Teaching and Research in CAU

— College of Animal Science & Technology as Example

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College of Animal Science & Technology
China Agricultural University

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1. Brief Introduction to CAU

- China Agricultural University is one of the top ranked key state universities, directly subordinated to the Ministry of Education of China

- dated back to 1905

- locates in Beijing, the capital of China, two campus,157ha

Beijing 2008 Olympic Games Wrestling Gymnasium

Colleges

- Agronomy & Biotechnology
- College of Animal Science & Technology
- Biological Science
- Engineering
- Economics Management
- Food Science & Nutritional Engineering
- Humanities & Development
- Information & Electrical Engineering
- Resources & Environmental Science
- Science
- Veterinary Medicine
- Water Conservancy & Civil Engineering
- International College

Students and Faculty

- Undergraduate programs   15891
- Master programs   3355
- Doctoral programs   2065
- Foreign students   450
- Professors   403
- Associate professor   645
- Assistant professor   430

Budget for research
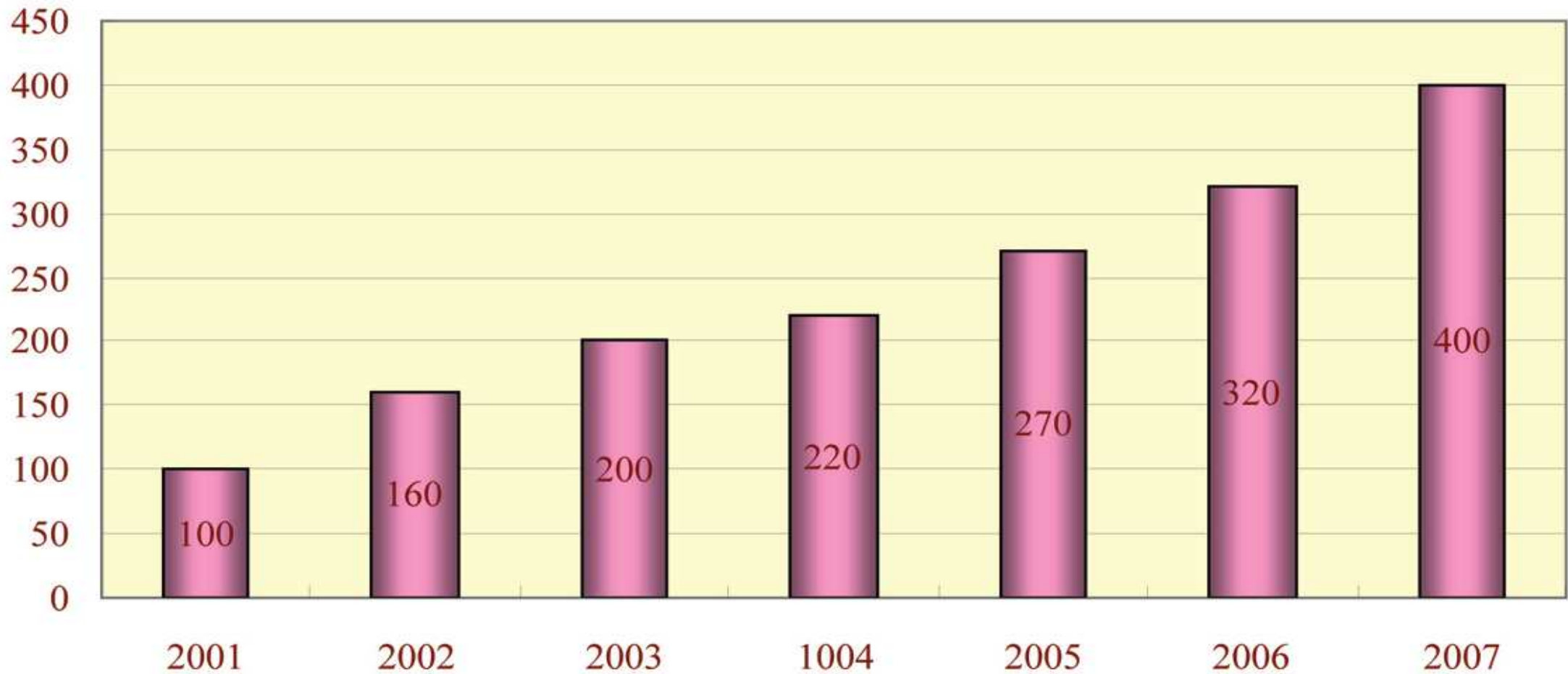
Colorful international relations

2. College of Animal Science & Technology

- 120 faculty and staff
- 500 undergraduate students
- 600 postgraduate students
- 3 department,
  Animal Nutrition and feed science
  Animal Genetics, breeding & Reproduction
  Forage & Grassland Science
- Budget for research in 2009—120 m RMB

New Building for CAST

CAST teaching

- For undergraduate students

  General education course   44
  Basic education course   35
  Major course   31.5
  Major elective course   13.5
  Practice   23.5

General education courses

Ideology Morality & Law Basis	Obligatory
Marxism Basic Principles	Obligatory
Guideline of Chinese Modern History	Obligatory
Politics and Economy	Obligatory
College English(1-4)	Obligatory
Basis of College Computer Engineering	Obligatory
Computer Education	Elective
Physical Education Category	Elective
Literature and Arts Category	Elective
Human Culture and Social Science Category	Elective
Economy and Management Category	Elective
General education requirement	44 credits

Basic education courses

College Physics Experimentation B	Obligatory
Analytical Chemistry	Obligatory
General chemistry B	Obligatory
Linear Algebra	Obligatory
Mathematical Statistics C	Obligatory
Advanced Math.C	Obligatory
College Physics C-1	Obligatory
College Physics C-2	Obligatory
Organic Chemistry B	Obligatory
Experiments of organic Chemistry B	Obligatory
General chemistry Experiment B	Obligatory
Animal Biochemistry	Obligatory
Laboratory in Animal Biochemistry	Obligatory
Animal Physiology B	Obligatory

Basic education courses (cont.)

Reproduction in Animal	Obligatory
Experiments of Reproduction in Animal	Obligatory
Animal Breeding	Obligatory
Lab practice of Animal Breeding	Obligatory
Livestock Environmental Hygiene	Obligatory
Experiments for Livestock Environmental Hygiene	Obligatory
Feed Sciences	Obligatory
Biostatistics & Experimental Design	Obligatory
Practice of Biostatistics & Experimental Design	Obligatory
Animal Genetics	Obligatory
Lab practice of Animal Genetics	Obligatory
Animal Nutrition	Obligatory
Anatomy and Histology of Domestic Animal	Obligatory
Animal microbiology	Obligatory
Animal microbiology Experiment	Obligatory

Major course

Poultry Production Science	Obligatory
Swine production Science	Obligatory
Cattle Production Science	Obligatory
Sheep and Goats Production Science	Obligatory
Livestock Production and Quality Evaluation	Obligatory
Grassland Science	Obligatory
Lab practice of Grassland Science	Obligatory
Feed Quality Evaluation and Safety Determination	Obligatory
General Veterinary science	Obligatory

Major elective course

Feed Nutrients and Animal Production Quality	Elective
Turf Science	Elective
Rare Birds Production	Elective
Introduction to Animal Biochemical Genetics	Elective
Ruminant Nutrition	Elective
Molecular Genetics	Elective
Poultry Nutrition	Elective
Poultry Breeding	Elective
Livestock Ecology	Elective
Cattle Breeding	Elective
Population and Quantitative Genetics	Elective
Aquatic Animal Nutrition and Feed	Elective
Cell Cytogenetics	Elective
Livestock Farm Planning and Designing	Elective
Breeding of Sheep and Goat	Elective

Major elective course (cont.)

Horse Science	Elective
Rabbit Production	Elective
Swine Nutrition	Elective
Pig Breeding	Elective
Feed Safety and Hygiene	Elective
Feed Additives	Elective
Professional English of Animal Science	Elective
Horse Introduction	Elective
Farm Animal Product Safety and management	Elective
Pet Nutrition and Feeding	Elective
Equestrian and Horse Culture	Elective
Animal Production and Related to Historical Culture	Elective
Breeding Technology of Economic Animals	Elective
Molecular Nutrtion	Elective

Practice

| Social Investigation and Practice	Obligatory
The Development and Inrovation Animal Science	Obligatory
Cognizing Practice of Animal Science and Technology	Obligatory
Forage Ensiling and Estimation for Quality of Silage	Obligatory
Practice in Grassland	Obligatory
Demonstration for the studying Methods of Animal Digestion and Metabolism	Obligatory
Practice on Analysis of Animal Breeding Data	Obligatory
Research Training	Obligatory
Professional Teaching Practice	Obligatory
Graduation Thesis	Obligatory
Writing Research Papers of Animal Science	Obligatory
Military Training	Obligatory

- For postgraduate students

  Master degree   28 credits

  Ph.D   degree   20 credits

  Master-Ph.D connecting   41 credits

Degree	Master	Molecular Genetics in Animals
Degree	Master	Quantitative Genetics
Degree	Master	Principles and Methods in Animal Breeding
Degree	Master	Seminar in Animal Genetics and Breeding
Elective	Master	Advances in Animal Breeding
Elective	Master	Advanced Cytogenetics
Elective	Master	Experimental Design and Analysis
Elective	Master	Computing Algorithms in Animal Breeding
Elective	Master	Immunogenetics
Degree	Master	Comparative Animal Breeding
Degree	Master	Animal Reproductive Physiology
Degree	Master	Animal Reproductive Physiology Experiment
Degree	Master	Animal Reproduction Seminar
Elective	Master	Advances Animal Reproduction
Elective	Master	Practice of Animal Reproduction

3. Research activity in CAST

- Genetic resource analysis

- Breeding
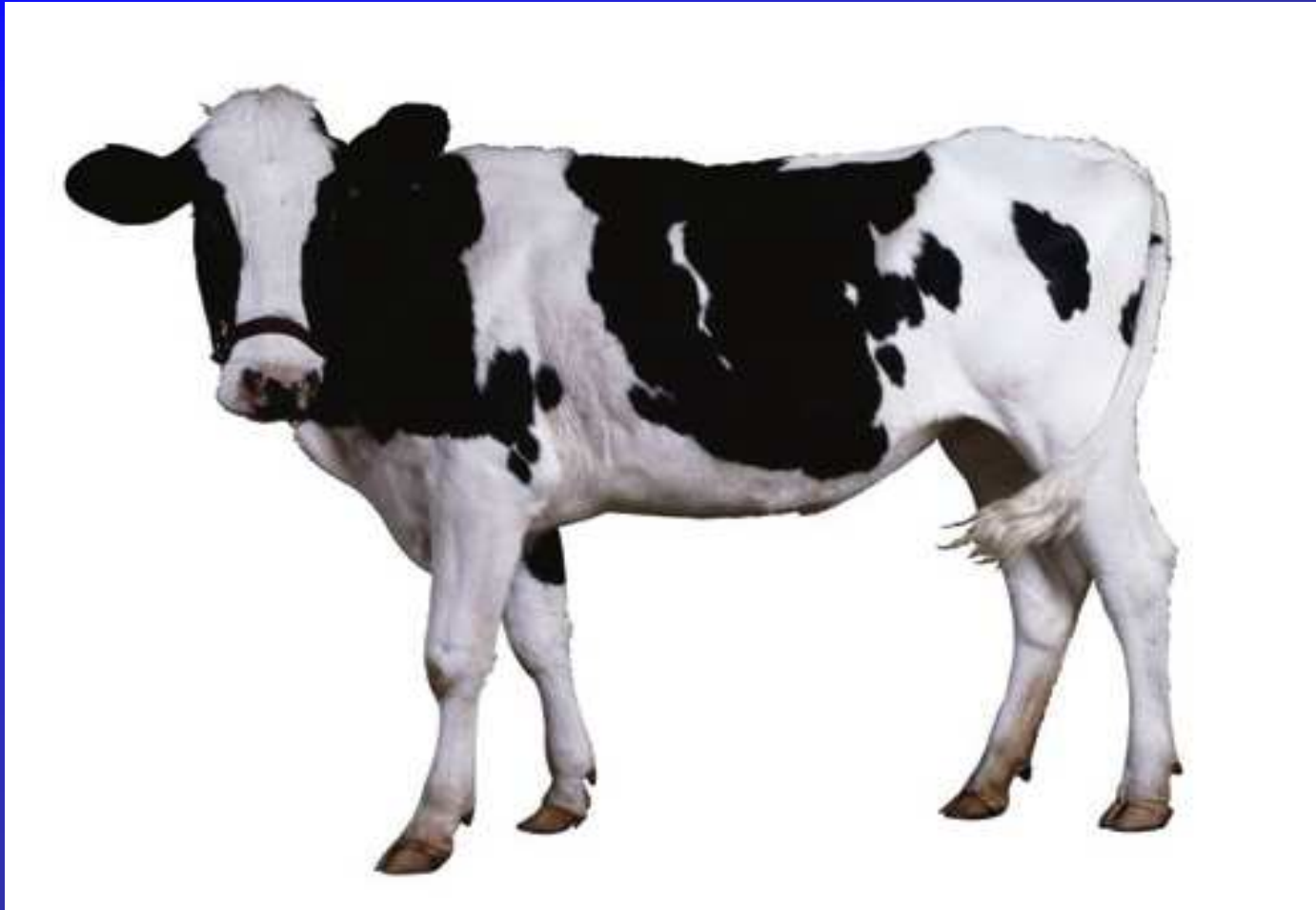
The Project *Development and Implementation of MOET Breeding System for Chinese Holstein*,

Ordinary | With Dwarf-Gene

The Project *Breeding and Selection of Feed-Saving Type of Brown-Egg Layers with DW Gene*, directed

The Project *Discovery and Application of Porcine FSHβ for Improvement of Little Size*, conducted

- Animal Biotechnology and Reproduction

    Embryo culture

    Embryo cryopreservation

    Transgene

    Sex control

- Animal Nutrition and feed science

  Nutrition physiology

  Intestinal tract microorganism metabolism

  Feedstuff resource development

  Feedstuff production

- Forage and Grassland Science

  Forage selection

  Forage production

  Forage seed physiology

  Grassland management

Sponsor

- Ministry of Agriculture
- Ministry of Science and Technology
- National Nature science foundation of China
- Local government
- Enterprise
- International cooperation

International cooperation

- 948 (Ministry of Agriculture)
- Experts Project
- NSFC
- Ph.D
- Visiting

Thank you for your attention!