



SOME ASPECTS OF ROMANIAN AGRICULTURAL RESEARCH AND ITS FUTURE OBJECTIVES

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ROMANIA - AN EUROPEAN COUNTRY

- **Population:** 20 million people
- **Language:** Romanian (Latin language)



Black Sea



ROMANIA - AGRICULTURAL LAND SURFACES



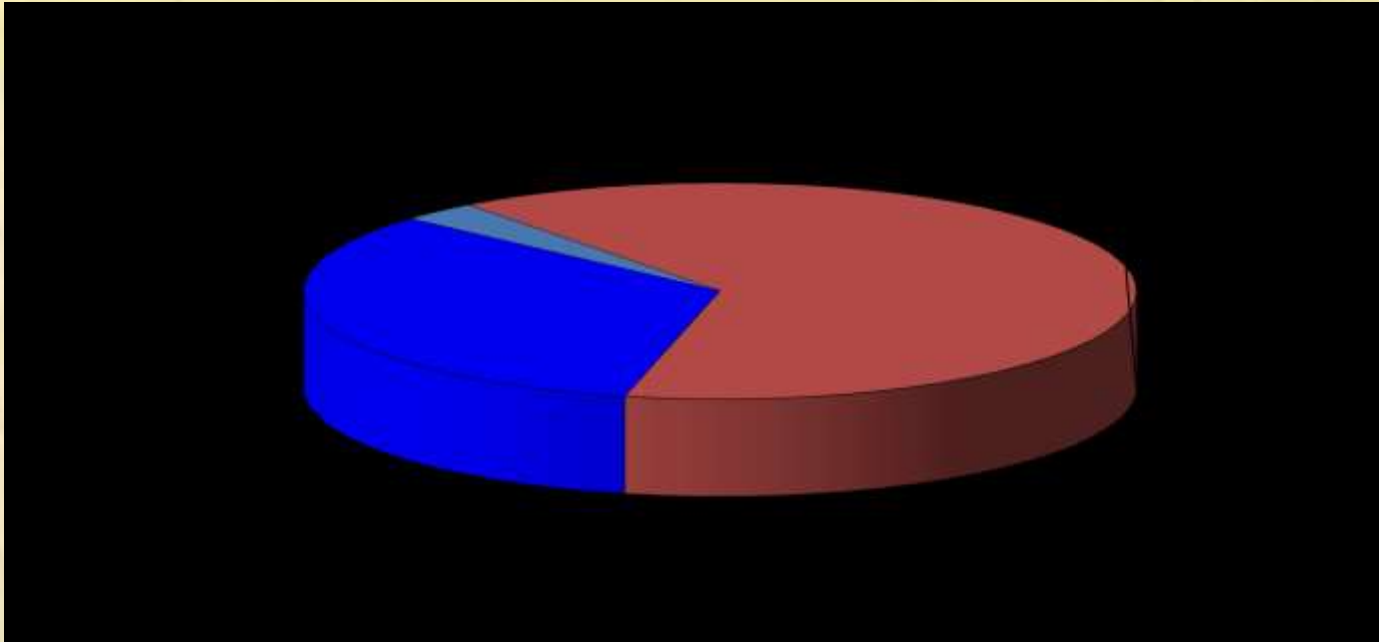


ROMANIA - AGRICULTURAL LAND SURFACES

Land:	mil. ha	%
Total:	23.8	100
<input type="checkbox"/> agricultural:	14.8	62
<input type="checkbox"/> forestry:	6.3	26
<input type="checkbox"/> other:	2.7	12



AGRICULTURAL AREA AND ITS UTILIZATION

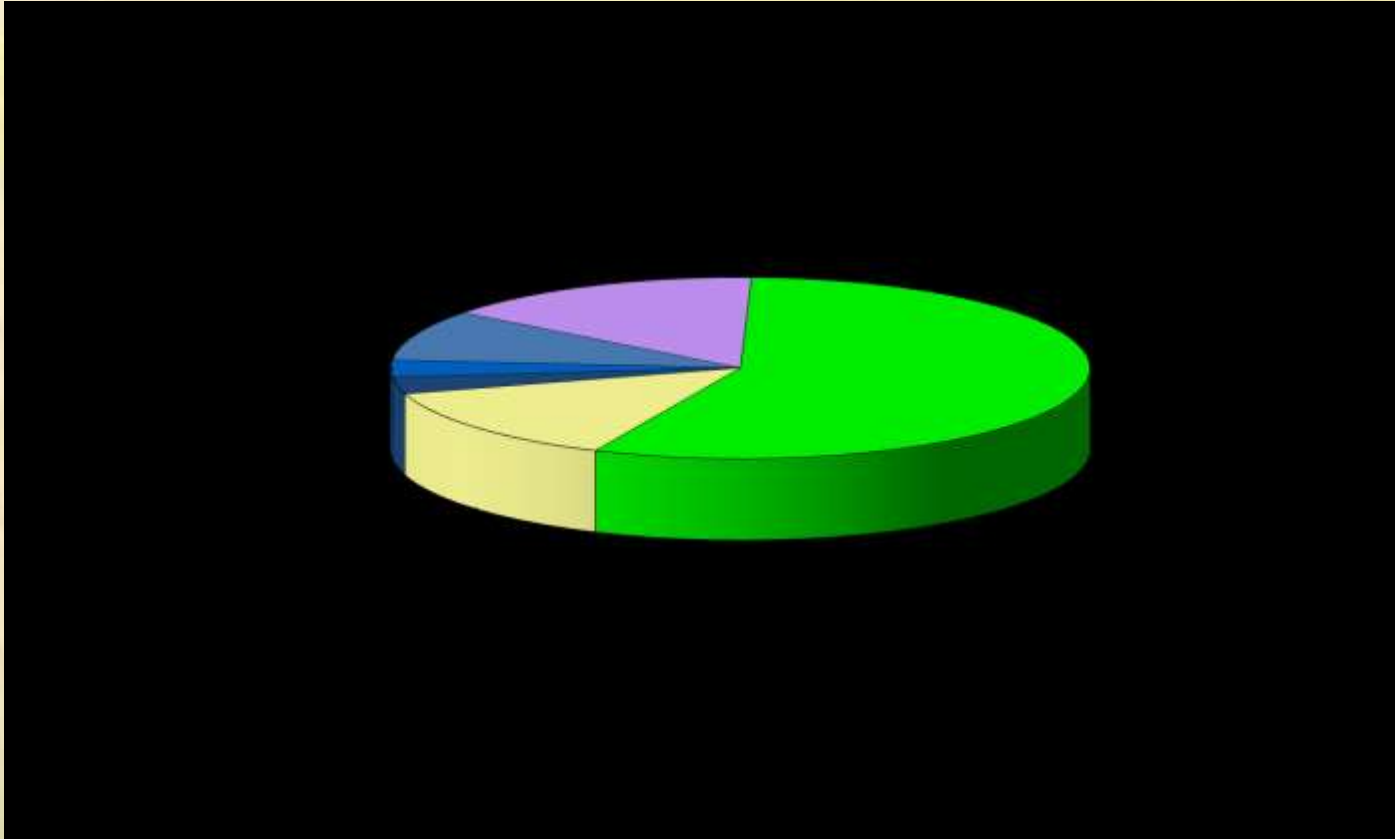


Romanian agricultural area ranges on the 6th place among the EU Member States

Source: National Institute of Statistics



ARABLE AREA AND ITS UTILIZATIONS



Romanian arable land ranges on the 5th place among EU Member States

Source: National Institute of Statistics



ROMANIAN AGRICULTURAL POTENTIAL

Romanian agricultural potential: 6th place among EU countries

- **0.65 ha of agricultural land/capita;**
- **0.45 ha of arable land/capita;**

Climate – temperate-continental with large seasonal variations and an average of 640 mm rains/year.

Large variety of soil types:

- 52% soils with *low fertility*;
- 21% soils with *moderate fertility*;
- 27% soils *fertile and very fertile*.

Biodiversity – very rich and well preserved.

Different renewable energy resources – especially large amounts of biomass.



CROP PRODUCTION

Crops	Cultivated area (thousands ha)	Production (kg/ha)
Wheat	2030	4870
Barley	450	4190
Oats, rye, triticale	160	2800
Maize grains	2400	5970
Rice	12	4500
Sunflower	990	2950
Soybean	150	2400
Rapeseed	600	2800
Sugar beet	27	41300
Potatoes	170	18600
Vegetables	225	16200

Source: National Institute of Statistics



AREA OF VINEYARDS AND FRUIT TREES PLANTATIONS

	Area (thousands ha)	Production (kg/ha)
Vineyards	177	6000
Fruit trees plantations (orchards), where:	140	5800
- <i>apple trees</i>	56	6800
- <i>pear trees</i>	3	5700
- <i>plum trees</i>	67	4100
- <i>cherry and sour cherry trees</i>	6	5000
- <i>apricot trees</i>	3	4000

Source: National Institute of Statistics



AGRICULTURAL FARMS, BY SIZE

(agricultural area, ha)

Size, ha	Number, 10 ³	%
Total	3720	100
< 1	2020	54
1-10	1620	44
10-50	60	1.5
> 50	20	0.5



LIVESTOCK (10³ HEADS)

Bovines	2090
<i>of which milk cows</i>	1320
Pigs	4930
Sheep and goats	11250



AGRICULTURAL RESEARCH

SHORT HISTORY

- The first agricultural scientific institution in Romania was **founded in 1886** as ***the Central Agronomic Station***, later on being included as a section of the Agricultural Research Institute of Romania in 1927.
- ***The Agronomic Research Institute of Romania (A.R.I.R.)*** was **set up in 1927**, together with a network of experimental zonal stations by a High Royal Decree.
- On **14 November 1969**, ***The Academy of Agricultural and Forestry Sciences (A.A.F.S.)*** was set up continuing the activity of A.R.I.R.

AAFS MAIN BUILDING IN BUCHAREST





SCIENTIFIC SECTIONS OF THE ACADEMY OF AGRICULTURAL AND FORESTRY SCIENCES

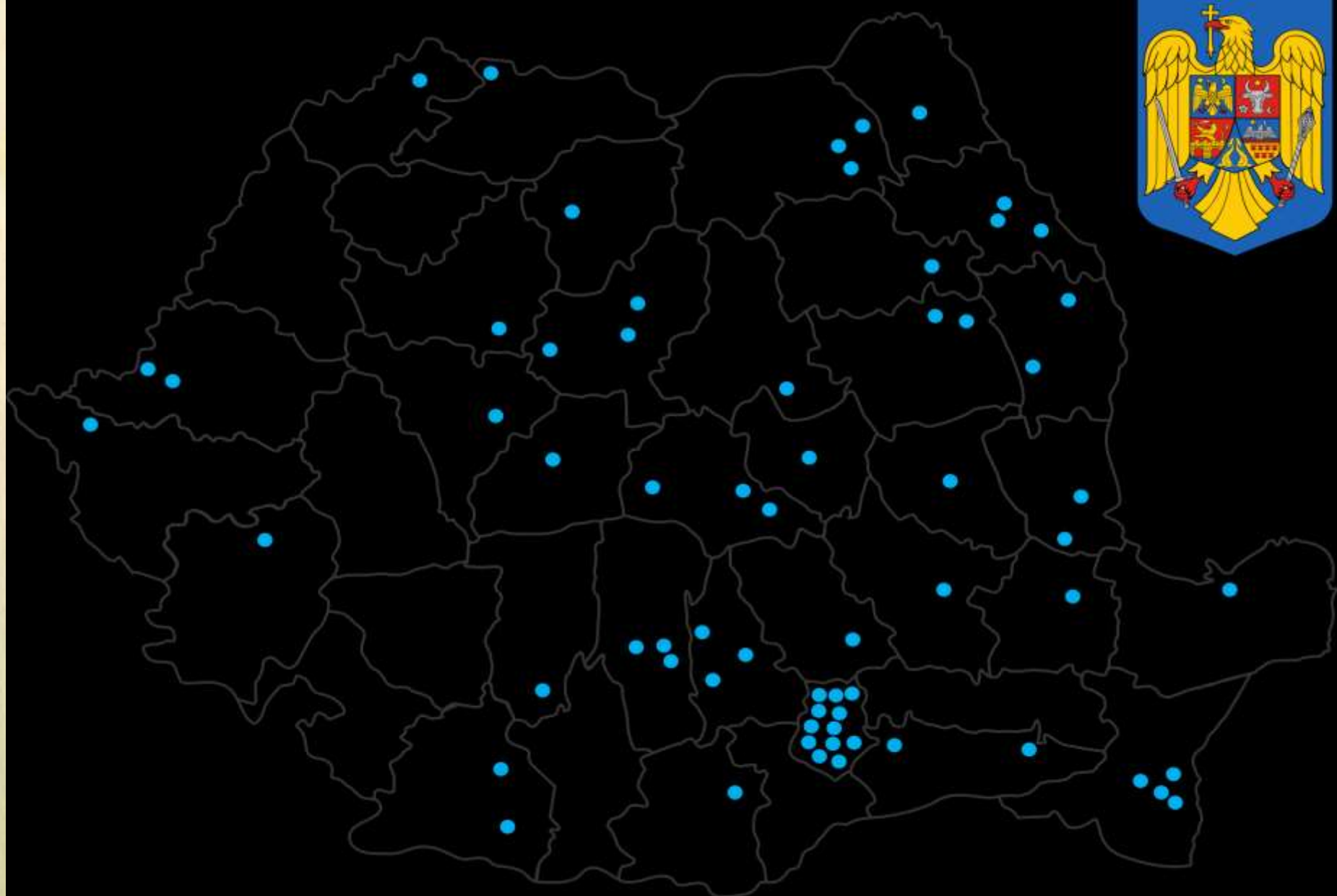
- **Soil Science, Land Reclamation, Water Management and Environmental Protection;**
- **Field Crops;**
- **Horticulture: fruit-trees growing, viticulture and oenology, vegetables and flowers growing;**
- **Animal Husbandry;**
- **Veterinary Medicine;**
- **Food Industry;**
- **Agriculture Mechanization;**
- **Agrarian Economy and Rural Development;**
- **Forestry Sciences.**



RESEARCH INSTITUTES:

1. **Soil Science, Agrochemistry and Environment Protection**
2. **Field Crops**
3. **Potato and Sugar Beet**
4. **Pastures**
5. **Plant Protection**
6. **Viticulture and Oenology**
7. **Fruit Growing**
8. **Vegetables and Flowers**
9. **Processing and Marketing of Horticultural Products**
10. **Biotechnologies in Horticulture**
11. **Biology and Animal Nutrition**
12. **Bovines Breeding**
13. **Sheep and Goats Breeding**
14. **Food Bioresources**
15. **Aquatic Ecology, Fishery and Aquaculture**
16. **Agrarian Economics and Rural Development**
17. **Mountain Science**
18. **Research on Forestry**
19. **Agricultural Mechanization**

DISTRIBUTION OF THE RESEARCH UNITS THROUGHOUT THE COUNTRY





ROMANIAN R-D-I SYSTEM IN THE FIELDS OF AGRICULTURE AND FORESTRY

Institutional organization

ACADEMY OF AGRICULTURAL AND FORESTRY SCIENCES (AAFS)

The National Forum for:

Recognition of the prominent Romanian scientists as full, corresponding and honorary members of AAFS, including foreign honorary members.

Coordination of the agricultural and forestry RDI activity in:

- 6 National RDI Institutes
- 12 Branch RDI Institutes
- 40 RDI Station
- 8 other RDI Institution involved in agriculture



MISSION OF THE ROMANIAN RESEARCH

- *To generate new valuable knowledge.*
- *To sustain and develop the Romanian applied scientific research.*
- *To promote efficiently and rapidly the innovation and technical progress in agricultural practice.*



AREAS ADMINISTERED BY R&D UNITS (ha)

TOTAL	31 000
<i>of which:</i>	
- field crops	20 000
- horticultural crops (fruit trees, vineyard, vegetables)	5 400
- fodders	2 800
- other destinations	2 800

ANIMAL STOCKS FOR RESEARCH AND BREEDING IN R&D UNITS (heads)

Bovines	3 500
Sheep and goats	9 800
Swine	260
Turkey	6 400



A.A.F.S. STAFF

TOTAL STAFF:	3000
of which:	
- Total Research	1070
graduates:	570
- Total Development	1310
graduates:	165
- Administration	620
graduates:	280



FINANCING OF THE AGRICULTURAL RESEARCH

- **SELF-FINANCING ← OWN RESOURCES** including seed (milk) production and selling and **STATE BUDGET SUBVENTION (70%)**.
- **Projects obtained *by competition* from Sectorial Program of MARD (13%)**.
- **Some national (Ministry of Research) and European funds.**

MAIN ACHIEVEMENTS OF AAFS R&D UNITS

WINTER WHEAT





PITAR



WINTER BARLEY „AMETIST”
(*Hordeum vulgare* L.)





SOYBEAN



ALFALFA



SUNFLOWER







2008 7 11

FLAX













PLUM TREE

ROMANTA



PARADISE

PEAR TREE





PONTICA 102



TOMATO HYBRID FOR PROTECTED AREAS



10/08/2006 2:27 am

NEW VARIETIES OF VINES

TimpPt



Muscat timpuriu Buc





**Timpuriu
de Cluj**



Gelu

Sweet potato



Exp. Cercetari privind
regimul de nutritie la
cartoful dulce in functie
de densitate si ani

a₁b₁c₁

a₁b₁c₂

a₁b₁c₃

a₁b₁c₄

a₁b₁c₅

Sweet potato - PUMPKIN



Romanian "Baltata"



“Bruna” cow





Buffalos











ROMANIAN TOURISTIC ATTRACTIONS

PALACE OF THE PARLIAMENT – 1983-1997



TRANSFĂGĂRĂȘAN



BABELE





FĂGĂRAȘ MOUNTAINS



BUCEGI - SPHYNX



DANUBE DELTA



by almost

VORONEȚ MONASTERY - [1488](#)

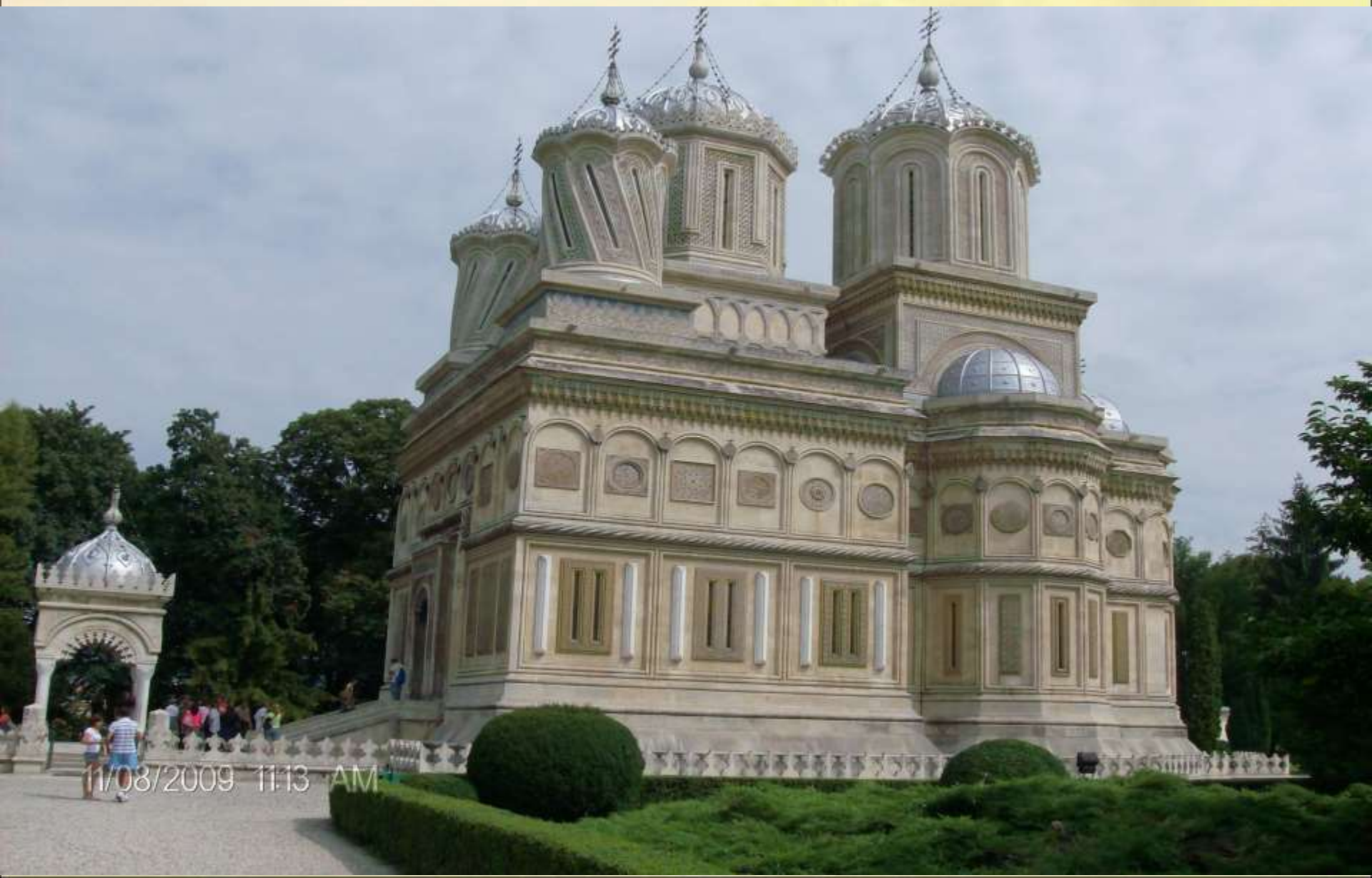


RASCA MONASTERY – BUCOVINA - 1542



CURTEA DE ARGÈȘ MONASTERY-

1512 - 1517



11/08/2009 11:13 AM

BRAN CASTLE – 1377-1382



PELEȘ CASTLE – 1873-1914







© Florin Gyrom



POPULAR COSTUMES – VALCEA - OLTENIA





Modern sheepfold





foto:
Adrian LUPȘAN





30 9 2007



Traditional products





MULTELE DE PADURE
INE



source: internet



FRUCTE DE PADURE
COSNA
CANDREA ARETA

DULCEATA
DE
AGRISE

DULCEATA
DE
ZIMBUNA

DULCEATA
DE
CANDREA ARETA

DULCEATA
DE
CANDREA ARETA

DULCEATA
DE
CANDREA ARETA



***THANK YOU FOR
YOUR ATTENTION!***