Additional data must be presented to support the information already provided in the extended abstract. If your submission is selected based on scientific merit, your mini-paper will be assigned to a SAADC in-house editor (by 28 February 2013) who will communicate with you directly to work the contents into a full manuscript for submission before 30 December 2013.

### Selection criteria for abstracts and papers will include:

- Originality and interest
- Potential for significance for the field

- Adds to the current state of knowledge
- Abstract structure and clarity
- Scientific validity

### Topics of abstracts and papers

- 1) Environment and management
- 2) Production and Livelihood
- 3) Genetics and breeding
- 4) Nutrition and physiology
- 5) Healthy and food security
- 6) Policy and culture

### Format of Paper Preparation

Check the format in the attachment files or our website [www.saadc2013.com](http://www.saadc2013.com).

### Notes for the Presentation of Invited Speakers and Participants

- 1) Plenary Sessions:  
Presentation time for each plenary speaker is **25 minutes** followed by **5 minutes** discussion.
- 2) Oral Presentation Sessions:  
Presentation time for Lead paper speaker is **20 minutes** plus **5 minutes** discussion and other oral presentation is **12 minutes** followed by **3 minutes** discussion each.
- 3) Poster Sessions:  
Allocate the top of the poster for the title and authors as stated on the submitted abstract. The sizes of the poster are: **80cm WIDE × 110CM HEIGHT**.

## PROGRAM

Date	Morning	Afternoon	Evening
July 27	Registration		Informal Get-together and Buffet
July 28	Opening Ceremony	Plenary Session	Concurrent Scientific Sessions
July 29	Plenary Session	Concurrent Scientific Sessions	Concurrent Scientific Sessions
July 30	Field Trip		
July 31	Plenary Session	Concurrent Scientific Sessions	Awards, Closing Ceremony
			Farewell Dinner

## REGISTRATION INFORMATION

### Registration fee

Category	Before 1 April 2013	From 1 April 2013
<b>Participant</b>	USD260(RMB1640)	USD300(RMB1890)
<b>Student</b>	USD150(RMB950)	USD170(RMB1070)
<b>Accompanying person</b>	USD160(RMB1010)	USD160(RMB1010)

\*1 USD = 6.2 Yuan (December 4, 2012)

### Entitlements

Item	Participant	Student	Accompanying person
<b>Conference materials</b>	Yes	Yes	No
<b>Lunch</b>	Yes	Yes	Yes
<b>Tea Break</b>	Yes	Yes	Yes
<b>Welcome Dinner</b>	Yes	Yes	Yes
<b>Farewell Dinner</b>	Yes	Yes	Yes
<b>Informal Get-together and Buffet</b>	Yes	Yes	Yes
<b>Mid-Conference Field Trip</b>	Yes	Yes	Yes
<b>Accommodation*</b>	No	No	No
<b>Post Conference Tour</b>	No	No	No

\*The price of accommodation is as the following:

- 1) 4 star hotel: Standard Room (2 persons) about RMB 500/day
- 2) 3 star hotel: Standard Room (2 persons) about RMB 300/day
- 3) Common hotel: Standard Room (2 persons) about RMB 220/day

## FIELD TRIP

Time: 08:00 -16:00, July30, 2013

### FT1 Dingxi (Arid Agriculture)

Dingxi city is located in the middle of Gansu Province, only 98 km far from Lanzhou city. The suburbs and countryside areas of this city is famous for techniques and innovations of water-saving agriculture. The water-saving agricultural techniques, such as drop irrigation under soil covering film, ridge filming and ditch irrigation, ridge planting and ditch irrigation, water cellar, greenhouse, and biogas digester, are typical in this semi-arid area. There are also some suburbs or townships appointed for confined animal breeding, especially for raising cattle and sheep.



### FT2 Linxia (Transition Zone)

Linxia city is about 150 km to the southwest of Lanzhou city. The average altitude is 1800m. The region is the most important Muslims settlement in northwest of China, so it is called Oriental Mecca. The country is famous for animal products processing, such as leather, milk and meat. The carpet production in Linxia city is also characteristic, with big factories and a lot of family workshops located in the area.





### FT3 Tianzhu (Highland Yak Farming)

Tianzhu city is about 145 km to the northwest of Lanzhou city. The average altitude is about 3000m. The area is a typical pastoral zone, on the northeast edge of the Qinghai-Tibet Plateau. Highland animals can be found in this area, such as yak and Tibetan sheep. The inspection will focus on the alpine rangeland management and yaks grazing system.



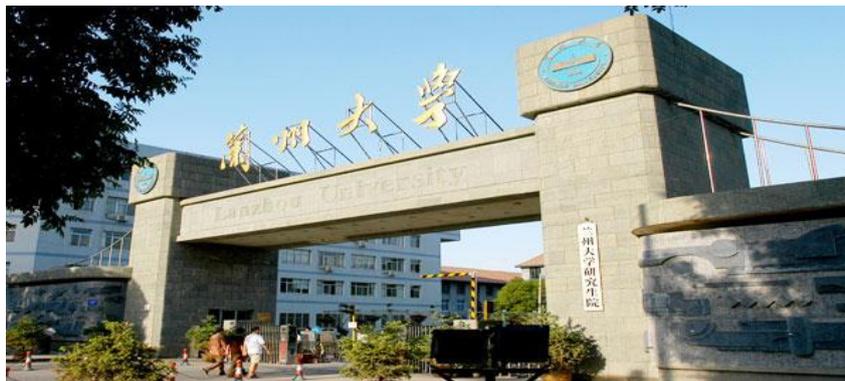
## GENERAL INFORMATION

### Conference venue

Feiyun Building, Lanzhou University, Lanzhou, China

### About Lanzhou University

Lanzhou University, located in Lanzhou, the capital city of Gansu Province, was founded in 1909. It was recognized as one of the key comprehensive universities directly administered under China's Ministry of Education in 1953. In 1996, it was listed as one of the top 100 key universities which would be strongly supported by the Central Government, and as one of the 38 highlighted key universities cooperatively sponsored by the Ministry of Education and local Provincial Government since 2001. So far it has become a key comprehensive university of 11 disciplines, including liberal arts, natural sciences, engineering, agriculture, medicine and arts.



### Location of Lanzhou city

Lanzhou is the capital city of Gansu Province in northwest China. The Yellow River (called the Mother River of China) runs through Lanzhou City from the west to the east, with mountains in the south and north of the city. As Lanzhou is the only provincial city through which the Mother River runs. Whether you choose to roam along the River, to cross the First Bridge over the Yellow River, or to have a cup of eight auspicious teas at the Waterwheel Park, you will be impressed by Lanzhou with its harmonious combination of the modern and the old.



**Diversity for sustainable animal agriculture**

Lanzhou used to be a key point on the ancient Silk Road. Today, it is a hub of the Silk Road Tourism Ring, with Maiji Caves to the east, Bingling Thousand Buddha Caves to the west, Labrang Tibetan Monastery to the south and Dunhuang Mogao Caves to the north.



## Climate

Lanzhou has a typical temperate, semi-arid continental monsoon climate. It has abundant sunshine and dry weather. The annual precipitation is 328 millimeters (13 inches), which is concentrated from May to September. So an umbrella and raincoat should be packed in your bag if you plan to visit Lanzhou at that time. Since it is very dry in Lanzhou, it is suggested to drink lots of water and wear sun protection. The best to visit Lanzhou is from May to October when the temperature is most suitable.

Summer is from June to August, and summer is perfect in July and the temperature hits its peak for both the highest, at 29 °C (84.2 °F), and the lowest, at 17 °C (62.6 °F). It is hot during the day as the sunshine is much stronger than in June. The breeze also blows and it rains occasionally. Wearing T-shirts or dresses may be great choices this month.

## Transportation

### By Air

Lanzhou Zhongchuan Airport (ZGC) is located about 70 kilometers from the downtown area. More than 30 airlines connect Lanzhou to the outside world, with daily flights to and from Beijing, Shanghai, Guangzhou, Shenzhen and Xi'an. The direct daily flights to and from Lhasa now is available and the whole flight lasts only 2.5 hours. Flights to major cities like Tianjin, Chengdu, Chongqing, Nanjing, Kunming, Hangzhou, Taiyuan, Jinan, Changsha, Haikou, Wuhan, Wenzhou, Xiamen, Zhuhai and Shenyang are also available from Lanzhou Zhongchuan Airport.

It takes roughly an hour for the airport shuttle bus (at about 30 Yuan per person) to arrive at Lanzhou Eastern Hotel (No. 555, Tianshui Road) at downtown just the opposite of the Main Gate of Lanzhou University. If take a taxi it costs about 140 Yuan from the Lanzhou Airport to the Lanzhou University.



### Passport and visa

Passport and visa valid for at least 3 months from the entry into China, and entry visas are required to visit China. Participants are advised to consult the nearest Chinese diplomatic mission for details. This application should be made preferably at least one month before departure for China.

Once in China, the participants are advised to carry their passports on them at all times because the passports may be needed to check into hotels, book airline tickets, and change money. Participants from Japan, Singapore within 15 days do not need to apply visa to entry China.

### Currency exchange

In China, only RMB is used. The exchange rate follows the official rate (Bank of China). When exchanging money, please keep your receipt by which you can change any remaining RMB back to foreign currency when leaving China.

1 USD= 6.2 Yuan (December 4, 2012)

### Electricity

The electric current in China is 220V, 50hz. Most hotels have built-in converters in bathrooms for shavers and hair dryers. Please note that a variety of plug types are used in China, and adaptors may be necessary. Two types of sockets are used in China: three-pin socket (a grounding pin and two flat prongs forming a V-shape) and two-pin socket (two flat parallel prongs without grounding).

## POST- CONFERENCE TOUR

**Group One: Lanzhou-Jiayuguan-Dunhuang-Lanzhou**

**Group Two: Lanzhou - Xiahe – Langmusi - Lanzhou**

- ✧ DATE: Jul.31, 2013 to Aug.4, 2013
- ✧ TEAM TYPE: INDEPENDENT TEAM FOR 30 PERSONS
- ✧ TRANSPORTATION: PLANE/TRAIN/ BUS
- ✧ SERVICE: TRANSFER, DRIVER, TOUR GUIDE, NO SHOPPING
- ✧ HOTEL: STANDARD ROOM/2 PERSONS
- ✧ FOOD SERVICE: ¥50/PERSON/MEAL
- ✧ PERSON IN CHARGE: WANG XIA
- ✧ TEL: 0931-8960222/18919317092

**Group One : Lanzhou-Jiayuguan-Dunhuang-Lanzhou**

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### SCHEME ONE ( By Plane):

#### Schedule:

#### Jul. 31: Lanzhou-Dunhuang

- ❖ About 7:30 pm, meet at the gate of hotel and transfer to the airport by bus. Then flight to Dunhuang.
- ❖ Check-in at hotel.  
Flight: MU2419, 21:30-23:00

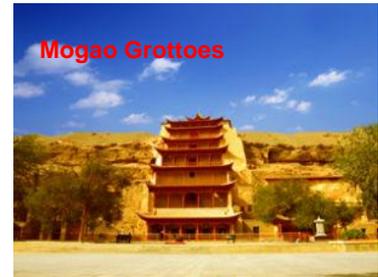
#### Aug. 1: Dunhuang-Yadan-Dunhuang

- ❖ Breakfast
- ❖ After on bus about 1.5h, visit the Jade Gate Pass. It was one of two critical defense positions protecting Dunhuang from Western invasion about two thousand years ago.
- ❖ Lunch
- ❖ After on bus about 1.5h, visit the Devil City of Yadan. It is about 170 km away from downtown Dunhuang. The Yadan National Park is of special interest to Geologists as the area was actually once the bottom of the sea and was then somehow raised to the current level, exposing the rocks to wind erosion.
- ❖ Dinner
- ❖ Check-in at hotel of Dunhuang



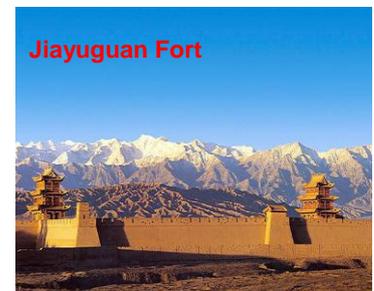
**Aug. 2: Dunhuang**

- ❖ Breakfast
- ❖ Visit the Mingsha Mt. & Crescent Lake about 2.5h.
- ❖ Lunch
- ❖ Visit Mogao Grottoes about 2.5h. There are 492 caves, 2,415 sculptures and 45,000 m<sup>2</sup> of murals at the site, which spans 1,600 m from north to south.
- ❖ Dinner
- ❖ Check-in at hotel of Dunhuang



**Aug. 3: Dunhuang-Jiayuguan-Lanzhou**

- ❖ Breakfast
- ❖ After on bus about 5h, arrive in Jiayuguan. On the way, enjoy the landscape of the Gobi desert and snow capped Qilian Mt.
- ❖ Lunch
- ❖ Visit Jiayuguan, which is the starting point in the west of Great Wall of Ming Dynasty. You will look around Jiayuguan Fort, Wei-Jin Art Gallery, Overhanging Great Wall, and the First Beacon Tower of the Great Wall.
- ❖ Flight to Lanzhou. Tour ends.  
Flight: MU2417, 16:50-18:00



**PRICE (30 Persons/Group):**

- RMB 4530/person for Chinese (Hotel: 3 star)
- RMB 4620/person for Foreigner (Hotel: 3 star)
- RMB 5010/person for Chinese (Hotel: 4 star)
- RMB 5100/person for Foreigner (Hotel: 4 star)

**SCHEME TWO (By Train):**

**Schedule:**

**Aug. 1: Lanzhou-Jiayuguan**

- ❖ About 7:00 am, meet at the gate of hotel and transfer to the airport. Then depart Lanzhou to Jiayuguan.  
Train T9205, 07:40-14:25
- ❖ Have lunch on the train
- ❖ Visit Jiayuguan Fort, Wei-Jin Art Gallery, Overhanging Great Wall, and the First Beacon Tower of the Great Wall.
- ❖ Dinner
- ❖ Check-in at hotel of Jiayuguan



**Aug. 2: Jiayuguan-Dunhuang**

- ❖ Breakfast
- ❖ After on bus about 5h, arrive in Dunhuang. On the way, enjoy the landscape of the Gobi desert and snow

caped Qilian Mt.

- ❖ Lunch
- ❖ Visit the Mogao Grottoes about 2.5h.
- ❖ Visit the Mingsha Mt. & Crescent Lake about 2.5h.
- ❖ Dinner
- ❖ Check-in at hotel of Dunhuang

### Aug. 3: Dunhuang-Yadan-Lanzhou

- ❖ Breakfast
- ❖ After on bus about 1.5h, visit the Jade Gate Pass.
- ❖ Lunch
- ❖ After on bus about 1.5h, visit the Devil City of Yadan
- ❖ Dinner
- ❖ At 18:58 pm, take the train K9668 back to Lanzhou. Arrive in Lanzhou at 09:18, Aug.4. Tour ends.



### Price (30 Persons/Group):

- RMB 2039/person for Chinese (Hotel:3 star)
- RMB 2099/person for Foreigner (Hotel:3 star)
- RMB 2309/person for Chinese (Hotel:4 star)
- RMB 2369/PERSON for Foreigner (Hotel:4 star)

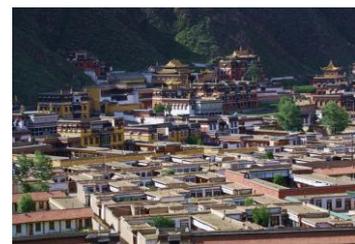
## Group Two: Lanzhou - Xiahe – Langmusi - Lanzhou

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### Schedule:

#### Aug. 1: Lanzhou-Xiahe

- ❖ About 8:00 am, meet at the gate of hotel and transfer to Xiahe by bus.
- ❖ Have Lunch in Linxia
- ❖ Visit Labrang Lamasery. With the following living Buddhas to carry on the job it has now become the largest center for the Tibetan religious culture in Gansu, Qinghai and Sichuan provinces.
- ❖ Visit Sangke Grassland
- ❖ Dinner
- ❖ Bonfire party
- ❖ Check-in at hotel of Xiahe



#### Aug. 2: Xiahe-Langmusi

- ❖ Breakfast
- ❖ Lunch
- ❖ Visit Langmusi. It is a Tibetan town straddling the border of Sichuan and Gansu Provinces in central China, full of Tibetan culture and natural beauty.



**Diversity for sustainable animal agriculture**

- ❖ Visit the Flower Lake
- ❖ Visit Gildy Monaster
- ❖ Dinner
- ❖ Check-in at hotel of Langmusi

**Aug. 3: Langmusi-Lanzhou**

- ❖ Breakfast
- ❖ Return to Lanzhou by bus. Tour ends.



**Price (30 Persons/Group):**

RMB 1358/person for Chinese

RMB 1458/person for Foreigner

**\*More information about the scenic spots, please to check in the attachment files.**

## CONTACT INFORMATION

For more information, please contact with the Secretariat of the 4th International Conference on SAADC 2013, Lanzhou, China.

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Fax: +86-0931-8915650

Name: Dr. Shang Zhanhuan, shangzhh@lzu.edu.cn

Dr. Guo Xusheng, guoxsh07@lzu.edu.cn

Dr. Ding Luming, dinglm@lzu.edu.cn

International Centre for Tibetan Plateau Ecosystem Management  
Lanzhou University,  
Lanzhou, Gansu, 730000, China



## Information about scenic spots of the Tour

### ❖ The west start of Great Wall-Jiayuguan Fort

Located in the middle of Hexi Corridor (west of Yellow River and between Qilian Mountain and North Mountain) in Gansu province, Jiayuguan city is 776 km away from Lanzhou, the capital of Gansu. The west part of the city is mostly Gobi desert, and there are some pieces of oasis dotted in the northeastern and southeastern Jiayuguan, where is the agricultural zone of the town.

In history, Jiayuguan city found its position on the ancient Silk Road. It is also the starting point in the west of Great Wall of Ming Dynasty. The historical background provides Jiayuguan city rich tourism resources like Jiayuguan Fort, Wei-Jin Art Gallery, Overhanging Great Wall, and The First Beacon Tower of the Great Wall and so on.

### ❖ Mogao Grottoes

Carved out of the cliffs 25 km southeast of Dunhuang, Gansu province, Mogao Grottoes lay at a strategic point on the ancient Silk Road, where religion, culture and commerce between East and West intersected for 1,000 years from the 4th century until the Yuan Dynasty (1271-1368).

There are 492 caves, 2,415 sculptures and 45,000 sq m of murals at the site, which spans 1,600 m from north to south. The Mogao Grottoes gained international fame in 1900, when a local monk broke through the wall of a cave and found 50,000 cultural relics from the 4th to 14th centuries. He found Buddhist scriptures, embroidery, paintings, letters, works of literature, contracts and account books written in many languages.

With long winters and short hot summers, the area is most pleasant to visit between June and September. Long-sleeved shirts and sunglasses are advisable during the day and a sweater is necessary in the evening.

Most tourists spend the night in the city of Dunhuang and then take a bus to reach the Mogao Grottoes. The journey takes about an hour. To find a local tour guide, it's best to get to the grotto before 9 am.

### ❖ Devil City of Yadan

Devil city, also known as Yadan physiognomy, is located in the Northwest of Dunhuang which is in Gansu Province and borders Lop Nur Lake in the west. Located at the intersection of Gansu Province and Xinjiang Uygur Autonomous Region, it is about 170 km away from downtown Dunhuang. The Yadan National Park is of special interest to Geologists as the area was actually once the bottom of the sea and was then somehow raised to the current level, exposing the rocks to wind erosion. It is the largest Yadan landform discovered to date, covering an area of about 400

square km. Two other sites worth visiting on the way to Yadan are Yang Pass (Yangguan) and Yumen Pass.

#### ❖ Jade Gate Pass

It takes about 1 hour to get from Dunhuang to Yumen pass (CNY40.00), where you can see fragments of the Great Wall built during the Han dynasty. If you wish to take in the sunrise over the ruins then make sure you leave early in the morning. Yumen Pass was one of two critical defense positions protecting Dunhuang from Western invasion about two thousand years ago. At that time, anyone wishing to take the Silk Road west (or east into China through Dunhuang) had to pass through this spot. The renowned Tang Dynasty poet, Wang Zhihuan, described the unique scenery and atmosphere here. We have to pay a road toll when we pass through this area, which also serves as the entrance fee to Yumen Pass and its sights. You may like to spend a little time here wandering around and taking pictures, however the highlight of today's journey is the next stop: Yadan National Park.

#### ❖ Labrang Lamasery

Located in the alluvial of the Daxia River at about a kilometer to the west of the Xiahe county seat the lamasery backs on the Phoenix Mountain and faces the Dragon Mountain. It is a place known as the "Gold Basin for Raising Fish". The temple was initially built under the supervision of Jiamuyang, the first generation of Living Buddha in 1709, the 48th year in the reign of Kangxi of the Qing Dynasty. With the following living Buddhas to carry on the job it has now become the largest center for the Tibetan religious culture in Gansu, Qinghai and Sichuan provinces.

Covering an area of around 82 hectares with a floor space of 82,300 square meters the Labrang Lamasery consists of 6 scripture-chanting halls, 84 Buddha halls, 31 Tibetan style buildings, 30 palace-yards for Buddhas and over 500 meditation rooms as well as more than 10,000 abodes for lamas. Together with Drepung, Sera, Gandam, Tashilhunpo and Ta'er monasteries in Tibet and Qinghai, they are considered the six sovereign monasteries for the Yellow Sect (Gelugpa) of the Chinese Tibetan Buddhism. Labrang is a transliteration of a Tibetan word pronounced as "Lazhang", which means a place for the location of a Buddhism palace.

Pooled together wisdoms of the Tibetan, Han and Mongolian people, the monastery is renowned for its exquisite art of architecture and brilliance of religious culture. Kept in the monastery are all kinds of sutras, dividing into complete works, philosophy, Esoteric Sect of Buddhism, medicine, history, religion, biography, building technology, mathematics and poem and prose, etc, a total of 12 categories in 60,000 volumes. It is a monastery with the greatest collection of books. The monastery also runs six academies for religious and other teachings and learning, such as the Esotericism and medicine and so on. So it is the largest academy of Lamaism in China and the world as well. With a strict system of enrollment, teaching, examination and graduation it has nurtured a great many religious personnel for the Tibetan speaking regions.

## ❖ Langmusi

Langmusi is a Tibetan town straddling the border of Sichuan and Gansu Provinces in central China. It belongs to the broad grassland region of northwest Sichuan and south Gansu. There are two major cultural influences in Langmusi; one is Tibetan Buddhism, another one- and much more important - is nomadic life.

Venturing face-to-face with Amdo Tibetan nomads is an electrifying once in a lifetime experience while trekking through their age-old grasslands.

Langmusi itself is full of Tibetan culture and natural beauty. But the real draw to the area is the traditional nomadic grasslands outside of town. Trekking across the rolling green hills you can experience the nomad life by staying with real nomadic families. The nomads live off the land and their day is filled with activity. You can watch or help the Tibetan women milk yaks, make butter, and dry yak dung-which is used for fuel. You can also watch the men herd the yaks and sheep. And depending on the season you can see and be part of seasonal activities such as sheep shearing, moving to new grasslands, and mowing the grasslands, among other things.

So if you come to Langmusi for a few days of riding or trekking, you will experience so much more by immersing yourself in nomadic life.

## Format of Paper Preparation

(Please follow instruction. You may type directly on the template below)

### **Title <Times 14, bold, title maximum 2 lines>**

<1 line space>

*Long<sup>12</sup>, R. J., X. Guo<sup>1</sup> & L. Ding<sup>3</sup>* < Times 12, italic, use & (not and)>

<1 line space>

<sup>1</sup>International Centre for Tibetan Plateau Ecosystem Management, Lanzhou University, Lanzhou 730020, China, <sup>2</sup>College of Pastoral Agriculture Science and Technology, Lanzhou University, Lanzhou 730020, China, <sup>3</sup>Company or Institute, Address, Place, Postal code, Country <Times 12 italics>

<2 lines space>

### **Summary <Times 14> (Not required for extended abstract)**

<1 line space>

Text of the summary. <Times 12, regular> Paper should be regular A4 size with margins left and right: 2.5 cm; top and bottom: 2.00 cm.

<1 line space>

*Keywords:* <Times 12, italic, maximum 5 keywords, no capitals> (Not required for extended abstract)

<1 line space>

### **Introduction <Times 14>**

<1 line space>

#### **Text of the introduction .<Times 12, regular>**

The first paragraph of any text section should start at the left margin, the following <tab>paragraphs should indent by 1 tab space. References in text should be: author (year) or (author, year), author 1 & author 2 (year) or (author 1 & author 2, year), author 1 et al., (year) or (author 1 et al., year). Use only italics for scientific names of animals, plants or micro-organisms.

<1 line space>

### **Heading of section, for example Materials and Methods <Times 14**

<1 line space>

Text of section. <Times 12, regular>

<1 line space>

### **Heading of subsection <Times 12 bold>**

<1 line space>

Text of subsection. <Times 12, regular>

<1 line space>

*Heading of sub-subsection. <Times 12, italics>*

Text of sub-subsection. < Times 12, regular>

<1 line before a table>

Table 1. Table captions should be placed above the table. <Times 12, Tables should be ended by a period>

QW parameter	Treated	Untreated
DO ( $\text{mg l}^{-1}$ )	6.0	2.0
Alkalinity ( $\text{mg l}^{-1}$ as $\text{CaCO}_3$ )	125	1000
$\text{Fe}^{+2}$ ( $\mu\text{g l}^{-1}$ )	30	1500

1Footnote <Times 10, regular>

<1 line after a Table>

Tables should be numbered consecutively in Arabic numbers, independent of Figures. Tables and captions should be left justified. Use horizontal lines only when necessary. Do not use vertical lines, screens or colors in Tables.

<1 line before a Figure, Figures should be inserted digitally>

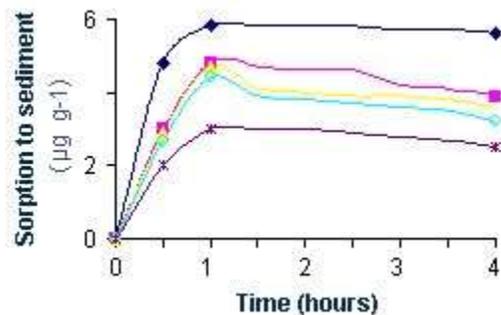


Figure 1. Figure captions should be placed under the figures.

<Times 12, captions should be ended by a period>

<1 line after a figure>

The term of Figures includes diagrams, line drawings, maps, etc. Figures should be numbered consecutively in Arabic numbers, independent of tables. **Do not use colors in figures.**

<1 line space>

## References <Times, 14>

<1 line space>

<For journal articles:>

Author(s), year. Title. Journal title (abbreviation) volume number: page-page

Donnert, O., M. J. Salecker and D. Edge, 2001. Elimination of phosphorus from waste water by crystallisation. Environ. Tech. 20: 651-663

<For books>

Author(s), year. Title, Edition (if any). Publisher, address, number of pages.

Houghton, J., 1994. Global Warming. Lion Publishing plc, Oxford, England. pp192

## **ARTIKEL YANG DIKIRIM**

# **The Growth Curve of Local Sheep on Rural Production Systems**

**Endang Purbowati dan Agung Purnomoadi**

Faculty of Animal Agriculture, Diponegoro University, Tembalang, Semarang, Indonesia 50275

## **Summary**

Growth in meat animals need to know to determine the growth rate, weight and age of puberty, and the weight and age of adult. This study used 18 male local sheep with ages 0 – 12 months. Regression-correlation analysis is used to obtain the growth curve. The results showed that DMI of the local sheep in rural area that do not meet the needs, and ADG of the sheep only 57.86 kg. The growth curve of local sheep was Sigmoid (letter S), the inflection point at the age of 6 months at 17.70 kg, and adult weight about 31 kg is achieved at the age of 12 months.

Keyword: local sheep, growth curve, rural

## **Introduction**

Sheep is one of the meat types of animals. Growth is essential to the type of meat animals. High growth, fast, and efficient is expected by the farmers in order to obtain the maximum benefit. This study aims to determine the growth curve of local sheep on rearing condition in the rural. The benefits of this growth curve is known to predict the growth rate of sheep, weight and age of puberty, and the weight and age of adult.

## **Materials and Methods**

The study used 18 male local sheep, aged 0-12 months were obtained from Pagergunung village, subdistrict Pringsurat, district Temanggung, Indonesia. All of sheep were weighted on a balance of body weight hanging. Sheep weight data were analysis with regression-correlation analysis for determine growth curve.

## **Result and Discussion**

The characteristics of sheep have maintained white coat color, and the are some black spotted, tail shape at the top of a little fat, then down smaller. Local sheep are believed to be descendants from crosses of Java Thin Tail Sheep and Fat Tail Sheep. The purpose of raising livestock sheep originally to get a much needed fertilizer for his farm, but was later shown to produce meat.

## **Sheep production systems in Rural**

Sheep production systems in rural have persisted together with overall patterns of crop production and farming systems. They are especially dependent on the agro-ecological environment and because of the ruminant digestive systems, must always depend on hight fibre vegetation or crop residu for their feed base. Feed given 2 times a day consisting of forage and concentrates. Forage given dependent on the nature and extent of the crop residues produced, while the concentrate are given consisting of rice bran, cassava, and coffee beans by product.

Based on the amount of feed given, it can be calculated that the average of dry matter intake (DMI) of male local sheep with 20 kg body weight (BW) was 970.79 g, crude protein (CP) 121.01 g, neutral detergent fiber (NDF) 551.27 g, acid detergent fiber (ADF) 376.50 g, cellulose 239.71 g, and hemicellulose 174.77 g. Nutrients requirements standard for ram fattening with 20 kg BW and 130 g ADG by Ranjhan (1981) was 1.000 g DM, 127 g CP and 560 g total digestible Nutrients (TDN). Based on these standards, the DMI of local ram has yet to meet needs. The content of NDF and ADF were relatively high, NDF 56.79% of DM and ADF 68.30% of DM,

then it can be assumed that most of the local sheep feed digestibility is not perfect, especially when the levels of lignin and silica in the feed is high can result in feed material can not be digested.

### Sheep Growth Curve

The growth curve and growth rate of the local sheep were presented in Illustration 1. Based on these results obtained, that shaped growth curve of the local sheep was Sigmoid (the letter S). Owens et al. (1993) stated that the growth curve, being mass or cumulative weight plotted against age, is sigmoid, consisting of a prepubertal accelerating phase plus a postpubertal decelerating phase.

Birth weight of local sheep about 3 kg, weight adult at the age of 12 months around 31 kg. The turning point/inflection of the growth curve of local sheep occurred at the age of 6 months and body weights about 17.70 kg. At the age of 6 months is presumed local sheep puberty, as stated by Owens et al. (1993) that the turning point / inflection occurs when the sheep reached puberty.

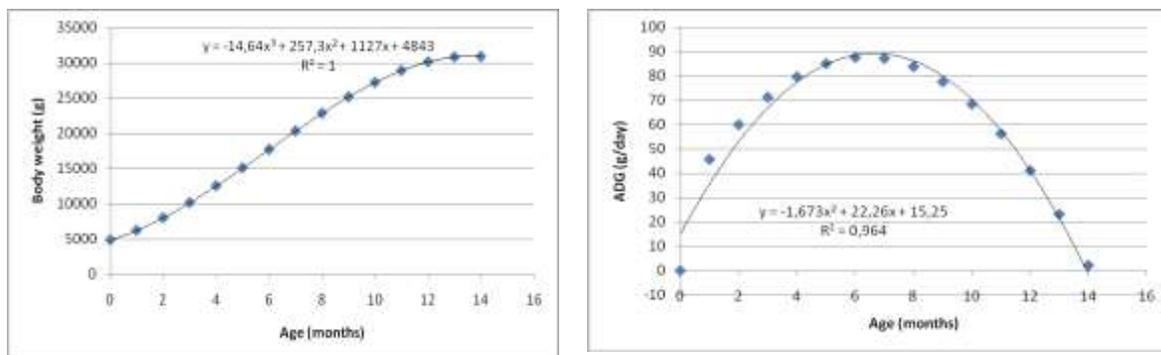


Illustration 1. The growth curve (left) and growth rate curve (right) of local sheep in rural

Average daily gain (ADG) of local sheep in the rural were 57.86 g with the ADG highest (87.50 g) achievement at the age of 6 months. Based on the growth curve and growth rate were the management application that can be applied was the separation of male and female sheep rearing done before the age of 6 months, fattening lambs from age 6 months to age 12 months. Local lamb cuts can be performed after the age of 12 months, because of the body weight after the age of sheep will remain or even fall.

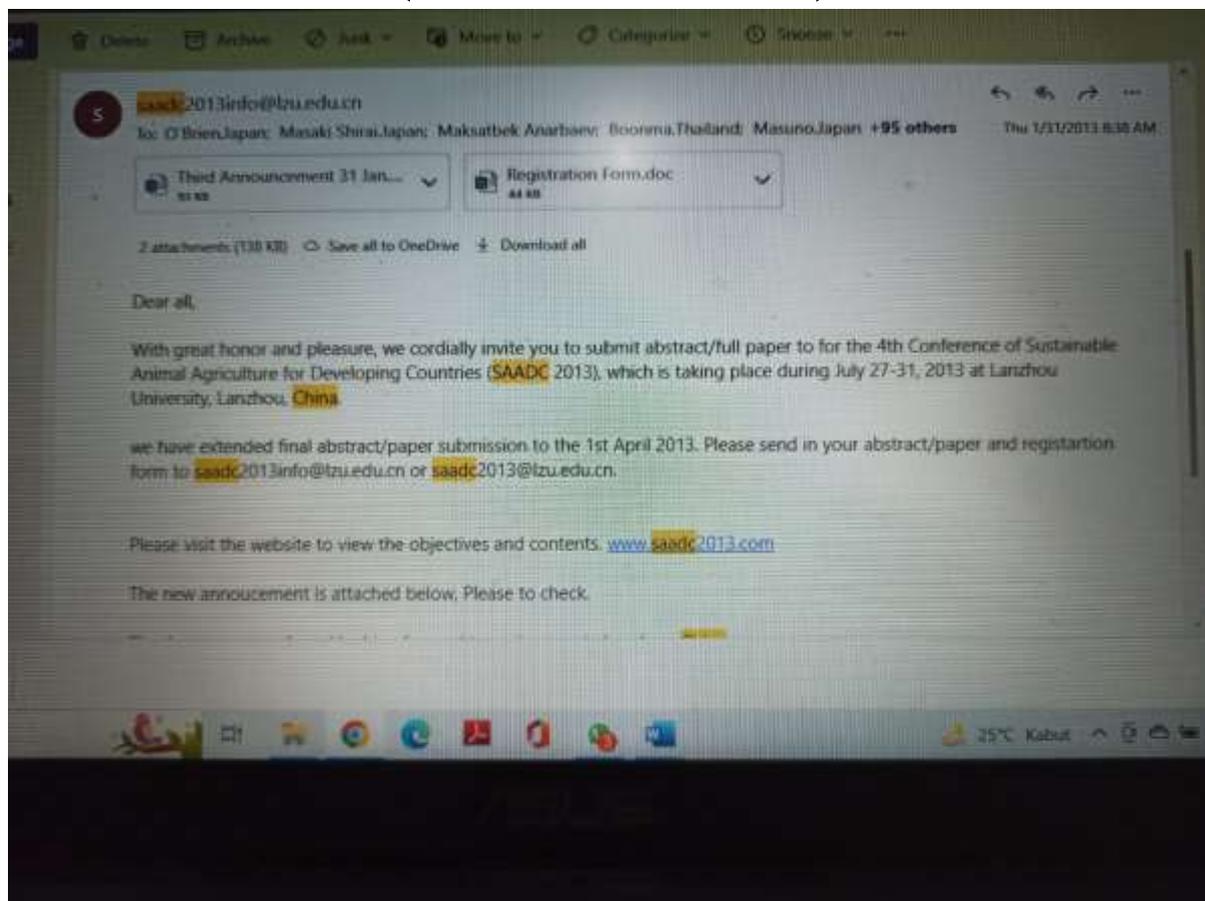
### Conclusion

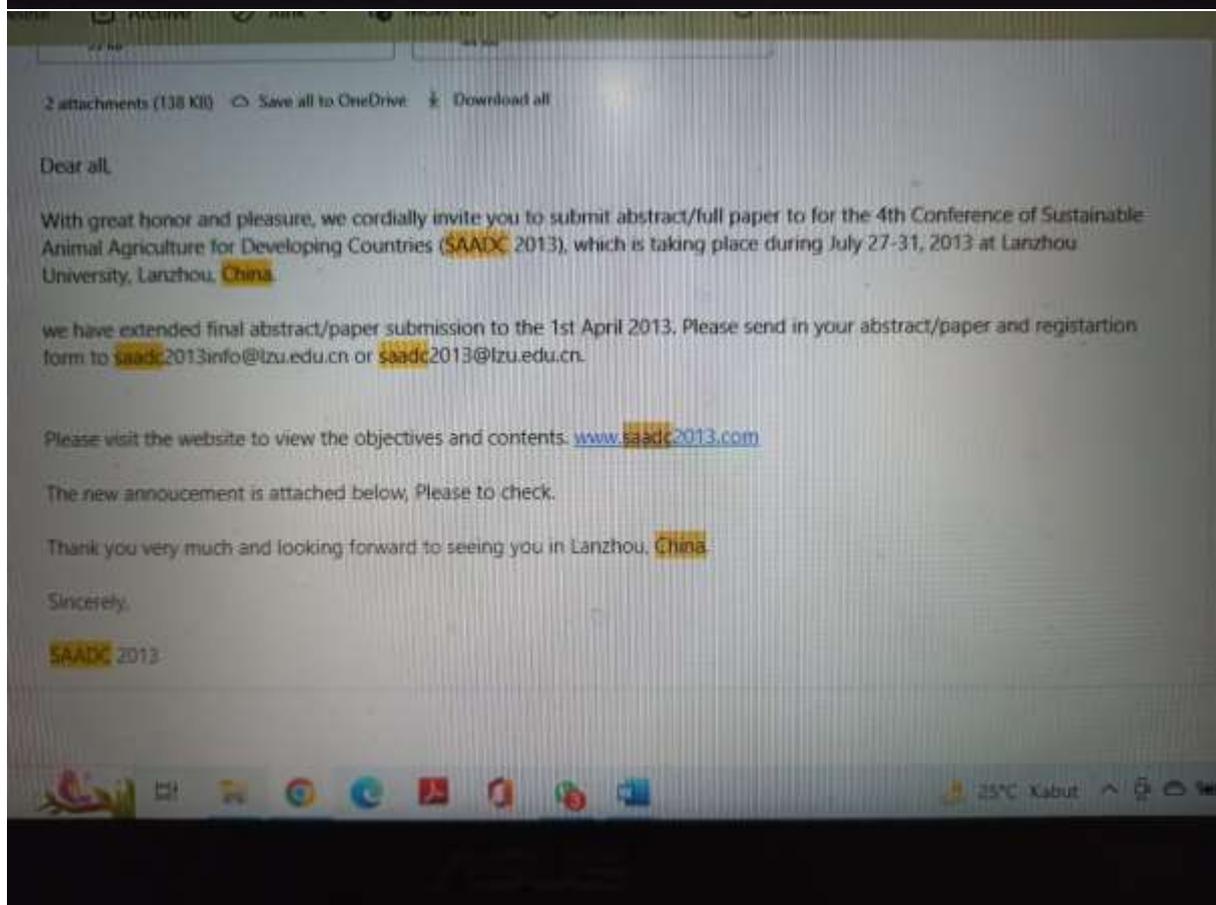
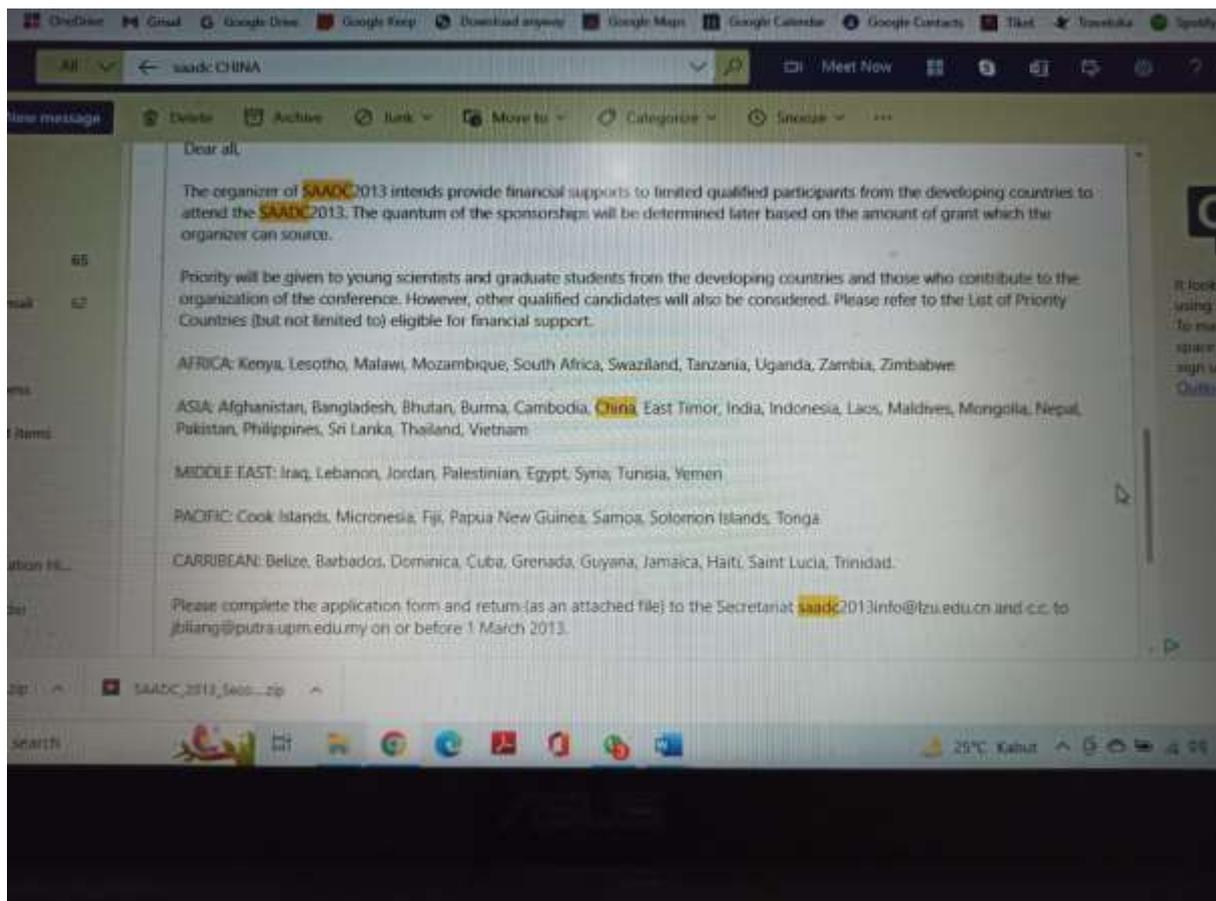
It is concluded that DMI of local sheep in rural areas that do not meet the needs of an average of ADG just 57.86 g. The shape of growth curve of local sheep in the rural was Sigmoid (letter S) with the inflection point at the age of 6 months and 17.70 kg body weight, and adult body weight was around 31 kg at the age of 12 months.

### References

- Owens, F.N., P. Dubeski, and C.F. Hanson. 1993. Factors that alter the growth and development of ruminants. *J. Anim. Sci.* 71 : 3138-3150
- Ranjhan, S.K. 1981. *Animal Nutrition in Tropics*. Second Revised Edition. Vikas Publishing House PVT LTD, New Delhi.

# Info ke-3 beserta file (1) Third Announcement 31 Jan; (2) Registration Form (31 Januari 2013)





## CALL FOR ABSTRACTS AND PAPERS

All participants intending to present scientific papers (oral or poster) at the Conference must submit an extended abstract of not more than 2 pages (inclusive of Tables and Figures). Keynote addresses and plenary and lead papers (only by invitations) should be no more than 6 pages (inclusive of Tables and Figures).

**The deadline for submission abstract is extended to April 1, 2013.**

All submissions must be prepared in digital format using Microsoft Word following the standard "Format for Paper Preparation" provided by the organizer. Please check in the website [www.saadc2013.com](http://www.saadc2013.com). Extended abstracts must be submitted as attached files by email to the organization committee at [saadc2013@lzu.edu.cn](mailto:saadc2013@lzu.edu.cn)

### Topics of abstracts and papers

- 1) Environment and management
- 2) Production and Livelihood
- 3) Genetics and breeding
- 4) Nutrition and physiology
- 5) Healthy and food security
- 6) Policy and culture

### Notes for the Presentation of Invited Speakers and Participants

- 1) Plenary Sessions:  
Presentation time for each Keynote address and plenary speaker is **25 minutes** followed by **5 minutes** discussion.
- 2) Oral Presentation Sessions:  
Presentation time for Lead paper speaker is **20 minutes** plus **5 minutes** discussion and other oral presentation is **12 minutes** followed by **3 minutes** discussion each.
- 3) Poster Sessions:  
Allocate the top of the poster for the title and authors as stated on the submitted abstract. The sizes of the poster are: **80cm WIDE × 110CM HEIGHT**.

## PROGRAM

Time	Tentative Program
<b>27<sup>th</sup> July 2013 (Saturday)</b>	
8:00 – 20:00	Registration
17:00 – 20:00	Informal Get-together and Buffet

<b>28<sup>th</sup> July 2013 (Sunday)</b>		
07:30 – 08:30	Registration	
	<b>Opening Ceremony and Keynote Addresses</b>	
08:30 – 08:45	Opening Ceremony	
08:45 – 09:15	Keynote address 1 Sustainable animal production in developing countries. Prof. Li Defa (China)	
09:15 – 09:45	Keynote address 2 Enhancing animal agriculture in the developing countries through international and regional collaborations (Joachim Otte, FAO, Bangkok)	
	<b>Plenary Session A</b>	
09:45 – 10:15	Plenary 1 To be identified	
10:15 – 10:45	Plenary 2 Can the industrialized animal agriculture be sustainable? (Ermias Kebreab, USA)	
10:45 – 11:15	Tea Break	
11:15 – 11:45	Plenary 3 Dr. Choi Sheong-Ho (Chunbuk National University, South Korea)	
11:45 – 12:15	Plenary 4 Methane mitigation research – current and future for sustainable animal agriculture (Andre Wright, USA)	
12:15 – 14:00	Lunch	
	<b>Scientific Oral Sessions for Environment &amp; Animal Welfare</b>	
	<b>Session 1. Environment</b>	<b>Session 2. Animal Welfare</b>
14:00 – 14:15	Lead Paper Challenges of recycling livestock wastewater as renewable energy in developing countries (X.D. Liao, China)	Lead Paper Role of animal welfare in sustainable development of livestock industry (Pongchan Lampang, Thailand)
14:15 – 15:45	Scientific papers	Scientific papers

15:15 – 15:45	Tea Break	
	<b>Scientific Oral Sessions for Animal Genetics, Breeding &amp; Biotechnology</b>	
	Session 3 <b>Animal Genetics &amp; Breeding</b>	Session 4 <b>Biotechnology</b>
15:45– 16:00	Lead Paper Genetic diversity for sustainable development of animal industry (Jothi Panandam, Malaysia)	Lead Paper Role of Biotechnology research to support sustainable animal agriculture in developing countries (J. Takahashi, Japan)
16:00 – 17:00	Scientific papers	Scientific papers
17:00--18:00	<b>Poster Session 1</b>	<b>International Advisory Committee Meeting</b> (only Committee members)
18:00 – 20:00	<b>Welcome Dinner</b>	
<b>29<sup>th</sup> July 2013 (Monday)</b>		
	<b>Plenary Session B</b>	
08:30 – 09:00	Plenary 1_Sustainable meat production: The problem with trying to reconcile environmental, nutritional and microbial community interactions (James Chin, Australia)	
09:00 – 09:30	Plenary 2 Prof. Liu Jianxin (China)	
09:30 – 10:00	Plenary 3 Converting agro-byproducts for sustainable livestock production (C. Yuangklang & P. Paengkoum; Thailand)	
10:00 – 10:30	Plenary 4_	
10:30 – 11:00	Tea Break	
	<b>Scientific Oral Sessions for Animal Nutrition</b>	

	Session 5 <b>Monogastric Animal</b>	Session 6 <b>Ruminants</b>
11:00 – 11:15	Lead Paper	Lead Paper Oxidative stress management in livestock: opportunities and challenges"? (P. Celi, Australia)
11:15 – 12:15	Scientific papers	Scientific papers
12:15 – 14:00	Lunch	
	<b>Scientific Oral Sessions for Animal Physiology</b>	
	Session 7 <b>Monogastric Animal</b>	Session 8 <b>Ruminants</b>
14:00 – 14:15	Lead Paper	Lead Paper Ecogenomics of Synergistetes bacteria to facilitate detoxification of xenobiotics in ruminant livestock Chris McSweeney (Australia)
14:15 – 15:15	Scientific papers	Scientific papers
15:15 - 15:45	Tea Break	
	<b>Scientific Oral Sessions for Animal Health and Medicine</b>	
	Session 9 <b>Animal Health</b>	Session 10 <b>Animal Medicine</b>
15:45 – 16:00	Lead Paper	Lead Paper
16:00 – 17:00	Scientific papers	Scientific papers
17:00—18:00	<b>Poster Session 2</b>	
	Free Evening	
<b>30<sup>th</sup> July 2013 (Tuesday)</b>		

08:00 -16:00	Field Trip 1. To Dingxi (Arid Agriculture) 2. To Linxia (Transition Zone) 3. To Tianzhu (Highland Yak Farming)	
	Free Evening	
<b>31<sup>th</sup> July 2013 (Wednesday)</b>		
	<b>Plenary Session C</b>	
08:30 – 09:00	Plenary 1 Breeding strategies for beef cattle managed in an integrated oil palm production system (Ariff Omar, Malaysia)	
09:00 – 09:30	Plenary 2 Small-holder dairy production in Pakistan: is it sustainable? (P. Wynne, Australia)	
09:30 – 10:00	Plenary 3 Opportunity and challenges of liquid feed in livestock production (Tomoyuki Kawashima, Japan)	
10:00 – 10:30	Plenary 4 Goats farming and livelihood of small-holder farmers in Indonesia (Kustantinah and Dewi Astuti, Indonesia)	
10:30 – 11:00	Tea Break	
	<b>Scientific Oral Sessions for Animal Production Systems &amp; Animal Products</b>	
	<b>Session 11 Monogastric Animal</b>	<b>Session 12 Ruminants</b>
11:00 – 11:15	Lead Paper	Lead Paper
11:15 – 12:15	Scientific papers	Scientific papers
12:15—14:00	Lunch	
14:00 – 16:00	<b>Young Scientist Awards, Closing Ceremony</b>	
16:00 – 18:00	<b>Special get-together for graduate students and young scientists for collaborations</b>	
18:00 – 20:00	<b>Farewell Dinner</b>	

**New:** The Organizing committee has established an in-house editorial board to help young scientists and graduate students who wish to expand their extended abstracts into full papers for submission to an appropriate ISI listed journal. Authors who wish to do this must, in addition to submitting their 2-page extended abstracts, provide additional information to be assessed by the in-house editorial committee. This must be done as a separate mini-paper (no more than 6 pages) with an Abstract, Introduction, Materials and Methods, Results and Discussion. Additional data must be presented to support the information already provided in the extended abstract. If your submission is selected based on scientific merit, your mini-paper will be assigned to a SAADC in-house editor (by 15 April 2013) who will

communicate with you directly to work the contents into a full manuscript for submission before 30 December 2013.

Important dates for extended abstract and paper submission:

Deadline for extended abstract & paper submission	1 April 2013
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SAADC 2013  
Registration Form

Title (Prof, Dr, Mr)																			
First (given) name																			
Last (Family) name																			
Organization																			
Postal Address																			
City & State																			
Postcode																			
Country																			
Telephone																			
Fax																			
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Paper presentation	Yes <input type="checkbox"/> No <input type="checkbox"/>																		
Title of paper																			
Mode of presentation	Oral <input type="checkbox"/> Poster <input type="checkbox"/>																		
Registration Fee*	<table style="width: 100%; border: none;"> <tr> <td></td> <td style="text-align: center;">Participant</td> </tr> <tr> <td>Before 1 April 2013</td> <td style="text-align: right;">USD260(RMB1640)</td> </tr> <tr> <td>From 1 April 2013</td> <td style="text-align: right;">USD300(RMB1890)</td> </tr> <tr> <td></td> <td style="text-align: center;">Student</td> </tr> <tr> <td>Before 1 April 2013</td> <td style="text-align: right;">USD150(RMB 950)</td> </tr> <tr> <td>From 1 April 2013</td> <td style="text-align: right;">USD170(RMB1070)</td> </tr> <tr> <td></td> <td style="text-align: center;">Accompanying person</td> </tr> <tr> <td>Before 1 April 2013</td> <td style="text-align: right;">USD160(RMB 1010)</td> </tr> <tr> <td>From 1 April 2013</td> <td style="text-align: right;">USD160(RMB1010)</td> </tr> </table>		Participant	Before 1 April 2013	USD260(RMB1640)	From 1 April 2013	USD300(RMB1890)		Student	Before 1 April 2013	USD150(RMB 950)	From 1 April 2013	USD170(RMB1070)		Accompanying person	Before 1 April 2013	USD160(RMB 1010)	From 1 April 2013	USD160(RMB1010)
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Payment information	<p>Telegraphic Transmission(TT) Via TT directly to the SAADC2013 bank account**. <b>Please send scanning copy of your transaction receipt to the Treasurer SAADC2013*** for record, which should be noted “Registration fees of SAADC conference”.</b></p>																		
Amount being paid	USD <input type="checkbox"/> RMB <input type="checkbox"/> Amount: _____																		

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# **FILE REGISTRATION FORM**

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Title (Prof, Dr, Mr)	Dr																		
First (given) name	Endang																		
Last (Family) name	Purbowati																		
Organization	Faculty of Animal Agriculture, Diponegoro University																		
Postal Address	Faculty of Animal Agriculture, Diponegoro University, Undip Tembalang Campus																		
City & State	Semarang, Jawa Tengah																		
Postcode	50275																		
Country	Indonesia																		
Telephone	62-24-7478348																		
Fax	62-24-7474750																		
Email	purbowati@hotmail.com																		
Paper presentation	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																		
Title of paper	The Growth of Indonesian Local Sheep in Rural Production Systems																		
Mode of presentation	Oral <input type="checkbox"/> Poster <input checked="" type="checkbox"/>																		
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From 1 April 2013	USD160(RMB1010)																		
<i>*Registration fee includes conference materials, lunch, welcome and farewell dinners and field trip</i>																			
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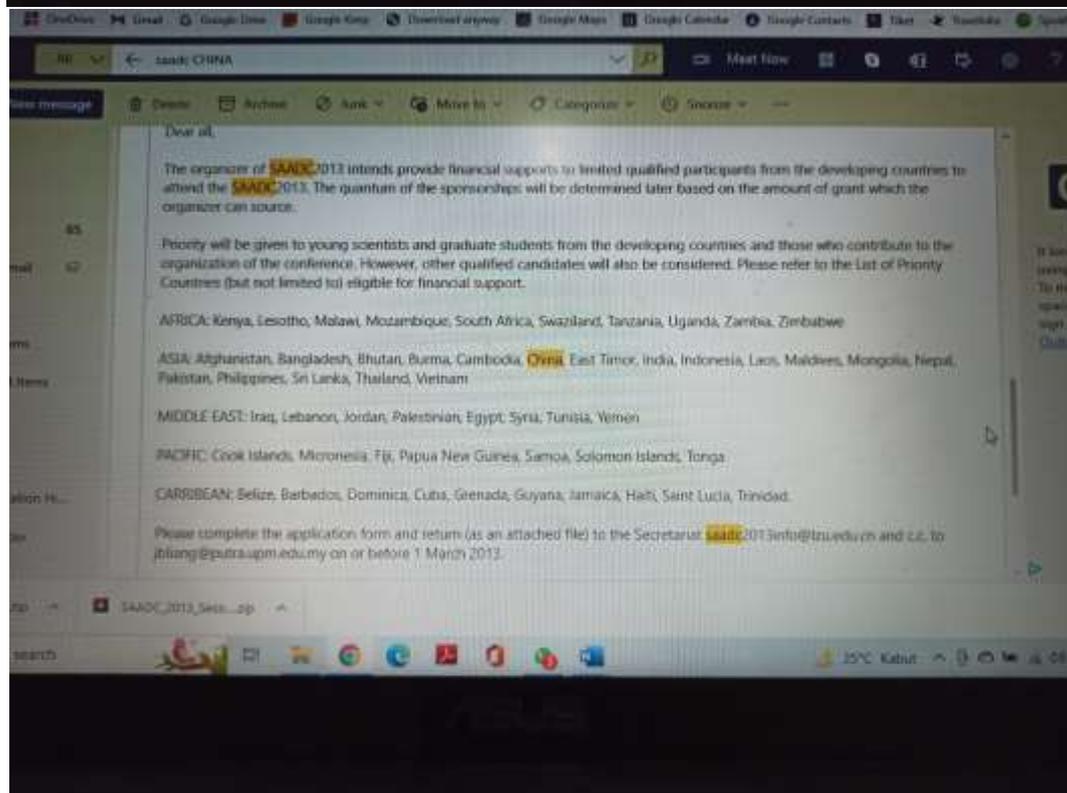
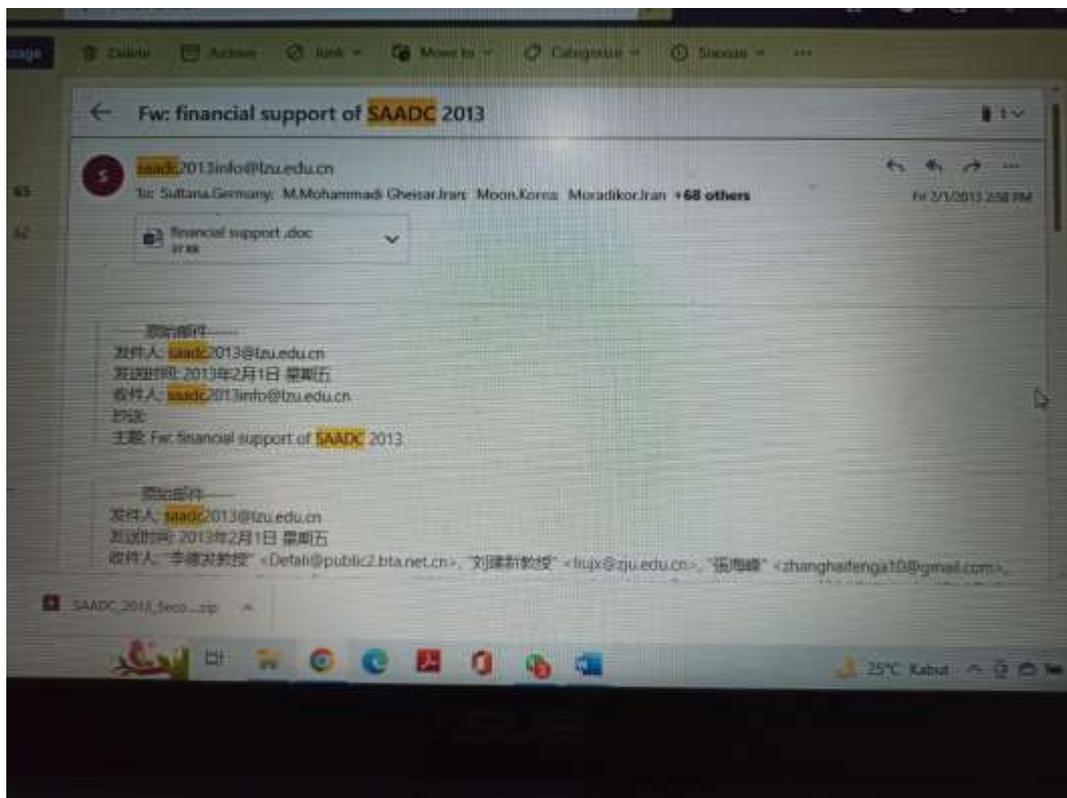
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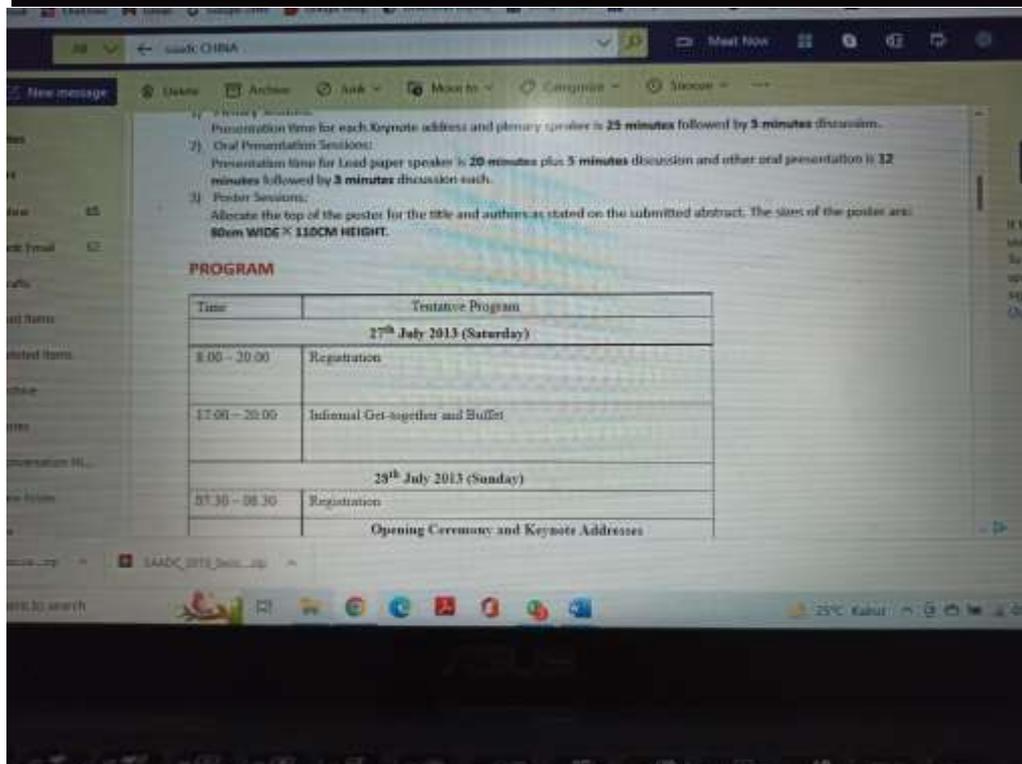
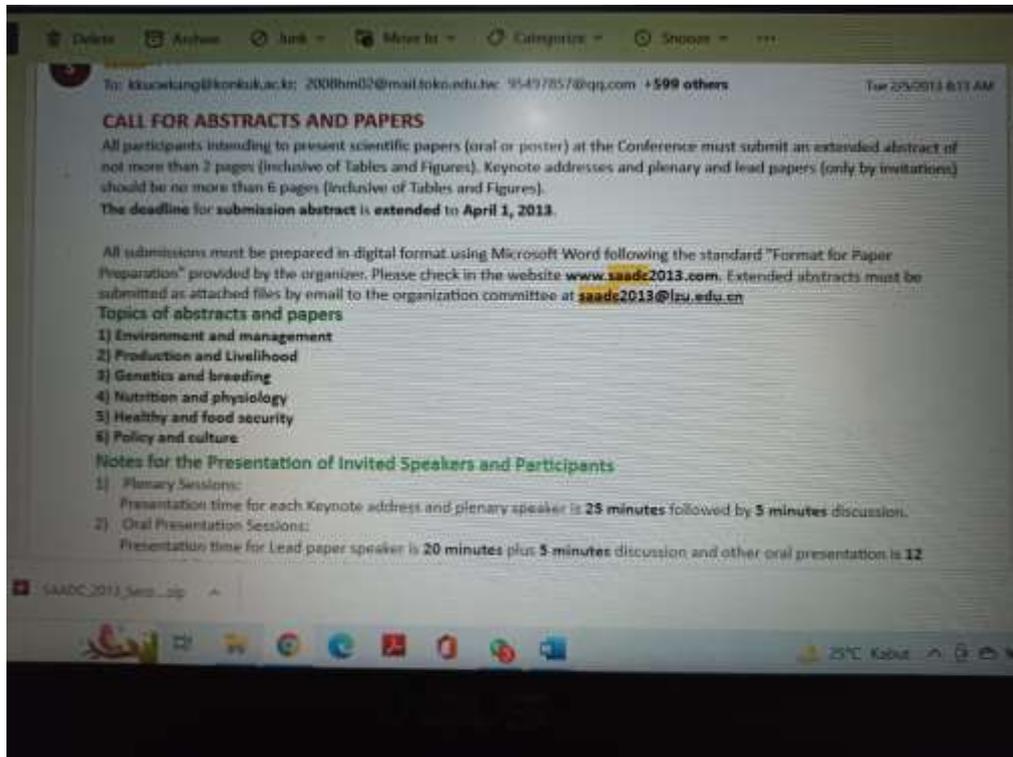
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# Financial Support of SAADC 2013 (1 Februari 2013)



# Pemberitahuan perpanjangan pengiriman artikel (5 Februari 2013)



search: CHINA

07:30 - 08:30 Registration

**Opening Ceremony and Keynote Addresses**

08:30 - 08:45 Opening Ceremony

08:45 - 09:15 Keynote address 1 Sustainable animal production in developing countries. Prof. Li Defa (China)

09:15 - 09:45 Keynote address 2 Enhancing animal agriculture in the developing countries through international and regional collaborations (Joachim Otte, FAO, Bangkok)

**Plenary Session A**

09:45 - 10:15 Plenary 1 To be identify

10:15 - 10:45 Plenary 2 Can the industrialized animal agriculture be sustainable? (Ermias Kebreab, USA)

10:45 - 11:15 Tea Break

11:15 - 11:45 Plenary 3 Dr. Choi Sheong-Ho (Chunbuk National University, South Korea)

11:45 - 12:15 Plenary 4 Methane mitigation research – current and future for

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search: CHINA

11:45 - 12:15 Plenary 4 Methane mitigation research – current and future for sustainable animal agriculture (Ander Wright, USA)

12:15 - 14:00 Lunch

**Scientific Oral Sessions for Environment & Animal Welfare**

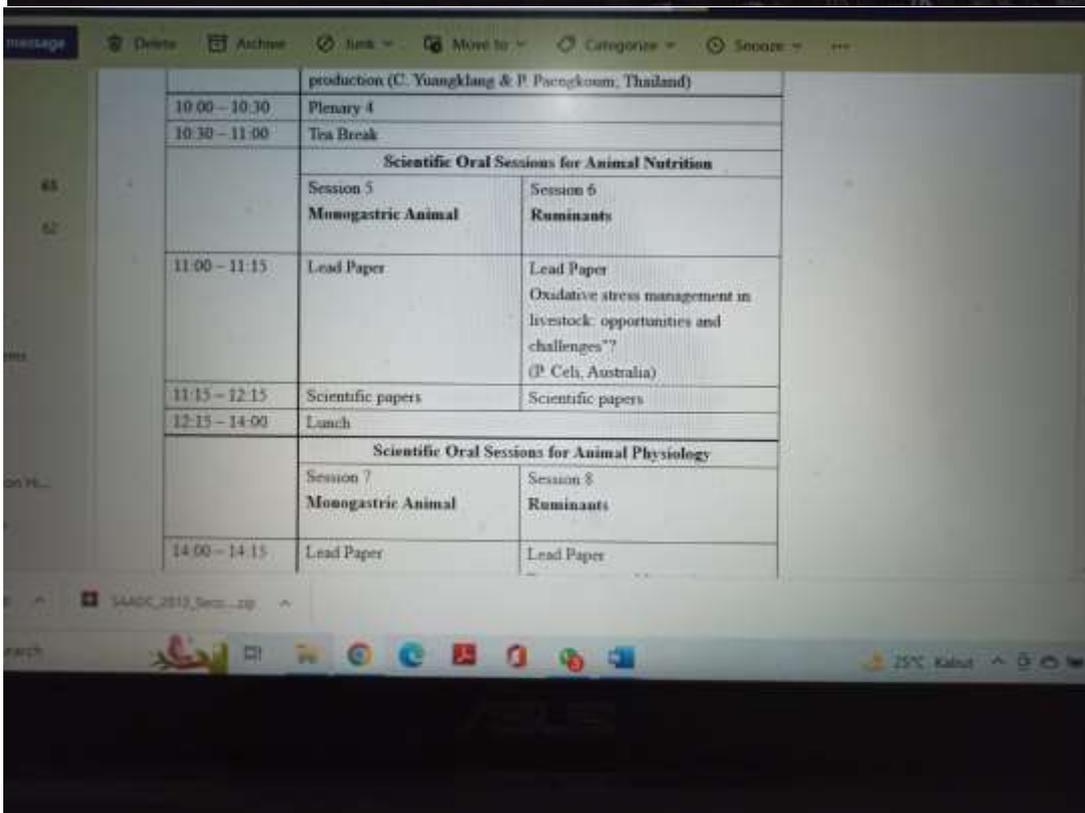
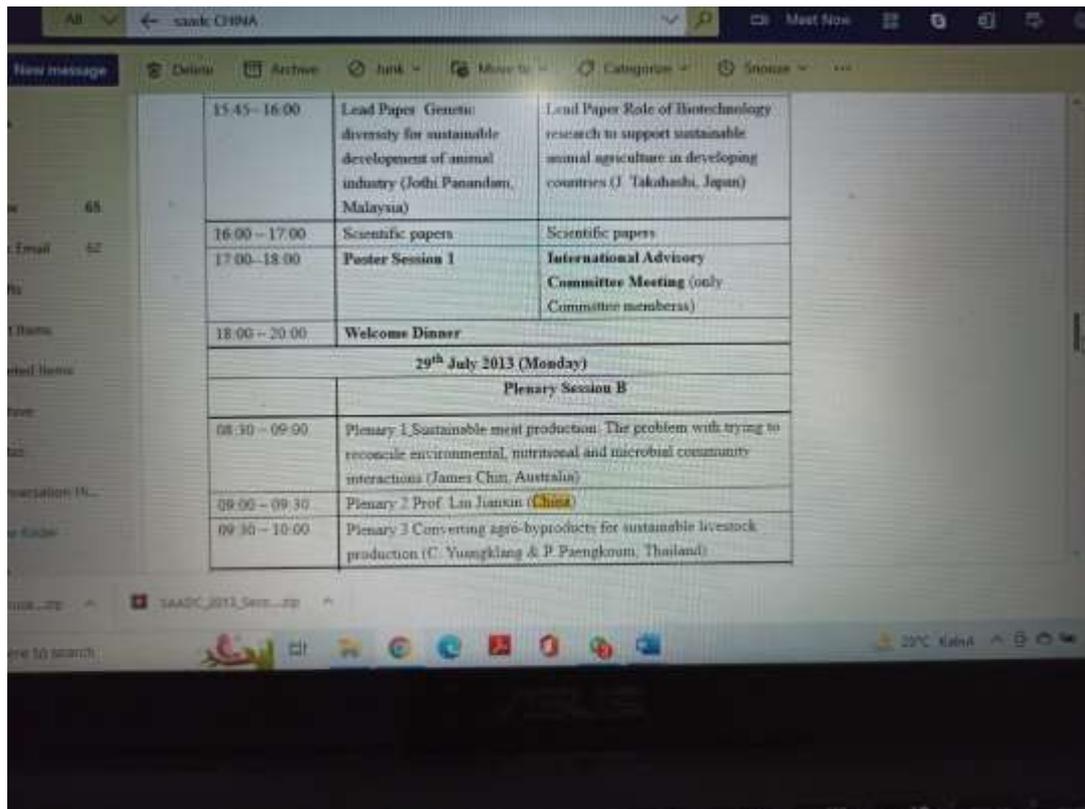
	Session 1. Environment	Session 2. Animal Welfare
14:00 - 14:15	Lead Paper Challenges of recycling livestock wastewater as renewable energy in developing countries (X.D. Liao, China)	Lead Paper Role of animal welfare in sustainable development of livestock industry (Pongchan Lampang, Thailand)
14:15 - 15:45	Scientific papers	Scientific papers
15:15 - 15:45	Tea Break	

**Scientific Oral Sessions for Animal Genetics, Breeding & Biotechnology**

	Session 3 Animal Genetics & Breeding	Session 4 Biotechnology

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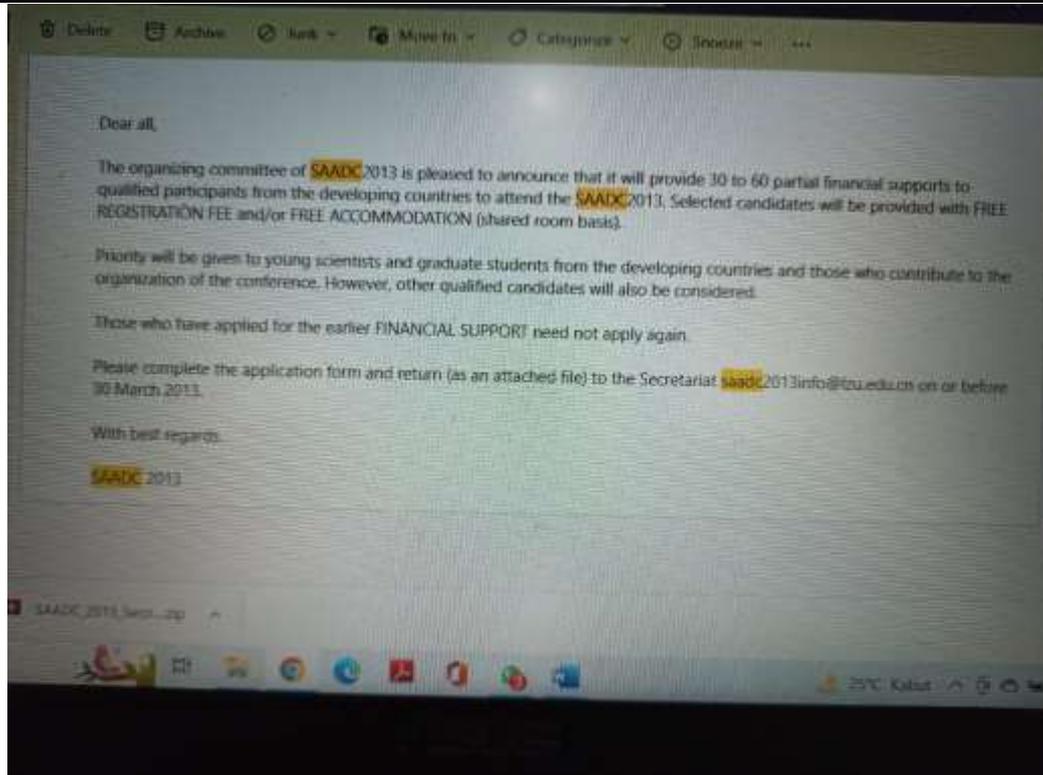
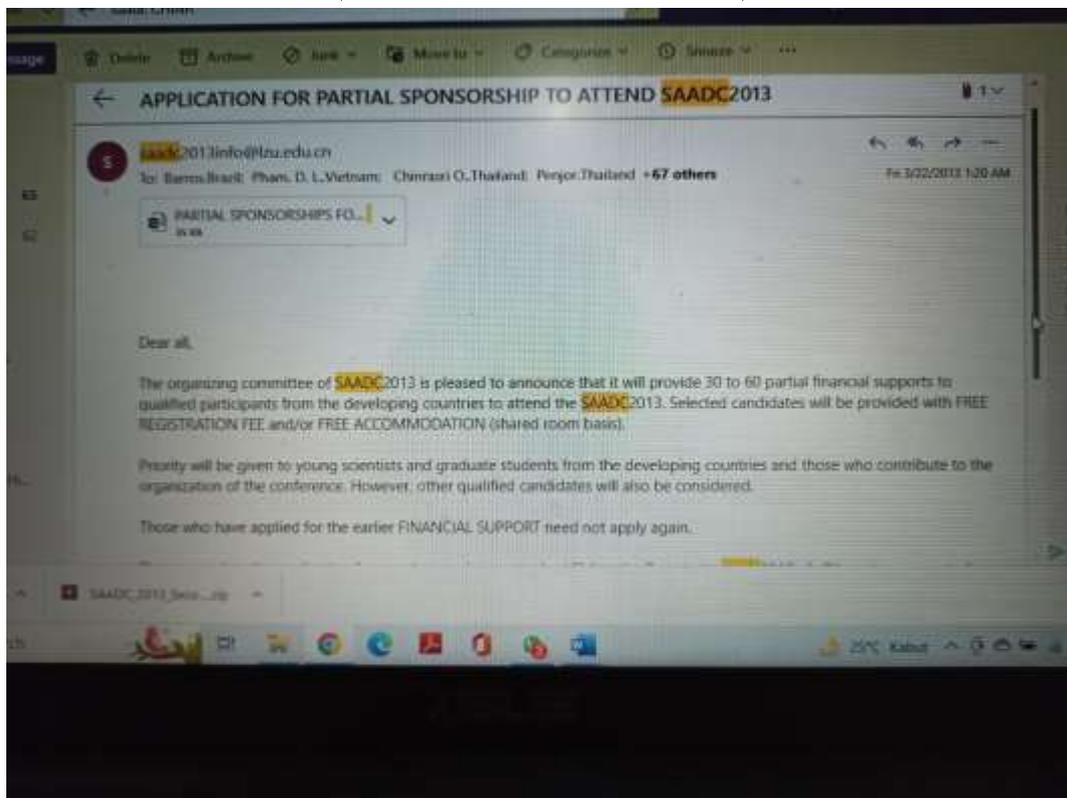
	12:15 – 14:00	Lunch	
		<b>Scientific Oral Sessions for Animal Physiology</b>	
		Session 7 <b>Monogastric Animal</b>	Session 8 <b>Ruminants</b>
	14:00 – 14:15	Lead Paper	Lead Paper Ecogenomics of Synergistetes bacteria to facilitate detoxification of xenobiotics in ruminant livestock Chris McSweeney (Australia)
	14:15 – 15:15	Scientific papers	Scientific papers
	15:15 – 15:45	Tea Break	
		<b>Scientific Oral Sessions for Animal Health and Medicines</b>	
		Session 9 <b>Animal Health</b>	Session 10 <b>Animal Medicine</b>
	15:45 – 16:00	Lead Paper	Lead Paper

		<b>Scientific Oral Sessions for Animal Health and Medicines</b>	
		Session 9 <b>Animal Health</b>	Session 10 <b>Animal Medicine</b>
	15:45 – 16:00	Lead Paper	Lead Paper
	16:00 – 17:00	Scientific papers	Scientific papers
	17:00 – 18:00	<b>Poster Session 2</b>	
		Free Evening	
		<b>30<sup>th</sup> July 2013 (Tuesday)</b>	
	08:00 – 16:00	Field Trip 1. To Dingxi (Arid Agriculture) 2. To Linxia (Transition Zone) 3. To Tianzhu (Highland Yak Farming)	
		Free Evening	
		<b>31<sup>st</sup> July 2013 (Wednesday)</b>	
		<b>Plenary Session C</b>	
	08:30 – 09:00	Plenary 1 Breeding strategies for beef cattle managed in an	

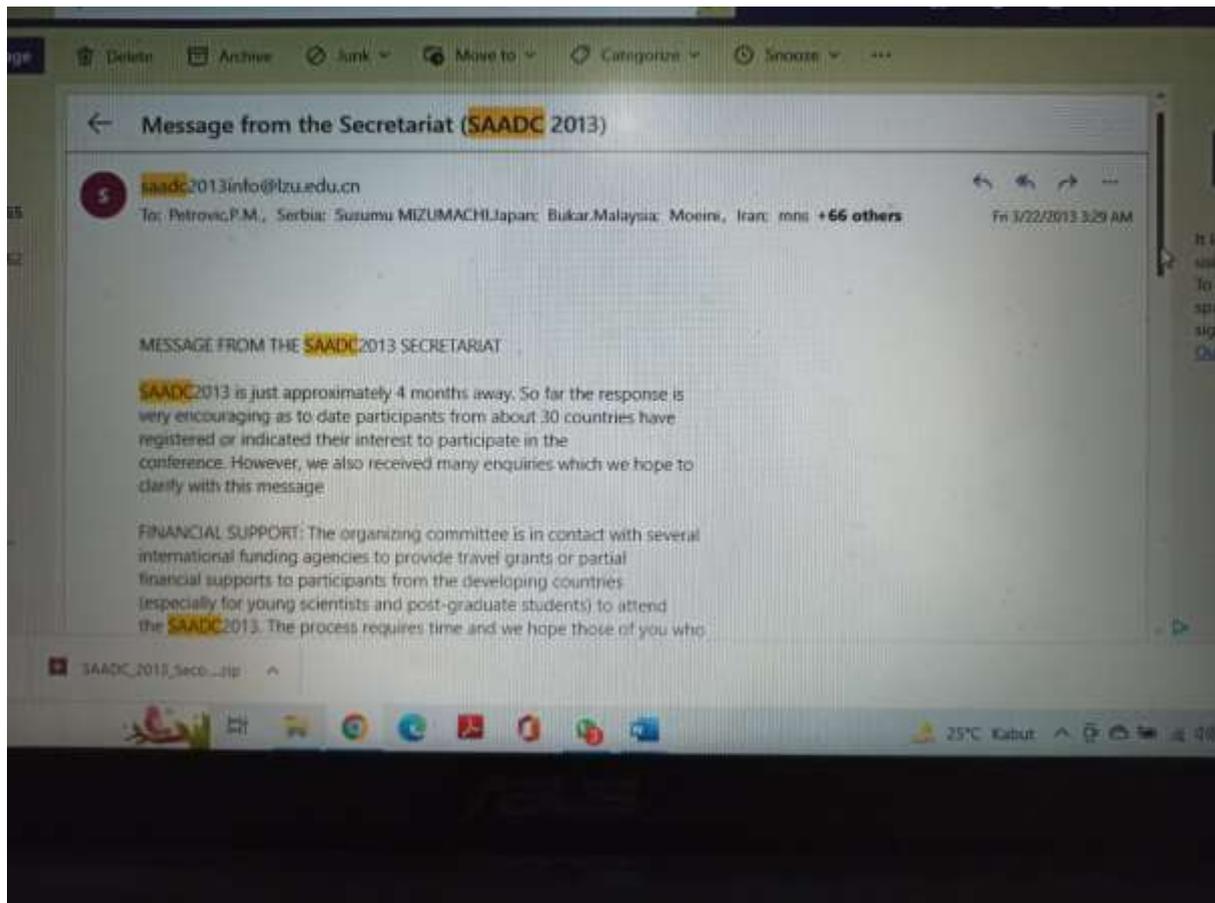
		<b>Plenary Session C</b>	
08:30 – 09:00	Plenary 1 Breeding strategies for beef cattle managed in an integrated oil palm production system (Ariff Omar, Malaysia)		
09:00 – 09:30	Plenary 2 Small-holder dairy production in Pakistan: is it sustainable? (P. Wynne, Australia)		
09:30 – 10:00	Plenary 3 Opportunity and challenges of liquid feed in livestock production (Tomoyuki Kawashima, Japan)		
10:00 – 10:30	Plenary 4 Goats farming and livelihood of small-holder farmers in Indonesia (Kustantinah and Dewi Astuti, Indonesia)		
10:30 – 11:00	Tea Break		
		<b>Scientific Oral Sessions for Animal Production Systems &amp; Animal Products</b>	
	<b>Session 11 Monogastric Animal</b>	<b>Session 12 Ruminants</b>	
11:00 – 11:15	Lead Paper	Lead Paper	
11:15 – 12:15	Scientific papers	Scientific papers	
12:15 – 14:00	Lunch		
14:00 – 16:00	Young Scientist Awards, Closing Ceremony		

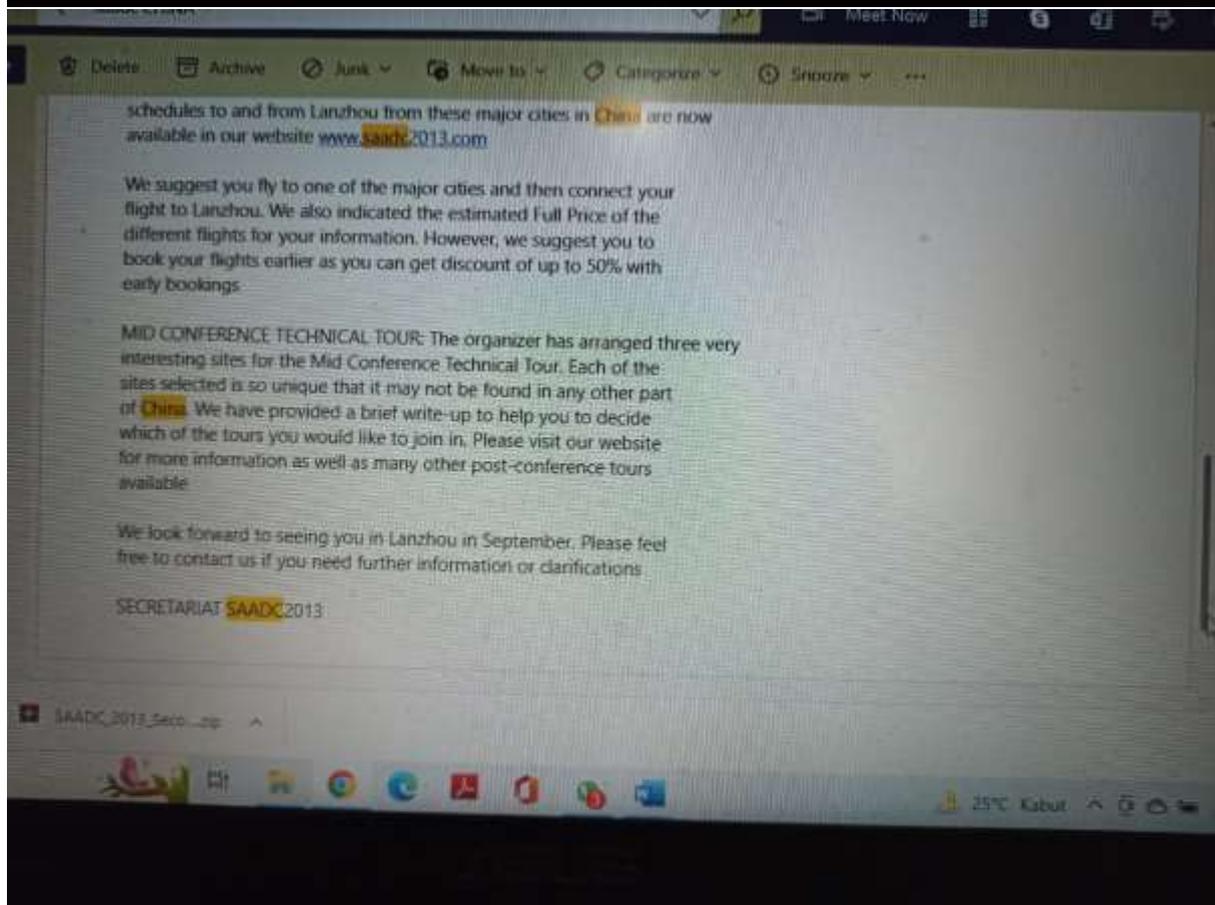
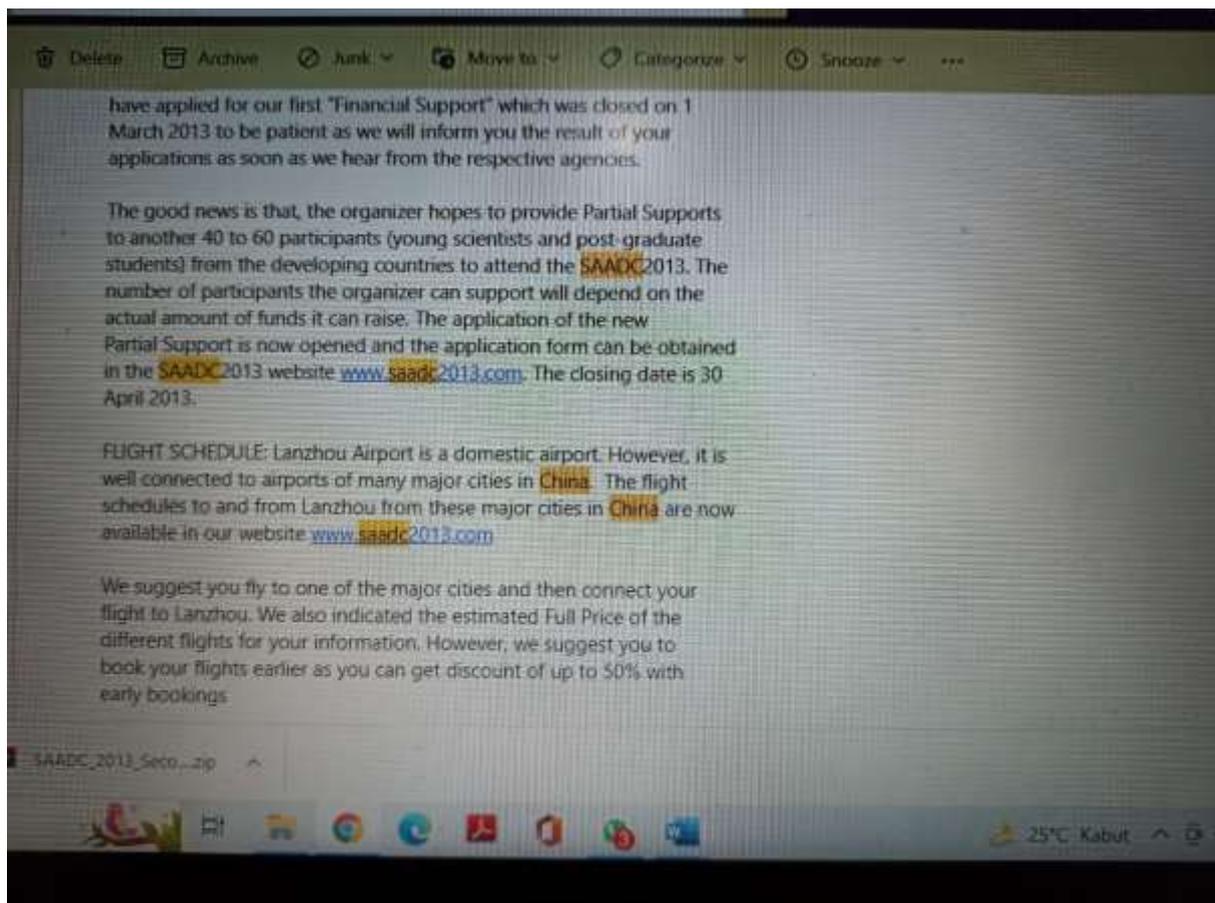
		<b>Scientific Oral Sessions for Animal Production Systems &amp; Animal Products</b>	
	<b>Session 11 Monogastric Animal</b>	<b>Session 12 Ruminants</b>	
11:00 – 11:15	Lead Paper	Lead Paper	
11:15 – 12:15	Scientific papers	Scientific papers	
12:15 – 14:00	Lunch		
14:00 – 16:00	Young Scientist Awards, Closing Ceremony		
16:00 – 18:00	Special get-together for graduate students and young scientists for collaborations		
18:00 – 20:00	Farewell Dinner		

# Application for Partial Sponsorship to Attend SAADC 2013 (22 Maret 2013)



# Message from the Secretariat (SAADC 2013) (22 Maret 2013)





**Poster Presentasi SAADC 2013**  
**(27 Juli 2013)**



# The Growth of Indonesian Local Sheep in Rural Production Systems

E. Purbowati and A. Purnomoadi

Faculty of Animal Agriculture, Diponegoro University,  
Undip Tembalang Campus, Semarang 50275, Indonesia

## INTRODUCTION

Sheep is one of dominant meat animals in rural area in Indonesia. Developing this animal for providing farmer the maximum benefit should be based on the actual performance of growth of this sheep in rural area. Many studies to improve the sheep performance were done by feeding manipulation, but the study on the basic data of the growth performance was very limited. This study was aimed to determine the growth curve of local sheep on rural rearing condition. The benefits of this growth curve are able for standardizing sheep performance, for selection and breeding.

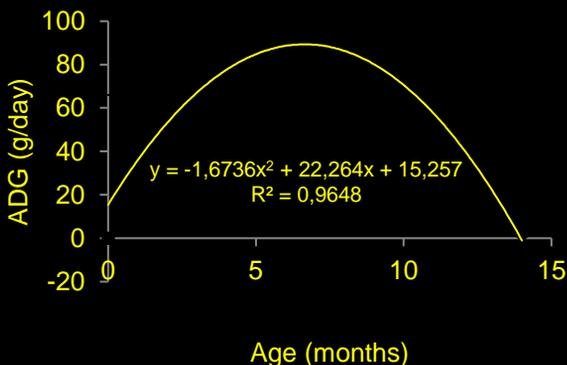
## MATERIALS AND METHODS

The study was used 18 male local sheep, aged 0-12 months obtained from Pagergunung village, subdistrict Pringsurat, district Temanggung, Indonesia. The sheep were weighed on a body weight hanging scale, while the age was based on recording or farmer information and teeth condition. These data were analyzed with regression-correlation analysis for determine growth curve based on the knowledge of growth.



## RESULTS AND DISCUSSION

The growth curve and growth rate of the local sheep are presented in Figure 1 and 2. Owens *et al.* (1993) stated that the growth curve (mass or cumulative weight plotted against age) is sigmoid, consisting of a pre-pubertal accelerating phase plus a post-pubertal decelerating phase. Based on this curve, birth weight of local sheep was calculated about 3 kg, maturity was reached at age of 12 months and body weight at around 31 kg. The puberty as indicated by turning point of the growth curve (Owens *et al.*, 1993) was occurred at the age of 6 months and body weight about 17.70 kg. Average daily gain (ADG) of local sheep in the rural production systems was 57.86 g with the highest ADG (87.50 g) was achieved at the age of 6 months.



## RECOMMENDATION

These results lead to the some recommendations for better production management, such as separation of male and female of sheep should be done before the age of 6 months, fattening lambs should be started from age 6 months and slaughtered at age of 12 months. The growth curve showed that at age of 12 months the body weight sheep is keep steady or even start to fall.

**Certifikat SAADC 2013**  
**(31 Juli 2013)**



# CERTIFICATE

THIS IS TO CERTIFY THAT

**Dr. Ir. ENDANG PURBOWATI, M.P.(Indonesia/POSTER PRESENTER)**

**has participated in**

**THE 4<sup>th</sup> INTERNATIONAL CONFERENCE ON SUSTAINABLE ANIMAL  
AGRICULTURE FOR DEVELOPING COUNTRIES (SAADC2013)**

**JULY 27-31, 2013**

**LANZHOU, CHINA**

PROF. DR. RUI JUN LONG  
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**PROCEEDINGS OF**  
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**SUSTAINABLE ANIMAL AGRICULTURE FOR**  
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**27 – 31 JULY 2013**



**LANZHOU UNIVERSITY**  
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## Poster 57

# The Growth of Indonesian Local Sheep in Rural Production Systems

*Purbowati, E. & A. Purnomoadi*

*Faculty of Animal Agriculture, Diponegoro University, Undip Tembalang Campus, Semarang  
50275, Indonesia*

## Summary

Eighteen male 0-12 months old local sheep was used in this study for determining the growth performance of Indonesian local sheep in rural are, namely growth rate, body weight and age at reaching puberty and maturity. Regression-correlation analysis was used to obtain the growth curve. The results showed that dry matter intake of the local sheep in rural area was limited, and only giving the daily body weight gain of 57.86 g. The growth curve of local sheep showed the puberty was reached at age of 6 m.o. or at body weight of 17.70 kg, while maturity was reached at 12 m.o. or at BW 31 kg.

*Keyword: local sheep, growth curve, rural*

## Introduction

Sheep is one of dominant meat animals in rural area in Indonesia. Developing this animal for providing farmer the maximum benefit should be based on the actual performance of growth of this sheep in rural area. Many studies to improve the sheep performance were done by feeding manipulation, but the study on the basic data of the growth performance was very limited. This study was aimed to determine the growth curve of local sheep on rural rearing condition. The benefits of this growth curve are able for standardizing sheep performance, for selection and breeding.

## Materials and Methods

The study was used 18 male local sheep, aged 0-12 months obtained from Pagergunung village, subdistrict Pringsurat, district Temanggung, Indonesia. The sheep were weighed on a body weight hanging scale, while the age was based on recording or farmer information and teeth condition. These data were analyzed with regression-correlation analysis for determine growth curve based on the knowledge of growth.

## Results and Discussion

Indonesian local sheep is believed to be descendants from crosses of Java thin tailed and fat tailed sheep. They were characterized with white coat color, or some with black spotted, and in the top of tail deposited some little fat, and then getting smaller in the tips of tail. In the study area, the purpose of raising sheep originally for obtaining much fertilizer needed for their horticultural farms, but later it was shown to produce meat.

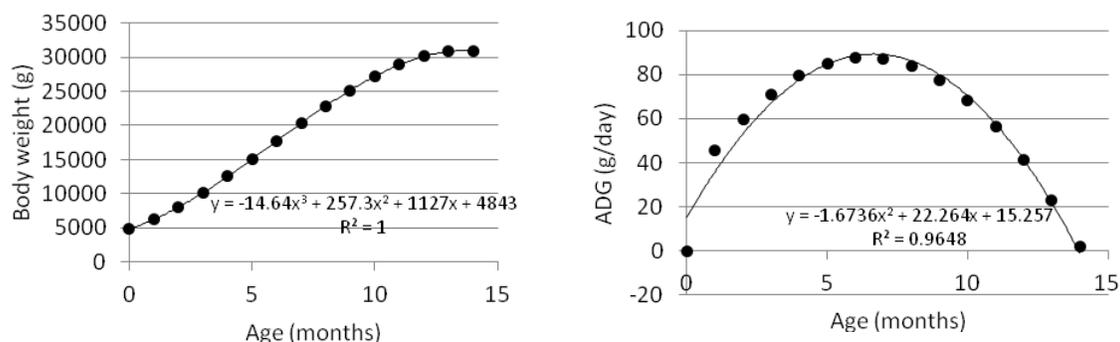
### *Sheep production systems in rural areas*

Sheep production systems in rural areas have been integrated with crop production and farming systems. They are especially dependent on the agro-ecological environment and because of the ruminant digestive systems, must always depend on high fibre vegetation or crop residu for their feed base. Feed was given twice a day consisting of forage and concentrates. Forage given was dependent on the nature and extent of the crop residues produced, while the concentrate feeding was consisted of rice bran, cassava, and by product of coffee industry.

Based on the amount of feed given, it can be calculated that the average of dry matter intake (DMI) of male local sheep at 20 kg body weight (BW) was 970.8 g, crude protein (CP) 121.0 g, respectively. These were below the Nutrients Requirements standard of Ranjhan (1981) for ram at 20 kg BW receiving 1000 g DM, 127 g CP and 560 g total digestible Nutrients (TDN) may give 130 g ADG. The high NDF and ADF were relatively high, being 56.79 and 38.30%, respectively, indicated that the utilization of feed by animal was not high.

### Sheep growth curve

The growth curve and growth rate of the local sheep are presented in Figure 1. Owens et al. (1993) stated that the growth curve (mass or cumulative weight plotted against age) is sigmoid, consisting of a pre-pubertal accelerating phase plus a post-pubertal decelerating phase. Based on this curve, birth weight of local sheep was calculated about 3 kg, maturity was reached at age of 12 months and body weight at around 31 kg. The puberty as indicated by turning point of the growth curve (Owens et al., 1993) was occurred at the age of 6 months and body weight about 17.70 kg. Average daily gain (ADG) of local sheep in the rural production systems was 57.86 g with the highest ADG (87.50 g) was achieved at the age of 6 months.



**Figure 1.** The curve and equation prediction for growth (left) and growth rate (right) of local sheep in rural production systems.

These results lead to the some recommendations for better production management, such as separation of male and female of sheep should be done before the age of 6 months, fattening lambs should be started from age 6 months and slaughtered at age of 12 months. The growth curve showed that at age of 12 months the body weight sheep is keep steady or even start to fall.

### References

- Owens, F.N., P. Dubeski, and C.F. Hanson. 1993. Factors that alter the growth and development of ruminants. *J. Anim. Sci.* 71 : 3138-3150
- Ranjhan, S.K. 1981. *Animal Nutrition in Tropics*. Second Revised Edition. Vikas Publishing House PVT LTD, New Delhi.