FEEDNEEDS

AN ITALIAN-SERBIAN BILATERAL PROJECT

FOCUSED ON THE FEED SECTOR

Prof. Luciano Pinotti
The University of Milan is a public teaching and research university, with 31 Departments and a teaching staff of 2,178 professors.

85,000 students.

UNIMI is a member of the League of European Research Universities (LERU).
Department of Health, Animal Science and Food Safety

Focus

• Animal Health and management
• Animal production and nutrition
• Food of Animal origin: production, quality, safety and environmental impact
Corsi di laurea:

- LM a ciclo unico in Medicina Veterinaria
- CdLin Allevamento e Benessere animale
- CdLProduzioni Animali, Alimenti e Salute
- LMin Scienze e Tecnologie delle Produzioni Animali
- CdL in Biotecnologie Veterinarie
- LM in Scienze Biotecnologiche Veterinarie;

Scuole di Dottorato

- Scienze veterinarie per la salute animale e la sicurezza alimentare
- Sanità e produzioni animali: scienza, tecnologie e biotecnologie.

Scuole di Specialità

- Patologia suina
- Patologia e clinica degli animali d’affezione
- Medicina e chirurgia del cavallo;
The Faculty of Veterinary Medicine of Milan in 1927 and today
Faculty of Veterinary Medicine: the University Veterinary Hospital and Experimental farm in Lodi (40 Km far from Milan)
Large ruminant facilities
• Beef and cow free stalls
• Beef and cow tie stall barns
  ✓ equipped with a standard DMI measure system

Other farm animal facilities
• Farm animal: pig, poultry, rabbits, fish (aquaculture), honey bees
• Lab animals: rats and mice
Faculty of Veterinary Medicine: the Experimental Farm in Lodi (40 Km far from Milan)
UNIMI/VESPA and its region

- Lombard agri-food system is the largest in Italy and also one of the most significant in Europe.
- *The value of the agrifood system, is estimated at € 37.5 billion, about 16% of the national value and 11.5% of the regional gross domestic product (GDP).*
UNIMI/VESPA and its region

- Lombardy boasts several national records producing
  - 40% of Pork,
  - 23% of beef
  - 37% of cow milk
  - 17% Poultry
  - 18% Eggs
  - 14% honey
Expo theme: Feeding the Planet, Energy for Life

• .....everyone on the planet should have access to food that is healthy, safe and sufficient.

http://www.milanoexpo-2015.com

Expo 2015 will be an extraordinary universal event displaying tradition, creativity and innovation in the business of food.
Why a project focus on the feed sector
Italian compound feed production

**FIGURE 6:** Recent tonnage trends in the six largest EU countries by annual volume
Main ingredients used in italian feed formulation

<table>
<thead>
<tr>
<th>ingredients</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereals</td>
<td>72</td>
</tr>
<tr>
<td>Plant Protein sources</td>
<td>26</td>
</tr>
<tr>
<td>Dairy by products</td>
<td>1.0</td>
</tr>
<tr>
<td>Other meals</td>
<td>1.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>
### Protein sources used in feed production in Italy

<table>
<thead>
<tr>
<th>Fonte proteica</th>
<th>1000 ton.</th>
<th>%</th>
<th>1000 ton. of CP</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soy bean meal</td>
<td>3187</td>
<td>73</td>
<td>1434</td>
<td>75</td>
</tr>
<tr>
<td>Canola meal</td>
<td>167.4</td>
<td>3.8</td>
<td>56.9</td>
<td>2.9</td>
</tr>
<tr>
<td>Sunflower meal</td>
<td>604.7</td>
<td>14</td>
<td>241.9</td>
<td>12.6</td>
</tr>
<tr>
<td>Other plant meals cakes</td>
<td>239.2</td>
<td>5.5</td>
<td>95.7</td>
<td>4.9</td>
</tr>
<tr>
<td>MBM</td>
<td>131</td>
<td>3.0</td>
<td>72</td>
<td>3.7</td>
</tr>
<tr>
<td>Fish meal</td>
<td>28</td>
<td>0.6</td>
<td>18</td>
<td>0.9</td>
</tr>
<tr>
<td><strong>Totale</strong></td>
<td><strong>4357.3</strong></td>
<td><strong>100</strong></td>
<td><strong>1918.5</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
Ministero degli Affari Esteri
e della Cooperazione Internazionale
Background

leading university department in veterinary and animal science in Italy

leading institutions in the field of food and feed science and technology in Serbia and the Balkan region.

A bilateral project

a research European project
The thrust towards the future

What’s **FEEDNEEDS**?

New prospective for R&D in the feed sector
Bilateral projects in science and technology

Aim:
Focused on R&D needs in the feed sector.

✓ To develop a collaborative network in the feed sector
✓ To drive future research towards solving concrete needs
For to meet their needs we must, first of all, know them.

Questionnaire for feed companies
Divided in three sections:
I. company overview;
II. products and process characteristics;
III. R&D
Questionnaire for feed companies (I)

Section I

OVERVIEW OF COMPANY

The sections:

1. Year of foundation
2. Company dimension

All companies data have been processed exclusively as anonymous.
Section II

PRODUCTION AND PROCESS FEATURES

Q: *i.e.*

- Type and numbers of products;
- Ingredients and machineries used;
- Analysis for quality control;
- HACCP system.
Section III

R&D AND INNOVATION

In the past (last three years)

Q: i.e.

- Number of research projects;
- Areas most innovative.

In the future – short term (coming year)

Q: i.e.

- Planned an expansion of production;
- Planning a budget for R & D;
- Main aims of innovation activities;
- Most important sources of innovation;
- Main difficulties to your innovation activities
Section III

R&D AND INNOVATION

In the future – long term (next five years)

Q: i.e.

• Areas for next investment;
• Sectors in which you will invest.
For the purpose of the project is considered important to develop a collection of feed (the most representative of your company production)

Want you to send us a sample (1kg+label) of your most common product?
- Yes
- NO

If yes, send to
FINS

Ai fini del progetto si ritiene importante sviluppare una bachea di mangimi

Desidera inviarci un campione (1 Kg con relativo cartellino) del prodotto maggiormente commercializzato o che si ritiene indicativo della produzione?
- SI
- NO

Se si inviare a

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Examples of feed received from companies

✓ VESPA facilities: wet chemistry analysis
✓ FINS facilities: fisical analysis
1. Companies database
Data collected (October 2014)

464 data processed

319 data processed

FEEDNEEDS
Further activities
Acknowledgements

Ministero degli Affari Esteri
e della Cooperazione Internazionale

Companies who have participated
http://www.aspa2015.org/
End first year/second year

- Exchange visits
- Collection further questionnaires
- Samples analysis
- Report for companies /founding bodies
- Dissemination (seminar and conferences)