



სოფლის მეურნეობის  
სამეცნიერო-კვლევითი ცენტრი

[www.srca.gov.ge](http://www.srca.gov.ge)

# SCIENTIFIC-RESEARC CENTER OF AGRICULTURE

Research and Inclusion in International Research Topics of Georgia's  
Germaplasm Resources

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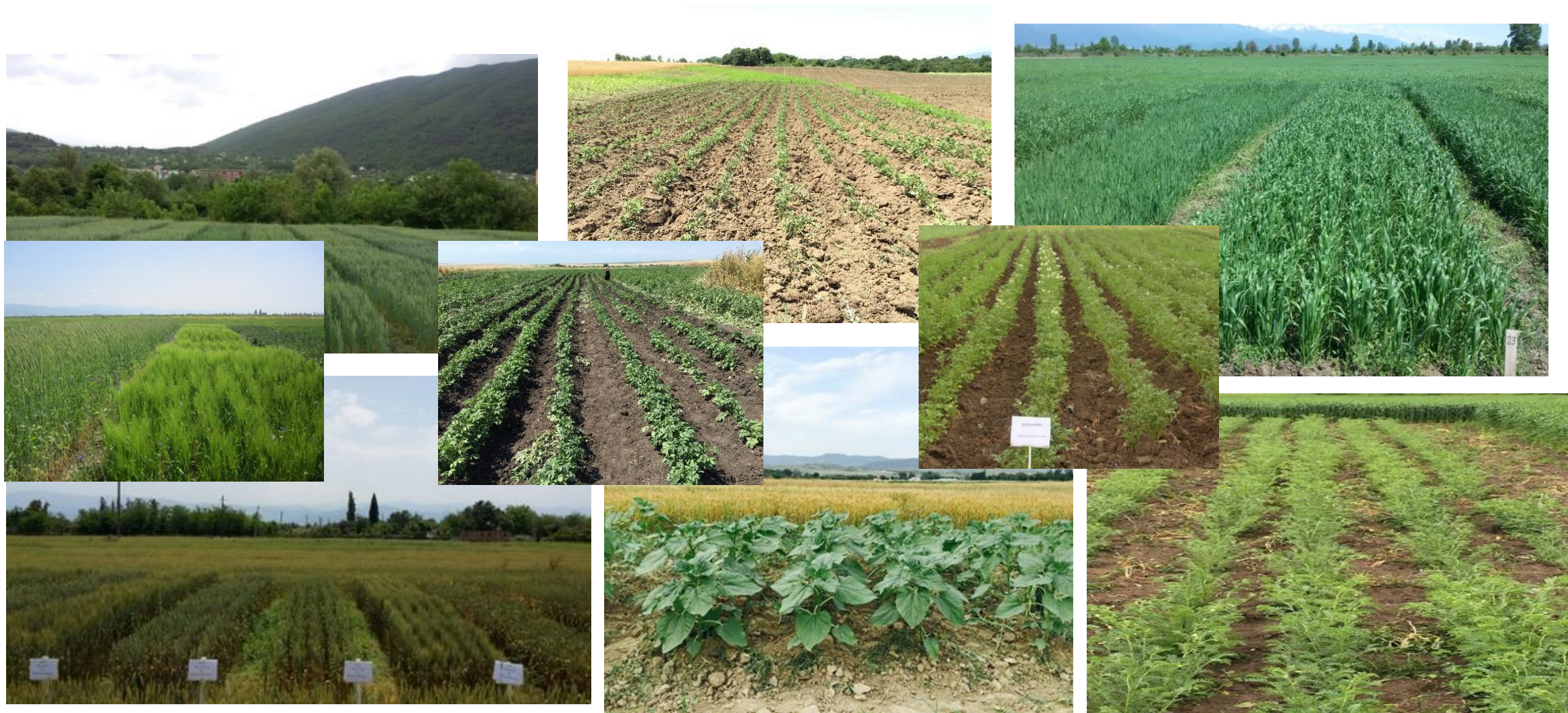
## In General

- Georgia's climate and soil conditions have made agriculture one of its most productive economic sectors. The value of agri-business in Georgia stood on 1.4 billion in 2014, representing 9.2% of the national GDP in 2014.
- Scientific–Research practice in agriculture declined much since nineties of the last century and almost stopped except of some little local projects.
- In order to restore the scientific-research activities in agricultural sector, the government of Georgia in 2014 has established the LEPL Scientific-Research Center of Agriculture (SRCA).





In 23 municipalities of Georgia there are located the sites for testing, demonstration, selection, collection and propagation purpose





# General Research Objectives of the SRCA

- Research and development of native annual and perennial crops germplasms. Arrangement of genetic bank ;
- Evaluate and adapt the introduced species and varieties of endemic crops in Georgia;
- Arrange the standardization and certification systems for planting and seedling materials ;
- Study the land pool and restore the soil fertility of Georgia;
- Development the bio-agro (organic) production, promote the ecologically safe food and harmonize it with international standards;
- Development the advance technologies of the agricultural food processing and post-harvest management;
- Study of plants pests and disease , elaborate the integrated control systems;
- Research and development the local breeds of agricultural and domestic animals, poultry, fish and useful insects of Georgia; Research and adaptation of imported breeds. Creation of databases;
- Evaluate the risk probability, revealed in food and forage and work out the recommendations for the risk management bodies
- Communicate with the public, international, donor and non-governmental organizations
- Develop and promote the extension programs, spread the regional knowledge.

# Main Aims of Research , Sites and Laboratories:

- Production of Elite and super-elit seeds and testing of species ;
- Production of bio (organic) agricultural products;
- Development the Laboratory of the seed and planting material certification and standardization;
- Development the Laboratory of virology;
- Development the Laboratory of tissue culture (in vitro);
- Development the Laboratory of soil fertility research;
- Development the greenhouses;
- Development the Demonstration sites.





# GEORGIA - CRADLE of WINE

- 525 varieties of grapes (*Vitis Vinifera*) of local origin and more than 100 varieties and forms of wild species (*Vitis Silvestris*);
- Georgian endemic grape varieties are located in the centers of their geographic and ethnic origin: Kakheti - 80 varieties, Kartli - 72 varieties, Imereti - 75 varieties, Racha-Lechkhumi - 50 varieties, Guria - 59 varieties, Samegrelo - 60 varieties, Abkhazia - 58 varieties, Adjara - 53 varieties and Meskheta - more than 25 varieties.





## DIVERSITY OF GEORGIAN GRAPE VARIETIES

- 437 grape varieties kept in collections
- Approximately 30 grape varieties are in use commercially nowadays



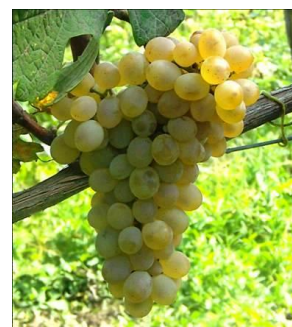
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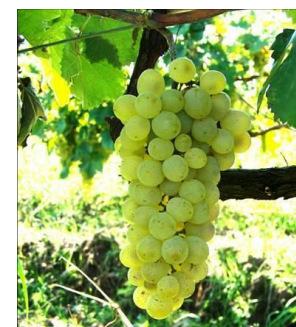
**KHIKHVI**



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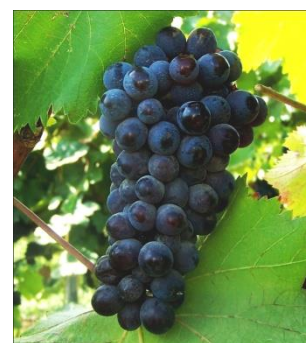
**SAPERAVI  
BUDESHURISEBURI**



**MGALOBlishvili**



**OTSKHANURI SAPERE**



**ALEXANDROULI**



**MUJURETULI**



**OJALESHI**

Except of vine there are 5 endemic spices and 150 forms of wheat, 250 varieties of maize, 50 spices of fruit, as well as the different spices and varieties of local legumes, etc.



# The new direction in Georgia's agro-science is Silvyculture

- Study of the rare genetic resources of forest plantations;
- Investigation of forest and non-invasive species for Georgia.



## Mulberry

- A study of local varieties of mulberry for establishment of mother plant blocks and collection site.

## Ex situ conservation of the forest tree seeds



*Ostrya* -  
უხრავე

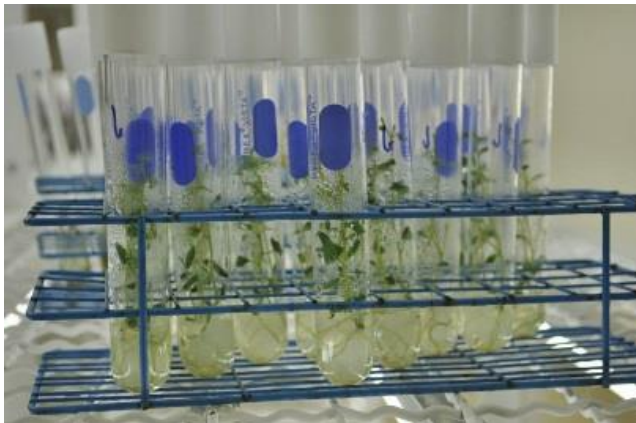


*Taxus baccata* -  
ურთხელი



# In vitro production of potato microplants

- Partnership between CIP and N(N)LE „Agro-Cartu“ started in 2009 in order to improve potato production;
- Main goals of introduction for CIP clones were to choose potato clones, which are adapted to Georgian condition, with high yielding and quality;
- Among the CIP clones there were selected 3 clones, which were characterized by a high ability to adapt for local environment, with drought-resistance, high yield and disease resistance.



# Innovative technology for vegetable culture

- Grafting of the vegetables against of fungal diseases (Fusarium)





# Ongoing infrastructural projects

- Set up molecular genetic DNA laboratory (2015 - 2016)
- Animals selection station, livestock breeding and the pedigree examination;
- Create the experimental stations for the modern post-harvest and food processing management;
- Rehabilitation of the bee keeping (apiculture) station;
- Construction of cryopreservation laboratory and create the animal genetic bank;
- Construction the buildings for animal, poultry and other breeds collection;
- Construction the facility for forage production and VET complex research laboratory;
- Construction of greenhouses.

# International Collaboration

- Research Center Geisenheim (Germany)
- Research centers of Chinese
- Scientific Research Institute of Viticulture and Winemaking "Magarach" (Yalta, Ukraine)
- Institute of Vine and Wine (Moldova)
- ENTAV-INRA (France)
- Consortium for fruit tree nurseries (Italy)
- Institute of Botany (France, Montpellier)
- Nursery Hoenheim (Germany)
- Nursery Hartmann (USA)
- Nursery Mercier Group (France)
- Nursery Richter (France)
- Nursery Dalmont (Italy)
- Nursery Rauscedo (Italy), etc.

SRCA have partnerships memorandums with local and international organizations.





# Challenges and needs

- Limited agro scientific-research centers / branches
- Limited laboratories
- Limited exchange programs
- Limited professionals
- Generational shift

## Our purposes to the workshop

Represent and suggest Georgia's large germplasm / gene-bank resources for further research and inclusion in international agro research family.



Thanks for your  
attention