

**INTERNATIONAL SYMPOSIUM**  
**AGRICULTURAL ENGINEERING. SOIL - PLANT - TECHNICAL EQUIPMENT WITHIN THE CONTEXT OF**  
**ECOLOGICAL AGRICULTURE AND ECONOMIC EFFICIENCY**

28<sup>th</sup> October 2011, Bucharest, Romania

**MINISTRY OF EDUCATION, RESEARCH, YOUTH  
AND SPORT**

**INMA BUCHAREST**

with support of:

**ASAS – Romanian Academy of Agricultural and Forestry Sciences**

**PACTMAR – Romanian Constructors Society of Agricultural Machines**

***P.U. Bucharest (Faculty of Biotechnical Systems Engineering)***

***University of Craiova***

**SIMAR - Romanian Agricultural Mechanical Engineering Society**

***Society for Environmental Protection of Serbia***

***University of Rouse***

**RILRAM - Research Institute of Land Reclamation and Agricultural Mechanization**

**International Symposium**

**AGRICULTURAL ENGINEERING**

**SYMPOSIUM PROGRAMME**

**BUCHAREST, ROMANIA**  
**28 October 2011**

**INTERNATIONAL SYMPOSIUM**  
**AGRICULTURAL ENGINEERING. SOIL - PLANT - TECHNICAL EQUIPMENT WITHIN THE CONTEXT OF**  
**ECOLOGICAL AGRICULTURE AND ECONOMIC EFFICIENCY**

28<sup>th</sup> October 2011, Bucharest, Romania

**Friday 28 October 2011**

7<sup>30</sup> ÷ 8<sup>45</sup> Registration of participants

9.00- 9.30

**Official Opening**  
**Assembly Hall - ASAS Bucharest**

**Welcoming Addresses by:**

**Ph.D. Eng. Pirnă Ion** - President of the Organizing Committee

9.30- 10.00

**Welcoming Addresses by Supports Organizations**

**Prof. Ph.D. Eng. Paraschiv Gigel** - *Faculty of Biotechnical Systems Engineering*

**Acad. Prof. Ph.D. Sin Gheorghe** - *President of ASAS – Romanian Academy of Agricultural and Forestry Sciences, Romania*

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28<sup>th</sup> October 2011, Bucharest, Romania

**10<sup>00</sup> ÷ 12<sup>20</sup> PAPER PRESENTATIONS**

**SECTION 1**

**Soil, Power and Machinery**

(Time for report is 10 min)

**Moderators:** Ph.D. Eng. Pirnă Ion  
Prof. Ph.D. Eng. Paraschiv Gigel  
**Scientific Secretary:** Ph.D. Eng. Ganea Ion

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**1. Brătucu Gh., Păunescu C., Pasztor J.**

Transylvania University Braşov / Romania

**ESTABLISHMENT OF THE OPTIMAL TECHNOLOGICAL VARIANT UNDER  
ENERGETICALLY ASPECT FOR PREPARING THE GERMINATION BED IN GREENHOUSES**

**2. Boja N., Boja F.**

"Vasile Goldiş" Western University of Arad, Faculty of Engineering / Romania

**EXPERIMENTAL RESEARCHES REGARDING THE SOIL COMPACTION IN THE FORESTRY  
NURSERIES**

**3. Loghin Fl., Eng. Rus Fl.**

Transylvania University Braşov / Romania

**DEVELOPMENT AND SIMULATION OF VIRTUAL PROTOTYPE OF SEED DRILLS  
TRANSMISSION**

**4. Brătucu Gh., Păunescu C., Căpăţină I.**

Transylvania University Braşov / Romania

**OPTIMIZATION OF THE ENERGETICALLY CONSUMPTION OF THE CULTIVATORS FOR  
OPEN CHANNELS IN GREENHOUSES THROUGH MATHEMATICAL MODELING**

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**10<sup>40</sup> - 11<sup>00</sup> Coffe Break**

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**5. Brencu Molder L.<sup>1)</sup>, Marin E.<sup>2)</sup>**

<sup>1)</sup>University from Craiova / Romania; <sup>2)</sup>INMA Bucharest / Romania

**EXPERIMENTAL RESEARCHES OF COMPLEX TECHNICAL EQUIPMENT SOWING CORN IN  
NARROW STRIPS**

**6. Drăghia D.<sup>1)</sup>, Bădescu M.<sup>2)</sup>, Mircea R.<sup>3)</sup>, Ciupercă R.<sup>4)</sup>**

<sup>1)</sup>Inspectorate Forestry Regime and Hunting – Râmnicu Vâlcea / Romania; <sup>2)</sup> University from Craiova;

<sup>3)</sup>INMA Bucharest / Romania

**ROTARY MACHINE KINEMATICS WITH ARMS FOR SEEDLINGS PLANTED**

**7. Trajković R.<sup>1)</sup>, Anđelković S.<sup>2)</sup>, Ivanović R.<sup>3)</sup>, Andjelković B.<sup>2)</sup>**

<sup>1)</sup>Faculty of Sciences, Kosovka Mitrovica / Serbia; <sup>2)</sup>Institute for Forage Crops, Kruševac / Serbia;

<sup>3)</sup>Faculty of Sciences, Niš / Serbia

**THE EFFECT OF WATER FROM THE RIVER VETERNICA ON THE GERMINATION OF  
SOME VEGETABLE CROPS SEED**

**8. Sbîrnă L.S.<sup>1)</sup>, Mateescu M.D.<sup>1)</sup>, Sbîrnă S.<sup>2)</sup>, Moldovan C.S.<sup>3)</sup>, Ionescu C<sup>3)</sup>**

<sup>1)</sup>University of Craiova, Faculty of Chemistry / Romania; <sup>2)</sup>Craiova Regional Environment Protection Agency / Romania; <sup>3)</sup>University of Petroşani, Faculty of Mining / Romania

**EVALUATING BY SIMULATION THE IMPACT OF ACID RAIN ON CATIONS IN A  
REDDISH-BROWN SOIL SAMPLED FROM COŞOVENI, DOLJ (ROMANIA)**

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### **9. Usenko M.**

Lutsk National Technical University / Ukraine

***AIRSCREW AS A STABILIZING DEVICE FOR SMALL AGGREGATES***

### **10. Nagy M.<sup>1)</sup>, Cota C.<sup>1)</sup>, Cioica N.<sup>1)</sup>, Fecete L.<sup>2)</sup>**

<sup>1)</sup>INMA Bucharest - Cluj Napoca Branch / Romania; <sup>2)</sup>Technical University Cluj-Napoca / Romania

***MODELING OF THE GEOMETRICAL PARAMETERS OF ACTIVE BODY FOR THE SOIL  
PROCESSING OF THE EQUIPMENT EXPLANT 500***

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12<sup>00</sup> - 13<sup>00</sup> Lunch Break

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## **13<sup>00</sup> ÷ 14<sup>20</sup> PAPER PRESENTATIONS**

### **SECTION 2**

**Power Machinery, Irrigation, Phytosanitary Treatments**

(Time for report is 10 min)

**Moderators:** Prof. Ph.D. Eng. Paraschiv Gigel

Ph.D. Eng. Voicu Emil

**Scientific Secretary:** Ph.D. Eng. Drâmbei Petronela

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### **9. Aliyev Ch.**

Azerbaijan Scientific Research institute of Forages, Meadows and Pastures / Azerbaijan

***FEATURES OF TECHNOLOGY FOR GROWING TOMATOES AND EGGPLANTS IN THE  
REPUBLIC OF AZERBAIJAN***

### **10. Ganeva D., Pevicharova G.**

Maritsa Vegetable Crops Research Institute / Bulgaria

***"IZK Alya" NEW CHERRY TOMATO VARIETY***

### **11. Nagy M.<sup>1)</sup>, Cârdei P.<sup>1)</sup>, Coța C.<sup>1)</sup>, Fecete L.<sup>2)</sup>**

<sup>1)</sup>INMA Bucharest, Cluj Napoca Branch / Romania; <sup>2)</sup>Technical University Cluj-Napoca / Romania

***METHOD OF ESTIMATING THE SOIL RESISTANCE FORCE TO SOIL WORKING MACHINE  
PARTS WITH APPLICATIONS TO THE OPTIMIZATION OF WORKING REGIMES OF  
MACHINES USED IN HORTICULTURE***

### **12. Ciupercă R.<sup>1)</sup>, Drăghia D.<sup>2)</sup>, Lazăr G.<sup>1)</sup>, Radu M.<sup>1)</sup>, Bodea C.<sup>1)</sup>, Grădinaru V.<sup>1)</sup>**

<sup>1)</sup>INMA Bucharest / Romania; <sup>2)</sup>Inspectorate Forestry Regime and Hunting – Râmnicu Vâlcea / Romania

***INNOVATIVE TECHNOLOGY FOR WORKING SOIL AND PLANTING OF FOREST SAPLINGS***

### **13. Gadjalska N., Petrova R., Markov E.**

RILRAM Sofia / Bulgaria

***QUALITY OF WATER USED FOR IRRIGATION***

### **14. Tadjer J., Căzănescu S., Grancharova El.**

RILRAM Sofia / Bulgaria

***SUSTAINABLE CONTROL OF DANUBE WETLANDS***

### **15. Sedlar Al., Bugarin R., Turan J., Đukić N.**

University of Novi Sad, Faculty of Agriculture, Department of Agricultural Engineering / Serbia

***TEHNO-ECONOMIC ANALYSIS OF CLASSIC AND SELECTIVE PESTICIDE APPLICATION  
IN APPLE AND APRICOT ORCHARDS***

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17. Knezevic J., Knezevic D., Ciric Sl., Sekularac A.

University of Pristina, Faculty of Agriculture, Lesak / Serbia

**MEASURING OF THE EFFICIENCY OF SOME HERBICIDES ON SPRING BARLEY**  
**AGROPHYTOCOENOSIS WEED VEGETATION**

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14<sup>20</sup> – 14<sup>40</sup> Coffe Break

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14<sup>40</sup> ÷ 16<sup>50</sup> **PAPER PRESENTATIONS**

**SECTION 3**

**Transport, Harvesting, Food Industry, Climatic Factors**

(Time for report is 10 min)

**Moderators:** Ph.D. Eng. Vlăduț Valentin

Ph.D. Eng. Nicolescu Mihai

**Scientific Secretary:** Ph.D. Eng. Nedelcu Mihai

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18. Simikić M., Savin L., Tomić M., Dedović N., Matić-Kekić S.

Faculty of Agriculture, University of Novi Sad / Serbia

**INFLUENCE OF OBLIQUE TRACTION ON TRACTION PERFORMANCES OF A**  
**WHEELED TRACTOR ON DIFFERENT SOIL SURFACES**

19. Hermenean I.<sup>1)</sup>, Mocanu V.<sup>1)</sup>, Voicu E<sup>2)</sup>

<sup>1)</sup>ICDP Brașov / Romania; <sup>2)</sup>INMA Bucharest / Romania

**EXPERIMENTAL RESEARCHES CONCERNING DYNAMICS AND ENERGETIC**  
**OF WHEEL TRACTOR FOR SLOPES (4X4) – FRONT RAKE SYSTEMS**

20. Bozhkov S., Badrikov E., Yankova V., Stefanov K., Mihov M.

Research Institute for Land Reclamation and Agricultural Mechanization – Sofia, Bulgaria

**RESEARCH ON STABILITY AND DESIGNING OF PROTECTIVE STRUCTURE**  
**OF TRANSPORT VEHICLE FOR SMALL FARMS**

21. Căpățînă I, Brătucu Gh.

Transylvania University Brasov / Romania

**RESEARCH REGARDING THE MECHANICAL TUBERS INJURY AT THE HARVESTING WORK**

22. Chirilă C., Țenu I.

University of Agricultural Sciences and Veterinary Medicine „Ion Ionescu de la Brad” Iași / Romania

**CONSIDERATIONS ON THE OPTIMAL COMBINE ESTABLISHMENT,**  
**DEPENDING ON SURFACE STRUCTURE**

23. Voicu Gh., Constantin Gh., Ștefan E.M.

Polytechnic University of Bucharest / Romania

**RELEVANT RHEOLOGICAL PROPERTIES OF BREAD DOUGH IN SMALL AMPLITUDE**  
**OSCILLATORY DYNAMIC TESTS (SAOS)**

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15<sup>40</sup> – 16<sup>00</sup> Coffe Break

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**24. Murad E., Safta V. V., Haraga G., Panțiru G. A., Fărăoanu C. E.**

Polytechnic University of Bucharest / Romania

***CONVECTIVE DRYER ENERGETICALLY COUPLED TO A GREENHOUSE***

**25. Păunescu C.G.**

Transylvania University Braşov / Romania

***THE METHODOLOGY AND THE EQUIPMENTS USED FOR TRACKING THE CLIMATIC  
FACTORS IN A POTATOES WAREHOUSE***

**26. Marinova S., Pchelarova H., Toncheva R.**

N. Poushkarov Institute of Soil Science, Sofia / Bulgaria

***ATMOSPHERIC EMISSIONS RESULTING FROM LAND APPLICATION MANURE***

**27. Alovzat G.**

Nakhchivan State University / Azerbaijan

***THE SETTLEMENT METHODS OF WATER PROBLEMS IN ARID CLIMATE ZONES***

**28. Ćirić Sl., Knežević J., Andjelković S.**

University of Priština, Faculty of Agriculture / Serbia

***BACTERIOLOGICAL AND SANITARY STATE OF RESERVOIR ĆELIJE WATER AT THE  
CATCHMENT SITE***

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**16<sup>50</sup> – 17<sup>00</sup> Coffe Break**

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**29. Burtea R.<sup>1)</sup>, Vlăduţ V.<sup>1)</sup>, Tudor A.<sup>2)</sup>, Voicea I.<sup>1)</sup>, Găgeanu G.<sup>1)</sup>**

<sup>1)</sup>INMA Bucharest / Romania; <sup>2)</sup>P.U. Bucharest

***RESEARCHES REGARDING DETERMINATION OF LUBRICATING PROPERTIES OF A  
BIODEGRADABLE OIL***

**30. Brăcăcescu C.**

INMA Bucharest / Romania

***THEORETICAL AND EXPERIMENTAL RESEARCHES REGARDING THE OPTIMIZATION OF  
WORKING PROCESSES OF GRAVITY SEPARATORS AIMED AT CEREALS IMPURITIES***

**31. Găgeanu P.<sup>1)</sup>, Moşoiu C.<sup>2)</sup>, Zaica Al.<sup>1)</sup>, Sandric M.<sup>2)</sup>**

<sup>1)</sup>INMA Bucharest / Romania; <sup>2)</sup>IBA Bucharest / Romania

***HUMAN CAPITAL RECOVERY IN RURAL AREAS IN ROMANIA, BY ACQUIRING OF SKILLS AND  
KNOWLEDGE WITH HIGH ADDED VALUE***

**32. Pirnă I., Cristea O., Vlăduţoiu L., Ganea I.**

INMA Bucharest / Romania

***IMPLEMENTATION IN ROMANIA OF INNOVATIVE CLUSTER CONCEPT IN THE FIELD OF  
AGRICULTURE AND FOOD INDUSTRY***

**33. Nedelcu D., Bădănoiu B., Niţu M.**

INMA Bucharest / Romania

***ACHIEVING FLEXIBLE PROGRAMS OF LIFE-LONG TRAINING FOR PLANT AND ANIMAL  
FARMS WORKERS***

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**17<sup>50</sup>: DISCUSSION**

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**Closing of the Symposium**

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**Note.** The time limit of presentation in scientific sessions is 10 minutes.  
There will be a possible to use PowerPoint program  
if you need it for your presentation.

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