Progetto di Grande Rilevanza Italia

Serbia

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1. Introduction

Latest review of livestock production and trade (FEFAC, 2012) indicates that more than 190 million tonnes of meat, milk and eggs were produced in the EU. To sustain this scale of livestock production, about 450 million tonnes of feedstuffs are required each year within the EU-27.

- Industrial compound feed production per country 155 mio.t in 2013 in the EU-28 (FEFAC, 2013).
- Global compound feed production in 2013 (962 mio. t) (FEFAC, 2013).
- EU-28 compound feed production development per category +0.2% in 2013 vs 2012 (FEFAC, 2013).

The industrial compound feed sector is a significant link in the production chain of food products from animal origin. Producing safe feed and food products is first and foremost a question of good management practices at each stage of the feed and food chain from primary production to final processing (EFMC, 2014). In this contest, FEEDNEEDS is an Italian-Serbian bilateral project, funded by the Italian Ministero degli Affari Esteri e per la Cooperazione Internazionale. The main aim of this project is to investigate potential areas for research and development in the feed sectors (i.e. research needs). Project participant are Department of Health, Animal Science and Food Safety of the University of Milan (VESPA), and Institute of Food Technology of the University of Novi Sad (FINS), respectively based in Lombardy/Po valley (IT) and Vojvodina (RS).
2. AIM

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3. Material and methods

The survey was conducted during July and October 2014 and a questionnaire containing 29 questions has been developed and sent to feed companies. The questionnaire was based on three main sections, namely: i) Company Overview; ii) Products and Process Features; iii) Research and Development (R&D) and Innovation. One-hundred and thirteen feed companies have been contacted, the total number of companies that contributed and filled questionnaire has been 37% of total. Data collected have been processed in order to obtain simple frequency statistics and basic graphs of the data.
4. Results and discussion

One hundred and thirteen feed companies has been contacted, of these 37% contributed by filling the questionnaires (figure 1), which generated 464 records for Italian (IT), and 319 records for Serbian (RS) feed companies.

*Figure 1. Location of companies, which have joined the project*

Results obtained indicated that serbian farms are more recent foundation than the italian ones and the gap age of the owners differs consistently. Furthermore, serbian industries are led by male (100%) and younger leader compared to the Italian ones, instead Italian industries are led by both gender (60% and 40% for male and female, respectively) (figure 2).
Figure 2. Company profile.

Figure 3. Production type.
In both countries feed production is based on use of raw material, even though Italian consulted industries were mainly focused on ruminant feed production, whereas Serbian were focused on pig and poultry feed production (figure 3).

![Feed Additives](image)

*Figure 4. Feed additives.*

Italian and Serbian feed industries use many additives. However, as reported in figure 4 some differences for specific groups of additives have been observed in both countries.
Considering R&D and Innovation in the past (figure 5), 7% of Italian responders industries has not planned any budged for R&D, while for Serbian industries this percentage has reached 47%. Of note in both countries informal activities of R&D and innovation have been developed. When the main focus of R&D activities have been tested, 64% of Italian responders mentioned industrial processes while 82% of Serbian activities are focused on new product developments.

*Figure 5. R&D and innovation in the past.*
Figure 6. R&D and innovation in the next future, action for production improvement.

As reported in the figure 6, increase in product quality, search for new markets and reduction of energy consumption has been essential for R&D for both countries, in the near future. Special attention for new technologies has been reported by Serbian feed companies.
A further difference in the two countries were the main difficulties met: high cost for innovation, paperwork/bureaucracy for Italian and bureaucracy and lack of government incentives for Serbian ones (figure 7).

Concerning the middle term future, research and development of new product in dairy cow and pet sector are the main invest area and sector in which the Italian companies will invest. The Serbian scenario is completely different, indeed compliance with legislative requirements, advertisement and transportation system are the
main investment area while pig and poultry sectors are the sectors in which Serbian companies will invest.

Figure 8. Areas and sectors investment.
5. Further project outcomes

During the first year of the "FEEDNEEDS" project the Institute for Food Technology (FINS) in Novi Sad and the Department of Veterinary Sciences for Health, Animal Production and Food Safety (VESPA) form the Università degli Studi di Milano, thanks to the Italian Ministry of foreign affairs were co-organiser of a workshop dedicated to the project. It was scheduled in the frame of the II International Congress "Food Technology, Quality and Safety" and the XVI International Symposium "Feed Technology" (FoodTech2014) (www.foodtech2014.uns.ac.rs), held in October 2014. On 29th October, with 5 presentations (3 from Italian researchers and 2 by Serbian researchers) related to the project in the presence of scientists and researchers, as well as representatives of the feed sector and Serbian institutions, an overview of the aim and first outcomes of project were delivered. The presentations of the results of the bilateral project to the scientific community and other stake holders in fact, was not only been a great opportunity for presenting FEEDNEES and
disseminate its outcomes, but also the starting point for raising awareness about project and its relevance. A further seminar was also organised in Italy. During an Exchange visit in November 2014 the Italian Partner in the project organised the seminar "Progetto di Grande Rilevanza Italia Serbia: FEEDNEEDS ", held at the University of Milan, Department of Veterinary Science to health, animal production and food security (VESPA) in via Trentacoste, Milan. With the participation of over 30 participants were presented the data for the first year of the project, and also thanks to the presentation of Serbian researchers (Dr. Colovic) the Institute for Food Technology (FINS) in Novi Sad was also illustrated.
6. Conclusioni

The project FEEDNEEDS in its first year has produced several significant results for the two countries involved. Firstly it has strengthened collaboration and synergy between the two institutions involved, i.e. VESPA (from Italy) more focused on animal sciences, and FINS (from Serbia) more focused on feed and food technologies. In this context the FEEDNEEDS project provide the opportunity for:

- understanding the feed sector in each country;
- identifying the needs of research and development of both realities;
- identifying the strengths and weaknesses of each system;
- recognizing possible partners for exchange and cooperation/collaboration.

These informations will represent the starting points for further activities in the two regions in the coming year.
7. Bibliography


8. Iconography