“Soltanto ciò che è veramente antico può essere veramente moderno”

“Only something truly ancient can be truly modern”

现代源于传统
Main Characteristics of Sardinia [1]

Area: 24,090 km$^2$ (8% of Italy)

Coastal length: 1,897 km (25% of Italy)

Population: 1.68 million people (2.8% of Italy)

Land: 14% mountains, 68% hills, 18% flat lands
Main Characteristics of Sardinia [2]

GDP = 20,700 €/capita
(90% of mean Italian GDP)

Economic activities:
• Animal Production (1.6%)
• Crops (1.4%)
• Industry (17%)
• Tourism (13%)
• Services (67%)

Transport network:
• 3 main airports
  (connections with main European destinations)
• 3 main ports
THE SARDINIAN NETWORK OF AGRICULTURAL AND ANIMAL SCIENCE RESEARCH CENTERS
University of Sassari
http://www.uniss.it/php/home.php

University of Cagliari
http://www.unica.it/
Non-University Research Centers in Sardinia

**AGRIS-Sardegna:**
www.sardegnaagricoltura.it/innovazionericerca/agris/
Regional agency for scientific research, experimentation and technological innovation in agriculture, agro-industry and forestry

**Istituto Zooprofilattico Sperimentale della Sardegna (IZSS):**
www.izs-sardegna.it/
Public health institution subjected to national and regional laws which promotes consumers and animal health by adequate diagnosis, monitoring and research services

**Porto Conte Ricerche (PCR):**
www.portoconte_ricerche.it
Regionale agency for scientific research and technological innovation in agriculture and agro-industry

**CNR:**
www.cnr.it/istituti/PerRegione.html?regione=Sardegna
National public agency for conduction, promotion and transfer of fundamental and applied research activities to assure scientific, technological, economic and social development
University of Cagliari

*Founded in 1606*

- 36,000 enrolled students
- 1,200 teaching staff members
- 1,300 technical-administrative staff members
- 270 visiting professors
11 faculties:
• Architecture
• Economics
• Educational sciences
• Engineering
• Foreign Languages and Literatures
• Humanities
• Law
• Mathematics, Physics and Natural Sciences
• Medicine and Surgery
• Pharmacy
• Political Sciences

The list of programmes offered is on the website: https://webstudenti.unica.it/esse3/ListaCorsiDiStudio.do
Sino-Italian Bilateral Forum on Research in Agriculture - 18 March 2011 - Beijing

http://www.unica.it/pub/chinese/
Cooperation with Universities in China

• Xi’han University of Northwest

• Soochow University

• Nanjing Normal University

• University of Hainan

• Hebei University

• UIBE- University of International Business and Economics
### Research groups of the University of Cagliari in food quality, and food and environmental safety

<table>
<thead>
<tr>
<th>Section/Department</th>
<th>Research interest</th>
<th>Referent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food and Environmental Section</td>
<td>Pharmaceutical Chemistry and Technology</td>
<td>Dr. Alberto Angioni (<a href="mailto:aangioni@unica.it">aangioni@unica.it</a>)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dr. Pierluigi Caboni (<a href="mailto:caboni@unica.it">caboni@unica.it</a>)</td>
</tr>
<tr>
<td></td>
<td>Food safety</td>
<td></td>
</tr>
<tr>
<td>Chemical Science</td>
<td>Food chemistry</td>
<td>Dr. Paola Scano (<a href="mailto:scano@unica.it">scano@unica.it</a>)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physiology Section</td>
<td>Nutrition</td>
<td>Prof. Sebastiano Banni (<a href="mailto:banni@unica.it">banni@unica.it</a>)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hygiene Section</td>
<td>Food safety and microbiology</td>
<td>Prof. Sofia Cosentino (<a href="mailto:scosenti@unica.it">scosenti@unica.it</a>)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pathology Section</td>
<td>Nutritional Pathology</td>
<td>Prof. Maria Assunta Dessì (<a href="mailto:dessima@unica.it">dessima@unica.it</a>)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hygiene Section</td>
<td>Food and environmental safety</td>
<td>Prof. Sandro Dessì (<a href="mailto:sadessi@unica.it">sadessi@unica.it</a>)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marine Biology of the Tyrrhenian Life Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Environmental</td>
<td>Prof. Angelo Cau (<a href="mailto:cau@unica.it">cau@unica.it</a>)</td>
</tr>
</tbody>
</table>
The University of Sassari  
(Founded in 1562)

Rector: Attilio Mastino,  
Full Professor of Ancient History

Number of Students:  
12,727 Undergraduate  
522 Veterinary & Medicine Specialisation  
141 Master’s  
335 Ph.D.

Academic Members: 678  
191 Full Professors  
230 Associate Professors  
257 Lecturers

Technical and Administrative Members: 594
The University of Sassari

11 Faculties:

- Agriculture and Animal Science
- Veterinary Medicine
- Medicine and Surgery
- Mathematics, Physics and Natural Sciences
- Pharmacy
- Architecture
- Economics
- Law
- Political Sciences
- Foreign Languages and Literatures
- Arts (Literary Studies and Philosophy)
Faculty of Agriculture and Animal Science

http://agrariaweb.uniss.it

Dean: Prof. Pietro Luciano

pluciano@uniss.it

Size:

922 Undergraduate Students
85 Academic Members
78 Technical and Administrative Members
Graduate Students
Visiting fellows, Post-docs, Collaborators
## Faculty of Agriculture and Animal Science

<table>
<thead>
<tr>
<th>Department</th>
<th>Chairman</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Economics and Woody Plant Ecosystems</td>
<td>Prof. Sandro Dettori (<a href="mailto:sdettori@uniss.it">sdettori@uniss.it</a>)</td>
</tr>
<tr>
<td>Animal Science</td>
<td>Prof. Giuseppe Pulina (<a href="mailto:gpulina@uniss.it">gpulina@uniss.it</a>)</td>
</tr>
<tr>
<td>Crop Science and Genetics</td>
<td>Prof. Antonino Spanu (<a href="mailto:tspanu@uniss.it">tspanu@uniss.it</a>)</td>
</tr>
<tr>
<td>Agricultural Environmental Sciences and Food Biotechnology</td>
<td>Prof. Mario Agabbio (<a href="mailto:agabbio@uniss.it">agabbio@uniss.it</a>)</td>
</tr>
<tr>
<td>Land Engineering</td>
<td>Prof. Francesco Paschino (<a href="mailto:frapas@uniss.it">frapas@uniss.it</a>)</td>
</tr>
<tr>
<td>Plant Protection</td>
<td>Prof. Salvatore Ortu (<a href="mailto:ortusal@uniss.it">ortusal@uniss.it</a>)</td>
</tr>
<tr>
<td>Botany, Ecology and Geology</td>
<td>Prof. Nicola Secchi (<a href="mailto:dbev@uniss.it">dbev@uniss.it</a>)</td>
</tr>
</tbody>
</table>
Faculty of Agriculture and Animal Science

Bachelor’s Degree

1st Level Degrees 3 years (Laurea):
• Agricultural Science and Technology
• Agricultural and Animal Sciences
• Forestry and Environmental Sciences
• Viticulture, Enology and Food Technology

2nd Level Degrees 2 years (Laurea Magistrale):
• Agricultural Systems
• Animal Science
• Agricultural and Environmental Biotechnology
• Viticultural and Enological Sciences
• Food Science and Technology
• Landscape and Environmental Management
Bachelor’s Degrees in Animal Science

1st Level (Laurea)
• Animal physiology, animal breeding, feeding and nutrition
• Animal production technologies, mechanisation and product processing
• Economics of livestock farming and marketing

2nd Level (Laurea Magistrale)
• Advanced animal production systems, including fisheries
• Quality and health of animal products,
• Design of animal production technologies and processes including energetics
• Socio-economic and environmental sustainability of animal farms
Ph.D. (3 years): Science and Biotechnology of Agricultural Systems, Forestry and Food Production

- Agrometeorology and Ecophysicsiology of Agricultural and Forestry Eco-Systems
- Agri-Food Microbial Biotechnology
- Animal Science
- Crop Production
- Monitoring and Control of Forest Ecosystems in the Mediterranean Environment

Country of origin of current 71 students:

Italy (60), Belgium (1), Brazil (1), Congo (1), Egypt (1), Lebanon (2), Tunisia (1), Arabia (1), Afghanistan (3)

Funding for Italian & Foreign students: Grants from University, Departments, Sardinian Region, Research Centers
Faculty of Veterinary Medicine (founded in 1928)

Dean: Prof. Salvatore Naitana
http://veterinaria.uniss.it/php/veterinaria.php

vaspres@uniss.it

Size:
440 Students
59 Academic Members
78 Technical and Administrative Members
Visiting fellows, Post-docs, Collaborators
Faculty of Veterinary Medicine

Departments (fields and contact person)

Department of Animal Biology (DAB)
- Anatomy (prof. Vittorio Farina - vfarina@uniss.it)
- Biochemistry (dott. Giovanni Leoni - gioleoni@uniss.it)
- Physiology (prof. Salvatore Naitana - snaitana@uniss.it)
- Pharmacology (prof. Vittorio Anania - anania@uniss.it)
- Parasitology (prof. Antonio Scala - scala@uniss.it)
- Nutrition and Animal Production (prof. Massimo Vacca – gmvacca@uniss.it)
- Hygiene and Food Safety (prof. Enrico Desantis – desantis@uniss.it)

Department of Veterinary Pathology and Clinic (DIPACLIvET)
- Clinic Obstetrics (prof. Sergio Ledda – giodi@uniss.it)
- Clinic Surgery (prof. Eraldo Sanna Passino – esp@uniss.it)
  Clinic Medicine (prof.ssa Maria Luisa Pinna Parpaglia - pinnapar@uniss.it)
- Infectious Diseases (prof. Marco Pittau – pittau@uniss.it)
- Animal Pathology (prof. Antonio Leoni - aleo@uniss.it)
Bachelor’s degree:

- Veterinary Medicine – 5 years
  - Selected access student positions; 5 positions each year for non UE foreign students.

- Animal Prod.: Breeding and Management of Horses – 3 years

- Biotechnology – 3 years
  (in collaboration with Faculties of Science, Agriculture and Animal Science, Pharmacy and Medicine)

- Biotechnology for Health – 2 years
  (in collaboration with Faculty of Medicine)
  - Selected access student positions
Veterinary Specialisation and Ph.D.:

• School on Hygiene and Food Safety

*Three years studies* addressed to hygiene and food safety, including control of food products at all levels of the food chain

• School on Animal Production, Animal Health and Control of Infectious Diseases

*Three years studies* addressed to animal production, animal health and control of infectious diseases, including surveillance of disease emergence.

• Ph.D. on: Reproductive Physiology and Biotechnologies, Welfare and Animal Production, Animal Health, Hygiene and Food safety

*Three/four years studies.* 4 scientific areas: reproductive physiology and biotechnologies, welfare and animal production, animal health, hygiene and food safety.

• Available positions for foreign graduate students
International Academic Agreements between the University of Sassari and Foreign Institutions

E.U. partners:
Bulgaria, Croatia, Czech Republic, France, Great Britain, Hungary, Poland, Portugal, Serbia, Spain, Sweden, Vatican City

Non-E.U. partners:
Argentina, Australia, Brazil, Chad, China, Egypt, Ethiopia, Lebanon, Japan, Jordan, India, Iran, Iraq, Morocco, Mozambique, Paraguay, Russia, Switzerland, Tanzania, Thailandia, Tunisia, Turkey, U.S.A., Venezuela, Vietam, Zimbabwe
Current Agreements between Chinese Partners and the University of Sassari:

• College of Architecture and Urban Planning, Tongji University, Shanghai
• College of Architecture and Urban Planning, Beijing University
• School of Architecture of the Harbin Institute of Technology

A Potential Agreement between Chinese Universities and the University of Sassari:

• Marco Polo Programme
Contacts

University of Cagliari
Palazzo del Rettorato
Via Università, 40
09124 Cagliari - Italy

T +39 070 659670/664052
F +39 070 669425
E melisg@unica.it
W www.unica.it

Sebastiano Banni (banni@unica.it)
Contacts

University of Sassari
Piazza Università, 21
07100 Sassari (SS) - Italy

T  +39 079 228811
F  +39 079 228816
E  rettore@uniss.it
W  www.uniss.it

Giuseppe Pulina (gpulina@uniss.it)
Sergio Ledda (giodi@uniss.it)
The Italian Journal of Animal Science is an international journal publishing original scientific papers, reviews and short communications on animal science, animal production and related areas, as well as news for the members of the Animal Science and Production Association (ASPA). The Association will be glad to receive proposals for your admission as ordinary or corresponding member; please read regulations and procedures in the ASPA statute. Upon request to the Editor, announcements of congresses, presentations of universities, research institutes, books and proceedings may also be published. The publication of manuscripts is subject to the approval of referees and in agreement with the Advisory Board's opinions; referees will be selected from among qualified scientists in the international scientific community.

Vol 10, No 1 (2011)

Table of Contents

Papers

Effect of live and dry food on rearing of tench (Tinca tinca L.) larvae under controlled conditions.
Italian Journal of Animal Science

Editor-in-chief
Rosanna Scipioni

Editorial Board

Umberto Bernabucci  Cesare Castellini
Giulio Cozzi       Juan Vicente Delgado Bermejo
Luca Fontanesi     Oreste Franci
Juan J. Loor       Nicola Macciotta
Marcello Mele      Antonino Nizza
Alessandro Priolo  Giovanni Savoini
The Italian Journal of Animal Science is an international Open Access journal publishing original scientific papers, reviews and short communications on animal science, animal production and related areas, as well as news for the members of the Animal Science and Production Association (ASPA).

The publication of manuscripts is subject to the approval of referees and in agreement with the Advisory Board’s opinions; referees will be selected from among qualified scientists in the international scientific community.

The Association will be glad to receive proposals for new admissions as ordinary or corresponding members, in accordance with regulations and procedures described in the ASPA Statute (on the website).
IJAS Advisory Board

Michael S. Allen, USA
Aimé Aumaitre, France
Jürg Blum, Switzerland
Andrew Chesson, UK
Yves Chilliard, France
Roberta Davoli, Italy
Liliana Di Stasio, Italy
James K. Drackley, USA
José A. Fernández, Denmark
Gerhard Flachowsky, Germany
Dunixi Gabiña, Spain
Gerald B. Havenstein, USA
Luc Maertens, Belgium
Donato Matassino, Italy
Alessandro Nardone, Italy
Louis Ollivier, France
Giulio Pagnacco, Italy
Gianfranco Piva, Italy
Carl E. Polan, USA
Max F. Rothschild, USA
Giuseppe Succi, Italy
2010 - Articles read/downloaded
Total 296877
2011 - Articles read/downloaded
Total 82760

Feb
37739

Jan
45021
Published papers
(2010 1st year of Open Access)

- Authors from other countries
- Authors from Italy

Published papers (2010 1st year of Open Access)
Papers from China

![Chart showing submitted, published, and in review papers from China]
Contacts

Giuseppe Pulina, president of ASPA (gpulina@uniss.it)

Bruno Ronchi, secretary of ASPA (ronchi@unitus.it)

Rosanna Scipioni, editor in chief of IJAS (scipioni.rosanna@unimore.it)

www.aspajournal.it