

**NATIONAL INSTITUTE OF RESEARCH-DEVELOPMENT FOR MACHINES
AND INSTALLATIONS DESIGNED TO AGRICULTURE AND
FOOD INDUSTRY**



-EXCELLENCE CENTRE -

ACTIVITY Report - 2010 -

BUCHAREST – May 2011

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1. IDENTIFICATION DATA

1.1. Denomination

NATIONAL INSTITUTE OF RESEARCH-DEVELOPMENT FOR MACHINES AND INSTALLATIONS DESIGNED TO AGRICULTURE AND FOOD INDUSTRY
- INMA Bucharest -

1.2. Establishing document with the subsequent modifications

- HG 1308/1996;
- HG 823/2004;

Accredited to perform research-development activities financed by public funds in compliance with Decision of ANCS no. 9634/14.04.2008

1.3. Registering number within the Register of potential contractors

2421, in compliance with annex 1 of Information Package of Programme RESEARCH OF EXCELLENCE – CEEEX 2006:436

1.4. General Manager: Ph.D. Eng. Pirnă Ion

1.5. Address

Bucharest, District 1, Bd. Ion Ionescu de la Brad no. 6, PC 013813



1.6. Telephone: 021 269.32.69
Fax: 021 269.32.73
Webpage: <http://www.inma.ro>
E-mail: icsit@inma.ro

2. SHORT PRESENTATION OF INCD

2.1. HISTORY

ORGANIZATIONAL EVOLUTION

1927 – Setting up „**TESTING CENTRE FOR AGRICULTURAL MACHINES AND TOOLS**“-BĂNEASA within the INSTITUTE FOR FORESTRY RESEARCHES IN ROMANIA by the Establishing Law **ICAR** (M.O no. 97/05.05.1927).

1930 - Decision no. 2000/1930 of ICAR Manager - GHEORGHE IONESCU ȘIȘEȘTI related to **operating standards and the role of TESTING CENTRE FOR AGRICULTURAL MACHINES AND TOOLS** “

1952 – Setting up the institute of SCIENTIFIC RESEARCHES FOR AGRICULTURE MECHANIZING AND ELECTRIFYING - ICMEA by transforming the TESTING CENTRE FOR AGRICULTURAL MACHINES AND TOOLS within ICAR (HCM no.543/16.04.1952).

1982 – Joining ICMEA Băneasa to INSTITUTE FOR DESIGNING AGRICULTURAL MACHINES OTOPENI and establishing the NATIONAL INSTITUTE OF RESEARCH-DEVELOPMENT FOR MACHINES AND INSTALLATIONS DESIGNED TO AGRICULTURE AND FOOD INDUSTRY ICPITMUA Băneasa (Decree of State Council no.386/27.10.1982).

1996 –Setting up the NATIONAL INSTITUTE OF RESEARCH-DEVELOPMENT FOR MACHINES AND INSTALLATIONS DESIGNED TO AGRICULTURE AND FOOD INDUSTRY-INMA (HG 1308/25.11.1996, MO no. 329/1996) under the coordination of Ministry of Education and Research;

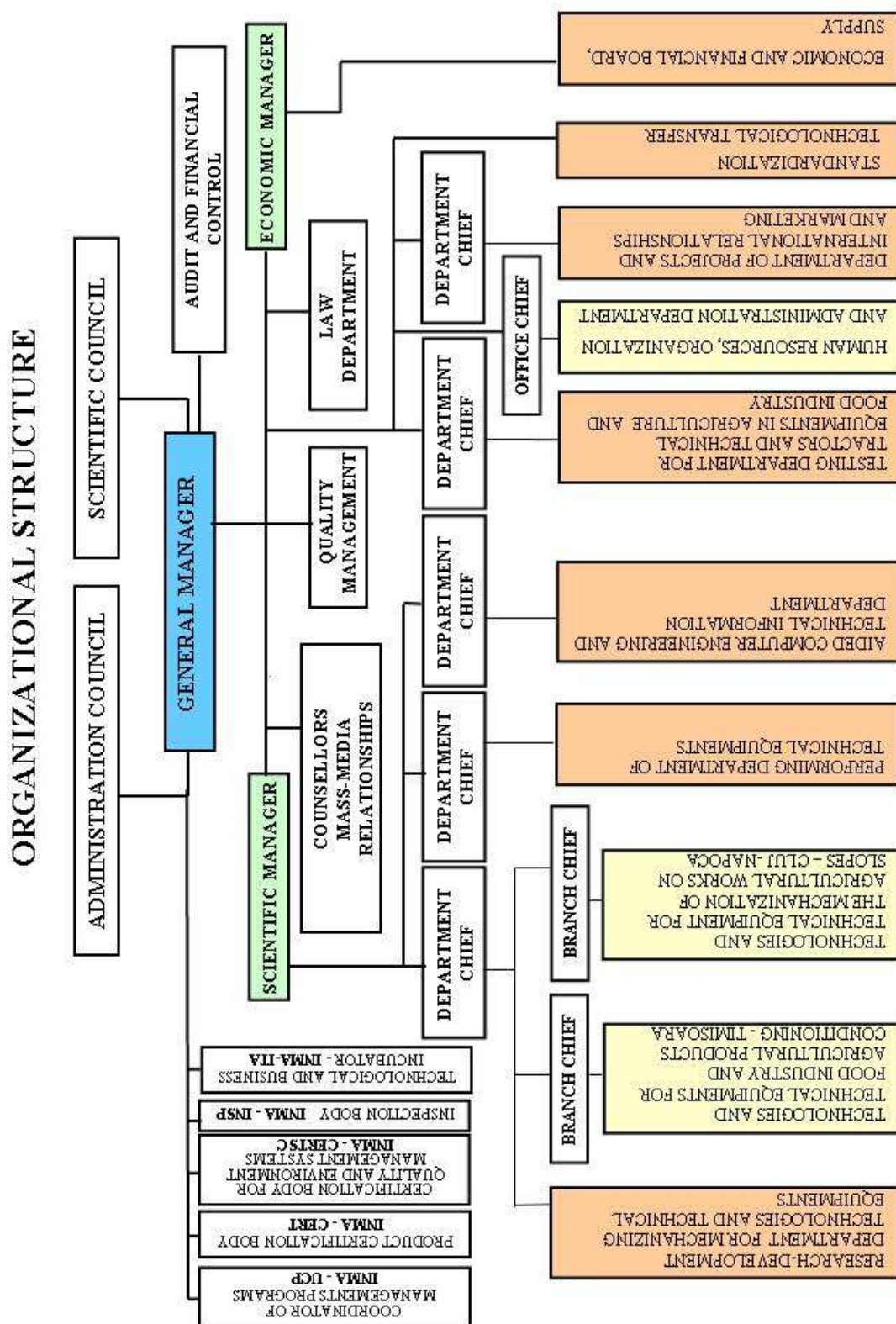
2008 - INMA has been accredited to perform research-development activities financed by public funds according to HG 551/2007, Decision ANCS no. 9634/2008.

2010 – INMA has been authorized to perform training/skills training and professional specialization according to Authorization B series No. 2795310 from 17.02.2010

OBJECTIVES

- Performing scientific and experimental researches on"the machines and equipment the most suitable for Romania soil and climate";
- Testing the machines recently brought in the country..
- Creating and endowing the first laboratory for testing agricultural machines;
- Establishing rules of experimental research and choosing the types of machines suitable to Romania agriculture;
- Establishing the testing methodologies and programmes;
- Publishing the results of agricultural machines testing;
- Regional demonstrations with state-of-the art agricultural machines.
- Elaborating the agro-technical requirements for machines and equipment appropriate to agricultural processes;
- Elaborating the systems and types of machines necessary to mechanizing the agricultural processes;
- Experimental researching and improving the technical and manufacturing solutions.
- Performing scientific research, designing and manufacturing experimental models and prototypes of agricultural machines and equipment;
- Elaborating the mechanizing technologies;
- Elaborating the machines and equipment classes designed to agricultural processes.
- Fundamental research related to resistance and structure of materials used at manufacturing the technical equipment, TE relation with plant and environment (air,water, soil);
- Applicative research aimed at substantiating and achieving the mechanizing technologies and state-of-the art technical equipment designed at agriculture and food industry;
- Technological development by manufacturing experimental models and prototypes of technical equipment;
- Standardization, typification and unification of technical agricultural equipment in terms of working parts CT 77;
- Testing and certifying the technical equipment.
- Practical demonstration, dissemination and public assistance during the implementation.;
- Incubation and technological transfer;
- Skills improvement and professional training, scientific carriers;
- Substantiation of partnerships-consortia on interest subjects for EU funded projects (PC 7, EUREKA, COST, TRANSBORDER etc.)
- Activities of skill training and professional specialization within the professional training centre.

2.2. ORGANIZATION CHART



2.3. SPECIALTY FIELD OF INCD

a. According to UNESCO classification

- 3313** – Mechanical technology and engineering;
- 3102** – Agricultural engineering (technologies and equipment)
- 3309** – Technologies/equipment for food industry;
- 3328** – Technological processes;
- 3308** – Engineering and technology of environment.

b. According to CAEN classification

- 7219** – Research-development of physical and natural sciences;
- 7120** – Activities of testings and technical analyses;
- 6201** – Editing programmes;
- 6203** – IT data processing;
- 7022** – Activities of business and management consultancy.

2.4. DOMAINS OF RESEARCH-DEVELOPMENT

INMA performs activities of scientific research (fundamental and applicative), innovation and development in the field of processes, technologies and technical equipment of mechanization and automation of agricultural and food industry operations within the context of harmonizing the institute whole activity to the policies applied by the National Agency for Scientific Research in Romania.

a. Main domains of research-development

- Scientifically substantiating the processes in agriculture, food industry and creating new technologies, technical devices and equipment competitive and appropriate to the research European area, specific to concepts of SUSTAINABLE AGRICULTURE, FOOD SAFETY;
- Renewable sources of energy (biomass, biofuels) technologies and technical equipment for using them efficiently, life, health and environment protection;
- Rural development and life quality improvement by technological transfer and outputs demonstrations performed by the institute.;
- Strengthening the research infrastructure (human resources, logistics, researching instruments) and achieving partnerships for joining ERA, including the compliance with European technological platforms.
- Activities of training, professional specialization and personnel certification in the field of mechanizing technologies.

b. Secondary research domains

Assessing and certifying the conformity of technical equipment in regulated and non-regulated field of EU.;

- Performing periodical technical controls of mechanizing technologies and TE for agriculture and food industry;
- Technological transfer and innovative business through the accredited technological incubator: INMA-ITA.

c. Services/microproduction

- testing technical equipment;
- certifying the products conformity;
- training and competences evaluation;
- periodical technical inspections for all types of motor vehicles;
- manufacturing plastic components.

3. MANAGING STRUCTURE

3.1. ADMINISTRATION COUNCIL

1. Hon. Prof.Ph.D.Eng. PIRNĂ ION - president
2. Ph.D.Eng. MURARU VERGIL - vicepresident
3. Ec. CHITUC NICOLETA - member
4. Ec. MASARIU MIOARA - member
5. Ec. LUNGU VIORICA - member
6. Prof.Ph.D.Eng. NICULIȚĂ PETRU - member
7. Ec. ȘEULEANU DRAGÔȘ - member
8. Jurist CÂRCEL CRISTINA - secretary
9. Eng. BOLINTINEANU GHEORGHE- permanent guest

3.2. SCIENTIFIC COUNCIL

1. Ph.D.Eng. Muraru Vergil - president
2. Ph.D.Eng. Ciupercă Radu - vicepresident
3. Ph.D.Eng. Ganea Ioan - secretary
4. Hon. Prof.Ph.D.Eng. PIRNĂ ION
5. Ph.D.Eng.Voicu Emil
6. Ph.D.Eng Vlăduț Valentin
7. Eng. Ioniță Ghiță
8. Ph.D.Eng. Muraru Cornelia
9. Ph.D.Eng Găgeanu Paul
10. Ph.D .Eng. Pop Augustin
11. MS.Eng. Coța Constantin
12. Ph.D .Eng. Constantin Nicolae
13. Ph.D .Eng. Drâmbei Petronela
14. Ph.D .Eng Marin Eugen
15. Ph.D .Eng Bădănoiu Bianca
16. Ph.D Dr.ing. Nedelcu Mihail
17. Eng. Matache Mihai
18. Eng. Neagoe Valerica

3.3. MANAGING COMMITTEE

1. Hon. Prof.Ph.D.Eng. PIRNĂ ION - president General Director
2. Scientific Manager – Ph.D.Eng. Voicu Emil - member
3. Economic Manager – Ec. Rusu Mircea - member
4. Testing Division Chiefti - Ph.D.Eng Vlăduț Valentin - member
5. Manufacturing Division - Eng. Ioniță Ghiță - member
6. Informatics Division Chief – Ph.D.Eng. Muraru Vergil - member
7. D.P.R.I.Chief – Ph.D.Eng. Drâmbei Petronela - member
8. Chief of Division I.T.A. – Ph.D.Eng. Muraru Cornelia - member
9. Chief of Division SMCS - Ph.D.Eng Bădănoiu Bianca - member
10. Chief of Financial –Accounting Division - Ec. Gheorghe M - member
11. Chief of adm, personnel, organiz.Division - Eng.Dumitru C. - member
12. Legal adviser. - Cârcel Cristina - member
13. Chief of Contracts Surveying - Eng. Neagoe Valerica - secretary
14. INMA Trade-union leader - Eng. Bolintineanu Gh. - permanent guest

4. ECONOMIC-FINANCIAL STATEMENT OF INCD

Form 10		BALANCE in short on 31.12.2010		F10-pg. 1 - lei -
Denomination of element		No. of row	Account balance at:	
			01.01.2010	31.12.2010
A. ASSETS CAPITAL				
I. INTANGIBLE ASSETS (acct.201 +203+205+2071 +208+233+234-280-290-2933)		01	317.578	138 .12 4
II. TANGIBLE ASSETS(acct.211+212+213+214+223+224+231+232-281-291-2931)		02	5.476.969	8.321. 403
III. FINANCIAL INVESTMENT (acct.261 +263+265+267* - 296*)		03		5.141
ASSETS USED - TOTAL (row. 01 + 02 + 03)		04	5.799.688	8.464. 668
B. ACTING ASSETS				
I. STOKCS (acct.301 +321+302+322+303+323+/-308+328+331 +332+341 +345+346 +/- 348+351+354+356+357+358+361+326+/-368+371+327+/-378+381+/-388-391-392-393-394-395-396-397- 398+4091-4428)		05	307.958	508 .20 9
II.DEBTS (Amounts to be cashed up after more than one year period should be shown separately for each element.) (acct.267*-296*+4092+411 +413+418+425+4282+431 **+437**+4382+441 **+4424 +4428**+444**+445+446**+447**+4482+451**+453**+456**+4582+461+473**+491 -495-496+5187)		06	1.986.003	6.587. 520
III.SHORT-TERM INVESTMENTS(acct.501+505+506+508+5113+5114-591-595-596-598)		07		
IV. BANKING HOUSE AND BANK ACCOUNTS (acct. 5112+512+531+532+541+542)		08	1.636.409	2.525. 580
ASSETS CAPITAL - TOTAL (row. 05 + 06 + 07 + 08)		09	3.930.370	9.621. 309
C. ADVANCED EXPENDITURES (acct. 471)				
D. DEBTS:AMOUNTS TO BE PAID UP TO ONE YEAR (acct.161+162+166+167+168-169+269+401 +403+404+405+408+419+421 +423+424 +426+427+4281+431 ***+437***+4381 +441 ***+4423+4428***+444***+446***+ 447***+4481 +451 ***+453*** +455+456***+457+4581 +462+473***+509+5186+519)		11	2.576.338	3.484. 225
E. NET ACTING ASSETS/NET CURRENT DEBTS (row.09+10-11-19)		12	1.354.032	6.137. 084
F. TOTAL ASSETS MINUS CURRENT DEBTS (row.04 + 12)		13	7.153.720	14.601. 752
G. DEBTS TO BE PAID WITHIN A PERIOD OF OVER ONE YEAR (acct.161 +162+166+167+168-169+269+401 +403+404+405+408+419+421+423+424 +426+427+4281+431 ***+437***+4381+441 ***+4423+4428***+444***+446***+ 447***+4481 +451 ***+453*** +455+456***+457+4581 +462+473***+509+5186+519)		14		
H. COMMISSIONS (acct. 151)				
1. ADVANCED INCOMES OUT OF WHICH (row. 17 + 18 + 21), :		16	4.648.988	9.335.378
Subsidies for investment (acct. 475)		17	4.648.988	4.645.540
Advanced incomes (acct. 472) - total (row.19+20), out of which:		18		4.689.838
Amounts to resume up to one year period (acct. 472*)		19		
Amounts to resume up to more than one year (acct. 472*)		20		4.689.838
Negative commercial fund (acct.2075)		21		
J. CAPITAL AND RESERVES				
1. CAPITAL (row.23 + 24 + 25),out of which:		22	517.868	517.868
-Subscribed payed capital (acct. 1012)		23		
-Subscribed unpayed capital (acct. 1011)		24		
-Overhead patrimony (acct. 1015)		25	517.868	517.868
II. CAPITAL BONUS(acct. 104)				
III. RESERVES OUT OF REASSESSMENT (acct. 105)		27		2.778.121
IV. RESERVES (acct. 106)		28	1.255.860	1.657.762
Own activities (acct. 109)		29		
Profits related to own capital instruments (acct. 141)		30		
Loss related to own capital instruments (acct. 149)		31		
V. REPORTED PROFIT OR LOSS		32		
STOCK BALANCE C (acct. 117)		33		
BALANCE D(acct. 117)		34	534.596	119.997
VI.PROFIT OR LOSS OF FISCAL YEAR		35	0	0
STOCK BALANCE C (acct. 121)		36	32.218	
BALANCE D(acct. 121)		37	2.276.106	5.073.748
Profit allotment (acct. 129)		38	228.626	228.626
OWN CAPITALS - TOTAL (row. 22+26+27+28-29+30-31+32-33+34-35-36)		39	2.504.732	5.302.374
Public patrimony (acct. 1016)				
CAPITALS - TOTAL (row. 37+38)				

ACCOUNT OF PROFIT AND LOSS on 31.12.2010			
Indexes denomination	No. of rows	Fiscal year	
		2009	2010
1. Net turnover (row. 02+03-04+05+06)	01	11.714.256	8.705.425
Production sold (acct.701 +702+703+704+705+706+708)	02	11.702.180	8.705.225
Revenues from goods selling (acct. 707)	03	12.076	200
Allowable commercial discount (ct. 709)	04		
Incomes from registered interests registered by entities deleted from the general registering Book and that keep having in course leasing contracts (acct.766*)	05		
Incomes from capitalizing subsidies related to net turnover (acct.7411)	06		
2.Incomes related to cost of production in course of manufacturing (acct.711 +712)			
Balance C	07		450.000
Balance D	08	201.248	
3. Production achieved by the entity at its own purpose and capitalized (acct.721+722)	09	45.285	
4. Other incomes coming from capitalization (acct.758+7417+7815)	10	1.033.700	1.154.647
-out of which incomes from negative stock trade	11		
INCOMES FROM EXPLOITATION TOTAL (row. 01 + 07 - 08 + 09 + 10)	12	12.591.993	10.310.072
5. a) Expenses of raw material and supplies (acct.601 +602-7412)	13	575.779	273.786
Other material expenses (acct.603+604+606+608)	14	491.233	105.998
b) Other external expenses (of power and water)(acct.605-7413)	15	238.057	189.020
c) Expenses related to goods (acct.607)	16	2.186	
Trading discount received (acct. 609)	17		
6. Personnel expenses (row. 19+20), out of which:	18	7.540.039	6.537.420
a) Wages and allowances (acct.641+642+643+644-7414)	19	5.941.681	5.018.719
b) Expenses of insurances and social protection acct.645-7415)	20	1.598.358	1.518.701
7.a) Value adjustment regarding the tangible and intangible assets (row. 22 - 23)	21	1.135.619	1.058.932
a.1) Expenses (acct.6811+6813)	22	1.135.619	1.058.932
a.2) Revenues (acct.7813)	23		
b)) Value adjustment regarding the acting assets (row. 25 - 26)	24	11.297	
b.1) Expenses (acct.654+6814)	25	11.297	
b.2) Revenues (acct.754+7814)	26		
8. Other exploitation expenditures (row. 28 to31)	27	1.917.968	2.024.919
8.1. Expenses regarding the external services (acct.611+612+613+614+621+622+623+624 +625+626+627+628-7416)	28	1.246.977	1.160.263
8.2. Expenses related to other taxes and payments assimilated (acct.635)	29	618.274	620.202
8.3. Other expenses (acct.652+658)	30	52.717	244.454
Expenses related to refinancing the interests registered by the entities already erased from general registering Book and that have in course leasing contracts (acct.666*)	31		
Adjustement related to provisions (row. 33 - 34)	32		
-Expenditures (acct.6812)	33		
-Incomes (acct.7812)	34		
EXPLOITATION EXPENDITURES - TOTAL (row. 13 to 16 -17 +18 + 21 + 24 + 27 + 32)	35	11.912.178	10.190.075
PROFIT OR LOSS IN EXPLOITATION:			
- Profit (row. 12-35)	36	679.815	119.997
- Loss (row. 35-12)	37	0	0
9. Revenues coming from participating intersts (acct.7611 +7613)	38		
- out of which, revenues obtained from affiliated entities	39		
10. Revenues coming from other investments and loans belonging to tangible assets (acct.763)	40		
- out of which, revenues obtained from affiliated entities	41		
11. Revenues from interests(acct.766*)	42	1.368	
- out of which, revenues obtained from affiliated entities	43		
Other financial revenues (acct.762+764+765+767+768)	44	2.364	
FINANCIAL REVENUES - TOTAL (row 38 + 40 + 42 + 44)	45	3.732	
12. Value adjustments regarding the financial immobilizations and financial investments detained as acting assets (row. 47 - 48)	46		
-Expenditures (acct.686)	47		
- Revenues (acct.786)	48		
13. Expenses related to interests (acct.666*-7418)	49	36.799	
- out of which, expenses related to affiliated entities	50		
Other financial expenses (acct.663+664+665+667+668)	51	2.636	
FINANCIAL EXPENSES- TOTAL (row. 46 + 49 + 51)	52	39.435	
FINANCIAL PROFIT OR LOSS:			
- Profit (row. 45 - 52)	53	0	0
- Loss (row 52-45)	54	35.703	0
14. CURRENT PROFIT OR LOSS:			
- Profit (row. 12 + 45 - 35 - 52)	55	644.112	119.997
- Loss (row. 35 + 52 - 12 - 45)	56	0	0
15. Extraordinary revenues (acct.771)	57		
16. Extraordinary expenses (acct.671)	58		
17. PROFIT OR LOSS IN EXTRAORDINARY ACTIVITY:			
- Profit (row. 57 - 58)	59	0	0
- Loss (row. 58-57)	60	0	0
TOTAL REVENUES (row. 12 + 45 + 57)	61	12.595.725	10.310.072
TOTAL EXPENSES (row. 35 + 52 + 58)	62	11.951.613	10.190.075
RAW PROFIT OR LOSS:			
- Profit (row. 61-62)	63	644.112	119.997
- Loss (row. 62-61)	64	0	0
18. Profit tax (acct.691)	65	109.516	
19. Other taxes unshown within the previous elements (acct.698)	66		
20.NET PROFIT OR LOSS OF FINANCIAL YEAR:			
- Profit (row. 63 - 64 - 65 - 66)	67	534.596	119.997
- Loss (row. 64 + 65 + 66 - 63)	68	0	0

Total incomes

Out of which:

ANNEX 2

- Incomes achieved through national research-development contracts funded by State Budget

Annex 2.1

Denomination of PROGRAMME (projects developed in 2010)	Total value 2010 (lei)	Out of which	
		INMA	Parteners
▪ Programme 2: CAPACITIES: 1 contract	71,380	71,380	-
▪ Programme 4: PARTENERSHIPS IN PRIORITARY DOMAINS: 25 contracts	2,150.978.46	1,793.132	357,846.46
▪ Programme 5: INNOVATION: 2 contracts	145,000	145,000	-
▪ SECTORAL PLAN: 2 contracts	220,645	72,988	147,657
▪ Programme NUCLEUS: 15 contracts	3,782.464	3,82.464	-
▪ OPERATIONAL SECTORAL PROGRAMME FOR HUMAN RESOURCES DEVELOPMENT 2007-2013 – POSDRU: 2 contracts	582,587.2	582,587.82	-
▪ OPERATIONAL PROGRAMME FOR RAISING ECONOMIC COMPETITIVENESS – POS CCE: 1 contract	30,000	30,000	-
▪ CROSS-BORDER COOPERATION PROGRAMME ROMANIA – BULGARIA 2007-2013: 1 contract	41.298,99	41,298.99	-
TOTAL OF RESEARCH-DEVELOPMENT CONTRACTS FINANCED BY STATE BUDGET: 49 contracts	7,024.354.27	6.518.850,81	505.503,46

- Incomes achieved through research-development contracts financed by private funds

Annex 2.2

Denomination / no. of contracts	Value 2010 (lei)
CONTRACTS OF RESEARCH-DEVELOPMENT FINANCED BY PRIVATE FUNDS: 8 contracts	264,170.26

- Incomes achieved through economic activities

Annex 2.3

Denomination / no. of contracts	Value 2010 (lei)
CONTRACTS REGARDING THE ASSESSEMENT AIMED AT AWARDING THE PRODUCT CONFORMITY CERTIFICATION:	133,227.72
INCOMES ACHIEVED THROUGH SERVICES	393,799.02
TOTAL	527,026.74

5. STRUCTURE OF HUMAN RESOURCES INVOLVED IN RESEARCH-DEVELOPMENT

■ PERSONNEL INVOLVED IN RESEARCH-DEVELOPMENT 165

Out of which:

- Ph.D.	26	
- Ph.D.students	9	
- masters of science	18	
a) with high education grade		91
out of which:		
- research graduates	64	
- R-D assistants	11	
- R-D auxiliary personnel	24	
b) With high school		74
out of which:		
- manufacturing experimental models and prototypes	17	

■ PERSONNEL INDIRECTLY PRODUCTIVE 20

■ TOTAL PERSONNEL 185

STRUCTURE OF HIGH EDUCATION PERSONNEL

a) Researchers:

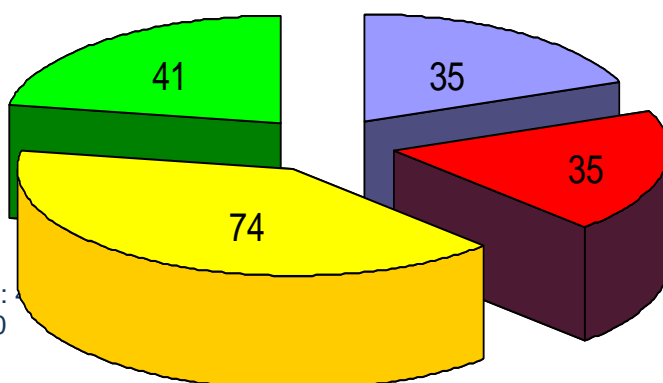
SR I	11
SR II	11
SR III	11
SR	7
SRA	11

b) Engineers TD:

DTI I	1
DTI II	10
DTI III	3
DTI	2

c) auxiliary personnel (1 - jurist, 1 - architect, 3 - economists, 1 - translator, 1 - auditor, 2 - engineers, 15 – diplomat engineers).

PERSONNEL STRUCTURE BROKEN DOWN ON AGE GROUPS



Personnel average age:
Situation on 31.12.2010

• **Information regarding the training activities of human resources (personnel involved in training processes-training stages-specialization courses)**

♦ **Ph.D. theses obtained in 2010:**

Nedelcu Mihail – **“CONTRIBUTIONS REGARDING THE OPTIMIZATION OF EXPLOITATION REGIME OF SPRAYING IRRIGATING INSTALLATIONS ENDOWED WITH DRUM AND HOSE”**

University TRANSYLVANIA, Braşov

♦ **Candidates for a Ph.D degree: 9**

♦ **Masters of science: 18**

Candidates for a Ph.D degree	Masters of science
1. Brăcăcescu Carmen 2. Chih Li Ioana 3. Coţa Constantin 4. Danciu Aurel 5. Manea Dragoş 6. Muscalu Adriana 7. Nagy Elena Mihaela 8. Sorică Cristian 9. Voicea Iulian	1. Grădinaru Vasilica 2. Irimia Diana 3. Manta Claudiu 4. Lazăr George 5. Crăciun Ştefania Sorina 6. Ciobanu Valeria Gabriela 7. Cristea Alin Alexandru 8. Drăgan Romeo 9. Drăgulin Ovidiu Sebastian 10. David Alexandru Dorin 11. Ioan Alexandru Nicolae 12. Tolgy Daniela Niculina 13. Tănase Bogdan Constantin 14. Ghinia Ionela 15. Persu Ioan Cătălin 16. Burtea Cristina Roxana 17. Croitoru Valentina 18. Gheorghe Elena

DIDACTIC ACTIVITY

♦ **Experts in doctor's degree commissions: 4**

(Piră Ion, Voicu Emil, Muraru Vergil; Cristea Mircea)

♦ **Associated Professor: 3**

- UPB – Faculty of Biotechnical Systems Engineering: Piră Ion;
- UPB - Faculty of Biotechnical Systems Engineering : Vlăduţ Valentin;
- ASE: Muraru Vergil

♦ **Cycle of practical training activities for students:**

- USAMV Bucharest, Faculty of Biotechnology
- University Politehnica Bucharest, Faculty of Biotechnical Systems Engineering .

♦ **INTRATEST Trainers courses : 3** (Piră Ion, Voicu Emil, Bădănoiu Bianca)

In June 2010, within the Centre of Vocational Training INMA Bucharest, the course TRAINING OF TRAINERS has been organized.

13 candidates attended the course, obtaining the graduating certificate for the TRAINER position:

1. Ph.D. Eng. Brăcăcescu Carmen
2. Ph.D. Eng. Ciupercă Radu
3. Ph.D. Eng. Coța Constantin
4. Ph.D. Eng. Cristea Mircea
5. Ph.D. Eng. Găgeanu Paul
6. Ph.D. student Eng. Manea Dragoș
7. Ph.D. student Eng. Muscalu Adriana
8. Ph.D. Eng. Nedelcu Ancuța
9. Ph.D. Eng. Păun Anișoara
10. Ph.D. Eng. Pop Augustin
11. Ph.D. Eng. Popa Lucreția
12. Ph.D. Eng. Stanciu Lucian
13. Ph.D. Eng. Vlăduț Valentin

♦ **Centre of Assessment and Certification of Professional Competence:**

In 2010, within the Centre of Assessment and Certification of Professional Competence, the professional competences have been evaluated according to Occupational Standard “Mechanic of agricultural machinery” of ten candidates having obtained certificate of professional competence:

1. Baboiaș Gheorghe
2. Balaban Valeriu
3. Bogdaniuc Vasile
4. Cărlan Gheorghe
5. Dănălache Andrei
6. Dumitrache Lucian
7. Iancu Emil
8. Iosif Gabi
9. Farcaș Alexandru
10. Vlad Vîlcu

At the same time, 2 certificates of professional competences for “Assessor of professional competences” have been obtained for Ioniță Ghiță și Marian Mihai.

♦ **Minutes of proceedings** in collaboration with:

- University of Craiova, Faculty of Agriculture, Chair of Mechanization;
- University Politehnica Bucharest, Faculty of Biotechnical Systems Engineering;
- University of Agronomical Sciences and Veterinary Medicine, Cluj Napoca;
- USAMVB Timișoara, Romanian-German professional training and specialization centre in agriculture field “Voiteni”;
- University “Anghel Kanchev” Ruse, Bulgaria;
- University Novi Sad, Serbia;
- Institute TEI Florina, Greece;

6. RESEARCH-DEVELOPMENT INFRASTRUCTURE

• Infrastructure

- INFRASTRUCTURE OF RESEARCH FOR CONCEIVING, ELABORATING AND OPTIMIZING THE TECHNOLOGIES AND TECHNICAL EQUIPMENT FOR AGRICULTURE AND PRODUCTS PRIMARY PROCESSING;
- RESEARCH INFRASTRUCTURE FOR TESTING IN SIMULATED AND ACCELERATED REGIME OF HYDROPULSE TYPE;
- RESEARCH INFRASTRUCTURE FOR OBTAINING THE BIOFUELS;
- RESEARCH INFRASTRUCTURE FOR TESTING AND ASSESSING THE MECHANIZING TECHNOLOGIES IN AGRICULTURE;
- RESEARCH INFRASTRUCTURE REGARDING THE DETERMINATION OF NOISE AND VIBRATIONS LEVEL AT TECHNICAL EQUIPMENT;
- RESEARCH INFRASTRUCTURE FOR TESTING AND OPTIMIZING THE MANUFACTURING OF TECHNICAL EQUIPMENT FOR AGRICULTURE AND FOOD INDUSTRY;
- TECHNOLOGICAL BUSINESS INCUBATOR – INMA-ITA.

• Testing laboratories accredited:

- **Division of Testing Tractors and Technical Equipment for Agriculture and Food Industry – DI / No. Accrediting certificate LI 451/2010**
 - **Laboratory of Testing Tractors and Technical Equipment for Agriculture and Food Industry – DITRMA;** domain: *constructive determinations; determining the performances; determination of working process characterization, determinations of safety and labour protection;*
 - **Laboratory of Testing Spraying Machines – LIMS;** domain: tests of determining the performances.

• List of equipment purchased in 2010

Den.No.	Equipment name	No. of pcs.	Value [lei]	Investment financing source
1.	Anti-theft system	1	13,025.01	INMA
2.	Furniture	1	18,585.00	INMA
3.	Telemeter	1	1,520.00	INMA
4.	Automated refractometer	1	17,200.00	INMA
5.	Notebook Toshiba	3	8,850.00	INMA
6.	Gravity bottle	1	419.00	INMA
7.	Flamphotometer	1	24,806.00	INMA
8.	Laptop Notebook	1	3,300.00	POSDRU
9.	HP LJ printer	1	2,165.04	CROSS-BORDER
10.	Multifunctional xerox	1	4,828.56	CROSS-BORDER
11.	Digital camera OLYMPUS	1	1,302.00	CROSS-BORDER
12.	Telephone Nokia	1	1,067.67	CROSS-BORDER
13.	Desktop PC Dell Vostro 430 MT system	10	27,574.20	INMA
14.	Laser colour printer laserjet 1025	4	2,513.24	INMA
15.	Laser colour printer laserjet 2025	2	1,895.22	INMA
16.	Microsoft windows 7 Professional, Office Small Business 2007, Antivirus 2011	24	17,241.78	INMA
	TOTAL		146,292.72	

7. RESULTS OF RESEARCH-DEVELOPMENT ACTIVITY

7.1. Scientific/technical papers published in specialty magazines, ISI classified : 11

Anexa 3

De n. No	Title of paper / publication / pg.	Authors
1.	CREATING AGRICULTURAL PRODUCTIVITY MAP MODELS ON DIFFERENT ROMANIAN SOIL TEXTURES THROUGH THE CONCEPT OF PRECISION AGRICULTURE <i>Bulletin of University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca - AGRICULTURE</i> , no. 67(1) / 2010, Print ISSN 1843-5246; Electronic ISSN 1843-5386, pg. 301-307	Voicea I., Matache M., Vlăduț V., Bungescu S.
2.	SOLAR ENERGY USE IN DRYERS AS AN ALTERNATIVE ENERGY SOURCE IN AGRICULTURE <i>Bulletin of University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca - AGRICULTURE</i> , no. 67(1) / 2010, Print ISSN 1843-5246; Electronic ISSN 1843-5386, / pg. 187-193	Militaru M., Postelnicu E., Chițoiu M., Vlăduț V.
3.	POSSIBILITIES OF SOLAR RADIATION USE THROUGH PHOTOVOLTAIC PANELS IN AGRICULTURE <i>Bulletin of University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca - AGRICULTURE</i> , no. 67(1) / 2010, Print ISSN 1843-5246; Electronic ISSN 1843-5386, pg. 232-241	Postelnicu E., Vlăduț V., Sorică C., Militaru M.
4.	IMPORTANCE OF HUMIDITY ON AGRICULTURAL AND FORESTRY BIOMASS IN THE PROCESS OF PELLETS AND AGRI-PELLETS PRODUCTION, <i>Bulletin of University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca - AGRICULTURE</i> , no. 67(1) / 2010, Print ISSN 1843-5246; Electronic ISSN 1843-5386, pg. 292-300	Vlăduț V., Chițoiu M., Danciu A., Militaru M., Lehr C.
5.	VEGETAL WASTE AND ANIMAL MANURE PROCESSING FOR ENSURING AGRICULTURAL FARMS ENERGY INDEPENDENCE <i>Bulletin of University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca - AGRICULTURE</i> , no. 67(1) / 2010, Print ISSN 1843-5246; Electronic ISSN 1843-5386, pg. 61-67	Chițoiu M., Vlăduț V., Militaru M., Voicea I.
6.	SOIL EROSION AND LANDSLIDES RISK MANAGEMENT, <i>Bulletin of University of Agricultural Sciences and Veterinary Medicine Cluj Napoca</i> , Volume 67(2), Print ISSN 1843-5246, Electronic ISSN 1843-5386, pg. 126 – 133	Raluca Sfiru, Petru Cârdei, Vergil Muraru, Vasile Herea
7.	CONTRIBUTIONS FOR PRODUCING MATERIALS WITH BIODEGRADABLE SHOCK ABSORBANT PLASTIC CHARACTERISTICS <i>METALURGIA INTERNATIONALA</i> , Vol xv (2010), No. 12, ISSN 1582-2214, pg 28-31	Gavril Balac, Mihaela Suci, Mircea Bejan, Adrian Boteanu, Nicolae Cioica
8.	STRUCTURE OF STARCH GRANULES REVEALED BY ATOMIC FORCE MICROSCOPY <i>STUDIA, Universitatis Babeş-Bolyai, Chemia, XLV, 2, Volume II, 2010, pg. 313-326</i>	M.Tomoaia-Cotisel, N. Cioica, C. Coța, Cs. Racz, I. Petean, L.-D. Bobos, A. Mocanu, O. Horovitz
9.	RESEARCHES ON INTRODUCTION OF SOIL DENSITY IN MATHEMATICAL MODELING OF SOIL COMPACTION <i>Proceedings of the 38-th. International Symposium on Agricultural Engineering – Actual Tasks on Agricultural Engineering, Opatija, Croatia</i> ISSN 1333 – 2651, pg. 111- 119	Vergil Muraru, Petru Cardei, Ion Pirnă, Cornelia Muraru-Ionel, Raluca Sfiru
10.	SOIL PROPERTIES MAPPING USING SPECTROPHOTOMETRY <i>Proceedings of the 38th International Symposium on Agricultural Engineering – Actual Tasks on Agricultural Engineering, Opatija, Croatia</i> ISSN 1333 – 2651, pg. 151-161	Vergil Muraru, Petru Cardei, Cornelia Muraru-Ionel Ion Pirnă, Ioan Tenu
11.	MIXED SOFTWARE TECHNIQUES FOR ENVIRONMENT PROBLEM INVESTIGATION <i>Proceedings of the 38th International Symposium on Agricultural Engineering – Actual Tasks on Agricultural Engineering, Opatija, Croatia</i> ISSN 1333 – 2651, pg. 163- 173	Petru Cardei, Vergil Muraru, Raluca Sfiru, Vasile Herea, Cornelia Muraru-I

7.2. Cumulated impact factors of ISI papers:**0.870**

Studia Universitatis Babeş Bolyai Chemia – 0.231
Romanian Agricultural Research - 0.485
Metalurgia International - 0.154

7.3. Quotations in specialty magazines, ISI classified :**3****7.4 Patents (demanded / granted)****ANNEX 4**• **INMA registered patent demands:****12**

Annex 4.1

Den No.	Patent title	Authors	OSIM Reg.No.
1.	DEVICE FOR PERFORMING TRANSVERSAL MICRORIDGES IN VINEYARDS	Herea Vasile Cârdei Petru Ganea-Christu Ioan	A-00625 19.07.2010
2.	SYSTEM FOR OBTAINING ROUND BALES OF STRAW AND HAY	Mircea Radu Pirna Ion Grădinaru Vasilică Milea Dumitru	A-01116 15.11.2010
3.	TECHNICAL EQUIPMENT FOR VINEYARDS CLEARING	Marin Eugen Pirna Ion Sorică Cristian Marian Manea Dragoş	A-01289 08.12.2010
4.	AGRICULTURAL MULTIFUNCTIONAL AUTOCHASSIS	Pirna Ion Ganea-Christu Ioan Robe Eugeniu	A-01347 14.12.2010
5.	LATERAL PROTECTION SYSTEM WITH SPARE WHEEL SUPPORT	Ciupercă Radu Popa Lucretia Nedelcu Ancuța	A-01359 17.12.2010
6.	CULTIVATOR FOR HOEING PLANTS WITH SWINGING FRAME	Marin Eugen Constantin Nicolae Sorică Cristian Manea Dragoş	A-1376 21.12.2010
7.	PLOUGH FOR 45 HP TRACTOR, ENDOWED WITH COUPLING DEVICE ADJUSTABLE ON THREE DIRECTIONS	Marin Eugen Pirna Ion Sorică Cristian Manea Dragoş	A-1377 21.12.2010
8.	MONOSUPPORT FRAME FOR AGRICULTURAL EQUIPMENT	Constantin Nicolae Pirna Ion Marin Eugen Popa Lucretia	A-1414 29.12.2010
9.	HYDRAULIC SYSTEM OF ADJUSTING THE FERTILIZERS FLOW RATE	Popa Lucretia Pirna Ion Nedelcu Ancuța Ciupercă Radu	A-1415 29.12.2010
10.	MONOAX CHASSIS WITH REGULATED WHEEL BASE	Ciupercă Radu Nedelcu Ancuța Popa Lucretia	A-1416 29.12.2010
11.	EQUIPMENT OF PLANTING VINEYARDS	Ivan Gheorghe Pirna Ion Ganea-Christu Ioan	A-1417 29.12.2010
12.	MECHANICAL AUTOMATED UNCOUPLING EQUIPMENT OF CHOPPING PLANTS STEMS WITH MECHANICAL AUTOMATED UNCOUPLING SYSTEM	Stanciu Lucian Pirna Ion Ganea-Christu Ioan	A-1418 29.12.2010

- Patents issued by OSIM:

6

Annex 4.2

Den. no.	Title	Authors	OSIM Reg.No.	Licenced patent
1.	HARROW WITH DISKS AND ADDITIONAL LEVELLING PARTS	Constantin Nicolae, Jercăleanu Chiriac, Găngu Vergil, Cojocaru Iosif, Petrescu Vily, Savoia Neculai	A-178/ 28.02.2005	123067/ 2010
2.	UNISENSE DRIVING DEVICE FOR VERTICAL CONVEYORS	Găgeanu Paul, Găngu Vergil, Ganea Ioan, Bunduchi George	A-00267/ 22.03.2005	123043/2010 B
3.	SOWING MACHINES FOR STRAW CEREALS SOWING DIRECTLY ON UNPLOUGHED FIELD	Cojocaru Iosif, Găngu Vergil, Pirnă Ion, Neacșu Florin, Marin Eugen, Mateescu Marinela	A-00532/ 07.06.2005	123103/2010
4.	SYSTEM OF ADJUSTING THE DISTANCE BETWEEN ROLLERS OF UNIVERSAL DOUBLE ROLLS	Găgeanu Paul, Bunduchi George ; Ganea Ioan	A-00543/ 06.07.2006	123172/2010
5.	GREEN FODDER ENSILING MACHINE	Voicu Emil, Pirnă Ion, Cojocaru Iosif, Ciurel Gica	A – 00781/ 13.10.2006	123104/2010
6.	WINGS RETRACTABLE SYSTEM OF SPRAYING BOOMS FOR FIELD CROPS	Popescu Marian, Pirnă Ion, Majeri Dumitru, Dumitrașcu Andrei, Nicolae Gheorghe	A – 01007/ 22.12.2006	123157/2010

- Patents / patent demands whose patentees are represented by other institutions, but are included within INMA team of inventors and researchers.:

1

Den. no.	Title	Authors	OSIM reg. No.	Licenced patent
1.	RECIRCULATING WATER SYSTEM FOR GROWING PIKE PERCH	Grozea Adrian, Bănățean-Dunea Ioan, Grozea Ioana, Pătruică Silvia, Pop Augustin, David Petru, Popovici Valentin	A-00902/ 27.09.2010	

7.5. Quotations of patented researchings within ISI system:

-

7.6 Products /services / technologies resulted from research activities, based on patents, homologations or own innovations.

ANNEX 5

7.6.1. HOMOLOGATED PRODUCTS: 16

Annex 5.1

Den. No.	Researching contract / Trading contract Beneficiary	Output	Reporting/de livery deadline (month)	Technical data	Utilization field
YEAR 2010					
1.	Innovative technique for setting up sustainable cereal crop, which limitS soil damaging, preserves the biodiversity and contributes to qualitatively improve the agricultural production. Research contract no. 21 048 / 14.09.2007 Contracting authority: CNMP P4 – PARTENERSHIPS CD: 462 / 2007÷2010 Beneficiary: AGRICULTURAL TRACTORS AND MACHINES MANUFACTURERS ASSOCIATION IN ROMANIA- PACTMAR Protocol no. 1556/12.11.2007	Product homologated: Technical equipment with working parts for preparing the soil and sowing straw cereals, SGR Dossier number: 163	June 2010	-Power source: 150HP; -Number of rotors with knives: 14; -Distance between rotors: 245 mm; -Number of knives on rotor: 2; -Soil working depth: 10 cm; -Number of sowing shares: 28; -Distance between rows: 12.5 cm; -Sowing depth: 2...8 cm; -Working width: 3.5 m; -Mass: 2590 kg.	Depending on soil and climate conditions it can be used at setting up straw cereals on prepared, semi-prepared field or unprepared field.
2.	Technology for agricultural and forestry solid biomass capitalization in order to obtain pure energy and reduce greenhouse effect gas emissions Research contract no. 21 008 / 14.09.2007 CD: 463 / 2007 – 2010 Contracting authority: CNMP P4 – PARTENERSHIPS Beneficiary: AGRICULTURAL TRACTORS AND MACHINES MANUFACTURERS ASSOCIATION IN ROMANIA- PACTMAR Protocol no. 1556 / 12.11.2007	Product homologated : Tilting conveyer with belt TIB - 0 Dossier number : 160	June 2010	-Power of electrical gearmotor 0.37 kW; -Speed of adjustable conveying band (from the frequency converter) between 0.01÷0.119 m/s values; -Maximum/minimum tilting angle of conveying band in comparison with the horizontal 23.75÷15.41°; -Maximum capacity of conveying band 250 kg/h; -Length of conveying band: 6.500 mm -Width of conveying band : 300 mm;	Tilting conveyer with band is used by equipment manufacturers for manufacturing pellets and agripellets as well as by small and middle size farmers
3.	Technology for agricultural and forestry solid biomass capitalization in order to obtain pure energy and reduce greenhouse effect gas emissions Research contract no. 21 008 / 14.09.2007	Product homologated: Vegetal wastes chopper TRV – 0 Dossier number : 161	June 2010	-Electrical engine power: 7.5 kW; -Continuously adjustable rotations of electrical engine: 296÷1490 rot/min; -Continuously adjustable rotations of chopper: 572÷2880 rot/min;	The vegetal wastes chopper is used by manufacturers for manufacturing pellets and

Den. No.	Researching contract / Trading contract Beneficiary	Output	Reporting/de livery deadline (month)	Technical data	Utilization field
	CD: 463 / 2007 – 2010 Contracting authority: CNMP P4 – PARTENERSHIPS Beneficiary: AGRICULTURAL TRACTORS AND MACHINES MANUFACTURERS ASSOCIATION IN ROMANIA- PACTMAR Protocol no. 1556 / 12.11.2007			-Chopping capacity: 200 m ³ /h; -Sieve of chopper interchangeable with different size holes: ø3; ø4; și ø6 mm; -Overall dimensions: -length: 1500 mm; - width: 900 mm; - height: 1200 mm; -Mass: 245 kg.	agripellets as well as by small and middle size farmers and individual farmers
4.	Technology for capitalizing the solid agricultural and forestry biomass in order to obtain clean energy and reduce greenhouse gas emissions. Research contract no. 21 008 / 14.09.2007 CD: 463 / 2007 – 2010 Contracting authority: CNMP P4 – - PARTENERSHIPS Beneficiary: AGRICULTURAL TRACTORS AND MACHINES MANUFACTURERS ASSOCIATION IN ROMANIA- PACTMAR Protocol no. 1556 / 12.11.2007	Product homologated : Conveyor of feedig the pressTAP - 0 Dossier number : 162	June 2010	-Maximum capacity of transport: 250 kg/h; -Power of gearmotor of rotative lock: 0.18 kW - Power of gearmotor of worm conveyor: 0.55 kW; -Variation of worm conveyor gearmotor rotative speed continously adjustable and comprised between the interval: 5÷30 rot/min; -Variation of rotative lock gearmotor rotative speed continously adjustable and comprised between the interval: 5÷26.8 rot/min; -Electric engine of driving the lock: 670 rot/min; -Rotative speed of driving the worm conveyor: 1370 rot/min; -Dimensions: - length: 1.780 mm; - width (including the control board) 920 mm; - height (including the control board) 1.610 mm -Working capacity: 122	The press feeding conveyor is used by equipment manufacturers to produce pellets and agri-pellets
5.	Promoting a technology of extracting the vegetal oils, as clean power source of environment protection and reducing greenhouse gas emissions, generated in agricultural farms	Product homologated : Installation of extracting the vegetal oils IEU - 00 Dossier number : 154	May 2010	-Working capacity (for rape seeds) [kg]: 450 -Number of presses [pcs.]: 3 -Capacity of oil Collector [l]: 1200 -Capacity of feeder hopper [m ³]: 5	Installation of extracting vegetal oils IEU -00 is used at obtaining vegetal oils from oil plants

Den. No.	Researching contract / Trading contract Beneficiary	Output	Reporting/de livery deadline (month)	Technical data	Utilization field
	Research contract no. 21 049 / 14.09.2007 CD: 464 / 2007 – 2010 Contracting authority: CNMP P4 – PARTENERSHIPS Beneficiary: AGRICULTURAL TRACTORS AND MACHINES MANUFACTURERS ASSOCIATION IN ROMANIA- PACTMAR Protocol no. 1556 / 12.11.2007			- Capacity of intermediary hopper [m ³]: 1,3 -Capacity of pre-heating hopper [m ³]: 1.3 -Installed power, kW: 31,5 -Extracting level [%]: 30-38 (depending on seed variety and quality)	seeds following the cold pressing process
6.	Promoting a technology of extracting the vegetal oils, as clean power source of environment protection and reducing greenhouse gas emissions, generated in agricultural farms Research contract no. 21 049 / 14.09.2007 CD: 464 / 2007 – 2010 Contracting authority: CNMP P4 – PARTENERSHIPS Beneficiary: AGRICULTURAL TRACTORS AND MACHINES MANUFACTURERS ASSOCIATION IN ROMANIA- PACTMAR Protocol no. 1556 / 12.11.2007	Product homologated: Horizontal helical conveyor – TEO M 160 - 0 Dossier number: 155	May 2010	-Transport capacity (for 40% rate of filling)for cereals [t/h]: 6-7 - Installed power, kW: 1.5 -Frequency of rotation of electric engine, [rot/min]: 1500 -Protection of electric engine: IP54 -Coil external diameter [mm]: 160 -Coil pass [mm]: 128	It is used at horizontally transport the powdery and grain products. It can be also successfully used at seed conditioning installations, cereal silos, concentrated fodder enterprises, supplying centers, agricultural farms of small, medium and big capacity, etc.
7.	Promoting a technology of extracting the vegetal oils, as clean power source of environment protection and reducing greenhouse gas emissions, generated in agricultural farms Research contract no. 21 049 / 14.09.2007 CD: 464 / 2007 – 2010 Contracting authority: CNMP P4 – PARTENERSHIPS Beneficiary: AGRICULTURAL TRACTORS AND MACHINES MANUFACTURERS ASSOCIATION IN ROMANIA- PACTMAR Protocol no. 1556 / 12.11.2007	Product homologated : Oil Collector OC 1200 Dossier number: 156	May 2010	-Chute total capacity [l]: 1850 -Chute working capacity [l]: 1300 -Installed power [kW]: 1.5 -Number of rotative speeds [rot/min]: 30.48 -Overall dimensions: -length [mm]: 3100 -width[mm]: 1600 -height[mm]: 1040	It is used at installations of oil extracting of 300-600 kg.of processed seeds/h capacity.

Den. No.	Researching contract / Trading contract Beneficiary	Output	Reporting/de livery deadline (month)	Technical data	Utilization field
8.	Promoting a technology of extracting the vegetal oils, as clean power source of environment protection and reducing greenhouse gas emissions, generated in agricultural farms Research contract no. 21 049 / 14.09.2007 CD: 464 / 2007 – 2010 Contracting authority: CNMP P4 – PARTENERSHIPS Beneficiary: AGRICULTURAL TRACTORS AND MACHINES MANUFACTURERS ASSOCIATION IN ROMANIA- PACTMAR Protocol no. 1556 / 12.11.2007	Product homologated: Rotative selector – SR 1630 – 0 Dossier number: 157	May 2010	-Working capacity [kg/h]: 1200 - Installed power [kW]: 1.5 - Frequency of rotation of electric engine [rot/min]: 1000 - Sieve rotation frequency [rot/ min]: 20 - Sieve diameter [mm]: 630 - Sieve active length [mm]: 1000 - Sieve active surface [m ²]: 1.9 Dimensions of sieve holes [mm]: - rape: ø 4, ø 5 - soya: ø 9 - sunflower” ø 10 - Overall dimensions: - ength [mm]: ~2460 - width [mm]: 820 - height [mm]: ~1580	It is used within the technological flow of the <i>module of seed preparing MPS</i> when the impurities are separated out of seed matter
9.	Researching and developing a technology of fish superintensive breeding as a recirculating system optimized by ensuring technological parameters and sanitary-veterinary protection. Research contract no. 51 054 / 14.09.2007 CD: 465 / 2007 – 2010 Contracting authority: CNMP P4 – PARTENERSHIPS Beneficiary: AGRICULTURAL TRACTORS AND MACHINES MANUFACTURERS ASSOCIATION IN ROMANIA- PACTMAR Protocol no. 1556 / 12.11.2007	Product homologated: Fish recirculating superintensive breeding system Dossier number: 165	July 2010	- Power of pumping group: 2 kW - Maximum mechanical filtering capacity: 60 m ³ /h - Maximum biological filtering capacity: 60 m ³ /h - Capacity of foddering device: 5 kg/24 h - Power of electrical generator: 18.2 kVA	The recirculating system of fish superintensive breeding - SCSP is designed to growing different valuable species of fish (sturgeons, pike perch, tilapia, African sheat fish etc.), in controlled environment conditions
10.	Modernization of cereal primary processing in order to obtain high quality agro-food products, appropriate to principles of sustainable development and food safety Research contract no. 51 062 / 14.09.2007 CD: 474 / 2007 – 2010 Contracting authority: CNMP P4 –	Product homologated: Method of cereals primary processing MPPC – 0 Dossier number: 164	June 2010	-Working capacity [kg/h]: - precleaning: 25; - cleaning: 8÷10; - Total installed power [kW]: 11.85 - Air necessary flow rate [m ³ /min]: 80÷130 - Frequency of sieves frame oscillations	The cereal primary processing module comprises TE designed to clean or pre-clean the cereal seeds and is an integrating part of

Den. No.	Researching contract / Trading contract Beneficiary	Output	Reporting/de livery deadline (month)	Technical data	Utilization field
	PARTENERSHIPS Beneficiary: AGRICULTURAL TRACTORS AND MACHINES MANUFACTURERS ASSOCIATION IN ROMANIA- PACTMAR Protocol no. 1556 / 12.11.2007			[osci/min]: 960	milling units, as well as the cereal seeds conditioning stations or units of storing and conserving the cereals.
11.	Prognosis of agricultural soil losses caused by erosion and landslides, in order to elaborate certain preventing or/and remedying solutions Research contract no. 31 091 / 14.09.2007 Contracting authority : CNMP – P4 - PARTENERSHIP CD: 476 / 2007 - 2010 Beneficiary: AGRICULTURAL TRACTORS AND MACHINES MANUFACTURERS ASSOCIATION IN ROMANIA- PACTMAR Protocol no. 1556 / 12.11.2007	Product homologated: Mobile installation for estimating the erosion risk - IMERE Dossier number: 166	September 2010	- Surface sprayed: 28 – 350 m ² ; - Spraying width: 4 – 17 m; - Spraying length: 7 – 21 m; - Max. flow rate 5000 l/hour;	Installation is used for measuring the soil surface erosion and resistance, estimating the risk of surface erosion in order to evaluate the lands worthiness, predicting the soil erosion losses and environment protection.
12	Technology for promoting in Romania the energetic plant Miscanthus, as renewable energy source in order to increase energetic competitiveness and safety. Research contract no. 21 038 / 14.09.2007 CD: 478 / 2007 – 2010 Contracting authority : CNMP – P4 - PARTENERSHIP CD: 476 / 2007 - 2010 Beneficiary: AGRICULTURAL TRACTORS AND MACHINES MANUFACTURERS ASSOCIATION IN ROMANIA- PACTMAR Protocol no. 1556 / 12.11.2007	Product homologated : Equipment for harvesting Miscanthus – EPI Dossier number: 159	May 2010	- Working width [m]: 6 - Number of rotors [pcs]: 2 - Rotor speed number [rot/min]: 46 - Knives speed number [rot/min]: 288. - Number of knives [pcs]: 2 - Rotor's diameter [mm]: 800 - Cutting height[cm]: 10÷12	Equipment for harvesting high plants EPI is designed to work in aggregate with the trailed fodder combine CTF for harvesting the dried Miscanthus stems, cutting the plants on the field and directing them towards the combine working parts, which chop the plant at 10÷15 mm length and load the chopped matter into the transport mean (trailer), which moves in parallel with the combine or

Den. No.	Researching contract / Trading contract Beneficiary	Output	Reporting/de livery deadline (month)	Technical data	Utilization field
					is trailed by it. EPI equipment can be also used at harvesting other big size crops, such as sorghum, ensiling corn, Soudhan herb.
13.	Increasing the innovation capacity by manufacturing a modern installation of irrigation with watering ramp and gun. Research contract no. 212/ 12.09.2008 RD: 489 / 2008 – 2010 Contracting authority : AMCSIT P5 – INNOVATION Beneficiary: SC GRUP ROMET SA BUZAU Collaboration agreement no.1498/29.10.2008	Product homologated: Installation of irrigation with ramp and watering gun, IIRT Dossier number: 158	May 2010	-Opening width of watering ramp [m]: 12-40; -Hose diameter [mm]: 100; -Hose length [m]: 360; -Working pressure [bar]: 4÷8; -Water flow rate [m ³ /h]: 10÷50; -Overall dimensions (LxIxh): 6.50x2.50x,50; -Drum rotation angle [°]: 360; -Mass of watering ramp installation [kg]: 2700	Installation of irrigation with ramp and watering gun is used at irrigating the high size agricultural crops (corn, sunflower, hemp, etc), medium size crops (wheat, barley, rye, etc) small size crops, sown on rare rows (soya, potatoes, clover, etc), on medium and big surfaces
14.	Automating the process of dynamic testing of dampers suitable to manufacturing the technical equipment Research contract no. 15 N / 27.02.2009 / Add. Act. 1 / Add. Act. 2 RD: 520/ 2010 – 2010 Contracting authority : ANCS Beneficiary: AGRICULTURAL TRACTORS AND MACHINES MANUFACTURERS ASSOCIATION IN ROMANIA- PACTMAR Protocol no. 1556 / 12.11.2007	Product homologated: Compact platform of testing dampers Dossier number : 152	February 2010	-Overall dimensions: -Length: 2596 mm; -Width: 1830 mm; -Height: 2870 mm; -Supplying voltage : 380 V _{ca} -Maximum force: 50 kN; -Maximum stroke: 350 mm; -Working pressure: 150 bar.	<i>Compact platform of testing dampers PCIA</i> , is used at the specific test of different constructive types of dampers, representing the technical parts of the motor vehicles, motor trucks building, etc.
15.	Reducing the environment/soil pollution and increasing the qualitative indexes of technical equipment for plants protection, by integrating a centralized system for monitoring and warning them Research contract no 15 N / 27.02.2009 CD: 522/ 2010 – 2010	Product homologated: Monitoring system of technical spraying equipment for plant protection Dossier number : 153	March 2010	- Supplying voltage : 24 Vcc; - Working pressure : max 6 bar; -Total working output: max 160 l/min; -Working flow rate on nozzle: max 20 l/min; -Working width: 12 m.	Monitoring system of technical spraying equipment for plant protection is designed to control their good functioning and warning the user

Den. No.	Researching contract / Trading contract Beneficiary	Output	Reporting/de livery deadline (month)	Technical data	Utilization field
	Contracting authority : ANCS Beneficiary: AGRICULTURAL TRACTORS AND MACHINES MANUFACTURERS ASSOCIATION IN ROMANIA- PACTMAR Protocol no. 1556 / 12.11.2007				about some damages, which could lead to a wetting non-uniformity or an established irregular rate per hectare, increasing the risks of soil and agricultural products pollution, as a result of remanent phyto-sanitary substances unappropriately applied.
16.	Extending the field of silkworm breeding in Romania by performing a new innovative technology and a competitive technical equipment Research contract no. 15 N / 27.02.2009 CD: 523 / 2010 – 2010 Contracting authority : ANCS Beneficiary: AGRICULTURAL TRACTORS AND MACHINES MANUFACTURERS ASSOCIATION IN ROMANIA- PACTMAR Protocol no. 1556 / 12.11.2007	Product homologated: Stoving installation for stifling the cocoons Dossier number: 167	September 2010	<ul style="list-style-type: none"> - Stoving installation type: stationary, of cabinet type; - Operating method automated; - Type of heating system: electrical; - Supplying voltage(V): 220 - Type of heating elements: infra-ceramic radiators FSR; - No. of heating elements (pcs.): 36; - Power of heating elements (W): 250; - Type of additional heating elements electrical batteries BSMC2; - No. of additional elements (pcs.): 2; - Power of additional elements (W): 2000; - Volume of stifling chamber (m3): 2.01; - Type of support for drawers: vertical, mobile; - Number of drawers (pcs.): 10 / 15; - Drawers' working surface (m2): 0.48; - Type of ventilation plant: with hot air recirculating; - type of fan: CMP-514-2M; - power (kW): 0.18; - rotation frequency (min-1): 2700; - air flow(m3/ h): 1000; - system of air refreshing: automated command cover; - Overall dimensions: 	<i>The cocoons stoving installation</i> is a technical equipment designed to small and medium-sized farms in order to stifle the silkworm cocoons and at the same time, primarily process the raw material by drying some species of aromatic and medicinal plants.

Den. No.	Researching contract / Trading contract Beneficiary	Output	Reporting/delivery deadline (month)	Technical data	Utilization field
				-Length: 1320 mm; -Width: 1172 mm; -Height: 2535mm; -Power (kW): 4.9÷9.6; -Mass (kg): 348; -Capacity of drying: -cocoons: (kg): 20÷30; -medicinal and aromatic plants (kg): 10÷15;	

7.6.2 – HOMOLOGATED SERVICES

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Den.no.	Research contract / Trade contract Beneficiary	Result	Reporting/delivery deadline (month)	Technical data				Utilization field	
ANUL 2010									
1.	Innovative technique for setting up sustainable cereal crops, which limits soil degradation, conserves the biodiversity and contributes to qualitatively increase the agricultural productions Research contract no. 21 048 / 14.09.2007 Contracting authority: CNMP P4 – PARTENERSHIPS CD: 462 / 2007 – 2010 Beneficiary: ACADEMY OF AGRICULTURAL AND FORESTRY SCIENCES-ASAS Protocol no. 1552 / 08.11.2007	Product homologated: Setting up straw cereal crops through the innovative technology using the technical equipment with working parts for preparing the soil and sowing straw cereals Dossier number: 35	June 2010	-Power source, HP: 150 -Aggregating method: carried - Overall dimensions: -Length: 3590 mm; -Width: 4460 mm; -Height with rear furrowers lifted: 2920 mm -Working width, m: 3.5 -Mass, kg: 2590				. It is designed to setting up sustainable straw cereal crops in prepared or unprepared field by means of technical equipment with blade knives or harrow vertical knives.	
2.	Technology for exploiting the agricultural and forestry solid biomass in order to obtain	Service homologated: Performing	June 2010	PTO's rotative speed		Rot/min	540	Chopper of forestry wastes Skorpion	Service for <i>performing pellets and</i>
				Consumed power		kW	31.11		

Den.no.	Research contract / Trade contract Beneficiary	Result	Reporting/delivery deadline (month)	Technical data					Utilization field
	clean energy and reduce greenhouse gas emissions Research contract no. 21 048 / 14.09.2007 Contracting authority: CNMP P4 – PARTENERSHIPS CD: 463 / 2007 – 2010 Beneficiary: AGRICULTURAL TRACTORS AND MACHINES MANUFACTURERS ASSOCIATION IN ROMANIA- PACTMAR Protocol nr. 1556 / 12.11.2007	pellets and agri-pellets Dossier number: 34		Rotative speed of driving electric engine	rot/min	1450	Hammer mill TCU (MC 22)	agri-pellets is designed to produce biofuel from vegetal and forestry biomass, necessary for the proper operating of thermal stations aimed at heating and producing the domestic hot water in small and medium sized farms and individual farms, in order to ensure their energetic independence	
				Rotative speed of active parts	rot/min	1450			
				Engine power	kW	7.5	Homogenizer		
				Rotative speed of driving electric engine	rot/min	1440			
				Rotative speed of mixing chamber	rot/min	17			
				Consumed power	kW	5.92	Refiner		
				Rotative speed of driving electric engine	rot/min	2920			
				Rotative speed of active parts	rot/min	2920			
				Consumed power	kW	7.8	Pelleting press		
				Rotative speed of gearmotor	rot/min	139			
				Consumed power	kW	13.119			
3	Researching and developing a technology for fish superintensive breeding within a recirculating system by optimizing the technological parameters and ensuring the sanitary-veterinary protection Research contract no. 51 054 / 14.09.2007 CD: 465 / 2007 – 2010 Contracting authority: CNMP P4 – PARTENERSHIPS Beneficiary: AGRICULTURAL TRACTORS AND MACHINES	Service homologated: Breeding the fishes eggs in a recirculating regime and its exploitation. Dossier number: 37	July 2010	- Predicted output (fish larvae of 20g): approx. 60.000 pcs.egg/year - Number of recirculations: max. 4 recirculations/h - Density of biological material (larvae) max. 20 kg/mc water					Fish recirculation superintensive breeding can provide valuable fishes larvae (sturgeons, pike perch,, tilapia, African sheat fish, etc.), for populating the fish farms basins.

Den.no.	Research contract / Trade contract Beneficiary	Result	Reporting/delivery deadline (month)	Technical data	Utilization field
	MANUFACTURERS ASSOCIATION IN ROMANIA- PACTMAR Protocol no. 1556 / 12.11.2007				
4.	Modernizing the technologies of cereals primary processing in order to obtain high quality agro-food products suitable to principles of sustainable development and food safety. Research contract no . 51 062 / 14.09.2007 Contracting authority: CNMP – P4 – PARTENERSHIPS Beneficiary::AGRICULTURAL TRACTORS AND MACHINES MANUFACTURERS ASSOCIATION IN ROMANIA- PACTMAR Protocol no. 1556 / 12.11.2007	Service homologated: Primary processing the cereal seeds in order to obtain high quality agro- food by a primary processing of cereals MPPC – 0 Dossier number: 36	June 2010	<ul style="list-style-type: none"> - Maximum technological efficiency (98%) with minimum raw material losses; - Increased using indexes; - Economical use of raw materials; - Reducing the specific consumption of energy per ton of processed product, by approx. 10-15%; - Raising the work productivity 	Primary processing technology and the cereal primary processing module MPPC- 0 shall be available for agricultural producers , cereal stocking units, cereal seeds conditioning centres as a type of technical service
5.	Prognosis of erosion and landslides losses of soil designed to agricultural use in order to elaborate new preventing and/or remedying solutions Research contract no . 31 091 / 14.09.2007 Contracting authority: CNMP – P4 – PARTENERSHIPS CD: 476 / 2007 - 2010 Beneficiary: ACADEMIY OF AGRICULTURAL AND FORESTRY SCIENCES- ASAS	Service homologated: Service of mapping some soil characteristics – SCCS Dossier number : 40	September 2010	<ul style="list-style-type: none"> -measuring the soil humidity up to 22 cm depth; -measuring the soil compacting level up to 45 cm; -measuring the risk of surface erosion, by using the simulation of rainfalls and/or a specialized software and GIS 	The service shall be used at predicting the soil losses, mapping the erosion risk, estimating certain soil worthiness elements and environment protection

Den.no.	Research contract / Trade contract Beneficiary	Result	Reporting/delivery deadline (month)	Technical data	Utilization field
	Protocol no. 1552 / 08.11.2007				
6.	Competitive technology technical documents and technical and economic documents necessary to a modern installation for sturgeons breeding in recirculating aquiferous system Researching contract no. 15 N / 27.02.2009 / Add. act.no.1/ 2010 CD: 510/ 2010 – 2010 Contracting authority: CNMP Beneficiary: AGRICULTURAL TRACTORS AND MACHINES MANUFACTURERS ASSOCIATION IN ROMANIA- PACTMAR Beneficiary: ACADEMY OF AGRICULTURAL AND FORESTRY SCIENCE - AAFS Protocol no. 1552 / 08.11.2007	Service homologated: Setting up a fish breeding farm for fishes breeding within an aquiferous modulated superintensive recirculating system Dossier number: 31	February 2010	- Number of modules in system: 6 pcs.; - Installations of mechanical filtering of 100 m3/hour on each module; - Medium hydraulic resistance time: 60 minutes (1 recirculation/hour); - Buffer capacity: about 50 m3; - command and control automatic installation	Service shall be used in superintensive fish breeding field within the aquiferous recirculating systems of modulated- type. The modular type system allows the growth of various fish species, depending on modules number
7.	Automating the process of dynamic testing of damping system specific to technical equipment manufacturing. Research contract no. 15 N / 27.02.2009 / Add. act.no.1/ Add act.no.2 / 2010 CD: 520/ 2010 – 2010 Contracting authority: ANCS Beneficiary: AGRICULTURAL TRACTORS AND MACHINES MANUFACTURERS ASSOCIATION IN ROMANIA- PACTMAR	Service homologated.: Dynamic testing of damping system specific to technical equipment manufacturing Dossier number: 30	February 2010	- Power supply, Vcc: 24; - Working pressure, bar: max 6; - Total working flow, l/min: max 160; - Nozzle work flow, l/min :max 20; - Working width , m:	Service for dynamic testing of dampers specific to technical equipment construction is used for testing various constructive dampers type, which are the technical components

Den.no.	Research contract / Trade contract Beneficiary	Result	Reporting/delivery deadline (month)	Technical data	Utilization field
	Protocol no. 1556 / 12.11.2007				included in manufacturing of motor vehicles,trucks.
8.	Reducing the environment/soil pollution and increasing the working qualitative indexes of plant protection technical equipment, by integrating a centralized monitoring and warning system. Research contract no. 15 N / 27.02.2009 / Act.ad.no.1/ 2010 CD: 522/ 2010 – 2010 Contracting authority: ANCS Beneficiary : AGRICULTURAL TRACTORS AND MACHINES MANUFACTURERS ASSOCIATION IN ROMANIA- PACTMAR Protocol no. 1556 / 12.11.2007	Service homologated: Monitoring technical spraying equipment for plant protection. Dossier number: 32	March 2010	- Power supply, Vcc: 24; - Working pressure, bar: max 6; -Total working flow, l/min: max 160; -Nozzle work flow, l/min : max 20; -Working width , m: 12.	Service of monitoring technical spraying equipment for plant protection is designed to verify their proper operation and alert the user of the occurrence of failures that could lead to wetting irregularity or rate per hectar established, increasing the risk of soil and agricultural products pollution following the residual phytosanitary substances remained in the soil, as a result of an unappropriate applying procedure

Den.no.	Research contract / Trade contract Beneficiary	Result	Reporting/delivery deadline (month)	Technical data	Utilization field
9.	Research on testing seat belt anchorages according to D 76/115/CEE modified by D 2005/41/CE, to the seat mounted on MT 81 tractor. Research contract no. 644 / 17.05.2010 CD: 531/ 2010 – 2010 Beneficiary: SC MAT SA CRAIOVA	Service homologated: Resistance testing in anchorages points of the safety belts Dossier number: 33	June 2010	-Seats resistance test is performed as mounted state on a specialized bench. -Fixing the seats on bench and their preparation for the test shall be done in accordance with 76/115/CEE Directive modified by D 2005/41/CEE. -Strength test is applied by a 25 kN hydraulic cylinder. -Cylinders act through cables to the lower and upper traction devices.(specific devices made in accordance with the directive D 76/115/CEE modified by D 2005/41/CEE). -Ensuring videos running during the resistance test as well as the final camera records. -Data acquisition and processing are performed to obtain force-time and movement-time diagrams under the directive D 76/115/CEE*D 2005/41/CEE; -Analyzing the results of measurements and recordings made; visually check the existence of residual strains and external damage visible to the naked eye (fissure, ruptures, separation of components)	Service of resistance testing in anchorages points of the safety belts under D 76/115/CEE *D2005/41/CE, is used to determine the anchoring points resistance characteristics of the seat belts.
10.	Research on comparative analysis of the uniformity of a spraying machine endowed with new nozzles, respectively used nozzles (decalibrated) used to apply herbicides on field crops. Research contract no 1709/ 15.07.2010 CD: 535/ 2010 - 2010 Beneficiary: ICDPP Bucharest.	Service homologated Checking distribution uniformity of plant protection technical equipment Dossier number: 38	July 2010	<ul style="list-style-type: none"> - 300 l tank with associated structures; - 140 l/min at 50 bar pump; - electrovalves; - low pressure distributor; - three parts nozzle suport; - double parts nozzle suport; - filters. <p>Measurement and testing are made with the following equipment:</p> <ul style="list-style-type: none"> - electronic tester for measuring the liquid distribution variations of spraying machinery in basic crop; - standard manometers ; <p>storing tray and liquid recirculating</p>	Checking distribution uniformity of plant protection technical equipment is used to verify their normal functioning and alert the user of the appearance of failings that may lead to failure of spraying uniformity or rate established per hectar, increasing the

Den.no.	Research contract / Trade contract Beneficiary	Result	Reporting/delivery deadline (month)	Technical data	Utilization field
					risk of soil and agricultural products pollution as result of soil residual phytosanitary substances unappropriately applied.
11.	Researches regarding the test of a towing system with automatic coupling AB 390 type Research contract no 643 / 17.05.2010 CD: 537 / 2010 – 2010 Beneficiary: SC ROMAN SA BRASOV	Service homologated: Testing a towing system with automatic coupling AB 390 type Dossier number: 39	September 2010	-Hydraulic cylinders capacity 250 kN,/ 100 kN with a 200 mm maximum stroke; - Traction-compression dynamometer, 100 kN; - Traction-compression dynamometer, 250 kN; -83 plan-parallel gauge, L = 0,5 mm÷100 mm; - Notebook 486 professional laptop, equipped with acquisition plate DAP 2400-Microstar Laboratories; -Digital calliper 0÷150 mm; -Roll tape measure Stanley, L=3m. Acquisition and data processing are carried out to obtain force-movement diagrams.; Analyzing the results of measurements and recordings made; visually check the residual deformation and outside damage visible with the naked eye(fissures, ruptures, separation of components) and if, according to the contractual terms, chemical analysis is required for elements materials of the product tested and an analysis bulletin is released.	Haul gearing with automatic coupling AB 390 type designed to equip the product ROMAN 26.400DFA which is produced by SC ROMAN SA BRASOV

7.6.3 – TECHNOLOGIES HOMOLOGATED

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Anexa 5.2

Den.No.	Researching contract / Trading contract Beneficiary	Output	Reporting/delivery deadline (month)	Technical data	Utilization field
ANUL 2010					
1.	Innovative technologies for establishing cereal crops in a sustainable system limiting land degradation, conserving biodiversity and contributing to the qualitative growth of agricultural productivity Research contract no. 21 048 / 14.09.2007 Contracting authority: CNMP P4 PARTNERSHIPS CD: 462 / 2007 – 2010 Beneficiary: ACADEMY OF AGRICULTURE AND FORESTRY SCIENCES - AAFS Protocol no. 1552 / 08.11.2007	Technologies homologated: Innovative technologies for establishing cereal crops in a sustainable system Dossier number: 29	June 2010	-Power source: 150hp; -Knives rotors number.: 14; -Distance between rotors: 245 mm; -Knives number on the rotor: 2; - Tillage depth: 10 cm; - Sowing shares number :28; -Distance between rows: 12.5 cm; -Sowing depth: 2...8 cm; -Working width: 3.5 m; -Weight: 2590 kg.	Depending on pedoclimatic conditions cereal crops can be set up with: - technical equipment with working elements for preparing seedbed and seeding in ploughed field. -technical equipment with tillage elements and sowing on unprepared field
2.	Technology for restoring solid forestry and agricultural biomass in order to obtain clean energy and reducing emissions of greenhouse gases Research contract no. 21 008 / 14.09.2007 CD: 463 / 2007 – 2010 Contracting authority: CNMP – P4 - PARTNERSHIPS Beneficiary: ACADEMY OF AGRICULTURE AND FORESTRY SCIENCES - AAFS Protocol no. 1552 / 08.11.2007	Technologies homologated: Technology for restoring solid forestry and agricultural biomass. Dossier number: 28	June 2010	- The total power installed to produce pellets - the total power installed with plant vegetal wastes cutter TRV: 54.16 kW; - the total power installed with the hammer mill TCU (MC 22): 68.66 kW; - the total power installed to produce agri-pellets; - the total power installed with plant wastes cutter TRV: 85.27 kW; - the total power installed with the hammer mill TCU (MC 22): 99,77 kW.	Technology for the recovery of solid forestry and agricultural biomass is used by manufacturers of pellets / agripellets products, being designed to thermal plants for heating and producing domestic hot water in small and medium-sized farms and in private households in order to ensure an energetic independence.
3.	Promoting a technology of extracting the vegetal oils, as a pure energetic source of environment protection and gas emissions reducing, as a result of using them in agricultural farms Researching contract no. 21 049 /	Technology homologated: Technology for obtaining vegetal oils Dossier number: 27	May:2010	-Working capacity (for rape seeds) [kg]: 450 -Number of presses [pcs]: 3 -Capacity of oil collector [l]: 1200 -Capacity of feeding hopper [m3]: 5 -Capacity of intermediary hopper	Installation of extracting the vegetal oils IEU -00 is used at obtaining vegetal oils from oil plants by cold pressing

Den.No.	Researching contract / Trading contract Beneficiary	Output	Reporting/delivery deadline (month)	Technical data	Utilization field
	14.09.2007 CD: 464 / 2007 – 2010 Contracting authority: CNMP P4 – PARTENERSHIPS Beneficiary: ACADEMY OF AGRICULTURE AND FORESTRY SCIENCES - ASAS Protocol no. 1552 / 08.11.2007			[m3]: 1.3 -Capacity of pre-heating hopper, [m ³]: 1.3 - Installed power [kW]: 31.5 - Extraction degree [%]: 30-38 (Depending on the seeds variety and quality)	
4.	Researching and developing a technology of fish superintensive breeding as a recirculating system optimized with technological parameters and sanitary- veterinary protection ensuring. Research contract no. 51 054 / 14.09.2007 CD: 465 / 2007 – 2010 Contracting authority: CNMP P4 – PARTERSHIPS Beneficiary: ACADEMY OF AGRICULTURE AND FORESTRY SCIENCES - ASAS Protocol no. 1552 / 08.11.2007	Product homologated: Fish recirculating superintensive breeding system Dossier number:: 31	July 2010	- Total volume of water from module1: max. 80 cm - Total volume of water from module 2: max. 80 cm - Total number of tanks: 66 pcs. - Total volume of water in the system is: 480 cm - Total surface of water of the system is: 520 sqm	The recirculating of fish superintensive breeding is designed to support fish farms recently created and the existing ones wishing to upgrade their operations and to streamline work.
5.	Implementing technologies appropriate to sustainable development applied at corn products in pre-ripening stage in order to ensure food security and veterinary- health protection. Research contract no. 51 041 / 14.09.2007 CD: 468 / 2007 – 2010 Contracting authority: CNMP – P4 - PARTERSHIPS Beneficiary: ACADEMY OF AGRICULTURE AND FORESTRY SCIENCES - ASAS Protocol no. 1552 / 08.11.2007	Product homologated: Sweet corn harvesting technology Dossier number: 32	September 2010	- Distance from soil to the lowest point 590 mm, transport distance 300 mm - Working speed-4-8 km/h - effective working width 1400 mm -Fan speed 2500 min ⁻¹ -Speed of chopper knives 4000min ⁻¹ tractor power source 100 hp	Harvesting tehnology of corn crop not reaching their maturity is used in agriculture and aims at higher restoring of corn in order to improve food quality, and safety.
6.	Modernization of cereal primary processing in order to obtain high quality agro-food products, appropriate to principles of sustainable development and	Product homologated: Technology of cereals primary processing	June 2010	Intensive vacuum separator SAI 800: - processing capacity: - pre-cleaning, t/h 25	The technology of cereal primary processing can be used both in agriculture and milling industry

Den.No.	Researching contract / Trading contract Beneficiary	Output	Reporting/delivery deadline (month)	Technical data	Utilization field
	<p>food safety</p> <p>Research contract no 51 062 / 14.09.2007 CD: 474 / 2007 – 2010 Contracting authority: CNMP – P4 - PARTERSHIPS Beneficiary: ACADEMY OF AGRICULTURE AND FORESTRY SCIENCES - ASAS Protocol no. 1552 / 08.11.2007</p>	Dossier number: 30		<p>- cleaning, t/h8÷10</p> <p>- air flow required at aspiration, m³/min. 80÷90</p> <p>- installed power, kW 2x0.45</p> <p>- oscillation frequency of sieve frame, osc/min. 960</p> <p>- overall dimensions:</p> <p>- length, mm 2450</p> <p>- width, mm 1450</p> <p>- heighth, mm 1550</p> <p>- mass, kg 768</p> <p>Stone separator SP-00:</p> <p>- processing capacity t/h 2.5÷4</p> <p>- necessary air flow m³/min. 130</p> <p>- installed power, kW 2x0.32</p> <p>- pressure in suction pipe , mmCA 220</p> <p>- useful area in the sieve, m² 1.07</p> <p>- frame tilting angle [°]: 5÷10</p> <p>- frequency oscillations, osc/min. 960</p> <p>-amplitude of osc/mm 1.5÷2.5</p> <p>- overall dimensions:</p> <p>- length, mm 1825</p> <p>- width, mm 1654</p> <p>- heighth, mm 2143</p> <p>- mass, kg 382</p>	capitalization and aims to improve the quality of cereals, food safety and security.
7.	<p>Competitive technology, technical and technical- economic documentation for sturgeons modern installation breeding as aquifeours recirculating system</p> <p>Research contract no. 15 N / 27.02.2009 / Add.act.no.1/ 2010 CD: 510/ 2010 – 2010 Contracting authority: ANCS Beneficiary ACADEMY OF AGRICULTURE AND FORESTRY</p>	<p>Product homologated:</p> <p>Technology concerning fish breeding as an aquiferours modular superintensive recirculating system</p> <p>Dossier number: 26</p>	February 2010	<p>- Number of modules in the system: : 6 pcs.;</p> <p>- Installed power: approx. 36 kW;</p> <p>- Thermal power installation of heating / cooling: 120 kW;</p> <p>- The average hydraulic storage: 60 min (1 recirculation /hour);</p> <p>- Continuous monitoring system of dissolved oxygen, temperature, pH.</p>	Technology can be applied in aquaculture, in fish indoors farms.

Den.No.	Researching contract / Trading contract Beneficiary	Output	Reporting/delivery deadline (month)	Technical data	Utilization field
	SCIENCES - ASAS Protocol no. 1552 / 08.11.2007				
8.	Ecological technology to improve soil fertility using green natural fertilizer appropriate to sustainable agriculture Research contract no. 15 N / 27.02.2009 / Add.act.no.2/ 2010 CD: 533/ 2010 – 2010 Contracting authority: ANCS Beneficiary: ACADEMY OF AGRICULTURE AND FORESTRY SCIENCES - ASAS Protocol no. 1552 / 08.11.2007	Product homologated: Technology of setting up covering winter crops by classical works of tilling, preparing the germinating bed, sowing and applying green fertilizers as mulch Dossier number: 33	November 2010	Crop establishing technology of coverage through classical works of plowing, preparing the germinating bed, sowing and applying green fertilizers as a mulch layer can be achieved by performing the following processes: a)The technology of establishing the coverage crops and maintaining the coverage works necessary are the following: -applying organic fertilizers (optionally); - plowing at depth of 15÷20cm; - disking; - sowing; b) the technological processes of mulching preparing which is applied as green fertilizer in agro-technical work are the following: -harvesting with mower and leaving the plants on the soil as an uniform layer or cutting with fodder combine and leaving the chopped plant on ground; - destroying the plants wastes; - chopping vegetal wastes with disc harrow and easily incorporating them into germinative bed preparation for the next crop.	Crop establishment technology of coverage through classical works Of plowing, preparing germinativ bed, sowing and using green fertilizers as mulch layer is used for protection and soil restoring in small or medium sized farms, producing grain, vegetables, fruit. Technology is used for establishing cover crops consisting of varieties of plants requiring preparation of an appropriate germinating bed corresponding to sowing and which can be applied throughout the year.
9.	Ecological technology to improve soil fertility using green natural fertilizer proper for sustainable agriculture	Product homologated: Technology of setting up winter cover crops and soil protection during	November 2010	Technology of setting up winter cover crops and soil protection during winter with a layer of mulch is applied to the establishment of winter cover crops	The setting up technology of covering crops with a layer of mulch and soil protection during winter is used for soil protection,

Den.No.	Researching contract / Trading contract Beneficiary	Output	Reporting/delivery deadline (month)	Technical data	Utilization field
	Research contract no .15 N / 27.02.2009 / Add.act.no.2/ 2010 CD: 533/ 2010 – 2010 Contracting authority: ANCS Beneficiary: ACADEMY OF AGRICULTURE AND FORESTRY SCIENCES-ASAS Protocol no. 1552 / 08.11.2007	winter with a layer of mulch. Dossier number: 34		(after harvesting the main autumn crop). The types of plants used for winter cover crop establishment are selected according to the needs of farm climatic conditions, of sowing period, land conditions, the range of main crops they fall and how green fertilizers are prepared and applied .The technological process of setting up winter covering crops and soil protection with a layer of mulch includes the following basic operations: <ul style="list-style-type: none"> ♦ plowing, germinating bed preparation and sowing ♦ vegetable mulching preparation ♦ incorporating a vegetal fertilizer into the soil 	rehabilitation and fertilization, during the cold season after harvesting the main autumn crop. Technology can be used for establishing winter cover crops in medium and large sized farms, equipped with modern equipment for the establishing agricultural crops, located on slope land accessible to working aggregates.
10.	Ecological technology for improving soil fertility using green natural fertilizer appropriate to sustainable agriculture Research contract no. 15 N / 27.02.2009 / Add.act.no.2/ 2010 CD: 533/ 2010 – 2010 Contracting authority: ANCS Beneficiary: ACADEMY OF AGRICULTURE AND FORESTRY SCIENCES - ASAS Protocol no. 1552 / 08.11.2007	Product homologated: Technology of covering crops establishing by sowing directly into stubble Dossier number: 35	Novembre 2010	Technology of establishing covering crops by sowing directly into stubble can be applied to loose lands, after harvesting the main crops and includes the following basic operations: <ul style="list-style-type: none"> - loosening the soil, germinating bed preparation and sowing - preparation of vegetable fertilizer incorporation (administration) of a vegetable fertilizer in the soil. The technological process of establishing cover crops created by direct sowing in stubble, is achieved by performing a single passing when preparing the germinating operations and sowing the unprepared field, or as	Technology establishing cover crops by sowing directly into stubble is used for soil rehabilitation and fertility,by sowing with minimun inputs,during the free periods between two main crops of some plant crops, which can protect the soil during cold weather and fertilizing the soil by applying green fertilizer. .Technology can be used for establishing autumn and winter cover crops in large farms on land with plants accessible to aggregating

Den.No.	Researching contract / Trading contract Beneficiary	Output	Reporting/delivery deadline (month)	Technical data	Utilization field
				a layer of mulch formed by the destroying the plants wastes from main crops, after harvesting. Optimum tehnolgical process of germinating bed preparation and sowing is determined by the flowering composition of cover crops, specific meteorological factors suitable to application period.	tractors which together with specific equipment achieve the technological process.

7.7. Scientific / technical works issued in specialty journals without ISI quotation (category B and B+): 35

Annex 6

Den. No.	JOURNAL / ARTICLE / AUTHORS
I. INMATEH Magazine – AGRICULTURAL ENGINEERING, No. 30, Jan-Apr. 2010 CNCSIS Acknowledged, cat. B, no. 737/11949/2009, Print ISSN 2068-2239; Electronic ISSN 2068-4215	
1.	CREATIVITY AND INNOVATION REGARDING THE DESIGN OF EQUIPMENT OF CEREAL PRIMARY PROCESSING FOR OBTAINING HIGH QUALITY AGRO-FOOD PRODUCTS Ph.D. Student. Eng. Carmen BRĂCĂDESCU ¹⁾ , Hon.Prof.Ph.D.Eng. I. COJOCARU ¹⁾ , Eng. D. MILEA ¹⁾ Prof.Ph.D.Eng. S. POPESCU ²⁾ , Prof.Ph.D.Eng. I. ȚENU ³⁾ ¹⁾ INMA Bucharest, ²⁾ TRANSILVANIA University of Brasov, ³⁾ USAMV Iasi
2.	MODULAR AQUIFEROUS RECIRCULATING SYSTEM FOR SUPER-INTENSIVE FISH BREEDING Ph.D.Eng. Augustin POP, Eng. Valentin POPOVICI, Eng. Petru DAVID, Eng. Constantin STEFANOV INMA Bucharest, Branch Timisoara
3.	STUDY OF KINEMATICS AND DYNAMICS OF SPRINKLERS WETTING JET Mihail Nedelcu ¹⁾ , Ioan Căndea ²⁾ , Zelyha Bereket Barut ³⁾ ¹⁾ INMA Bucharest, ²⁾ University of Transilvania Brasov; ³⁾ Cukurova University of Antalya – Turkey
4.	A MATHEMATICAL MODEL OF EVOLUTIONARY DYNAMICS OF PROFILES CREATED ON CULTIVATED SLOPES WITH ANTI-EROSION EFFECT Math. P. Cârdei ¹⁾ , Ph.D.Eng. C. Cota ¹⁾ , Ph.D.Eng. V. Muraru ¹⁾ , Eng. Raluca Sfîru ¹⁾ , Ph.D.Eng. V. Herea ²⁾ ¹⁾ INMA Bucharest, ²⁾ ICDVV Valea Călugărească
5.	ELEMENTARY MATHEMATICAL MODEL FOR NEIDHART SUSPENSION, NONLINEAR WITH LINEAR DAMPING Math. P. Cârdei, Eng. Al. Munteanu, Ph.D.Eng. V. Muraru, Eng. Raluca Sfîru INMA Bucharest
6.	STUDY ON THE INFLUENCE OF COMBUSTION GAS ON THE QUALITY OF CEREALS WITHIN DRYING PROCESS Ph.D.Eng. L. CĂLIN ¹⁾ , Prof.Ph.D.Eng. I. IONEL ¹⁾ , Prof.Ph.D.Eng. M. JADANEANT ¹⁾ , Assoc. Professor Ph.D.Eng. N. BRIA ²⁾ Prof.Ph.D.Eng. Milorad Bojic ³⁾ ¹⁾ "Politehnica" University of Timisoara, Romania, ²⁾ INMA Bucharest, ³⁾ Faculty of Mechanical Engineering at Kragujevac, Serbia
7.	PROCESS AUTOMATION OF SHOCK ABSORBING SYSTEMS DYNAMIC TESTING, SPECIFIC TO TECHNICAL EQUIPMENT CONSTRUCTION Matache M., Mihai M., Vlăduț V., Voicea I. INMA Bucharest
II. INMATEH Journal – AGRICULTURAL ENGINEERING, No. 31, May-Aug. 2010 CNCSIS Acknowledged, cat. B+, no. 737/11949/2009, ISSN 2068-2239; ISSN 2068-4215	
8.	THEORETICAL STUDY OF PILE DISPLACEMENT ON STRAW WALKER OF CONVENTIONAL COMBINE HARVESTERS Ph.D. Eng. Ivan Gh., Ph.D. Eng. Nedelcu M. INMA Bucharest
9.	OPTIMIZATION OF WORKING CAPACITY FOR FORAGE HARVESTER COMBINES DRIVEN BY TRACTOR Ph.D. Eng. Voicu E. ¹⁾ , Mat. Cârdei P. ¹⁾ , Prof. Ph.D. Eng. Popescu S. ²⁾ ¹⁾ INMA Bucharest / Romania; ²⁾ Transylvania University Brasov / Romania
10.	STRUCTURAL ANALYSIS OF MATINA SOIL WORKING MACHINE Ph.D. Eng. Muraru V., Ph.D. Eng. Constantin N., Mat. Cârdei P., Eng. Sfîru R. INMA Bucharest / Romania
11.	EXPERIMENTATION OF MANUFACTURING TECHNOLOGY AND EQUIPMENT FOR PELLETS / AGRIPELLETS Ph.D. Stud. Eng. Danciu A. ¹⁾ , Ph.D. Eng. Vlăduț V. ¹⁾ , Eng. Matache M. ¹⁾ , Eng. Mihai M. ¹⁾ , Ph.D. Eng. Lehl C. ²⁾ Prof. Ph.D. Eng. Mihailov N. ³⁾ ¹⁾ INMA Bucharest; ²⁾ ECOIND Bucharest; ³⁾ University of Rouse
12.	METHODS AND TECHNIQUES OF DRAWING UP RISK MAPS FOR SURFACE RAIN EROSION PHENOMENON Eng. Sfîru R. ¹⁾ , Mat. Cârdei P. ¹⁾ , Ph.D. Eng. Muraru V. ¹⁾ , Eng. Herea V. ²⁾ ¹⁾ INMA Bucharest / Romania; ²⁾ ICDVV Valea Călugărească / Romania
13.	INTEGRATION OF A MONITORING AND CENTRALIZED WARNING SYSTEM ON TECHNICAL EQUIPMENTS DESIGNED TO PHYTOSANITARY TREATMENTS IN THE CONCEPT OF PRECISION AGRICULTURE Eng. Bolintineanu Gh. ¹⁾ , Ph.D. Eng. Vlăduț V. ¹⁾ , Eng. Voicea I. ¹⁾ , Eng. Matache M. ¹⁾ , Ph.D. Eng. Savin L. ²⁾ , Eng. Langenakens J. ³⁾ ¹⁾ INMA – Bucharest / Romania; ²⁾ University of Novi Sad / Serbia; ³⁾ Advanced Agricultural Measurement System / Belgium
14.	CONTRIBUTIONS TO STUDY OF KINEMATICS AND DYNAMICS OF VIBRATING CONVEYORS ENDOWED WITH NON-BALANCED MASS MECHANISM

	Ph.D.Student Brăcăcescu C.¹⁾, Prof. Ph.D. Eng. Popescu S.²⁾, Prof. Ph.D. Eng. Schillaci G.³⁾ ¹⁾ INMA Bucharest / Romania; ²⁾ Transilvania University of Brasov / Romania; ³⁾ University of Catania / Italy
15.	TECHNICAL EQUIPMENT FOR INNOVATIVE TECHNOLOGY OF SOIL, PREPARING AND ESTABLISHING HOEING CROPS, AS A PREREQUISITE OF PROMOTING SUSTAINABLE AGRICULTURE Ph.D.Eng. Marin E.¹⁾, Ph.D. Stud. Sorică C.¹⁾, Ph.D. Stud. Manea D.¹⁾, Vezirov Z.²⁾ ¹⁾ INMA Bucharest / Romania; ²⁾ University of Rouse / Bulgaria
16.	EXPERIMENTAL RESEARCHES ON THE INFLUENCE OF TYRE PRESSURE AND INTENSITY OF TRAFFIC TRACTOR WHEELS ON PENETRATION RESISTANCE AND APPARENT DENSITY OF AGRICULTURAL SOILS Ph.D. Eng. Loghin Fl.¹⁾, Prof. Ph.D. Popescu S.¹⁾, Math. Cârdei P.²⁾, Prof. Ph.D. Karamousantas D.³⁾ ¹⁾ Transilvania University of Brasov / Romania, ²⁾ INMA Bucharest / Romania, ³⁾ TEI Kalamata / Greece
III. INMATEH Journal – AGRICULTURAL ENGINEERING, No. 32, Sept.- Dec. 2010 CNCSIS Acknowledged, cat. B+, no. 737/11949/2009, ISSN 2068-2239; ISSN 2068-4215	
17.	RESEARCHES ON DETERMINATION OF DRAG FORCE OF THE ACTIVE TILLAGE TOOLS FROM THE RIDGING EQUIPMENT MB-4 Nagy E.M.¹⁾, Fecete L.V.²⁾, Coța C.¹⁾, Stănilă S.³⁾ ¹⁾ INMA Bucharest; ²⁾ U.T. Cluj-Napoca; ³⁾ USAMV Cluj-Napoca
18.	THEORETICAL STUDY ON THE DYNAMICS OF THE SYSTEM TRACTOR – COMBINED AGGREGATE FOR PREPARING THE SEEDBED Ph.D. Eng. Constantinescu A.¹⁾, Voicu E.²⁾ ¹⁾ University of Craiova, Faculty of Mechanics; ²⁾ INMA Bucharest
19.	RESEARCHES ON HARVESTING OF MISCANTHUS CROP WITH THE FORAGE HARVESTER PhD. Eng. Voicu E., PhD. Eng. Pirnă I., Eng. Ciurel G., Eng. Chițoiu M. INMA Bucharest
20.	THEORETICAL STUDY OF PILE DISPLACEMENT ON THE STRAW WALKER OF CONVENTIONAL COMBINE HARVESTERS (Part two) PhD. Eng. Ivan Gh.; PhD. Eng. Nedelcu M. INMA Bucharest
21.	BRAKING OF TRAILER ENDOWED WITH INERTIAL BRAKING SYSTEM, WORKING IN AGGREGATE WITH TRACTOR Ph.D.Eng. Ciupercă Radu, Ph.D.Eng. Popa Lucreția: Ph.D.Eng. Nedelcu Ancuța INMA Bucharest
22.	MODERN TECHNICAL APPLICATION FOR EXTENDING THE DOMAIN OF SILKWORM BREEDING EXPLOITATION IN ROMANIA Eng. Muscalu A.¹⁾, Eng. Mihai M.¹⁾, Eng. Chitoiu M.¹⁾, Eng. Dune A.²⁾ ¹⁾ INMA Bucharest; ²⁾ S.C. HOFIGAL S.A.
23.	METHOD AND TECHNIQUE OF DRAWING UP RISK MAPS FOR LANDSLIDES PHENOMENON Eng. Sfîru R.¹⁾, Math. Cârdei P.¹⁾, Ph.D.Eng. Muraru V.¹⁾, Eng. Herea V.²⁾ ¹⁾ INMA Bucharest; ²⁾ ICDVV Valea Calugareasca
24.	EXPERIMENTAL MODELS OF PRODUCTIVITY MAPS NECESSARY FOR FINDING UP SOIL BONITATION IN ROMANIA Eng. Voicea I., Ph.D.Eng. Vlăduț V., Eng. Matache M. INMA Bucharest
25.	MATHEMATICAL MODEL FOR ASSESSING THE BIODEGRADATION CHARACTERISTICS OF STARCH-BASED SHOCK ABSORBING PACKAGES Math. Cârdei P.¹⁾, Eng. Paul M.²⁾, Ph.D. Eng. Cioica N.¹⁾, Ph.D. Stud. Eng. Nagy ELENA M.¹⁾ ¹⁾ INMA Bucharest; ²⁾ ICIA Cluj-Napoca
IV. ANNALS OF THE UNIVERSITY OF CRAIOVA - AGRICULTURE, MOUNTAIN SCIENCE, CADASTRE, vol. XXXIX/B 2010, ISSN 1841-8317 "SUSTAINABLE AGRICULTURE - AGRICULTURE OF THE FUTURE", The six-th edition, Section 4, 20-21 November 2010, Craiova - Romania, ISSN 2066-950X	
26.	CONTRIBUTIONS TO THE STUDY OF KINEMATICS AND DYNAMICS OF GRAVITATIONAL SEPARATORS OPERATED WITH MECHANISMS WITH UNBALANCED ECCENTRIC MASSES Ph.D stud.Eng. Carmen BRĂCĂCESCU¹⁾, Prof. Ph.D. Eng. Simion POPESCU²⁾ ¹⁾ INMA Bucharest; ²⁾ Transilvania University of Brasov
27.	RESEARCH ON MANUFACTURING A MACHINE FOR CHEMICAL FERTILIZATION WITH SOLID FERTILIZERS WITH POSSIBILITY OF REDUCED DISTRIBUTION RATES Ph.D.Eng. Popa Lucreția¹⁾, Ph.D.Eng. Ciupercă R.¹⁾, Ph.D.Eng. Nedelcu Ancuța¹⁾, Eng. Andrei Livian Victor²⁾, Eng. Guran Gicu²⁾ ¹⁾ INMA Bucharest; ²⁾ SC MAT SA Craiova
28.	WASTE PLANT AND FORESTRY RECOVERY IN AGRICULTURAL FARMS FOR THE PRODUCTION OF PELLETS / AGRI-PELLETS Aurel DANCIU, Valentin VLĂDUȚ, Mihai CHIȚOIU, Mirela MILITARU, Carol LEHR ¹⁾ INMA Bucharest; ²⁾ INCD Ecoind Bucharest
V. ADVANCED COMPOSITE MATERIALS ENGINEERING COMAT 2010 International Conference	

Research & Innovation in Engineering ISSN 1844-9336	
29.	TEHNICAL EQUIPMENT FOR WORKING THE SOIL ON STRIPS, SOWING HOEING PLANTS AND APPLYING FERTILIZERS AND INSECTICIDES E. Marin, C. Sorica, D. Manea, I. Pirna <i>INMA Bucharest</i>
30.	USE OF CERTAIN VARIETIES OF GRAIN TO PRODUCE HEAT Cristian Sorica, Eugen Marin, Emil Voicu <i>INMA Bucharest</i>
31.	EFFICIENT WATER USE FOR IRRIGATION IN ENVIRONMENTAL PROTECTION CONDITIONS. Dragoş MANEA, Constantina KOLOZSVARI <i>INMA Bucharest</i>
VI. Scientific works UNIVAGRU Iasi, vol. 53/2010, Agronomy Series quotation B+ CNSIS and reviewed by CAB International - England ISSN 1454-7414	
32.	INFLUENCE OF GLYCEROL CONTENT ON THE TECHNOLOGY AND MICROSTRUCTURE OF STARCH BASED LOOSE-FILL PACKAGING MADE BY THERMOPLASTIC EXTRUSION Coța C. ¹⁾ , Tomoaia-Cotisel M. ²⁾ , Cioca N. ¹⁾ , Horovitz O. ²⁾ , Fenesan M. ²⁾ , Mocanu A. ²⁾ , Nagy M. ¹⁾ <i>¹⁾INMA Bucharest; ²⁾Univ. Babes Bolyai Cluj-Napoca, Faculty of Chemistry and Chemical Engineering</i>
VII. JOURNAL OF ECOAGRITOURISM, Bulletin of Agri-ecology, Agri-food, Bioengineering and Agritourism, Brasov 2010, vol. 6, no. 3 (20) ISSN 1844-8577	
33.	THE CONTINOUS FLOW DRYING OF VEGETABLES IN MICROWAVE INSTALLATIONS Muscalu A. ¹⁾ , Mihai M. ¹⁾ , Turcin V. ²⁾ <i>¹⁾INMA Bucharest; ²⁾SC ICPE SA</i>
VIII. BULLETIN OF THE POLYTECHNIC INSTITUTE OF IASI Volume LVI (LX), 4B, Department of Mechanical Engineering, 2010, Iasi - Romania ISSN 1011-2855	
34.	FEM MODEL FOR DETERMINING THE INFLUENCE OF TIRE PRESSURE ON ARTIFICIAL COMPACTION OF AGRICULTURAL SOIL , pg. 347÷356 Biriş S. ¹⁾ , Ungureanu N. ¹⁾ , Vlăduţ V. ²⁾ , Voicu Gh. ¹⁾ , Manea M. ¹⁾ , Crăciun V. ³⁾ <i>¹⁾U.P. Bucharest; ²⁾INMA Bucharest; ³⁾Gh. Asachi Technical Univ. Iasi</i>
IX. RESEARCH JOURNAL OF AGRICULTURAL SCIENCE, Timişoara ISSN 2066-1843	
35.	REDUCING SOIL AND ENVIRONMENT POLLUTION BY SPRAYING MACHINES USING MONITORING SYSTEM , pg. 680-688 Vlăduţ V. ¹⁾ , Voicea I. ¹⁾ , Matache M. ¹⁾ , Bungescu S. ²⁾ , Biriş S. ³⁾ <i>¹⁾INMA Bucharest; ²⁾USAMVB Timişoara; ³⁾U.P. Bucureşti</i>

Other specialty journals: 24

AGRICULTURAL MECHANIZATION Magazine AGRIS Publishing House, ISSN 1011-7296	
1.	PROMOTION IN ROMANIA OF ENERGY PLANT MISCANTHUS AS A RENEWABLE ENERGY SOURCE IN ORDER TO INCREASE COMPETITIVENESS AND ENERGY SECURITTY , no.1-2, pg. 24-28 Cristian Sorica; Voicu Emil; Dragoş MANEA <i>INMA Bucharest</i>
2.	INNOVATIVE TECHNOLOGIES FOR KEEPING AND STORAGE OF CEREAL AND TECHNICAL PLANTS SEEDS TO AGRICULTURAL PRODUCERS , no.1-2, pag. 28-31 Anisoara Paun, P. Găgeanu <i>INMA Bucharest</i>
3.	MECHANIZED PLANTING TECHNOLOGY OF POTATO TUBERS , no. 3-4, pg 20-22 Elena Barbu, Isabela Alexandru <i>INMA Bucuresti</i>
4.	SOWING MACHINE FOR VEGETABLES , no.3-4, pg. 31-32 Eugen Marin <i>INMA Bucharest</i>
5.	PRECISION CENTRALIZED SYSTEM FOR MONITORING AND WARNING OF EQUIPMENT FOR PHYTOSANITARY TREATMENT , no.5-6, pg. 8-14 Iulian Voicea, Mihail Matache, Valentin Vladut, Gh. Bolintineanu <i>INMA Bucharest</i>
6.	HARVESTING OF HAY FODDER , no. 5-6, pg. 14-18 Emil Voicu, Gica Ciurel, Ana Campeanu <i>INMA Bucharest</i>
7.	ADVANTAGES OF USING AGRICULTURAL SEMI-TRAILERS IN COMPARISON WITH THE TRAILERS

	WITH ARTICULATED HITCH , no. 5-6, pg. 19-22 Radu Ciuperca, Ion Pirna, Lucretia Popa Ancuța Nedelcu <i>INMA Bucharest</i>
8.	INSTALLATION TO REMOVE KERNELS-ISS , no.5-6, pg. 28-30 Nicolae Tican <i>INMA Bucharest</i>
9.	TRENDS IN UPGRADING TECHNICAL EQUIPMENT FOR AGRICULTURE , no. 9-10, pg. 2-8 Ion Pirna, N. Bria <i>INMA Bucharest</i>
10.	TECHNICAL EQUIPMENT FOR MISCANTHUS PLANTS CULTIVATION , no. 9-10, pag. 15-26 Eugen Marin, Cristian Sorica, Dragoș Manea <i>INMA Bucharest</i>
11.	TECHNICAL EQUIPMENT AND TECHNOLOGIES FOR CEREAL SEED PROCESSING , no. 9-10, pg. 11-15 Carmen Brăcăcescu <i>INMA Bucharest</i>
12.	HARVESTING AND SILLAGE OF FODDER PLANTS , no. 9-10, pg. 26-31 Emil Voicu, Ion Pirna, Gica Ciurel <i>INMA Bucharest</i>
13.	TECHNOLOGY AND BUSINESS INCUBATOR INMA-ITA Cornelia Ionel-Muraru <i>INMA Bucharest</i>
14.	HARVESTING OF MISCANTHUS CULTURE WITH FODDER COMBINE Emil Voicu, Gica Ciurel, George Lazăr <i>INMA Bucharest</i>
15.	MECHANIZATION TECHNOLOGIES AND MODERN TECHNICAL EQUIPMENT FOR OIL WORKS, DESIGNED AND MANUFACTURED BY INMA Ion Pirnă <i>INMA Bucharest</i>
16.	WORK PROCESSES AND EQUIPMENT FOR CONDITIONING BY CRUSHING THE GREEN FODDER AFTER HARVESTING Simion Popescu ¹⁾ , Bădănoiu Bianca ²⁾ ¹⁾ U. Transylvania from Brasov; ²⁾ INMA Bucharest
GEMS OF THE ROMANIAN SCIENTIFIC RESEARCH Performantica PUBLISHING, Iasi 2010, ISBN 978-973-730-738-5	
17.	SOWING MACHINE FOR GRAIN STRAW DIRECTLY SOWN IN NON -TILLED FIELD Iosif Cojocar, Vergil Gângu, Ion Pirnă, Eugen Marin, Marinela Mateescu <i>INMA Bucharest</i>
18.	MACHINE FOR SOWING AND FERTILIZING HOEING PLANTS DIRECTLY IN STUBBLE FIELD AND ON RIDGES Vergil Gângu, Iosif Cojocar, Ion Pirnă, Eugen Marin, Marinela Mateescu <i>INMA Bucharest</i>
19.	TECHNICAL EQUIPMENT FOR APPLICATION OF MICROBIAL INOCULANTS Dragoș Manea ¹⁾ , Vergil Gângu ¹⁾ , Eugen Marin ¹⁾ , Iosif Cojocar ¹⁾ , Marian Popescu ¹⁾ , Lanyi Szabolcs ²⁾ ¹⁾ INMA Bucharest; ²⁾ Miercurea-Ciuc Sapientia University
HERVEX 2010, XVIII-th Edition ISBN 1454-8003	
20.	TECHNICAL EQUIPMENT FOR MISCANTHUS RHIZOMES HARVESTING Eugen Marin; Ion Pirna; Cristina Sorica - <i>INMA Bucharest</i> Constantin Nicolescu - <i>INOE 2000, Branch Research Institute for Hydraulics and Pneumatics Bucharest</i>
21.	TRAILED VINDROWER FOR FODDER HARVESTING Ciurel Gica, Voicu Emil, Zaica Ana - <i>INMA Bucharest</i> Sovaila Gheorghe - <i>INOE IHP 2000</i>
Fruit Research – A chance for Romanian agriculture", vol. XXVI Pitesti - Romania - 2010, Proceedings, R.I.F.G. Pitesti, ISSN 1584-2231 ICD for Fruit Growing Pitesti - Maracineni, Arges	
22.	RISK ANALYSIS OF EROSION IN HORTICULTURAL AREAS USING DIGITAL PROGRAMMES AND MODELS Petru Cârdei, V. Muraru, Raluca Sfiru, Ion Pirnă <i>INMA Bucharest</i>
SOCIO-ECONOMIC INTERFERENCES AT THE BORDER OF INNOVATION” – III-rd EDITION, 8 October 2010 Innovation and competitiveness in the context of economic crisis ISSN 2069-1475	
23.	THE DEVELOPING POTENTIAL OF SOME CROSS-BORDER CLUSTERS IN ROMANIA- MOLDOVA REPUBLIC AREA Cornelia Muraru-Ionel – <i>Technology and Business Incubator INMA-ITA</i> Christiana Leucuța, Daniel Alexandru Coșniță, Ghenadie Cernei
24.	EXPERIMENTAL INSTALLATION FOR FISH BREEDING IN A RECIRCULATING SYSTEM Petru David, Augustin Pop, Valentin Popovici <i>INMA Bucharest, Timișoara Branch</i>

7.8. Scientific papers presented at international conferences: 18

Annex 7

Den No.	Conference / article / authors	
I. The 10 th International Multidisciplinary Scientific GeoConference SGEM 2010 20 – 26, June, 2010, Volume II ISBN 10: 954-91818-1-2, ISBN 13: 978-954-91818-1-4		
1.	THE STRUCTURE OF A WEB PLATFORM FOR WATER INTEGRATED MANAGEMENT pg. 113 – 120	Muraru Vergil, Pirna Ion, Cardei Petru, Muraru Cornelia
II. THE XI th INTERNATIONAL SCIENTIFIC CONFERENCE "MODERN PROBLEMS OF AGRICULTURAL MECHANICS", НАУКОВИЙ ВІСНИК, section - MACHINES AND MEANS OF MECHANIZATION, 144 Частина 3, Kiev - Goloseyevo, October, 17-19th, 2010 Seria KV 15180 – 3752PR		
2.	REDUCING THE ENVIRONMENT POLLUTION BY USING A MONITORING AND WARNING SYSTEM, pg. 368-376	Matache M., Vlăduț V., Voicea I., Bolintineanu Gh.
3.	DYNAMIC TESTING OF SHOCK ABSORBING SYSTEMS USING A SPECIALIZED STAND, pg. 257÷264	Voicea I., Matache M., Mihai M., Vlăduț V., Biriș S.
III-rd. International Scientific Conference on "ENVIRONMENT AND BIODIVERSITY" ECOLOGICA 59(2010), Godina XVII, Beograd, Serbia ISSN 0354-3285		
4.	ENVIRONMENTAL AND SOIL POLLUTION REDUCTION BY USING A MONITORING AND WARNING CENTRALIZED SYSTEM, pg. 301-308	Vlăduț V., Matache M., Voicea I., Bungescu S., Biriș S., Paraschiv G.
5.	INTRODUCTION OF COMPULSORY CHECKING FOR MACHINERY OF PEST AND DISEASES CONTROL THROUGH CHEMICALS IN ROMANIA IN ORDER TO PROTECT THE BIODIVERSITY, pg. 14	Bungescu S., Vlăduț V., Nagy M., Bolintineanu Gh., Biriș S., Iancu T.
IV. Journal CONTEMPORARY AGRICULTURAL ENGINEERING Vol. 36 (2010), No. 4, Novi Sad, October 2010 YU ISSN 0350-2953, UDK 631 (05)		
6.	VEGETABLE OIL, CLEAN ENERGY SOURCE FOR OBTAINING BIOFUEL, pg. 428-437	Găgeanu P., Vlăduț V., Păun A.
7.	GIVING VALUE TO VEGETAL AND FORESTRY WASTE FOR AGRI-PELLET PRODUCTION IN AGRICULTURAL FARMS, pg. 401-410	Danciu A., Vlăduț V., Chițoiu M., Militaru M., Găgeanu P., Lehr C.
The XII th International Symposium „YOUNG PEOPLE AND MULTIDISCIPLINARY RESEARCH“ ACM-V, 11 – 12 November 2010, Timișoara, Romania ISSN 1843-6609		
8.	CONSIDERATIONS IN CHOOSING THE APPROPRIATE TIRES FOR AGRICULTURAL LAND VEHICLES, pg. 65-72	Biriș S.Ș., Ungureanu N., Bungescu S., Vlăduț V.
IV.The 3-rd International Conference "Advanced Materials and Systems ICAMS 2010, 16-18 Sept. 2010 ISBN 978-86-904721-6-1		
9.	ANTIMICROBIAL BEHAVIOUR IN THE TEXTILE PRODUCTS CONTAINING AMICOR FIBERS	Drambei Petronela, Pricop Floarea,

		Toma Doina
I. Salonul international de hidraulica si pneumatica HERVEX 2010, Editia a XVIII-a, Căciulata, noiembrie 2010 ISBN 1454-8003		
10.	ECHIPAMENT TEHNIC DE RECOLTARE A RIZOMILOR DE MISCANTHUS	Eugen Marin, Ion Pirna, Cristian Sorica, Cosntantin Nicolescu
11	VINDROVER TRACTAT PENTRU RECOLTAT FURAJE	Voicu Emil, Ciurel Gica, Zaica Ana, Sovaila Gheorghe
3rd International Conference ADVANCED COMPOSITE MATERIALS ENGINEERING COMAT 2010 27-29 october 2010, Braşov International Conference RESEARCH & INNOVATION IN ENGINEERING Vol.3 ISSN 1844-9336		
12	TEHNICAL EQUIPMENT IN STRIP TILLAGE, SOWING PLANT HOES, FERTILIZERS AND INSECTICIDE DISTRIBUTIONS Pag. 145-151	E. Marin, C. Sorica, D. Manea, I. Pirna
13	USE FOR CERTAIN VARIETIES OF GRAIN TO PRODUCE HEAT Pag. 237-242	Cristian Sorica, Eugen Marin, Emil Voicu
14	EFICIENT WATER USE FOR IRRIGATION IN ENVIRONMENTAL PROTECTION CONDITIONS Pag. 131-135	Dragoş MANEA, C-tina KOLOZSVARI
International Scientific Conference “AGRICULTURAL ECONOMICS AND RURAL DEVELOPMENT – REALITY AND PROSPECTS FOR ROMANIA” Bucuresti, 23-24 sept.2010 ISBN 978-606-8017-61-7,		
15	RAW VEGETABLE OILS – A GAINFUL ALTERNATIVE TO DIESEL FUEL CONSUMPTION IN SMALL AND MEDIUM FARMS PAG. 136-143	Nicolescu M. PIRNA, VOICU E., LICĂ C
International Scientific Conference USAMV Iasi 2010 Editura Ion Ionescu de Brad LIII (53)		
16	METODE DE COMBATERE ECOLOGICA A GANDACULUI DE COLORADO DIN CULTURA DE CARTOFI ...	Muscalu Adriana, Andrei Ana-Maria, Manea Dragoş
XVII Scientific meeting DEVELOPMENT OF TRACTORS AND MOBILE SYSTEMS Faculty of Agriculture Novi Sad, Serbia, December 3th 2010		
17	THE SHOCK ABSORBERS COMPACT DYNAMIC TESTING PLATFORM	Voicea i., Matache M., Vlăduţ V., Mihai M.
Proceedings of The 38th International Symposium on Agricultural Engineering “ACTUAL TASKS ON AGRICULTURAL ENGINEERING Zagreb, Croatia 2010 ISSN 1333-2651,		
18	SOIL PROPERTIES MAPPING USING SPECTROPHOTOMETRY PAG. 151-161	Muraru V, Cardei P, Muraru C, Pirna I, Tenu I

7.9. Prospective and technological studies, standards, procedures, methodologies and new or improved technical plans ordered or used by the beneficiary

7.9.1 – Prospective Studies: 8

Den.No.	Project Research Contract / trading contract Beneficiary	Output	Reporting/ delivery deadline (month)
YEAR 2010			
1.	Collaborative systems and mechanisms specific to economic clusters and networks of firms in knowledge-based global economy Research Contract no. 92 096 / 01.10.2008 Contracting Authority: CNMP – P4 - PARTNERSHIPS CD: 123 ITA / 2008 - 2011 Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Protocol no. 1556 / 12.11.2007	Prospective Study: Study on systems specific to clusters from agriculture and food industry	December 2010
2.	Collaborative systems and mechanisms specific to economic clusters and networks of companies in knowledge-based global economy Research contract no. 92 096 / 01.10.2008 Contracting Authority: CNMP – P4 - PARTENERSHIPS CD: 123 ITA / 2008 - 2011 Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Protocol no. 1556 / 12.11.2007	Prospective Study: Specific supporting schemes for agriculture and food industry	December 2010
3.	Forecast of agricultural soil losses by erosion and landslides in order to develop solutions to prevent and / or remedy Research contract no. 31 091 / 14.09.2007 Contracting Authority: CNMP – P4 - PARTENERSHIPS CD: 476 / 2007 - 2010 Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Protocol no. 1556 / 12.11.2007	Prospective Study: Study on possibility of using aerial and satellite images to land erosion analysis or to related analysis	September 2010
4.	Forecast of agricultural soil losses by erosion and landslides in order to develop solutions to prevent and / or remedy Research contract no. 31 091 / 14.09.2007 Contracting Authority: CNMP – P4 - PARTENERSHIPS CD: 476 / 2007 - 2010 Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Protocol no. 1556 / 12.11.2007	Prospective Study: Comparative study of the results of estimating programmes on slope stability	September 2010
5.	Increasing the innovation capacity by manufacturing a modern irrigating installation with ramp and watering gun Research contract no. 212 / 12.09.2008 Contracting Authority: AMCSIT P5 – INOVARE CD: 489 / 2008 – 2010 Beneficiary: SC GRUP ROMET SA BUZAU . Cooperation agreement no. 1498/29.10.2008	Prospective Study: Market study on the irrigation installation with ramp and irrigation gun IIRT	May 2010
6.	Research, substantiation and implementation of an information system and satellite control designed to mapping and processing the physical and chemical parameters of agricultural soils to increase agricultural production and environmental protection Research contract no. 15 N / 27.02.2009/ Add.act.no.1 / 2010	Prospective Study: Study on the achievement of an information system for mapping the agricultural soils	March 2010

Den.No.	Project Research Contract / trading contract Beneficiary	Output	Reporting/ delivery deadline (month)
	CD: 511 / 2010 - 2010 Contracting Authority: ANCS Beneficiary: ACADEMY OF AGRICULTURAL AND FORESTRY SCIENCES - ASAS Collaboration Protocol no. 1552 / 08.11.2007		
7.	Monitoring and assessment system of workers safety and health risks Research contract no. 15 N / 27.02.2009/ Add.act no.2 / 2010 CD: 534 / 2010 – 2010 Contracting Authority: ANCS Beneficiary: MANUFACTURERS PATRONATE OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR; ACADEMY OF AGRICULTURAL AND FORESTRY SCIENCES - ASAS Collaboration Protocol no. 1556 / 12.11.2007 Collaboration Protocol no. 1552 / 08.11.2007	Prospective Study: Study on the identification and assessment of labour health and safety risks applicable	August 2010
8.	Monitoring and assessment system of risks for workers' health and safety Research contract no. 15 N / 27.02.2009/ Add. act.no.2 / 2010 CD: 534 / 2010 – 2010 Contracting Authority: ANCS Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR; ACADEMY OF AGRICULTURAL AND FORESTRY SCIENCES - ASAS Collaboration Protocol no. 1556 / 12.11.2007 Collaboration Protocol no. 1552 / 08.11.2007	Prospective Study: Study on identification and assessment of labour security and safety risks for each component of the work system	December 2010

7.9.2 – Technological studies: 3

Den.No.	Project Research Contract / trade contract Beneficiary	Output	Reporting / delivery deadline (month)
YEAR 2010			
1.	Research on the conversion, recovering, storage and reutilization of hydrostatic energy in hydraulic driving systems Research contract no. 22 135 / 01.10.2008 Contracting Authority: CNMP – P4 – PARTENERSHIPS CD: 502 / 2008 - 2011 Beneficiary: ACADEMY OF AGRICULTURAL AND FORESTRY SCIENCES - ASAS Collaboration Protocol no. 1552 / 08.11.2007	Technological study: Technological study on developing technical study and technical solutions for hydrostatic energy recovery at agricultural machines	December 2010
2.	Embedded anti-error monitoring systems for high complexity flexible manufacturing processes Research contract no. 72 204 / 01.10.2008 Contracting Authority: CNMP – P4 - PARTENERSHIPS CD: 505 / 2008 - 2011 Beneficiary: ACADEMY OF AGRICULTURAL AND FORESTRY SCIENCES - ASAS Collaboration Protocol no. 1552 / 08.11.2007	Technological study: Technological study on methods of identifying the phase / milestone / process	December 2010
3.	Clean technology for improving the soil fertility using green manure suitable to sustainable agriculture	Technological study: Technological study	August 2010

Den.No.	Project Research Contract / trade contract Beneficiary	Output	Reporting / delivery deadline (month)
	Research contract no. 15 N / 27.02.2009 / Add.act 2 / 2010 Contracting Authority: ANCS CD: 533 / 2010 – 2010 Beneficiary: ACADEMY OF AGRICULTURAL AND FORESTRY SCIENCES - ASAS Collaboration Protocol no. 1552 / 08.11.2007	on promoting environmental technologies to improve soil fertility by using green manure	

7.9.3 – Procedures: 6

Den.No.	Project Research Contract / trade contract Beneficiary	Output	Reporting / delivery deadline (month)
YEAR 2010			
1.	Innovative technique for establishing cereal crops in sustainable system, which limits soil degradation, conserves biodiversity and contributes to the qualitative growth of agricultural productivity Research contract no. 21 048 / 14.09.2007 Contracting Authority: CNMP P4 – PARTENERSHIPS CD: 462 / 2007 – 2010 Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR; Protocol no. 1556/12.11.2007	Testing procedure for technical equipment with working parts for preparing the soil and and sowing cereals – PI-SGR	June 2010
2.	Increasing the capacity of innovation through the manufacturing of a modern installation for irrigation with ramp and gun irrigation Research contract no. 212 / 12.09.2008 Contracting Authority: AMCSIT P5 – INOVARE CD: 489 / 2008 – 2010 Beneficiary: SC GRUP ROMET SA BUZAU Cooperation agreement no.1498/29.10.2008	Testing procedure for the watering installation with ramp and gun irrigation – PI-IIRT	May 2010
3.	Automation of dynamic testig process of shock absorbing systems specific to construction of technical equipment Research contract no. 15 N / 27.02.2009/ Act.ad.nr.1 / 2010 CD: 520 / 2010 – 2010 Contracting Authority: ANCS Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Collaboration Protocol no. 1556/12.11.2007	Procedure for obtaining the elastic characteristic Fs using the compact platform for testing dampers PCIA	February 2010
4.	Automation of dynamic testig process of shock absorber systems specific to construction of technical equipment Research contract no. 15 N / 27.02.2009/ Add.act no.1 / 2010 CD: 520 / 2010 – 2010 Contracting Authority: ANCS Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Collaboration Protocol no. 1556/12.11.2007	Checking procedure of shock absorber operation by means of compact platform for testing dampers PCIA	February 2010
5.	Automation of dynamic testig process of shock absorber	Procedure for making damper	February

Den.No.	Project Research Contract / trade contract Beneficiary	Output	Reporting / delivery deadline (month)
	systems specific to construction of technical equipment Research contract no. 15 N / 27.02.2009/ Add.act no 1 / 2010 CD: 520 / 2010 – 2010 Contracting Authority: ANCS Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Collaboration Protocol no. 1556/12.11.2007	running-in using the compact platform for testing dampers PCIA	2010
6.	Automation of dynamic testig process of shock absorber systems specific to construction of technical equipment Research contract no. 15 N / 27.02.2009/ Add.act no.1 / 2010 CD: 520 / 2010 – 2010 Contracting Authority: ANCS Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Collaboration Protocol no. 1556/12.11.2007	Procedure for obtaining maximum stroke of shock absorber using the compact platform for testing dampers PCIA	February 2010

7.9.4 – Methodologies: 31

Den. No.	Project Research Contract / trading contract Beneficiary	Output	Reporting / delivery deadline (month)
YEAR 2010			
1.	Innovative technique for establishing sustainable cereal crops which limits soil degradation, conserves biodiversity and contributes to the qualitative growth of agricultural productivity Research contract no. 21 048 / 14.09.2007 Contracting Authority: CNMP P4 – PARTENERSHIPS CD: 462 / 2007 – 2010 Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Protocol no. 1556/12.11.2007	Method of demonstrating the functionality and utility of the experimental model and innovative technology for establishing sustainable grain crops	June 2010
2.	Technology for the recovery of agricultural and forestry solid biomass to obtain clean energy and reduce emissions of greenhouse gases Research contract no. 21 008 / 14.09.2007 Contracting Authority: CNMP P4 – PARTENERSHIPS CD: 463 / 2007 – 2010 Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Protocol no. 1556/12.11.2007	Methodology for plant wastes chopper experimenting TRV (MET – 02)	June 2010
3.	Technology for the recovery of agricultural and forestry solid biomass to obtain clean energy and reduce emissions of greenhouse gases Research contract no. 21 008 / 14.09.2007 Contracting Authority: CNMP P4 – PARTENERSHIPS CD: 463 / 2007 – 2010 Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Protocol no. 1556/12.11.2007	Methodology for experimenting the tilting conveyor with belt, TIB (MET – 04)	June 2010
4.	Technology for the recovery of agricultural and forestry solid	Methodology for expermenting the	June 2010

Den. No.	Project Research Contract / trading contract Beneficiary	Output	Reporting / delivery deadline (month)
	biomass to obtain clean energy and reduce emissions of greenhouse gases Research contract no. 21 008 / 14.09.2007 Contracting Authority: CNMP P4 – PARTENERSHIPS CD: 463 / 2007 – 2010 Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Protocol no. 1556/12.11.2007	conveyor of feeding the press, TAP (MET – 05)	
5.	Technology for the recovery of agricultural and forestry solid biomass to obtain clean energy and reducing emissions of greenhouse gases Research contract no. 21 008 / 14.09.2007 Contracting Authority: CNMP P4 – PARTENERSHIPS CD: 463 / 2007 – 2010 Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Protocol no. 1556/12.11.2007	Methodology for testing the equipment for technology experimenting (MET – 00)	June 2010
6.	Technology for the recovery of agricultural and forestry solid biomass to obtain clean energy and reducing emissions of greenhouse gases Research contract no. 21 008 / 14.09.2007 Contracting Authority: CNMP P4 – PARTENERSHIPS CD: 463 / 2007 – 2010 Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Protocol no. 1556/12.11.2007	Methodology for testing the forestry wastes chopper Skorpion (MET – 01)	June 2010
7.	Technology for the recovery of agricultural and forestry solid biomass to obtain clean energy and reducing emissions of greenhouse gases Research contract no. 21 008 / 14.09.2007 Contracting Authority: CNMP P4 – PARTENERSHIPS CD: 463 / 2007 – 2010 Beneficiary: MANUFACTURERS PATRONATE OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Protocol no. 1556/12.11.2007	Methodology for testing the vegetale wastes shredder – hammer mill TCU (MC – 22), (MET - 08)	June 2010
8.	Technology for the recovery of agricultural and forestry solid biomass to obtain clean energy and reducing emissions of greenhouse gases Research contract no. 21 008 / 14.09.2007 Contracting Authority: CNMP P4 – PARTENERSHIPS CD: 463 / 2007 – 2010 Beneficiary: : MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Protocol no. 1556/12.11.2007	Methodology for testing vegetal wastes homogenizer (MET 03)	June 2010
9.	Technology for the recovery of agricultural and forestry solid biomass to obtain clean energy and reducing emissions of greenhouse gases Research contract no. 21 008 / 14.09.2007 Contracting Authority: CNMP P4 – PARTENERSHIPS CD: 463 / 2007 – 2010 Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Protocol no. 1556/12.11.2007	Methodology for refiner testing (MET 06)	June 2010
10.	Technology for the recovery of agricultural and forestry solid biomass to obtain clean energy and reducing emissions of greenhouse gases Research contract no. 21 008 / 14.09.2007	Methodology for testing the press of manufacturing pellets (MET 07)	June 2010

Den. No.	Project Research Contract / trading contract Beneficiary	Output	Reporting / delivery deadline (month)
	Contracting Authority: CNMP P4 – PARTENERSHIPS CD: 463 / 2007 – 2010 Beneficiary: : MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Protocol no. 1556/12.11.2007		
11.	Technology for the recovery of agricultural and forestry solid biomass to obtain clean energy and reducing emissions of greenhouse gases Research contract no. 21 008 / 14.09.2007 Contracting Authority: CNMP P4 – PARTENERSHIPS CD: 463 / 2: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Protocol no. 1556/12.11.2007	Methodology for testing the technology of manufacturing pellets and agri-pellets (MET – TEH)	June 2010
12.	The achievement of technologies and corresponding products for sustainable development applied to corn in stages of pre maturation in order to ensure food security and sanitary - veterinary protection Research contract no. 51 041 / 14.09.2007 Contracting Authority: CNMP P4 – PARTENERSHIPS CD: 468 / 2007 – 2010 Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Protocol no. 1556 / 12.11.2007	Methodology for testing the equipment for harvesting sweet corn	September 2010
13.	Microbial inoculants for sustainable farming systems Research contract no. 31 048/ 14.09.2007 Contracting Authority: CNMP P4 – PARTENERSHIPS CD: 471 / 2007 – 2010 Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Protocol no. 1556 / 12.11.2007	Demonstration method of equipment for the application of microbial inoculants INOC	December 2010
14.	Modernizing primary grain processing technologies in order to obtain high quality agro-food, proper to principles of sustainable development and food security Research contract no. 51 062 / 14.09.2007 Contracting Authority: CNMP – P4 – PARTENERSHIPS CD: 474 / 2007 – 2010 Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Protocol no. 1556/12.11.2007	Methodology on testing Primary Cereals processing technology	June 2010
15.	Forecast of losses of agricultural soil by erosion and landslides losses in order to develop solutions to prevent and / or remedy them Research contract no. 31 091 / 14.09.2007 Contracting Authority: CNMP – P4 - PARTENERSHIPS CD: 476 / 2007 - 2010 Beneficiary: ACADEMY OF AGRICULTURAL AND FORESTRY SCIENCES - ASAS Protocol no. 1552 / 08.11.2007	Method and technique of drawing up risk maps for the phenomena of surface rainwater erosion and landslides	September 2010
16.	Forecast of losses of agricultural soil by erosion and landslides losses in order to develop solutions to prevent and / or remedy them Research contract no. 31 091 / 14.09.2007 Contracting Authority: CNMP – P4 - PARTENERSHIPS CD: 476 / 2007 - 2010 Beneficiary: ACADEMY OF AGRICULTURAL AND FORESTRY SCIENCES - ASAS Protocol no. 1552 / 08.11.2007	Method of making maps of erosion risk and landslides using digital models of land surveying (DEM)	September 2010

Den. No.	Project Research Contract / trading contract Beneficiary	Output	Reporting / delivery deadline (month)
17.	Development of environmental friendly products, made of biodegradable materials, designed to achieve the packaging and protection elements Research contract no. 31 039 / 14.09.2007 Contracting Authority: CNMP P4 – PARTENERSHIPS CD: 477 / 2007 – 2010 Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Protocol no. 1556/12.11.2007	Methodology for demonstration and presentation of Technology for manufacturing and control the protective biodegradable packages	May 2010
18.	Technology to promote the energetic plant Miscanthus in Romania as a renewable source in order to increase competitiveness and energy security Research contract no. 21 038 / 14.09.2007 Contracting Authority: CNMP P4 – PARTENERSHIPS CD: 478 / 2007 – 2010 Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Protocol no. 1556/12.11.2007	Methodology for testing the equipment for harvesting Miscanthus – EPI	May 2010
19.	Increasing the capacity for innovation by manufacturing modern installations for irrigation with a ramp and watering gun Research contract no. 212 / 12.09.2008 Contracting Authority: AMCSIT P5 – INNOVATION CD: 489 / 2008 – 2010 Beneficiary: SC GRUP ROMET SA BUZAU Cooperation agreement no.1498/29.10.2008	Methods of demonstrating the installation of irrigation with ramp and watering gun IIRT	May 2010
20.	Biodegradable lubricating and cooling fluid with multiple operation Research contract no. 32 104 / 01.10.2008 Contracting Authority: CNMP P4 – PARTENERSHIPS CD: 494 / 2008 – 2011 Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Protocol no. 1556/12.11.2007	Methodology for determining the tribological parameters of eco biodegradable fluids MET TRIB	November 2010
21.	Biodegradable lubricating and cooling fluid with multiple operation Research contract no. 32 104 / 01.10.2008 Contracting Authority: CNMP P4 — PARTENERSHIPS CD: 494 / 2008 – 2011 Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Protocol no. 1556/12.11.2007	Methodology for determining the effects of contamination with abrasive particles on the tribological performance and durability - MET CONT	November 2010
22.	Unified system of information exchange in the market surveillance field Research contract no.: 33 / 03.11.2008 Contracting Authority: MINISTRY OF ECONOMY – RESEARCHING SECTORIAL PLAN CD: 498 / 2008 - 2010 Beneficiary: : MINISTRY OF ECONOMY	Methodology for implementing the computer software applications for market surveillance system (including actions to improve)	May 2010
23.	Data processing system of soil electro-conductivity for explaining the crop maps Research contract no. 15 N / 27.02.2009 / Add.act 2 / 2010 CD: 512 / 2010 – 2010 Contracting Authority: ANCS Beneficiary: ACADEMY OF AGRICULTURAL AND FORESTRY SCIENCES - ASAS Collaboration Protocol no. 1552 / 08.11.2007	Methodology for creating maps of soil productivity	August 2010

Den. No.	Project Research Contract / trading contract Beneficiary	Output	Reporting / delivery deadline (month)
24.	Testing the resistance of the towing eye of subassem. MA6 - 1.0 Research contract no.: 921 / 29.05.2009 CD: 518 / 2010 - 2010 Beneficiary: SC MAT SA Craiova	Methodology for testing the resistance of the towing eye, from the ESA MA 6 - 1.0 subassembly which equips the product „trailer carrying dangerous goods” RTP 5	April 2010
25.	Automating the process of dynamic testing of shock absorbers systems specific to construction of tehcnical equipment Research contract no. 15 N / 27.02.2009/ Act.ad. 1 / 2010 CD: 520 / 2010 – 2010 Contracting Authority: ANCS Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Collaboration Protocol no. 1556/12.11.2007	Methodology for dampers bench testing	February 2010
26.	Reducing the environment / soil pollution and increasing the quality of work indicators of the technical equipments for plant protection by integrating a monitoring and warning centralized system Research contract no. 15 N / 27.02.2009/ Add.act 1 / 2010 CD: 522 / 2010 – 2010 Contracting Authority: ANCS Beneficiary: MANUFACTURING ASSOCIATION TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Collaboration Protocol no. 1556 / 12.11.2007	Methodology for testing the functionality of monitoring and warning system SM - 0	March 2010
27.	Extending the silkworm breeding farm field in Romania by creating an innovative new technology and a competitive machinery Research contract no. 15 N / 27.02.2009 / Add.act. 1 / 2010 CD: 523 / 2010 – 2010 Contracting Authority: ANCS Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Collaboration Protocol no. 1556/12.11.2007	Methodology for testing the oven for stifling of cocoons	September 2010
28.	Research on testing of seat belt anchorages according to the D 76/115/CEE modified through D 2005/41/CE, at the seat that is mounted on MAT 81 tractor CD: 531/ 2010 – 2010 Beneficiary: SC MAT SA CRAIOVA	Methodology for testing seat belt anchorages according to the D 76/115/CEE modified through D 2005/41/CE, at the seat that is mounted on MAT 81 tractor	Juin 2010
29.	Clean technology for improving soil fertility using green manure suitable for sustainable agriculture Research contract no. 15 N / 27.02.2009 / Add.act. 2 / 2010 CD: 533/ 2010 – 2010 Contracting Authority: ANCS Beneficiary: ACADEMY OF AGRICULTURAL AND FORESTRY SCIENCES - ASAS Collaboration Protocol no. 1552 / 08.11.2007	Methodology for the technological process of establishing and maintenance of cover crops	Octomber 2010
30.	Clean technology for improving soil fertility using green manure suitable for sustainable agriculture Research contract no. 15 N / 27.02.2009 / Add.act2 / 2010 CD: 533/ 2010 – 2010 Contracting Authority: ANCS	Methodology for the technological process of preparing the vegetal mulch in	Octomber 2010

Den. No.	Project Research Contract / trading contract Beneficiary	Output	Reporting / delivery deadline (month)
	Beneficiary: ACADEMY OF AGRICULTURAL AND FORESTRY SCIENCES - ASAS Collaboration Protocol no. 1552 / 08.11.2007	order to introduce it into soil as green manure	
31.	System for monitoring and assessing risks to health and safety of workers Research contract no. 15 N / 27.02.2009/ Act.ad. 2 / 2010 CD: 534 / 2010 – 2010 Contracting Authority: ANCS Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Beneficiary: ACADEMY OF AGRICULTURAL AND FORESTRY SCIENCES - ASAS Collaboration Protocol no. 1556/12.11.2007 Collaboration Protocol no. 1552/ 08.11.2007	Methodology for scientific and technical substantiation for human resources management in INMA, in terms of safety and health of workers	August 2010

7.9.5 – Technical plans: 16

Den.no.	Project Research Contract / trading contract Beneficiary	Output	Deadline for reporting / delivery (month)
YEAR 2010			
1.	Increasing the capacity of innovation by manufacturing a modern installation for irrigation with with ramp and watering gun Research contract no. 212 / 12.09.2008 Contracting Authority: AMCSIT P5 – INNOVATION CD: 489 / 2008 – 2010 Beneficiary: SC GRUP ROMET SA BUZAU Cooperation agreement no. 1498 / 29.10.2008	Technical Plan of installation for irrigation with ramp and watering gun IIRT - 0	May 2010
2.	Research on promoting of a complex system for assessing soil mechanical and physical characteristics in order to increase safety and security of agricultural production Research contract no. 52 120 / 01.10.2008 Contracting Authority: CNMP – P4 - PARTENERSHIPS CD: 493 / 2008 - 2011 Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Protocol no. 1556 / 12.11.2007	Technical Plan of penetrometer actuator DAP	December 2010
3.	Interdisciplinary applied researches and development of an advanced technology of differentiation, decision and focussed control on management of weeds from hoeing cultures as a component of Precision Agriculture System Research contract no. 52 178 / 01.10.2008 Contracting Authority: CNMP – P4 - PARTENERSHIPS CD: 500 / 2008 - 2011 Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Protocol no. 1556 / 12.11.2007	Technical Plan for micro herbicides car CME - 0	December 2010
4.	Research on the development of advanced clean energy solutions for recovery of granular waste wood in order to create alternative energy sources Research contract no. 22 130 / 01.1 PARTENERSHIPS CD: 501 / 2008 - 2011	Technical Plan of the vertical conveyor MP – 4.0	December 2010

Den.no.	Project Research Contract / trading contract Beneficiary	Output	Deadline for reporting / delivery (month)
	Beneficiary: MANUFACTURING ASSOCIATION OF TRACTORS AND AGRICULTURAL MACHINERY IN ROMANIA - PACTMAR Protocol no. 1556 / 12.11.2007		
5.	Technological equipment for the sturgeon breeding facility in HERNEACOVA area Research contract no.64 / 25.10.2010 CD: 541 / 2010 - 2010 Beneficiary: SC SPATIU UAD SRL	Technical Plan for technological equipment designed to sturgeon breeding space in HERNEACOVA area	December 2010
6.	Technological equipment for the sturgeon breeding space in HERNEACOVA area Research contract no.64 / 25.10.2010 CD: 541 / 2010 - 2010 Beneficiary: SC SPATIU UAD SRL	Technical Plan for water supply installation – 3m pools module	December 2010
7.	Technological equipment for the sturgeon breeding space in HERNEACOVA area Research contract no.64 / 25.10.2010 CD: 541 / 2010 - 2010 Beneficiary: SC SPATIU UAD SRL	Technical Plan for modular biological filter	December 2010
8.	Technological equipment for the sturgeon breeding space in HERNEACOVA area Research contract no.64 / 25.10.2010 CD: 541 / 2010 - 2010 Beneficiary: SC SPATIU UAD SRL	Technical Plan for module biological filter	December 2010
9.	Technological equipment for the sturgeon breeding space in HERNEACOVA area Research contract no.64 / 25.10.2010 CD: 541 / 2010 - 2010 Beneficiary: SC SPATIU UAD SRL	Technical Plan for drain installation – 3m pools module	December 2010
10.	Technological equipment for the sturgeon breeding space in HERNEACOVA area Research contract no.64 / 25.10.2010 CD: 541 / 2010 - 2010 Beneficiary: SC SPATIU UAD SRL	Technical Plan for air supply installation – 3m pools module	December 2010
11.	Technological equipment for the sturgeon breeding space in HERNEACOVA area Research contract no.64 / 25.10.2010 CD: 541 / 2010 - 2010 Beneficiary: SC SPATIU UAD SRL	Technical Plan for oxygen supply installation – 3m pools module	December 2010
12.	Technological equipment for the sturgeon breeding space in HERNEACOVA area Research contract no.64 / 25.10.2010 CD: 541 / 2010 - 2010 Beneficiary: SC SPATIU UAD SRL	Technical Plan for fresh water supply installation from drilling	December 2010
13.	Technological equipment for the sturgeon breeding space in HERNEACOVA area Research contract no.64 / 25.10.2010 CD: 541 / 2010 - 2010 Beneficiary: SC SPATIU UAD SRL	Technical Plan for water supply installation – 4.5m pools module	December 2010
14.	Technological equipment for the sturgeon breeding space in HERNEACOVA area Research contract no.64 / 25.10.2010 CD: 541 / 2010 - 2010 Beneficiary: SC SPATIU UAD SRL	Technical Plan for drain installation –4.5 m pools module	December 2010
15.	Technological equipment for the sturgeon breeding space in HERNEACOVA area	Technical Plan for air supply installation –	December 2010

Den.no.	Project Research Contract / trading contract Beneficiary	Output	Deadline for reporting / delivery (month)
	Research contract no.64 / 25.10.2010 CD: 541 / 2010 - 2010 Beneficiary: SC SPATIU UAD SRL	4.5m pools module	
16.	Technological equipment for the sturgeon breeding space in HERNEACOVA area Research contract no.64 / 25.10.2010 CD: 541 / 2010 - 2010 Beneficiary: SC SPATIU UAD SRL	Technical Plan for oxygen supply installation – 4,5m pools module	December 2010

7.9.6 – Experimental models: 9

Den.No.	Project Research Contract / trading contract Beneficiary	Output	Reporting/delivery deadline (month)
YEAR 2010			
1.	Technology for restoring agricultural and forestry solid biomass to obtain clean energy and reducing emissions of greenhouse gases Research contract no. 21 008 / 14.09.2007 CD: 463 / 2007 – 2010 Contracting Authority: CNMP P4 – PARTENERSHIPS	Experimental model: Exhaust conveyor (outlet conveyor of press TAP – 0)	June 2010
2.	Technology for restoring agricultural and forestry solid biomass to obtain clean energy and reducing emissions of greenhouse gases Research contract no. 21 008 / 14.09.2007 CD: 463 / 2007 – 2010 Contracting Authority: CNMP P4 – PARTENERSHIPS	Experimental model: Supply conveyor (inclined belt conveyor TIB - 0)	June 2009
3.	Innovative technologies for afforestation tillage, in order to conserv biological and ecological diversity Research contract no. 15 N / 27.02.2009/ Add.act.ad. 2 / 2010 CD: 506 / 2010 – 2010 Contracting Authority: ANCS	Experimental model: Working soil equipment designed to afforestation EPI - 0	November 2010
4.	Improving the current technology and developing a new competitive product , for mechanizing in horticultural nurseries and production of dendrological material Research contract no. 15 N / 27.02.2009/ Add.act. 2 / 2010 CD: 507 / 2010 – 2010 Contracting Authority: ANCS	Experimental model: Equipment to extract plants with soil package EXPLANT 500	August 2010
5.	Development of a technology for restoring Miscanthus rhizomes in view of an efficient establishment of this energy culture Research contract no. 15 N / 27.02.2009/ Add.act 1 / 2010 CD: 508 / 2010 – 2010 Contracting Authority: ANCS	Experimental model: Technical equipment for Miscanthus rhizomes harvesting ERR	March 2010
6.	Research and development of a technology for primary processing of medicinal and aromatic plants to conserve their therapeutic qualities and their effective recovery Research contract no. 15 N / 27.02.2009/ Add.act no.2 / 2010 CD: 509 / 2010 – 2010 Contracting Authority: ANCS	Experimental model: Primary processing equipment of medicinal and aromatic plants – EPM Sorter for cut plants – EPM 1.0	October 2010

Den.No.	Project Research Contract / trading contract Beneficiary	Output	Reporting/delivery deadline (month)
7.	Research and development of a technology for primary processing of medicinal and aromatic plants to conserve their therapeutic qualities and their effective recovery Research contract no. 15 N / 27.02.2009/ Add.act no. 2 / 2010 CD: 509 / 2010 – 2010 Contracting Authority: ANCS	Experimental model: Primary processing equipment of medicinal and aromatic plants – EPM Inclined conveyor EPM – EPM 2.0	October 2010
8.	Innovative technology for tillage and establishment of hoeing plant crops suitable to sustainable agriculture adapted to specific climatic conditions of Romania's regions Research contract no. 15 N / 27.02.2009/ Add.act no. 1 / 2010 CD: 519 / 2010 – 2010 Contracting Authority: ANCS	Experimental model: Technical equipment allowing loosening and processing the soil in narrow strips	July 2010
9.	Extension of silkworms breeding domain in Romania by creating a new innovative technology and a competitive technical equipment Research contract no. 15 N / 27.02.2009/ Add.act no. 1 / 2010 CD: 523 / 2010 – 2010 Contracting Authority: ANCS	Experimental model: Stiffling oven for cocoons CE - 0	July 2010

7.10. Copyright protected by ORDA or by legal similar systems: -

7.11. Members in editorial boards of ISI acknowledged journals (or included in international data base) and international editorial boards: 2

Den. no.	NAME	JOURNAL
1.	Pirnă Ion	TEXTILE INDUSTRY ISSN 1222 -5347, Acknowledged CNCISIS A cat. (ISI) 2007
2.	Vlăduț Valentin	TRAKTORI I POGONSKE MASINE JOURNAL OF SCIENTIFIC SOCIETY OF POWER MACHINES, TRACTORS AND MAINTENANCE Novi Sad, Serbia; ISSN 0354-9496

**7.12. Members in editorial boards of nationally acknowledged journals
(B+ category in CNCIS classification):** 9

Den. no	Name	Journal/publishing house title
1.	Piră Ion	INMATEH - AGRICULTURAL ENGINEERING ISSN: 2068 – 2239; ISSN: 2068 – 4215 Acknowledged by CNCIS, B category, position 737/11949/2009
2.	Voicu Emil	
3.	Ganea Ioan	
4.	Vlăduț Valentin	
5.	Drâmbei Petronela	
6.	Muraru Vergil	
7.	Nedelcu Mihail	
8.	Barbu Mihaela	
9.	Țicu Tania	

7.13. International prizes obtained by selection process: 25

Table 7.13

Den. No.	Denomination of Salon / Fair / Contest	Prizes
1	International Salon of Inventions in Geneva, Switzerland, 21-25 April 2010	2 silver medals 1 bronze medal 3 excellency diplomas
2	International Salon of Inventions in Moscow, Russia, 8 – 10 September 2010	1 bronze medal
3	International Fair of HANNOVER MESSE Germany, 19 – 23 April 2010	Excellency diploma
4	International Salon INVENTIKA 2010, ROMEXPO, Bucharest 6 – 9 October 2010	1 WIPO prize 3 gold medals 1 silver medal 1 bronze medal 1 special prize
5	IENA International Salon - Nuremberg, Germany, 28 – 31 October 2010	1 silver medal 1 special prize
6	International FAIR of Inventions: “INVENT-INVEST SIR-20” Iași, 22-26 November 2010	INVENT-INVEST medal 1 Diploma of honour
7	INNOVA International SALON 2010 - Bruxelles, 18 – 20 November	1 gold medal 1 silver medal 1 special prize
8	International Salon of Inventions in Warsaw, Poland, Decembre 2010	2 silver medals 1 bronze medal
Total		25

- The poster is for the 'DIPLOME INVENTIONS GENEVA' exhibition. At the top, the word 'DIPLOME' is written in large, red, serif capital letters. Below it, the word 'Inventions' is in a smaller, black, sans-serif font, with 'Geneva' in red below it. The main title 'SALON INTERNATIONAL DES INVENTIONS' is in large, black, serif capital letters, followed by 'GENÈVE' in red. Below the title, there is a line of text in French: 'Représentation officielle internationale à Genève'. Then, it says 'En partenariat avec' followed by 'MUSEUMS, UNIVERSITÉS ET UNIVERSITÉS' and 'pour les Enseignants, pour les Salons d'Invention et l'Exposition'. Below that, it says 'pour l'Enseignement des Mathématiques et de la Physique'. There are two circular logos on the left: one for 'MUSEUMS, UNIVERSITÉS ET UNIVERSITÉS' and another for 'MUSEUMS, UNIVERSITÉS ET UNIVERSITÉS'. On the right, it says 'Genève, du 22 avril 2013'. At the bottom, there is a stylized drawing of a person sitting at a desk with a lamp, and the text 'MUSEUMS, UNIVERSITÉS ET UNIVERSITÉS' and 'MUSEUMS, UNIVERSITÉS ET UNIVERSITÉS'.

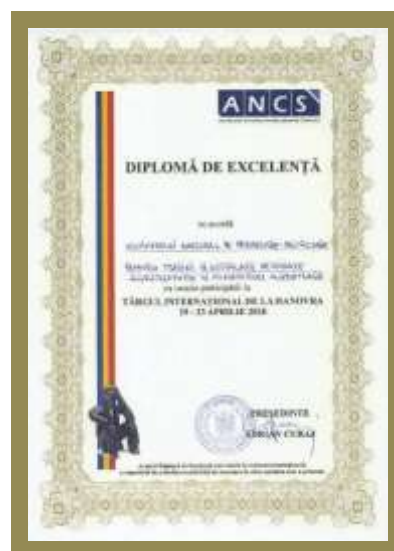




- Participation to International Salon of Inventions in Moscow- Russia, 8-10 September 2010



Diploma and Bronze medal



Excelency Diploma

- Participation to International Fair of HANNOVER MESSE, 19-23 April 2010
- Participation to INVENTIKA International Salon, ROMEXPO, Bucharest 6 – 9 October 2010



Great Prize OMPI



Special Prize of Jury from Iran
 ANCS Prizes to INVENTIKA exhibition:





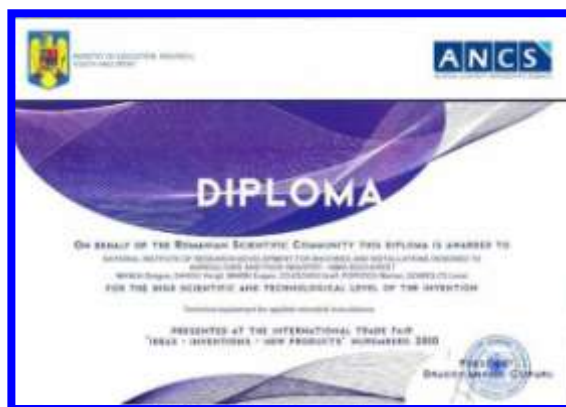
- Participation to the IIIrd International Congress of Researchers and Inventors in Romania

Bucharest, 9 – 10 October 2010



- Participation to iENA International Exhibition - Nuremberg, Germania
28 – 31 October 2010





- Participation to International Fair “INVENT-INVEST SIR-20” Iași, 22-26 November 2010



- Participation to INNOVA International SALON 2010 - Bruxelles, 18 – 20 November





- Participation to International Salon of Inventors in Warsaw, Poland, December 2010

Diploma and Silver Medal
MACHINE FOR BULB PLANTS CONDITIONING
 Patent no. 121802/2008

Diploma and Silver Medal
CYLINDRICAL GAUGING DEVICE FOR SEPARATING THE SEEDS OF CEREALS AND TECHNICAL PLANTS
 Patent no. 122401/2009

Diploma and Bronze Medal
GREEN FODDER ENSILING MACHINE
 Patent no. 123104/2010



7.14. National Prizes (of Romanian Academy, CNCIS, and so on)

- 2010 ASAS Prizes



7.15. Number of doctor degree coordinators, members of the research unit: -**7.16. Number of doctors, members of the research unit: 26**

Den. no.	Name and surname	Professional Degree	Year of Thesis Awarding
1.	Alexandru Isabela	SR III	1999
2.	Bădănoiu Bianca	SR II	2004
3.	Bodea Codruț	SR III	2008
4.	Cioica Nicolae	TDE II	2006
5.	Ciupercă Radu	SR II	1999
6.	Constantin Nicolae	SR I	2000
7.	Cristea Mircea	SR I	1997
8.	Drâmbei Petronela	SR I	2003
9.	Ganea Ioan	TDE II	2009
10.	Găgeanu Paul	SR I	2002
11.	Ivan Gheorghe	TDE II	2009
12.	Koloszvary Constantina	SR III	2008
13.	Mateescu Marinela	SR II	2004
14.	Marin Eugen	SR II	2004
15.	Muraru-Ionel Cornelia	SR I	1998
16.	Muraru Vergil	SR I	2001
17.	Nedelcu Ancuta	SR II	2004
18.	Nedelcu Mihail	SR III	2010
19.	Nicolescu Mircea	SR I	2007
20.	Păun Anișoara	SR I	2004
21.	Piră Ion**	SR I	1997
22.	Pop Augustin	SR I	2000
23.	Popa Lucreția	SR II	2004
24.	Stanciu Lucian	TDE I	2006
25.	Vlăduț Valentin*	SR II	2004
26.	Voicu Emil**	SR I	2007

* Graduate of two MS degrees; ** Member in commissions of Ph.D

7.17. Published Books/Chapters: 1

Den.N o.	Title of book	Publishing House / ISBN	Principal author
1.	TECHNOLOGIES AND TECHNICAL EQUIPMENT FOR HARVESTING AND ENSILAGE OF THE FODDER PLANTS	Terra Nostra-Iași ISBN 978-973-1888-56-9	Emil VOICU

8. Measures for increasing the prestige and visibility of INCD

8.1. Presentation of collaboration activity and partnerships

- ♦ Developing of partnerships at the national and international level (personalities/ institutions)
- ♦ Registering INCD in international data bases for promoting partnerships
- ♦ Registering INCD as a member in research networks/ member in prestigious professional associations on national / international level:
 - PACTMAR – Manufacturers Employers Association of Tractors and Agricultural Machines in Romania;
 - SIMAR – Society of Romanian agricultural mechanics engineers;
 - ReNITT – National Network for Innovation and Technological Transfer;
 - ASRO – Standardization Association in Romania;
 - RENAR – Romanian Accrediting Association;
 - RAR – Romanian Auto Register;
 - CNCPIR – National Chamber of Counsellors in Intellectual Property in Romania
 - ASAS – Academy of Agricultural and Forestry Sciences "Gheorghe Ionescu-Sisesti"
 - SIR – Society of Inventors in Romania
 - BIOCARO – Romanian Biofuels Platform;
 - ARoTT – Romanian Association of Technological Transfer;
 - ROCASCO – Committee for Conformity Assessment;
 - CT 77 – Technical Committee – Machines and Agricultural Equipment;
 - FOOD for LIVE Platform;
 - MANUFUTURE Platform.

International consortiums:

- 1. THE UNIVERSITY OF ROUSSE “Angel Kanchev”, Ruse/Bulgaria;**
- 2. THE RESEARCH INSTITUTE FOR FISHING AND IRRIGATION (HAKI), Szarvas – Hungary.**

International Networks:

- 1. THE EUROPEAN HYGIENIC ENGINEERING & DESIGN GROUP – (EHEDG) Frankfurt, Germany.**

Scientific events organised by the institute

In 2010, **INMA organised** three national symposiums with international participation.

Scientific papers selected by scientific committee to be presented in plenary section in these symposiums were edited by own resources in the institute journal, «**INMATEH – Agricultural engineering**» recognized CNCSIS **B** category, number 737/11949/2009, on line: ISSN 2068-2239 and print: ISSN 2068-4215 codes, respectively **30, 31, 32 / 2010** numbers.



- Co-organizer of Symposium
“SOLUTIONS FOR ECONOMIC AND SOCIAL DEVELOPMENT”
 when were organised REASERCHER AND DESIGNER DAYS IN ROMANIA
 19 November 2010



INMA Assembly Hall



8.2. Participation of INMA to national and international fairs and exhibitions

• National fairs and exhibitions

Den. no.	Name of event
1.	“CONTRIBUTION OF SCIENTIFIC RESEARCH TO SUSTAINABLE DEVELOPMENT OF ROMANIAN AGRICULTURE” Symposium – USAMV Bucharest, 13 – 15 May 2010
2.	Regional Salon of Research and EXPOAGROUTIL Fair, Constanța, 9 – 12 June 2010
3.	Regional Salon of Research – Timișoara 2010, 3 – 6 June
4.	Regional Salon of Research – Brașov, 30 June – 2 July 2010
5.	Regional Salon of Research and AGRALIMEX Fair– Alexandria, 26 – 30 August 2010
6.	Regional Salon of Research and Agroial Partener Fair & Rise Day, Slobozia, 22-24 September
7.	Regional Salon of Research and EXPOTEHNICA Fair - Bacău, 16 -19 October 2010
8.	International Fair “HERVEX” Căciulata, Călimănești, 17 -19 October 2010
9.	Bucharest Research Salon– ROMEXPO, 6 – 9 October 2010
10.	Regional Salon of Research – Craiova, 21 -24 –October 2010

- **Participation to the symposium
“CONTRIBUTION OF THE SCIENTIFIC RESEARCH TO SUSTAINABLE
DEVELOPMENT OF ROMANIAN AGRICULTURE” – USAMV Bucharest
13 – 15 May 2010**



- **Participation to Regional Salon of Research and
EXPOAGROUTIL Fair– Constanța
9 – 12 June 2010**



- Participation to Regional Salon of Research – Timișoara 2010
3 – 6 June



- Participation to Regional Salon of Research – Brașov
30 June – 2 July 2010





- Participation to Regional Salon of Research and AGRALIMEX Fair
– Alexandria
26 – 30 August 2010



- Participation of INMA - ITA to Regional Salon of Research and AGRALIMEX Fair– Alexandria
26 – 30 August 2010



- Participation to Regional Salon of Research Agroial Partener Fair & Rise Day, Slobozia, 22-24 September



- Participation to Regional Salon of Research and EXPOTEHNICA Fair - Bacău
16 -19 October 2010



- Participation to “HERVEX” International Symposium in Căciulata, Călimănești
17 -19 October 2010



- Participation to Research Salon Bucharest - ROMEXPO
6 – 9 October 2010





- **Participation to Regional Salon of Research - Craiova, 21 -24 –October 2010**



* International Fairs and Exhibitions

Den. No.	Denomination of Salon / Fair / Contest
1	International Salon of Inventions in Geneva, Switzerland, 21-25 April 2010
2	International Salon of Inventions in Moscow, Russia, 8 – 10 September 2010
3	International Fair of HANNOVER MESSE Germany, 19 – 23 April 2010
4	International Salon INVENTIKA 2010, ROMEXPO, Bucharest 6 – 9 October 2010
5	IENA International Salon - Nuremberg, Germany, 28 – 31 October 2010
6	International FAIR of Inventions: “INVENT-INVEST SIR-20” Iași, 22-26

	November 2010
7	INNOVA International SALON 2010 - Bruxelles, 18 – 20 November
8	International Salon of Inventions in Warsaw, Poland, Decembre 2010

8.3 Presentation of media activity:

The institute visibility was achieved by three interwievs to:

1. Romania Actualități Radio Programme - “Antena satelor” broadcasting “Antena satelor”, “Idei câștigate, idei pierdute” topic 19.10.2010 - PhD.eng. Ganea Ioan
2. Romania Actualități Radio Programme - “Antena satelor” broadcasting “Antena satelor”, 10.10.2010 – PhD.eng. Voicu Emil;
3. „Money Factory” – Research Exhibition Bucharest, 8 October 2010 – Ph.D.eng. Pirna Ion

9. INFORMATION AND DOCUMENTARY SOURCES FROM SCIENTIFIC AND TECHNICAL PATRIMONY OF INCD

Technical archive – 1000 projects
Library – 11.000 books and speciality technical journals
Data bases
Web page: inma.ro



MINISTERUL EDUCATIEI, CERCETARII, TINERETULUI SI SPORTULUI
AUTORITATEA NATIONALA PENTRU CERCETARE STIINTIFICA
INSTITUTUL NATIONAL DE CERCETARE - DEZVOLTARE PENTRU MASINI SI INSTALATII
DESTINATE AGRICULTURII SI INDUSTRIEI ALIMENTARE - INMA

Prima pagina

Misiunea institutului este de a desfășura activități de cercetare științifică (fundamentală și aplicativă), de inovare în domeniul proceselor, tehnologiilor și echipamentelor tehnice de mecanizare și automatizare a lucrărilor din agricultură și industria alimentară, în contextul armonizării întregii activități la politicile ANCS și ale Uniunii Europene

- Elaborarea de diagnoze, prognoze și strategii în domeniul tehnologiilor și echipamentelor tehnice destinate agriculturii și industriei alimentare;
- Cercetarea și dezvoltarea proceselor, tehnologiilor de mecanizare și a echipamentelor tehnice pentru agricultură și industria alimentară;
- Execuția de modele experimentale și prototipuri;
- Incercarea în condiții de laborator și în exploatare a mașinilor și instalațiilor destinate agriculturii și industriei alimentare, în conformitate cu procedurile, normele și directivele U.E.;
- Standardizarea în domeniul echipamentelor tehnice;
- Activități de formare, specializare profesională și certificare de personal în domeniul tehnologiilor de mecanizare;
- Incercarea echipamentelor tehnice;
- Certificarea conformității produselor;
- Efectuarea de inspecții tehnice pentru tractoare, autocamioane, remorci și automobile; Transfer tehnologic și afaceri inovative prin incubatorul tehnologic acreditat INMA-ITA.

Director General
Dr. ing.
Ion Pirna
Profesor onorific
al Universității
Transilvania Brașov,
Membru corespondent
al Academiei de Științe
Agricole și Silvicultură
"Gheorghe Ionescu-Sisestii"

INMA BUCURESTI

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http://www.inma.ro

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[Realizari reprezentative](#) | [Raport INMA 2009](#) | [Oferta prelucrari table](#) | [Incercari](#) | [Incubator INMA-ITA](#) | [INMA-CERT](#)
[Formare Profesionala](#) | [Revista INMATEH](#) | [Proiecte CDI - PN II](#) | [Echipamente Sol](#) | [Echipamente Recoltare](#) | [Industria Alimentara](#) | [Laborator EVTEHMEC](#) | [Contact](#)

10. CONCLUSIONS

Technical and scientific results obtained by INMA - SYNTHESIS

Den. no.	Indicator name	Achieved
1.	Scientific/technical papers published in specialty ISI journals	11
2.	Books /published chapters INMATEH – Agricultural Engineering Journal	1 No. 30; 31; 32
3.	<ul style="list-style-type: none"> - Registered INMA patent demand - Patents awarded by OSIM - Patents / patent demand in which other institutions are the titulars, but INMA inventors and researches are included in the team 	12 6 1
4.	Homologated products Homologated services Homologated Technologies Prospective Studies Technological Studies Procedures Methodologies Technical Plans Experimental Models	16 11 10 8 3 6 31 16 9
5.	Scientific/technical papers published in other speciality journals, without ISI quotation (B and B+ category)	35
6.	Scientific/technical papers without quotation presented in conferences	20
7.	Scientific/technical papers presented in international conferences with programme committee	9
8.	<ul style="list-style-type: none"> - INMA participation to international fairs and exhibitions - Prizes 	16 23

11. PERSPECTIVES/ PRIORITIES FOR THE CURRENT YEAR

The 2011 priorities related to RDI activities are focussed on :

- achieving the tests of specific equipment for a high exploitation of crop biomass (Miscanthus, castor-oil plant, etc) and the biomass resulted as a by-product of main agricultural cultures;
- continuing the researches of integrated mechanizing and automating of processessing systems of medicinal or endemic plants;
- continuing the researches for achieving the specific methodologies/procedures for assessing the mechanizing technologies used in agriculture (medium and long term impact);
- technical substantiation of technological mechanizing and automating technologies of agricultural processes related to biomass crops, horticulture, primary processing of agricultural products;
- technological transfer of researches results to economic agents interested, which have been selected in 2010 (SC MAT SA Craiova, SC Mecanica CEHLAU SA Piatra-Neamt, SC PROMECANICA SA Otelul Roşu);
- developing the contractual projects within the national, cross-border programs (Bulgaria, Hungary);
- disseminating the results by: organizing symposia and promoting the institute magazine „INMATEH „Agricultural Engineering”and notifying certain original technical solutions to OSIM;
- supporting the on-going training of personnel in agro-food sector, at employers request through the institute centres of professional training and assessing.

ANNEXES

REPORT

On activity of the INMA Board of Administration developed in 2010

- synthesis-

The activity of INMA Administration Board in 2010 was carried out in accordance with tasks established by H.G. 823/2004 on Regulation of Organization and Functioning of National Institute of Research-Development for Machines and Installations Designed to Agriculture and Food Industry-INMA.

At the meetings of the Administration Board where have been debated more efficient solutions for research-development-innovation on approaching areas, the managers of departments of RDI, Scientific Director and Economic Director have been invited.

Under the decision of the Administrations Board, Legal Advisor and employees of the institute's representative attended all meetings.

In the discussion of Administration Board meetings, the 7 members appointed by Order 6365/19.12.2008 of Ministry of Education and Research have had an active participation, resulting in concrete proposals and solutions to achieve current and future objectives of:

a) Approval, suggested by the Scientific Council, of strategy and specific development programs, which introduce high-tech and modernize the existing technologies, consistent with the overall strategy of their own area of activity of INMA Bucharest:

- Results of marketing analysis in field of construction of technical equipment for agriculture and food industry;
- Analysis of level of meeting the criteria for performance and reporting quarterly on INMA activities;
- Information on the portfolio of projects, and partnerships offers;
- Analysis of some aspects of the magazine published by INMA– „INMATEH-AGRICULTURAL ENGINEERING” - information (strategic orientation, magazine format, collecting information);
- Analysis of the results of participation of INMA in various competitions;
- Analysis of the prospects of forming partnerships and substantiation of calls of proposals so that INMA participates in various competitions / programs.
- Information on the status of experimental models - Quarter I
- Patent Information on notification, patents, articles and scientific events.
- Preparing INMA participation at the International Salon of Inventions–Bucharest 2010.
- Information on the scientific-technical, advertising and marketing results of INMA the I-st, II-nd and III-rd three months-2010.

b) Modifying the proposed organizational and functional structure of INMA, the establishment, abolition and merging of subunits in the structure:

- Information on the implementation of the law relating to the health and safety at work.
- Approval of Board of Directors and the Joint Commission INMA proposal to benefit of the provisions O.U.G.4/2010 on the regulation of social protection measures;
- Analysis of the institute general director in terms of managerial terms.

C) Review and approval of budget revenues and expenses is submitted to Ministry of Education and Research, namely the analysis and advice of the annual financial statements, which it submits to approval to the coordinating ministry, and approving the management report on activities of INMA in 2010 :

- Review and approval of accounting balance concluded on 31.12.2009.
- Information on disposing of equipment recorded in INMA patrimony, which duration of life is obsolete after the revaluation from 1994, according to H.G.500/1994.
 - Review and approval of corrected income and expenditure budget for the year 2010.
 - Analysis of economic and financial situation of INMA for 2011
 - Analysis of the performance of investments in 2010.

d) Approval of the mandate for negotiating INMA collective employment contract:

- Review and approval for extending the collective employment contract applicable at the institute in 2010:

e) Approval of criteria and competition committee to fill vacancies in INMA

- Approval of the contest rules for the employment of young graduates with a trial period of 90 days; endorsement of competition commission.

Involvement of Steering Committee, Scientific Council and the Administrative Council has led to the achievement of planned targets for 2010, and in financially term, activity ended with a gross profit of 106,086 lei

President of Administrations Council

Prof.hon.Ph.D.eng. Pirnă Ion

ANNEX 2

2.1. Incomes made from national research development contracts financed from state budget

2.2 Incomes made from research contracts – development financed from private funds

2.3. Incomes made from economic activities

Annex 2.1

2.1. Revenues from national research and development contracts financed from state budget

Den No.	No. of contract	Project name (projects in 2010)	Total value 2010 (lei)	Out of which		Status within INMA project
				INMA	Partners	
PROGRAM 2: CAPABILITIES = 1 contract			71,380	71,380	-	
1.	157 CP 1	Developing research infrastructure of the laboratory for the mechanization technologies assessmant.	71,380	71,380	-	Titulary contractor
PROGRAM 4: PARTNERSHIPS IN PRIORITY AREAS = 25contracts			2,150.978.46	1,793.132	357,846.46	
1.	51 048	Innovative technique for establishing sustainable cereal crops, that limits land degradation, conserves biodiversity and contributes to the qualitative growth of agricultural productivity.	134,463	119,463	15,000	Titulary contractor
2.	21 008	Tehnology for the solid agricultural and forestry biomass restoring in order to obtain clean energy and reducing emissions of greenhouse gases.	293,633.46	251,428	42,205.46	Titulary contractor
3.	21 049	Promotion of vegetable oil extraction technology as source of clean energy and environmental protection aimed at reducing greenhouse gas emissions in farms.	289,810	261,671	28,139	Titulary contractor
4.	51 054	Research and development of a technology to increase fish breeding in a recirculating system with the optimization of the technological parameters and ensuring sanitary-veterinary protection.	96,875	86,875	10,000	Titulary contractor
5.	51 041	The achievement of technologies and products suitable to sustainable development applied to the corn in pre ripening stages in order to ensure food security and sanitary-veterinary protection	184,720	150,250	34,470	Titulary contractor
6.	51 052	Research on developing a computer-based system for the control of packaging used in food industry in order to increase consumer food safety.	15,500	15,500	-	Partner
7.	21 055	Research on the use of maize culture as source of biomass for heat producing.	7,500	7,500	-	Partner
8.	31 048	Inoculate microbial for sustainable farming systems.	39,200	39,200	-	Partner
9.	71 078	Vibroacustics diagnosis in-situ applicable to industrial machinery and equipment in order to create a predictive maintenance service.	46,820	46,820	-	Partner

Den No.	No. of contract	Project name (projects in 2010)	Total value 2010 (lei)	Out of which		Status within INMA project
				INMA	Partners	
10.	51 062	Modernizing grain primary processing technologies in order to obtain quality food products, corresponding to the principles of sustainable development and food security.	94,633	51,591	43,042	Titulary contractor
11.	21 060	Research on increasing the energy efficiency of hydraulic systems by applying secondary control techniques .	26,162	26,162	-	Partner
12.	31 091	Forecast losses of agricultural soil by erosions and landslides, in order to develop solutions to prevent and/or remedial.	256,960	137,320	11,640	Titulary contractor
13	31 039	Development of environmental-friendly products, from biodegradable materials, designed to achieve the packaging and protection elements.	78,526	23,176	55,350	Titulary contractor
14.	21 038	Tehnology to promote the energy plant Miscanthus in Roumania as a renewable source in order to increase competitiveness and energy security.	160,158	150,158	10,000	Titulary contractor
15.	31 069	Research and implementation of new clean technologies to restoring-reuse-reutilize plastic waste to reduce negative impact on environment and health.	27,561	27,561	-	Partner
16.	91 002	Model and computer program for determining the SME's innovation degree.	15,000	15,000	-	Partner
17.	91 004	Model and computer program for evaluating intangible assets.	15,000	15,000	-	Partner
18.	52 120	Research on the promotion of a complex system to assess the physical and mechanical characteristics of soils in order to increase safety and security of agricultural production.	107,123	107,123	-	Partner
19.	32 104	Biodegradable lubricating and cooling fluid with multiple operating system.	47,662	47,662	-	Partner
20.	52 107	Research on optimization of the working parts for seedbed preparation in accordance with the requirements of the sustainable agriculture.	54,300	54,300	-	Partner
21.	52 178	Interdisciplinary applied research and development of advanced technologies of discrimination, decision and control focussed on weeds management in hoeing crops as component of Precision Agriculture System.	25,125	25,125	-	Partner
22.	22 130	Research on the development of	26.161	26.161	-	Partner

Den No.	No. of contract	Project name (projects in 2010)	Total value 2010 (lei)	Out of which		Status within INMA project
				INMA	Partners	
		advanced clean energy solutions to recovery granular wood waste in order to create alternative energy sources.				
23	22 135	Research on the conversion, retrieval, storage and reuse of hydrostatic energy in hydraulic systems.	28,086	28,086	-	Partner
24.	72 204	Previous monitoring systems for embedded flexible manufacturing process of high complexity .	40,000	40,000	-	Partner
25.	92 096	Collaborative systems and mechanisms specific to economic clusters and compaies networks in knowledge-based global economy.	40,000	40,000	-	Partner
PROGRAM 5: INNOVATION = 2 contracts			14,000	145,000	-	
1	212	Increased capacity for innovation by manufacturing a modern irrigation equipment with ramp and gun watering.	120,000	120,000	-	Partner
2.	213	Mobile installation with interchangegeable multifunctional equipment for handling of agricultural and forestry products, construction materials and road maintenance.	25,000	25,000	-	Partner
SECTORAL PLAN = 2 contracts			220,645	72,988	147,657	
1.	33	Unified exchange information system in the market surveillance.	42,300	9,175	33,125	Titulary contractor
2.	12	Development of technological pole concept in regional plans and regional networks clusters, support for increasing the competitiveness of economic operators from the machinery industry.	178,345	63,813	114532	Titulary contractor
NUCLEUS PROGRAM = 15 projects			3,782.464	3,782.464	-	
1.	15 N	NP 09 - 15 01 01 Innovative technologies for afforestation tillage, in order to conserve biological and ecological diversity.	300,000	300,000	-	Titulary contractor
2.	15 N	NP 09 - 15 01 04 Improving technology and new competitive product development, for mechanization in horticultural nurseries and arboretum material production.	210,000	210,000	-	Titulary contractor
3	15 N	NP 09 - 15 02 01 Developing a technology for the Miscanthus rhizomes exploitation for the efficient establishment of this energy crops.	363,808	363,808	-	Titulary contractor
4.	15 N	NP 09 - 15 03 04 Research and development of technologies for primary processing of medicinal and aromatic plants to conserve their therapeutic qualities and effective recovery.	400,000	400,000	-	Titulary contractor

Den No.	No. of contract	Project name (projects in 2010)	Total value 2010 (lei)	Out of which		Status within INMA project
				INMA	Partners	
5.	15 N	NP 09 - 15 04 02 Competitive technology, technical documentation and techno-economic documentation for a modern plant of breeding sturgeons in a aquiferusrecirculating system.	250.000	250.000	-	Titulary contractor
6.	15 N	NP 09 - 15 05 01 Research, substantiation and implementation of an information system and satellite control for mapping and processing the agricultural land physical and chemical parameters to increase agricultural production and environmental protection.	185,000	185,000	-	Titulary contractor
7.	15 N	PN 09 - 15 05 06 Data processing system of soil electro-conductivity for explaining of culture map.	160,000	160,000	-	Titulary contractor
8.	15 N	PN 09 - 15 01 02 Tillage innovative technology and establishing the hoeing plants crops proper for a sustainable agriculture adapted to specific pedoclimatic conditions of Roumania's regions.	295,000	295,000		Titulary contractor
9.	15 N	NP 09 - 15 01 03 Dynamic testing process automation of the shock systems specific to technical equipments construction.	180,000	180,000		Titulary contractor
10.	15 N	NP 09 - 15 05 02 Reducing the environmental/soil pollution and increasing work quality indices of plant protection machinery by integrating a centralized system for monitoring and warning.	180,000	180,000	-	Titulary contractor
12.	15 N	NP 09 - 15 01 06 Extension of silkworms breeding farm field in Romania, by creating innovative new technologies and a competitive technical equipment.	290,000	290,000	-	Titulary contractor
13	15 N	NP 09 - 15 06 02 New methods of organization and performing of specialized lifelong learning programs in agriculture .	90,000	90,000	-	Titulary contractor
14.	15N	NP 09 - 15 01 08 Ecological technology for improving soil fertility using green manure appropriate to sustanaible agriculture	653,656	653,656		
15.	15N	NP 09 - 15 06 03 Risk monitorization and assessment system for the security and health of the workers.	225.000	225.000		
SECTORAL OPERATIONAL PROGRAMME FOR HUMAN RESOURCES DEVELOPMENT 2007 - 2013 - SOPHRD = 2 contracts			582,587.82	582,587.82		
1.	SOPHRD / 83/ 5.2 / S/ 53508	Restoring human capital in rural areas in Roumania, through the acquisition of skills and knowledge with high added value.	568.383,82	568.383,82	-	
2.	SOPHRD / 81/ 3.2 /	Training in new materials with mechanics and mechatronics	14,204	14,204	-	

Den No.	No. of contract	Project name (projects in 2010)	Total value 2010 (lei)	Out of which		Status within INMA project
				INMA	Partners	
	S/ 58103	applications – MecProf				
RAISING ECONOMIC COMPETITIVENESS OPERATIONAL PROGRAMME- SOP REC = 1 contract			30,000	30,000	-	
1.	219	Increasing MAT Craiova competitiveness by assimilating a multifunctional tillage aggregate in agricultural holdings.	30,000	30,000	-	
COOPERATION PROGRAM ROMANIA BULGARIA BORDER 2007 – 2013= 1 contract			41,298.99	41,298.99		
1.	69921	MedPlanet – medical plant network for enhancing the comparative advantage of Calarasi-Silistra cross-border area for sustainable development	41,298.99	41,298.99	-	
TOTAL RESEARCH – DEVELOPMENT CONTRACTS FUNDED BY THE STATE BUDGET = 49 contracts			7,024.354,27	6,518.850.81	505,503.46	

Annex 2.2

Revenues from research contracts - funded by private development

Den.no	No. contract	Contract Name	Value 2010 (lei)
RESEARCH GRANTS – DEVELOPMENT OF PRIVATE FUNDS = 8 constracts			264,170.26
1.	921	Testing the resistance of the towing eye, the subass. MA6 – 1.0.	10,478
2.	644	Research on safety belt anchorages under test D 76/115/CEE modified by D 2005/41/CE the seat that is mounted on tractor MAT 81	2,512.68
3.	1709	Research on comparative analysis of the uniformity of distribution of a spraying machine fitted with new nozzles, respectively worn up (decalibrated) used for applying herbicides on field crops	2,500
4.	643	Research on trailing automated coupling testings- model AB 390	18,181.30
5.	761	Research on the scientific substantiation of specific elements of the irrigation process	7,958.97
6.	64	Documentation for execution: TECHNOLOGICAL EQUIPMENT FOR HOUSE GROWING AREA HERNEACOVA STURGEON	77,300
7.	1823	Research to establish the degree of automation of technological process parameters and monitoring of the water main parameters. The project achievement for automation plant	136,942
8	1793	Marks performig and and assembling the prototype of burner with cascade gravitational combustion HORNET of granulated fuel	8,297.31

Annex 2.3

Income from economic activities 2010

Den No.	No.of contract	Contract Name	Value 2010 (lei)
CONTRACTS FOR EVALUATING IN ORDER TO PROVIDE PRODUCTS CONFORMITY CERTIFICATION			133,227.72
1.	001Z)	Generator G2T800; G4T1300; G4T2000; G4T2500	2955.65
2	002(Z)	Electric groups GEBAS-A40PW-C; GEBAS-A90PW-C; GEBAS-A250DW-C	2499.62
3.	343	Installation of sprinkler irrigation: IIA-50, IIA-75, IIA-100, IIA-150	646.25
4	341	Irrigating installation with hose and drum: IITF-MINI; IITF-MIDI; IITF-MAXI	646.25
5	404	5 ton dump trailer for farm tractor, 2RB5AT	4650.52
6	406	Two-wheel trailer to carry 2 tons of fruit growing and viticulture RPV2	3326.91
7	427	Centrifugal pump motor thermal model WTH 40	2802.94
8	428	Centrifugal pump motor thermal model WTH 60	2802.94
9	413	Plate heat exchangers (tip M3, M6, M10, M15, MX25, MA30; tip T2, T5, TS6, TL10, TS20, T20, T50 and type V4, V13, V28, V45, V85, V110)	827.64
10	423	Freezer doors 500TN; 480S; JOIN GO; OFFICE; 480LWT; 480TN; 604LWT; 740LWT	828.80
11	424	Comber	843.26
12	427	Centrifugal pump with thermal engine model WTH40	1044.62
13	428	Centrifugal pump with thermal engine model WTH60	1044.62
14	433	Carried plough with variable or fixed working width for high power tractor PP5VM	847.44
15	434	Category of tractors 40-50CP type TOP400-2WD; TOP404-4WD ; TOP404-4EDCab	843.26
16	435	Axial Flow Combine Challenger mark type 680B	1482.14
17	436	Motomower(232, 309, 400special, 409special)	652.93
18	437	Power pump (PP2, PP3, PP2S)	904.53
19	438	Current generator (SONIC9, ACTIV9, 4ELECTRIC)	904.53
20	439	Lawn mower (RE3, RX4, RX8)	904.53
21	440	Sprayer A203	888.49
22	442	Class of of aerodynamic selectors SAD: 4; 7; 10; 14; 30; 50; 70; 150	1371.84
23	444	Seed treating machine class MTS/OC(MTS-3 ; MTS-5 ; PC-20)	1430.78
24	445	Articulated forestry tractor -TAF901.OP ; TAF 690.OP	2067.52
25	448	Installation of sprinkler irrigation and hose reel	1135.39
26	446(P)	Installation of sprinkler irrigation and hose reel (300m, 400m) symbol ST	1194.09
27	447(P)	Mechanized irrigation plant with linear or pivotal movement, symbol OTECH	1305.65
28	449(P)	Pumps IVECO-CAPRARI	623.90
29	451(P)	Category type dosing machine NORMA-S, NORMA-TB, NORMA-TJ, NORMA-T, NORMA-TL, NORMA-TN, NORMA-TS, NORMA-TK	1307.76
30	452(P)	Categoryy of sewing machine K4-BUV type	852.88
31	453	Class ofseed processing installations IM type	1648.91
32	454	Installation of sprinkler irrigation IIA ; IIP	623.90
33	455	Sorting, transfer and composting station, respectively: metal hopper with screw conveyors BM1-0; reception band TB1-0; bag opener DS-0; waste reception band TB 2-0; supplying band TB3-0; sorting band 8 stations TB4-0; band with magnetic separator TB5-0; bunker metal screw BM2-0; supplying band of press-container TB 6-0; stationary press (prescontainer pressing)CPP-0; Rollo container 32mc CR-0; embedded metal screw hopper BM 3-0; supplying band of punching device TB7-0; punching device PET PP-0; press supplying band TB 8-0; semiautomated press PS-0; shredder of wastes TD-0; aeration	9776.28

		equipment UA-0	
34	457	Pressure washer HUSKY	2517.78
35	459	Power pump for dirty water GTP80	3401.66
36	458	Electrocompressor with screw ECS	8712.83
37	460	Power pump for clean water GP100	3504.43
38	461	Plow 1L220, 1L225, 1L320, 1L325	2477.64
39	462	Disc harrow 1BQX-1,3; 1BQX-1,5; 1BQX-1,7; 1BQX-1,9; 1BQX-2,0	2477.64
40	463	Corn sowing machine BYF-3; 2BYF-4	3382.87
41	464	Rotary soil cutter RS	5720.28
42	465(P)	Power pump for clean water GP40	3049.04
43	466(P)	Class of clean water pumps GP50 ; GP80	3562.20
44	467(P)	Horizontal feed mixer AO	4071.35
45	468(P)	Trailed sprayer MET	5780.65
46	469(P)	Universal hammer mill MCU	3912.46
47	471(P)	Tillers KDT610C	4616.10
48	470(P)	Refrigerator swinging doors: HINDER; HINDOR; SLIDER; HINDON; WINDON	5251.78
49	472(P)	Carried ploughs P1-16; P1-20; PR1-16; PR1-20; P2-20; P2-25; P2-L75; P2-L82; PR2-20; PRH2-25; P3-20; P3-25; P3-L75; P3-L82; P4-L82	3087.31
50	473(P)	Tiller KDT410C(without accessories)	4635.35
51	474(P)	Centrifugal air compressor CCAE 9-125	7379.58
SERVICE REVENUES			393,799.02
ANNEX TOTAL 2.3			527,026.74

ANNEX 5

5.1 – APPROVED PRODUCTS: 16

5.2 – TECHNOLOGIES APPROVED: 10

5.1. CERTIFIED PRODUCTS

1. Technical equipment with working parts for preparing the soil and sowing straw cereals, SGR

File homologation number: 163



2. Tilting conveyer with belt TIB

File homologation number: 160



3. Vegetal wastes chopper TRV

File homologation number: 161



4. Conveyor of feeding the pressTAP

File homologation number: 162



5. Installation of extracting the vegetal oils IEU

File homologation number: 154



6. Horizontal helical conveyor – TEO M 160

File homologation number: 155



7. Oil Collector OC 1200

File homologation number: 156



8. Rotative selector – SR

File homologation number: 157



9. Fish recirculating superintensive breeding system

File homologation number: 165



10. Method of cereals primary processing MPPC

File homologation number: 164

**11. Movable installation for erosion risk estimation- MIERE**

File homologation number: 166



12. Miscanthus harvesting equipment – HE

File homologation number: 159



13. Irrigation installation with ramp and gun watering - IIRGW

File homologation number: 158



14. Testing shock compact platform- TSCP

File homologation number: 152



15. Machinery monitoring system for plant protection spraying

File homologation number: 153



15. Silkworms breeding extension in Romania by creating an innovative technology and a competitive technical equipment

File homologation number: 167



5.2. TECHNOLOGIES APPROVED

1. Innovative Technology for the establishment of cereal crops in sustainable system

Number of files: 29

TEHNOLOGIE INOVATIVĂ PENTRU ÎNFIINTAREA CULTURILOR CEREALIERE ÎN SISTEM DURABIL

Varianta I: Tehnologie inovativă de înființat culturi de cereale păioase cu echipamentul tehnic cu organe de lucrat solul și semănat în teren arat						Varianta II: Tehnologie inovativă de înființat culturi de cereale păioase cu echipamentul tehnic cu organe de lucrat solul și semănat în teren nepregătit					
Nr. crt.	Lucrarea care se execută/procese tehnologice	Echipamentele folosite	Parametri principali	Indici de exploatare	Situația utilajului	Nr. crt.	Lucrarea care se execută/procese tehnologice	Echipamentele folosite	Parametri principali	Indici de exploatare	Situația utilajului
1.	Arătura la 18...25 cm / întoarcere - amestecare	 Plug reversibil PR5	- Lățimea de lucru pe trupă: 30...45 cm - Adâncimea de lucru: 30 cm	- Capacitatea medie de lucru: 2,0 ha/h - Consumul specific de combustibil: 26,5 l/ha	În fabricație la S.C. MAT S.A. Craiova	1	Lucrat solul și semănat / mărunț pe șoc pe suprafețele de minimă coeziune și redistribuire în mod egal a solului pe lățimea de lucru, dozare mecanică și distribuție pneumatică a semințelor	Echipament tehnic cu organe de lucru pentru pregătirea solului și semănatul cerealelor păioase SGR care are montate cuțite lama pe roțile verticale ale grăpei	- Lățimea de lucru: 3,5 m - Adâncimea de semănat: 1,2...8,0	- Capacitatea medie de lucru: 1,7 ha/h - Consumul specific de combustibil: 23,2 l/ha	În curs de asamblare în fabricație
2.	Pregătirea patului germinativ și semănat / mărunț pe șoc pe suprafețele de minimă coeziune și redistribuire în mod egal a solului pe lățimea de lucru, dozare mecanică și distribuție pneumatică a semințelor		- Lățimea de lucru: 3,5 m - Adâncimea de semănat: 1,2...8,0	- Capacitatea medie de lucru: 1,64 ha/h - Consumul specific de combustibil: 21,6 l/ha	În curs de asamblare în fabricație						



2. Technology for the recovery of forestry and agricultural solid biomass

Number of files: 28



Tocare grosieră resturi forestiere



Tocare fină



Omogenizare- transport - dozare și separare magnetică - măruntire - peletizare

3.Technology for obtaining vegetable oils

Number of files: 27



4. Technology of fish breeding in recirculating system

Number of files: 31



5. Sweet corn harvest technology

Number of files: 32



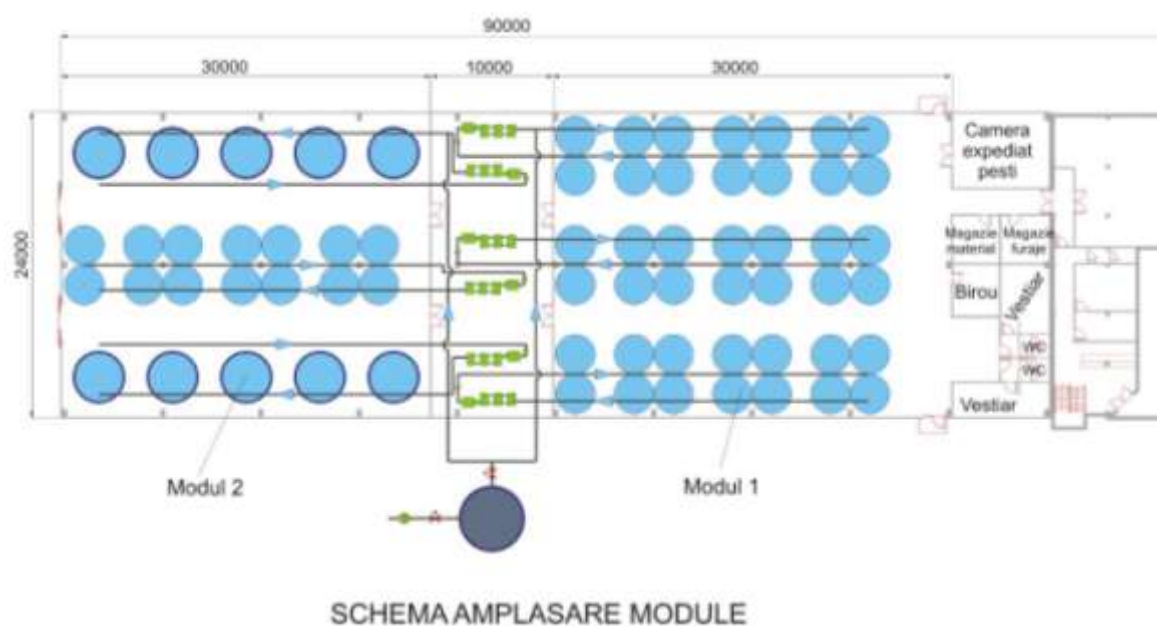
6. Primary processing of cereals technology

Number of files: 30



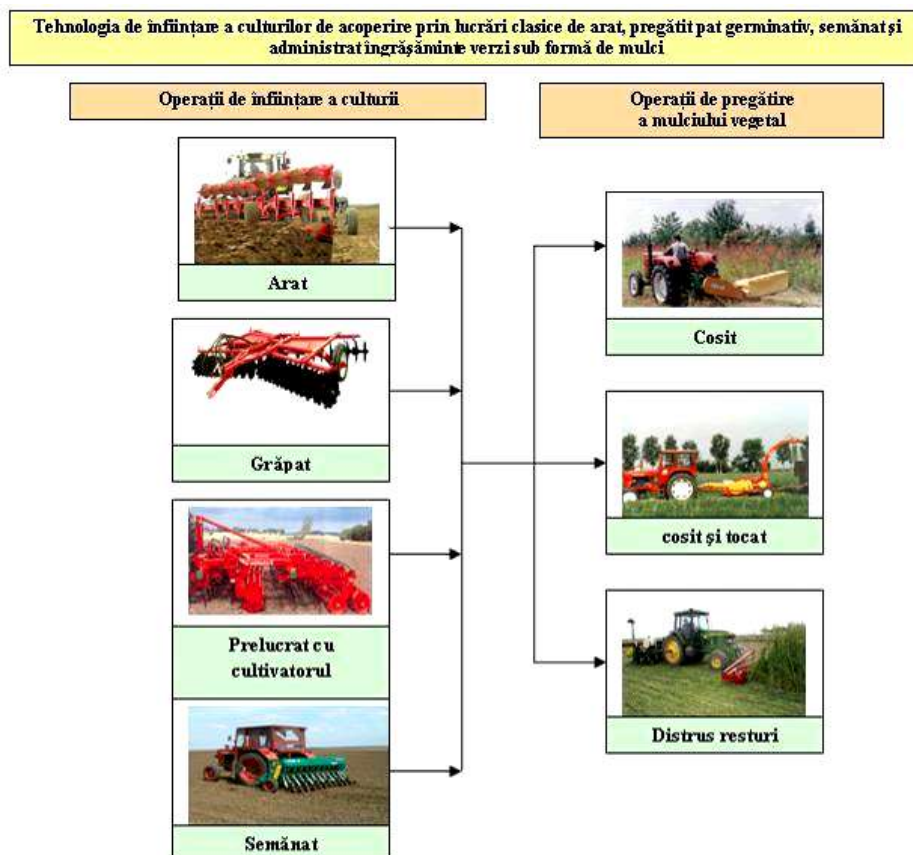
7. Technology on fish breeding in aquiferous recirculating super-modular system

Number of files: 26



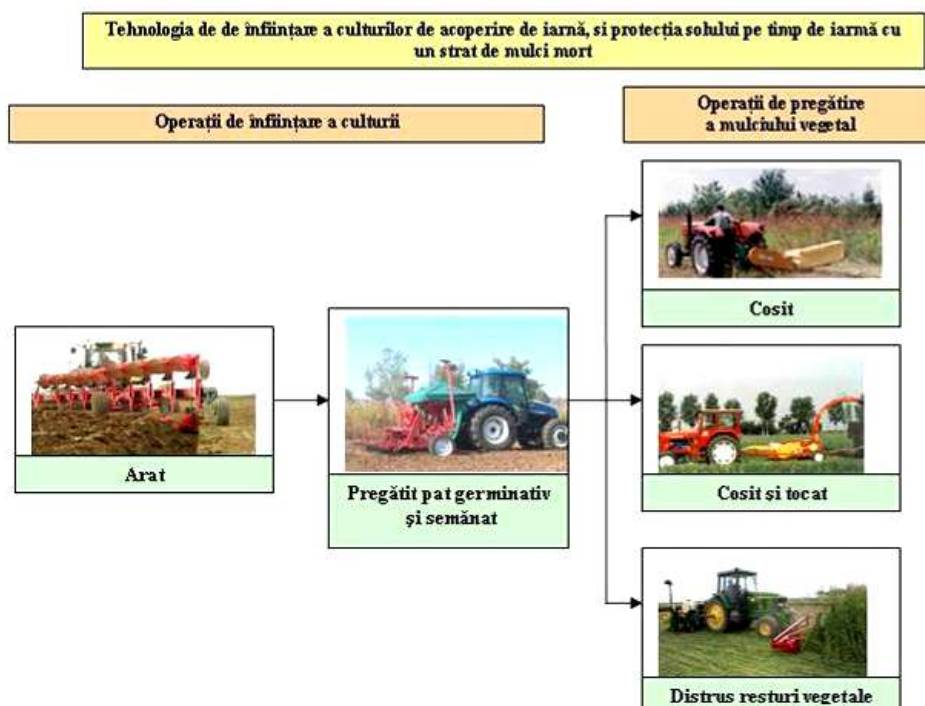
8. Technology of establishment of covering crops through plowed classical works, preparing seedbed, sowing and applying green manure as mulch layer

Number of files: 33



9. Technology of setting up winter covering crops and soil protection during winter with a layer of mulch

Number of files: 34



10. Technology establishing covering crops by seeding directly into stubble field

Number of files: 35



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