



# Book of Abstracts

**III INTERNATIONAL SYMPOSIUM AND  
XIX SCIENTIFIC CONFERENCE  
OF AGRONOMISTS OF REPUBLIC OF SRPSKA**

*Trebinje, Bosnia and Herzegovina  
March 25 - 28, 2014*



## BOOK OF ABSTRACTS

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**EFFICIENCY AND USING POSSIBILITIES OF HEAT RECOVERY PROCESS  
FROM MILK COOLING SYSTEM WITH PRECOOLING**

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Contemporary, farm oriented, milk production involves obtaining of highly valuable, hygienically safe product. At the same time, farmers are under constant pressure to find new ways to reduce production costs. One of the most important factor in the total structure of costs are costs of energy. This paper presents the analysis of possibilities and effectiveness of usage of the system for recovering heat obtained by milk cooling process. The system consists of a heat pump " milk - water ", plate type pre-cooler with counter flow of water and milk and storage vessel. The heat obtained from milk cooling process, is used to heat water instead of being wasted to the environment. Warm water is required on the farm for many reasons. Significant energy savings can be made by using this system. Experimental investigation was carried out on the family farm, where the milking was performed twice a day. After each milking, milking equipment is washed with warm water. The results showed that the application of this system can realize significant cost savings, as well as the potential of improving the efficiency of individual components of the system.

Key words: heat pump, milk, cooling, recovery, efficiency.