

# Stavropol State Agrarian University the Sustainable Development Goals Report





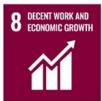
































Stavropol



#### **ABOUT THE UNIVERSITY**

#### **MISSION**

To become the leader of the advanced training of the regional agrarian elite, able to effectively implement the tools of innovative, technological and digital transformation of the agro-industrial complex, contribute to the sustainable spatial development of the south of Russia, preserve and increase the moral, cultural and scientific values of our society.





#### **ABOUT THE UNIVERSITY**

#### STRATEGIC GOAL

Transformation into an entrepreneurial-type University, embedding (integrating) agrodrivers (biologisation of agriculture, breeding, animal genomics, digitalization, advanced training for agriculture) in the processes of ensuring sustainable development of Stavropol Krai and the North Caucasus Federal District. Building a new role of the University as a leader in the transfer of research, production, educational and digital technologies aimed at the sustainable development of Stavropol Krai and the North Caucasus Federal District. Transformation into an





Goal 1:

End poverty
in all its forms
everywhere

## The University's activities in the field of the universal elimination of poverty in all its forms

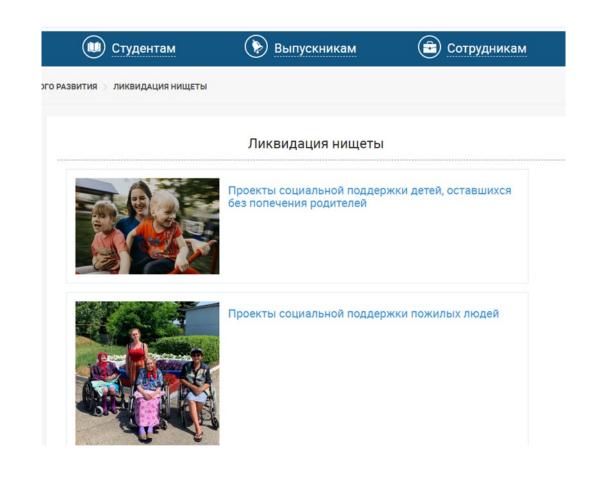
Within the framework of achieving the sustainable development goal "Goal 1: End poverty in all its forms everywhere", the university implements:

Social support projects for children left without parental care

Social support projects for the elderly

Project to support children being treated in hospitals

Scholarship support for student achievements



https://old.stgau.ru/goals/poverty/

#### Free retraining programs based on SSAU

## SSAU is a platform for free projects for students to improve competitiveness in the labor market

#### Who can take free training?

- Citizens aged 50 years and older, citizens of pre-retirement age;
- Women on parental leave under 3 years of age;
- Women who are not in an employment relationship and have preschool children aged 0 to 7 years inclusive;
- Unemployed citizens registered with the employment service;
- Employees at risk of dismissal, including the introduction of part-time work, downtime, temporary suspension of work, the provision of leave without pay, measures to release employees
- unprotected layers of citizens

Федеральный проект «Содействие занятости» национального проекта «Демография» направлен на помощь гражданам повысить квалификацию и востребованность на рынке труда, сменить профессию или открыть свое дело в качестве ИП или самозанятого.

Цель проекта: содействие занятости отдельных категорий граждан путем организации профессионального обучения и дополнительного профессионального образования для приобретения или развития имеющихся знаний, компетенций и навыков, обеспечивающих конкурентоспособность и профессиональную мобильность на рынке труда.

Ознакомиться с условиями и перечнем программ можно на сайте ЦОПП

#### Сайт ЦОПП

Выбрать программу обучения и подать заявку можно на портале «Работа в России»

#### Работа в России

По всем вопросам реализации программ СтГАУ и ЦОПП вы можете обращаться по телефону: 8-(8652)-31-59-59

#### Проекты



ограммы опережающей подготовк

#### едеральный проект «Содействие занятости»

Пройдите бесплатное обучение в рамках федерального проекта «Содействие занятости» или переподготовку по выбранной профессии для повышения конкурентоспособности на рынке труда.

https://vk.com/wall-215489923\_1651

http://idpo.stgau.ru/news/news\_id=6973/

### Free retraining programs based on SSAU

#### **FARMER'S SCHOOL**

5 streams, more than 100 prs.



"Farmer's School" is a federal project aimed at increasing professionalism in the agro-industrial complex.

The project is implemented by the Ministry of Agriculture of the Stavropol Territory, the regional branch of JSC "Rosselkhoznadzor" and Stavropol State Agrarian University.





#### Scientific articles on achieving the Sustainable Development Goal



## Scopus



Impact of the COVID-19 Pandemic on the Development of Online Retailing in Russia / Steklova T. N., Leshcheva M. G., Uryadova T. N., Steklov A. N., Batishcheva E. A. // Advances in Science, Technology and Innovation. 2022. P. 477-481

Problems and Prospects for the Development of Russian Population Insurance Against Emergencies / Rusetskaya E. A., Agarkova L. V., Kovtun E. N., Sorokina O. G., Kiyaschenko T. A. // Advances in Science, Technology and Innovation. 2022. P. 525-529

Algorithms for distributing DSSS codes in industrial WSNs with real transmitters and narrow-band interference / Fedorenko V., Samoylenko I., Samoylenko V., Rachkov V. // AEU - International Journal of Electronics and Communications. 2022. Vol. 154. A. 154307

Assessment of Efficiency and Production Risks in Crop Production Innovative Development / Kostyuchenko T. N., Gracheva D. O., Telnova N. N., Tenishchev A. V., Cheremnykh M. B. // Environmental Footprints and Eco-Design of Products and Processes, pp. 2022. P. 411-418

Solving the Problem of Acquiring Labour Resources for a Long-Term Period / Zaitseva I. V., Sedunova O. Y., Antonova I. Y., Shlaev D. V., Ostapenko E. A. // Smart Innovation, Systems and Technologies. 2022. Vol. 265. P. 997-1102

#### Scientific articles on achieving the Sustainable Development Goal

российский индекс научного цитирования Science Index



POVERTY OF THE POPULATION IN MODERN RUSSIA: ASSESSMENT AND WAYS OF REDUCTION Dovgotko N.A., Skiperskaya E.V., Rybasova Yu.V. Economic Sciences. 2022. No. 213. pp. 36-40.

FEATURES OF THE FUNCTIONING OF THE LABOR MARKET AND THE UNEMPLOYMENT RATE IN THE STAVROPOL TERRITORY. Strizhkova V.S. In the collection: Globalization of socio-economic processes in the context of digitalization and sustainable transformation of the business environment. collection of materials of the International scientific and practical Conference. Polotsk State University, Institute of Physics and Technology of the Academy of Sciences of Tajikistan, Shandong Yingcai University, Russian State Social University, St. Petersburg State University of Economics, Smolensk State University, Don State Technical University, North Caucasus Federal University, Stavropol State Agrarian University. 2022. pp. 639-642.

THE IMPACT OF UNEMPLOYMENT ON THE LIFE OF THE POPULATION. Ostapenko E.A. In the collection: Agricultural science, creativity, growth. materials of the XI International Scientific and Practical Conference. 2022. pp. 39-42.

ANALYSIS OF THE INCOME OF THE POPULATION IN RUSSIA. Steklov A.N., Steklova T.N. In the collection: FINANCIAL AND ANALYTICAL SUPPORT OF SCIENTIFIC AND TECHNOLOGICAL DEVELOPMENT OF INNOVATIVE ECONOMY. collection of scientific papers based on the materials of the IV International Scientific and Practical Conference. Stavropol, 2022. pp. 101-105.

THE STUDY OF THE DEPENDENCE OF THE BIRTH RATE ON THE INCOME OF CITIZENS IN THE RUSSIAN FEDERATION. Zubkova V.K. In the collection: Statistical and econometric studies of socio-economic systems of an agrarian-oriented region. Collection of scientific papers based on the materials of the IX International Scientific and Practical Conference. 2022. pp. 89-94.



Goal 2:

**Zero Hunger** 

## Modern trends in the development of agriculture determine the directions of research and development and educational programs in SSAU



#### **GENETICS AND ACCELERATED BREEDING**



**BIOLOGIZED AND ORGANIC AGRICULTURE** 



**BIOTECHNOLOGIES** 



DIGITALIZATIONAND THE ROBOTIZATION OF AGRICULTURE



AUTOMATED UNMANNED COMPLEXES AND PRECISION FARMING





#### **Educational programs for sustainable agricultural development**



According to 12 new Bachelor's and Master's degree programs for training personnel ensuring the sustainable development of agriculture, in 2022 the university carried out recruitment for the following educational programs: 35.04.04 Agronomy (Biologized technologies in traditional and organic agriculture); 35.04.04 Agronomy (Integrated plant protection system from harmful organisms); 35.03.06 Agro-engineering (Automation and robotization of technological processes); 35.04.06 Agro-engineering (Traditional and renewable energy of agro-industrial complex); 43.03.01 Service (Organization of machinery and equipment service); 38.03.01 Economics (Accounting and analytical support digital Economy); 38.03.01 Economics (Corporate Accounting and Financial Management); 38.05.01 Economic security (Economic and legal security of the state and business); 38.04.01 Economics (Accounting and tax consulting); 38.04.02 Management (Accounting, control and management in public sector organizations); 38.03.02 Management (Marketing); 38.04.01 Economics (Economics and business in the context of digitalization).

80 recruitment programs for 2022 (Bachelor's degree, Specialty and Master's degree) were updated taking into account the development of entrepreneurial competencies, the requirements of the labor market, the development of equipment and technologies in the following areas: biologization of agriculture; intensification of the livestock industry of Stavropol Krai; sustainable socio-economic development of rural and specially protected ecological and resort areas of the North Caucasus Federal District.



### **Strategic projects of the University**



## BREEDING AND GENETICS IN CROP PRODUCTION. BIOLOGIZATION OF AGRICULTURE



BREEDING AND GENETICS IN ANIMAL HUSBANDRY



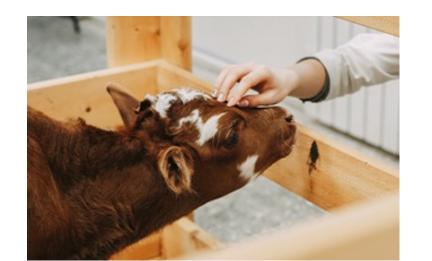
SUSTAINABLE RURAL DEVELOPMENT



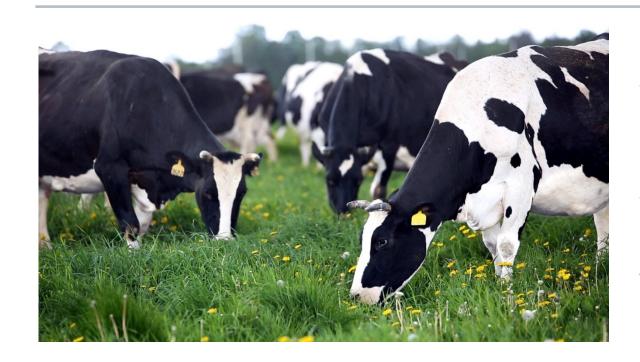












One of the key problems of animal husbandry in Russia is the insufficient efficiency of the national dairy cattle industry, high dependence on imports of genetic resources from ICAR member countries. In this regard, the university implements strategic project for the development of breeding, genetic and technological tools for the formation of export-oriented dairy cattle breeding.















Strategic project "Breeding and genetics of dairy cattle"

#### **Project infrastructure:**

Laboratory of selection and control of milk quality





Laboratory of Molecular and GeneticExamination





- 1) Basic Department of Private Animal Science, Breeding of Animals
- 2) Department of Technology of Production and Processing of Agricultural Products
- 3) Department of Animal Feeding and General Biology

The team for the implementation of the strategic project





Strategic project "Breeding and nursery breeding of fruit and berry crops, digitalization of agriculture"

## Problems of sustainable development of agriculture that led to the launch of the project

in the field of breeding and nursery breeding

- Lack of clean lines of high reproductions of planting domestic material for high-intensity gardening
- Dependence of domestic agricultural producers on imports of seed and planting material



**Shortage** of qualified specialists in the field of horticulture and horticulture of fruit and berry crops

in the field of digitalization and biologization of agriculture



 Reduction of ecological sustainability of agricultural landscapes and deterioration of the phyto-sanitary condition of crops

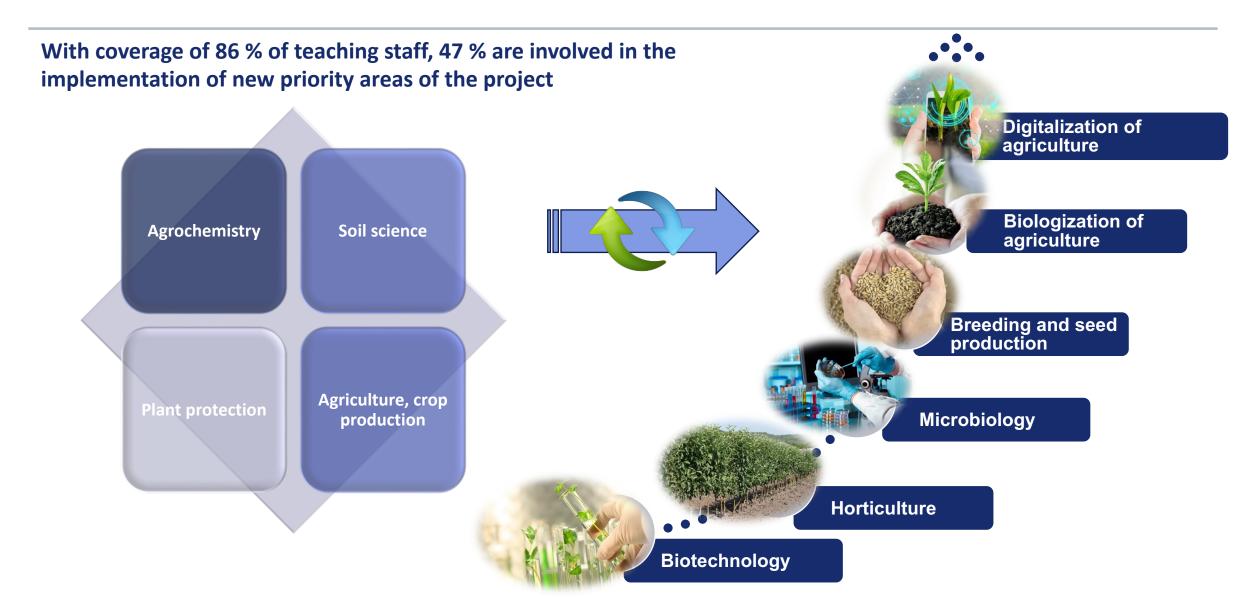
- **Degradation** of soil cover and reduction of soil fertility (negative balance of nutrients 100-120 kg/he)
- **68**% of the land areas of the region are subject to water and wind erosion
- Desertification processes are observed on an area of 500 thousand hectares





Low level of application of digital technologies in agriculture





#### Selection and seed production of agricultural crops: results

- Creation of a Center for Breeding and Seed production
- Breeding machinery and equipment purchased
- The network educational program of the master's degree "Selection and seed production of agricultural crops" has been opened with FSBSI "North Caucasian FNAC"
- A patent for a variety of winter wheat FIB 5 was obtained
- Testing of new hybrids and varieties of agricultural crops together with Soyuszsemsekla, Agroplasma, "Corn Research Institute"
- Creation and implementation of adapted, complexly resistant varieties, hybrids, forms and lines of agricultural crops
- Applications for patents for new varieties have been filed: amaranth "Vector", annual white clover "Stavropol", winter soft wheat "Kumanochka", triticale from the North Caucasian FNAC, Dagestan State Agrarian University
- A variety study of 42 varieties of grain and leguminous crops of various breeding centers is being conducted together with "State Transport Commission"









#### Biologization and digitalization of agriculture: results

- Master's degree programs are open
  "Riologization of agriculture in organic and
  - "Biologization of agriculture in organic and traditional agriculture", "Integrated plant protection systems from harmful organisms", "Integrated protection and nutrition system of vegetable crops in protected soil" network with **AIH "Ecoculture**"
- Wins in the All–Russian competition "Student startup" 4 million rubles.
- A precision farming laboratory
- A landfill for the production of organic fertilizers based on waste and vermicomposting.
- The study of the effectiveness of biological products in the system of protection of agricultural crops together with **Inopraktika LLC**, **Tambov Research Institute**
- A digital model of agricultural land use
- Patents for 4 new multifunctional biological products
- Recommendations have been developed for the introduction of elements of nature-like technologies for maintaining and restoring soil fertility
- We developed a technique for diagnosing the phytosanitary condition of agricultural crops based on hyperspectral analysis
- Accredited laboratories in 6 regions have carried out research projects on an area of more than 500 thousand hectares









#### Scientific articles on achieving the Sustainable Development Goal



## Scopus



Audit of Accounting Estimates as a Tool for Sustainable Development of Agricultural Organizations in a Digital Economy / Shirobokov V. G., Logvinova, T. I., Pavlyuchenko T. N., Feskova M. V., Fedulova L. I. // Advances in Science, Technology and Innovation. 2022. P. 235-240

Morphofunctional characteristics of animals in the detection of embryonic antigens in the prenatal and postnatal periods / Agarkov A., Agarkov N., Shulunova A., Sidelnikov A., Nekrasova I. // BIO Web of Conferences. 2022. Vol. 51. Art. no. 03010.

MODERN UNMANNED AERIAL VEHICLES AND THEIR ABILITY TO RECOGNIZE IMAGES / Kabanov O. V., Gerasimov G. N., Gulay T. A., Sadretdinova E. R., Gusev E. V., Pichuzhkin P. V., Sadunova A. G. // Procedia Environmental Science, Engineering and Management. 2022. Vol. 9. Is. 3. P. 763-766

Development of the technological approach to disinfection of hatching eggs using ultraviolet radiation / Morozov V., Kolesnikova M., Kolesnikova R., Dmitriev A., Ozheredova N. // AIP Conference Proceedings. 2022. Vol. 2661. Is. 1. A. 060009

Technological process of field crops spraying with slotted sprayers / Kireev I. M., Danilov M. V., Koval' Z. M., Zimin F. A. // Tractors and Agricultural Machinery. 2022. Vol. 89 (6). P. 395-401.

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Effect of bull-calf management system on meat productivity / Trukhachev V., Oliinyk S., Kozyr V., Zlydnev N., Zakotin V. // IOP Conference Series: Earth and Environmental Science. 2022. Vol. 954 (1). Art. no. 012084.



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Shabaldas O. G., Vlasova O. I., Mukhina O. V. Influence of seed treatment with bacterial preparations on indicators of crop structure and soybean yield // IOP Conference Series: Earth and Environmental Science. 2022. Vol. 1076 (1). Art. no. 012044

Prospects for the Development of Export-Oriented Agricultural Production in the Stavropol Region / Gerasimov A.N., Gromov E.I., Grigoryeva O.P., Skripnichenko Y.S., Kapustina E.I. // AgroTech: AI, Big Data, IoT, 2022. pp. 89-97.

Economic Mechanisms for the Development of the Material and Technical Base of Agricultural Enterprises in the Region / Gurnovich T. G., Agarkova L. V., Puchkova E. M., Sinitsyna I. V., Nikulina O. N. // Geo-Economy of the Future: Sustainable Agriculture and Alternative Energy: Volume II.. 2022. 2. P. 355-363.

EVALUATION OF THE QUALITY OF SWEET SORGHUM FODDER / Kapustin S. I., Volodin A.B., Kapustin A. S., Samokish N. V. // Iraqi Journal of Agricultural Sciences. 2022. Vol. 53 (5). P. 1184-1189.

Improvement of Ex Vitro Growing Completion of Highbush Blueberry (Vaccinium corymbosum L.) in Containers / Akimova S., Radzhabov A., Esaulko A., Samoshenkov E., Nechiporenko I., Kazakov P., Voskoboinikov Yu., Matsneva A., Zubkov A., Aisanov T. // Forests. 2022. Vol. 13 (10). Art. no. 1550.

Preface: Digital technologies in agriculture of the Russian Federation and the world community / Trukhachev A., Bobryshev A., Schuele, H., Baganov N., Kukhar, V. // AIP Conference Proceedings. 2022. Vol. 2661. Art. no. 010001

The Influence of Seasonal Factors on the Quantitative and Qualitative Parameters of Ram Semen of the Dzhalginsky Merino Breed / Mamontova T., Katkov K., Kizilova N., Aybazov A.-M. // Pakistan Journal of Zoology. 2022. Vol. 54 (4), P. 1613-1620

Principle of operation and testing the machine for processing plant raw materials in the fermentation and pre-sowing treatment of seeds with a pulsed electric field / Starodubtseva G. P., Okashev N. A., Lyubaya S. I., Rubtsova E. I., Bogolyubova I. A. // IOP Conference Series: Earth and Environmental Science. 2022. Vol. 996(1). Art. no. 012024

Digitalization in Agriculture—A New Step in the Development of Agro-industrial Complex / Belikova I. P., Chernobay N. B., Kron R. V., Zhukova V. A., Dolgopolova A. F. // Smart Innovation, Systems and Technologies. 2022. Vol. 264. P. 65-73.



Goal 3:

Ensure healthy lives and promote well-being for all at all ages

Infrastructure and services have been created at the university to promote a healthy lifestyle and the well-being of employees and students. Gyms and psychological services are available to everyone.

Programs are being implemented to involve employees in physical education and sports. In order to maintain your physical health, a favorable vitality, and enjoy communication, there are 14 sections at the University:

- basketball
- volleyball
- callanetics
- fitness
- aerobics
- pilates
- yoga
- mountain tourism
- football





Student Sports Club "Kolos" regularly conducts work and competitions in student sports and physical education.

https://vk.com/ssckolos

On May 19, the Sports Contest of the NCFD – 2022 took place on the basis of the Stavropol State Agrarian University. This project is the winner of the All-Russian competition of youth projects. 35 teams, 400 participants, 50 organizers, 12 standards and stations. Among the teams there were SPO "Dream", SShO "Aibolit" and SShO "Zemleustroitel" who actively participated and showed that they are capable of a lot. The organizers of the event were the Student Sports Club "Kolos" StGAU, Stavropol State Agrarian University, the Headquarters of student detachments of Stavropol.



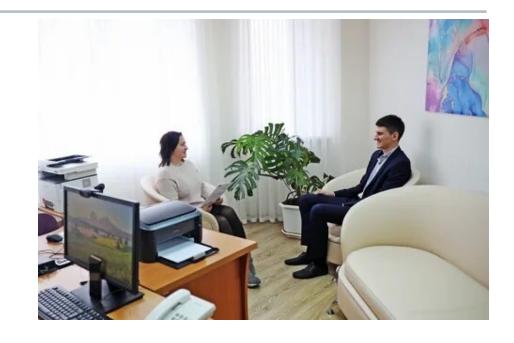




The purpose of the psychological service is to preserve the mental and psychosomatic health of students, the formation of a conscious and responsible attitude to their health.

Make an appointment for a consultation by phone: 31-59-46 (city).

The psychologists' office was equipped with new equipment. In particular, a diagnostic system and a set for audiovisual stimulation will be used for the rehabilitation of those who have applied for moral help. The psychological center includes a mobile laboratory.



https://old.stgau.ru/goals/heath/

https://vk.com/@stavropolsky-rss-663078993-1705628518

https://stgau.ru/media/news/psixologiceskaia-sluzba-stavropolskogo-gau-rasskazala-o-profilaktike-kompiuternoi-i-internet-zavisimosti

https://pobeda26.ru/news/obshhestvo/2022-11-03/psihologicheskuyu-sluzhbu-dlya-studentov-otkryli-v-stavropolskom-vuze-240852



#### **Scientific articles on achieving the Sustainable Development Goal**



## Scopus

3 GOOD HEALTH AND WELL-BEING



An Active Lifestyle, Physical Education and Sports as Health-Preserving Practices of the Population of Stavropol Territory / Tarasov P. V., Ivashova V. A., Kozenko E. Y., Aliev E. E., Udaltsov O. Y. // Advances in Science, Technology and Innovation. 2022. P. 293-297 Ameliorative Effects of Phytomedicines on Alzheimer's Patients / Khandia, R., Viswanathan N., Singhal S., Alqahtani T., Almikhlafi M. A., Simonov A. N., Ashraf G. M. // Current Alzheimer research. 2022. Vol. 19 (6). P. 420-439

Psychosemantic Analysis of the Economic Consciousness of Students of Agricultural University Under the Conditions of Digitalization of the Economy / Drozhzhina N.B., Tarasova S.I., Dukhina T.N., Limonova O.O., Taranova E.V. // AgroTech: AI, Big Data, IoT, 2022. pp. 179-188

Information and Communication Technologies in the Implementation of Physical Education in the University / Katrenko M., Zhuravleva Y., Evmenenko E., Savin D., Tkacheva N., Ivanova S., Yaroshenko E. // AIP Conference Proceedings. 2022. Vol. 2647. Art. no. 050013

Possibility of Applying a Normative Approach in Developing Quality of Life Standards / Uryadova T. N., Leshcheva M. G., Steklova T. N., Konopleva J. A., Pakova O. N. // Advances in Science, Technology and Innovation. 2022. P. 559-564



#### **Scientific articles on achieving the Sustainable Development Goal**



## Scopus

3 GOOD HEALTH AND WELL-BEING



The quality of food products as one of the indicators of sustainable development of the society / Solodova S. V., Yuldashbaev Yu. A., Demin V. A., Lesheva M. G., Karynbaev A. K., Bolaev B. K. // AIP Conference Proceedings. 2022. Vol. 2467. Art. no. 040024.

Surface-Oxidized Polymer-Stabilized Silver Nanoparticles as a Covering Component of Suture Materials / Blinov A. V., Nagdalian A. A., Povetkin S. N., Gvozdenko A. A., Verevkina M. N., Rzhepakovsky I. V., Lopteva M. S., Maglakelidze D. G., Kataeva T. S., Blinova A. A., Golik A. B., Osipchuk G. V., Shariati M. A. // Micromachines. 2022. Vol. 13 (7). A. 1105

New Focus on Research Strategies in Determining the Structure of the Motivational Field of Scientific and Pedagogical Staff of Agricultural Universities / Pichugin Y. A., Ivashova V. A., Goncharov V. N., Kolosova O. U. // European Journal of Contemporary Education. 2022. Vol.11(1). P. 138-146

Codon Usage Analysis of Pro-Apoptotic Bim Gene Isoforms / Khandia R., Ali Khan A., Alexiou A., Povetkin S. N., Verevkina M. N. // Journal of Alzheimer's Disease. 2022. Vol. 86(4). P. 1711-1725



## Goal 4:

**Ensure inclusive and** equitable quality education and promote lifelong learning opportunities for all



#### **ABOUT THE UNIVERSITY**

#### **Stavropol SAU today**

#### faculties



#### postgraduate study



#### higher education



**SPE** 

specialties







The best university in the North Caucasus(56th place in Russia)



Subject ratings "Three missions of the University":agriculture (top 3 in Russia)



Winner of the EFQM "Excellence Award - 2016" Prize

### приоритет2030^

лидерами становятся

Territorial and/or industry leadership



Targeted training of personnelfor key sectors of the economy



3-time winner of the award



#### **Educational policy of SSAU**



### Strategic goal

Achieving leadership in agricultural education that meets the current and future needs of the individual, society and the state, equally accessible to all potential target audiences through the formation of a single open educational space for training personnel capable of effectively implementing the tools of innovative, technological and digital transformation of the agroindustrial complex, contributing to the sustainable spatial development of the South of Russia





















### **Key priorities and directions**

- 1. Formation of the infrastructure of the program "Agroinopolis-2030" in order to conduct early career guidance work for the self-determination of schoolchildren of Stavropol Krai in choosing future professional activities
- 2. Modernization of the content, technologies and conditions for the implementation of educational programs "Agrokadry-2030" aimed at training qualified personnel for the implementation of socio-economic development strategies of the region and national projects of Russia
- 3. Formation of conditions for the introduction of advanced educational technologies that allow for creative, educational, educational and volunteer practices of the strategic program "Agroinopolis-2030»
- 4. Creating conditions for the implementation of project activities in the field of biologization, animal genomics, digitalization, territorial development, involving the implementation of full life cycle projects by students within the framework of formal and informal education
- 5. Improving the system of involving University partners in the development of professional socialization, employment and building a professional career of graduates during the implementation of the Agroinopolis-2030 program

#### **Educational policy**

Modernization of the content, technologies and conditions for the implementation of educational programs aimed at training qualified personnel for the implementation of strategies for the socio-economic development of the region and national projects of Russia





Direction of training	2022	2023
38.03.01 Economics	86	90
38.03.02 Management	88	58

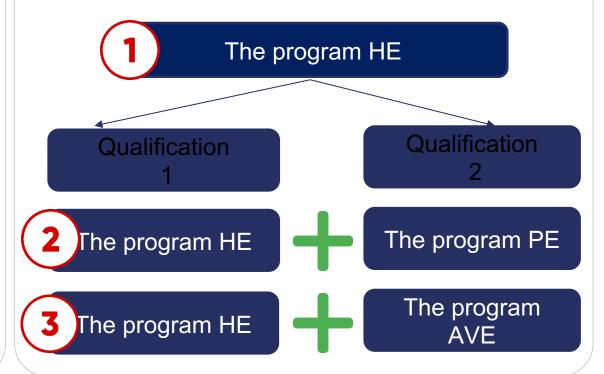
Name of the AVE program	Qualification
Contract system in the field of procurement	Specialist in the field of procurement
Health and safety management in the organization	Specialist in the field of health and safety management
Personnel management	HR Specialist
Organization and functioning of the farm	Farmer (by industry)
Marketing and Sales Management	Marketing Specialist
State and municipal administration	Specialist in the field of public and municipal administration

#### Immediate plans 2023-2024

МИНИСТЕРСТВО НАУКИ И ВЫСШЕГО ОБРАЗОВАНИЯ РОССИЙСКОЙ ФЕДЕРАЦИИ

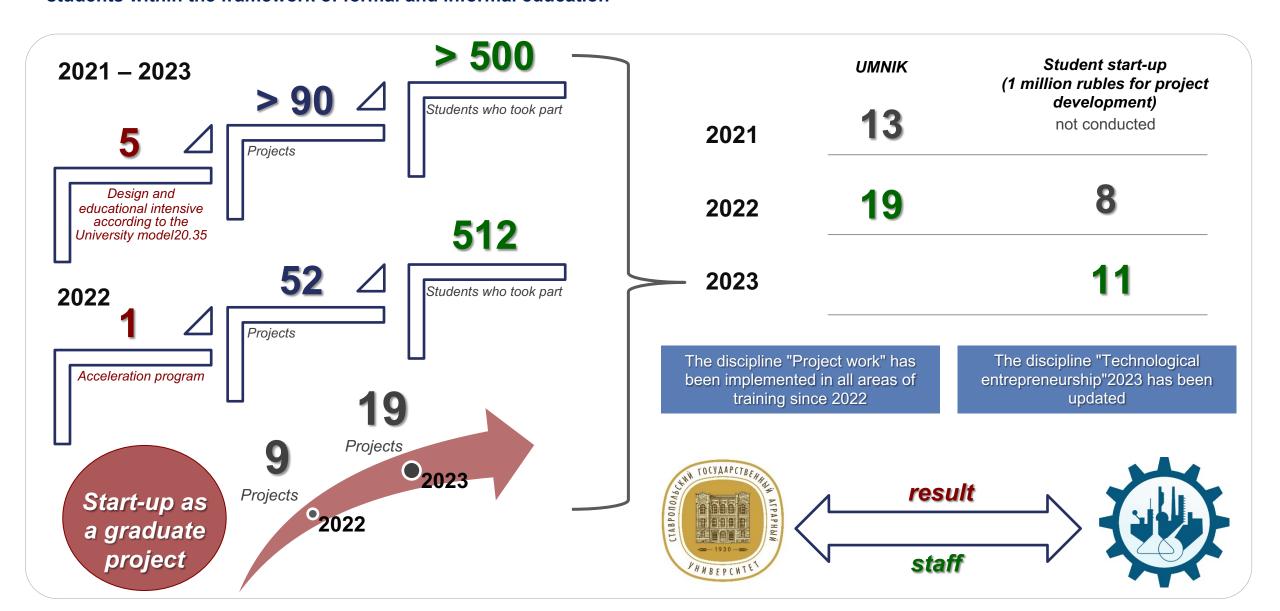
< Letter> Ministry of Education and Science of Russia 21.07.2023 N MH-5/2645-ДА

" On the application of certain norms of the legislation on education" (together with "Methodological recommendations for the development and implementation of educational programs of higher education, providing for the possibility of simultaneous acquisition of several qualifications by students")



Creating conditions for the implementation of project activities in the field of biologization, animal genomics, digitalization, territorial development, involving the implementation of full life cycle projects by students within the framework of formal and informal education







## The system of personnel support of the economy on the basis of the university



Formation of the infrastructure of the Agroinopolis-2030 program in order to conduct early career guidanc work for the self-determination of schoolchildren of Stavropol Krai in choosing their future professional activities



#### **Dynamics of the initiative implementation**

- ☐ Implementation of the profile agricultural shift "We are the owners of the Land!"
- 26 municipal districts of Stavropol Krai;
- 312 students of grades 8-11.
- ☐ The project "The first profession of a pupil"
- 4 training programs;
- **307** students of grades 8-11.
- ☐ Seasonal Schools Project
- 26 municipal districts of Stavropol Krai;
- 243 students of grades 8-11.









### Immediate plans 2023-2024

- ☐ Implementation of the first wave of the Agroclasses project in five territories of Stavropol Krai;
- □ Scaling of projects "We are the owners of the Earth!" and "Seasonal schools" with the support of the Government of Stavropol Krai in order to increase the coverage of schoolchildren;
- ☐ Strengthening work with talented applicants
- Interaction with the Russian Movement of Children and Youth "Movement of the First";
- Implementation of joint projects and initiatives with the Sirius 26 Regional Center for Identifying, Supporting and Developing the Abilities and Talents of Children and Youth of Stavropol Krai;
- Development of our own university Olympiad for schoolchildren.

#### **Educational policy**



#### Increase in admission rates

Total student enrollment increased by 26,7% в compared with the indicators of 2021



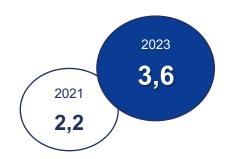


More than in 1,5 – increasing the demand for educational programs

in 3 – increase in the number of students studying in the target direction



in 1,6 – increase in the share of foreign applicants, %



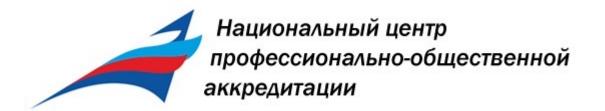
### Opening of new directions and training profiles





#### **Quality of education**





Independent assessment of qualifications. The project "SFA – IAQ in agricultural universities" is being implemented. The Examination Center for qualification assessment of LLC "SK AIC-PROF" has been created. To ensure its professional development, 10 employees and 3 representatives of employers have been trained. In the 22/23 academic year, when passing the GIA procedure, students will receive confirmation of their professional qualifications. An interactive bank of vacancies has been formed (http://stgaujob.ru /) as a platform for expanding opportunities for informing about vacancies in the labor market of the Agro-industrial Complex of the North Caucasus Federal District and meeting employers' requests about the level of achievements of students. An agreement was signed with the employment center of Stavropol to expand the functions of SSAU in providing practical assistance to graduates in finding a job and adapting to the labor market. Certificates of international professional and public accreditation of the National Center for Professional and Public Accreditation for 18 programs were obtained. The procedure of professional and public accreditation was completed and certificates were obtained for 5 educational programs in the areas of preparation 21.03.02 Land Management and Cadastres and 21.04.02 Land Management and Cadastres.





# Scopus



The Design of Learning Results According to International CDIO Standards as a Context for Improving Engineering Education at Agrarian University / Trukhachev A.V., Bobryshev A.N., Kostyukova E.I., Frolov A.V., Taranova E.V. // AgroTech: AI, Big Data, IoT, 2022. pp. 161-170

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Goal 5:

Achieve gender
equality and empower
all women and girls

## **Equality, diversity and Integration strategy**

The University implements a Strategy of Equality, Diversity and Integration, as well as a Policy of a fair wage scale to ensure gender equality. One of the key directions of the university's development: improving the human capital management system in accordance with the concept of employee well-being management (Well-being) – providing favorable conditions for the implementation of all University work processes to maximize the potential of employees and achieve their personal and corporate success.

ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ БЮДЖЕТНОЕ ОБРАЗОВАТЕЛЬНОЕ УЧРЕЖДЕНИЕ ВЫСШЕГО ОБРАЗОВАНИЯ «СТАВРОПОЛЬСКИЙ ГОСУДАРСТВЕННЫЙ АГРАРНЫЙ УНИВЕРСИТЕТ»



## СТРАТЕГИЯ РАВЕНСТВА, РАЗНООБРАЗИЯ И ИНТЕГРАЦИИ

СтГАУ стремится в своей деятельности развивать инклюзивную корпоративную культуру, которая способствует равенству, ценит разнообразие и поддерживает рабочую, учебную и социальную среду, в которой уважаются права и достоинства всех его сотрудников и студентов. В данной стратегии изложена приверженность СтГАУ к таким принципам, как равенство, разнообразие и инклюзивность во всех сферах своей деятельности.

Стратегия равенства, разнообразия и интеграции СтГАУ разработана с целью создания университета равных возможностей, для того чтобы интегрировать всех сотрудников и студентов в единую образовательную среду. СтГАУ при реализации данной стратегии опирается на знания преподавателей, сотрудников и студентов, принадлежащих к различным гетерогенным группам, идентифицирует

ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ БЮДЖЕТНОЕ ОБРАЗОВАТЕЛЬНОЕ УЧРЕЖДЕНИЕ ВЫСШЕГО ОБРАЗОВАНИЯ «СТАВРОПОЛЬСКИЙ ГОСУДАРСТВЕННЫЙ АГРАРНЫЙ УНИВЕРСИТЕТ»





## ПОЛИТИКА СПРАВЕДЛИВОЙ ШКАЛЫ ОПЛАТЫ ТРУДА ПО ОБЕСПЕЧЕНИЮ ГЕНДЕРНОГО РАВЕНСТВА

СтГАУ считает достижение цели устойчивого развития ООН по обеспечению гендерного равенства одним из своих ключевых приоритетов в управлении персоналом.

Это закреплено в политике занятости в отношении прекращения дискриминации на рабочем месте по расовому, социальному, гендерному, религиозному, национальному и иным факторам.

Университет внимательно следит за тем, чтобы решения о повышении заработной платы принимались исключительно от индивидуальных результатов работы и добросовестного исполнения рабочих обязанностей.

Оплата труда в СтГАУ осуществляется не по гендерной принадлежности сотрудника, а по результативности показателей деятельности сотрудника в соответствии с утвержденными КРІ. КРІ по каждой занимаемой должности включают согласованные стратегические показатели развития СтГАУ, стратегические показатели отраслевой принадлежности и показатели личностного роста сотрудника в соответствии с его личным профилем благополучия.

## Developing the values of women's entrepreneurship

## SSAU – regularly implements initiatives for the development of women's entrepreneurship.

A landmark event - "Dialogues with successful entrepreneurs" - has been held at the Accounting and Finance Faculty for five years.

On November 23, 2022, the Department of Finance, Credit and Insurance together with the financial consultant of JSC SC Sovcombank Life, Lyubov Petrovna Stetsyuk, organized a meeting of students with successful businesswomen.

The event was attended by more than 100 students of the Accounting and Finance Faculty and the Faculty of Socio-Cultural Service and Tourism.

Women's entrepreneurship is one of the leading drivers of the country's economy today.







https://old.stgau.ru/obschinf/news/news\_d etail.php?ID=238551

Improving the socio-cultural environment of the university, contributing to the early professionalization of young people and the formation of positive motivation to work to promote and strengthen the brand "Graduate of SSAU - professional, leader, mentor"



## **Dynamics of the initiative implementation**

- ☐ Transformation of the student camp of the asset "Youth Leader of SSAU" into a permanent project "Successful start" for the formation of students' flexible competencies, the development of new areas of self-realization within the framework of agricultural professions
- Integration of 450 first-year students into active student life, involvement of 100 activists in the role of organizers. A pool of youth leaders among first-year students has been formed, the number of members of creative teams and student associations has increased

## Immediate plans 2023-2024

- Strengthening the involvement of students of the Institute of Secondary Professional Education
- Improving the methodology of organizing and conducting the student award "Student of the Year of SSAU"







Goal 6: Ensure access
to water and
sanitation for all

## The University's activities in the field of ensuring the availability and rational use of water resources and sanitation

The University organizes and conducts environmental control of its activities, including in the field of protection and use of water bodies.

The results of industrial environmental control are freely available on the University's website at the link:

https://old.stgau.ru/goals/water/

#### 1. Общие сведения об организации и результатах производственного экологического контроля

#### Таблица 1.1. Общие сведения

№ n/n	Наим	енование данных	Данные
1	наименование) юри	енование (сокращенное дического лица или фамилия, и наличии) индивидуального	Федеральное государственное бюджетное образовательное учреждении высшего образования «Ставропольский государственный университет» (ФГБОУ ВО Ставропольский ГАУ)
2	Наименование субъекта Российской федерации, адрее юридического лица, место жительства индивидуального предпринимателя, с указанием почтового индекса		Юридический адрес: 355017 Ставропольский край, г. Ставрополь пер. Зоотехнический, 12
	3. ИНН	OГРН (либо сведения о внесении записи в государственный реестр аккредитованных филиалов, представительств иностранных юридических лиц)	Наименование объекта, оказывающего негативное воздействие на окружающую среду (далее – объект)
	2634003069	1022601993468	Площадка №1. Главный корпус университета совместно с территорией факультета агробиологии и земельных ресурсов и вспомогательных подразделений
	6. Адрес места хождения объекта	7. Код объекта	8. Категория объекта
г. Ставрополь, пер. Зоотехнический, квартал 112; ул. Мира, д. 302; 304/1; 306; 308; кадастровые номера земельных участков: 26:12:0301120:10; 26:12:030120:33; 26:12:030120:33; 26:12:030120:31		07-0226-005214-П	ш

#### 3. Результаты производственного контроля в области охраны и использования водных объектов

Таблица 3.1. Сведения о результатах учета объема забора (изъятия) водных ресурсов из водных объектов и объема сброса сточных, в том числе дренажных, вод, их качества

Реквизиты письма (номер (при наличин) и дата), которым направлены сведения о результатах учета забора (изъятия) водных объектов и сброса сточных, в том числе дренажных, вод, их качества	Территориальный орган Росподресурсов, в который направлены результаты учета забора (изъятия) водных ресурсов из водных объектов и сброса сточных, в том числе дренажных, вод, их качества	Количество загрязивнощих в шецеств, содержащихся в забранной (изъятой) воде из водного объекта (по каждому контролируемому загрязивнощему веществу), тони/год (заполняется в случае использования одного и того же водного объекта для забора воды и для сброса сточных вод)
1	2	

Таблица 3.2. Сведения о результатах наблюдения за водными объектами (их морфометрическими особенностями) и их водоохранными зонами, а также о результатах учета качества поверхностных вод в местах сброса сточных, в том числе дренажных, вод выше и ниже мест сброса (в фоновом и контрольном створах)

Реквизиты письма (номер (при наличии) и дата), которым направлены сведения о результатах учета качества поверхностных вод в местах сброса сточных, в том числе дренажных, вод выше и пиже мест сброса	Федеральный орган исполнительной власти, орган исполнительной власти субъекта Российской Федерации или орган местного самоуправления, в который направлены результаты учета качества поверхностных вод в местах сброса сточных, в том числе дренажных, в том числе дренажных, вод выше и ниже мест сброса	Режизиты письма (номер (при наличии) и дата), которым направлены сведения о результатах наблюдения за водными объектами (им морфометрическими особенностями) и их водоохранными зонами	Территориальный орган Росводресурсов, в который направлены сведения о результатах наблюдения за водными объектами (их морфометрическими особенностими) и их водоохраниными зонами
1	2	3	4

## Projects in the field of ensuring rational consumption and production models

Within the framework of achieving the sustainable development goal "Goal 6: Ensure access to water and sanitation for all", the university implements:

- Environmental policy of the SSAU
- Hazardous Waste Disposal Policy
- Plastic Waste Reduction Policy

МИНИСТЕРСТВО СЕЛЬСКОГО ХОЗЯЙСТВА РОССИЙСКОЙ ФЕДЕРАЦИИ ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ БЮДЖЕТНОЕ ОБРАЗОВАТЕЛЬНОЕ УЧРЕЖДЕНИЕ ВЫСШЕГО ОБРАЗОВАНИЯ «СТАВРОПОЛЬСКИЙ ГОСУДАРСТВЕННЫЙ АГРАРНЫЙ УНИВЕРСИТЕТ»



ЭКОЛОГИЧЕСКАЯ ПОЛИТИКА ФГБОУ ВО СТГАУ

> Ставрополь 2019



## Youth participation in ensuring the availability and rational use of water resources and sanitation



Students of the SSAU are involved in the problems of ensuring the availability and rational use of water resources and sanitation within the framework of the educational process and scientific activities.

The result of this work is their first research in this field, theses, as well as participation in popular science lectures, conferences, etc.

North Caucasus Interregional Environmental Forum https://vk.com/album-187658431\_284671334









российский индекс научного цитирования

Science Index



BIOINDICATION OF WATER BODIES. Lazorenko P.D., Okrut S.V. In the collection: Topical issues of ecology and nature management. Collection of scientific articles based on the materials of the VII International Scientific and Practical Conference. Stavropol, 2022. pp. 104-107.

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ECOLOGICAL PROBLEMS OF WATER RESOURCES OF THE STAVROPOL TERRITORY. Slesarenko A.V. In the collection: A YOUNG RESEARCHER: OPPORTUNITIES AND PROSPECTS. Collection of scientific articles based on the materials of the International Scientific and Practical Conference. Stavropol, 2022. pp. 310-313.

POLLUTION OF BOTTOM SEDIMENTS AS AN INDICATOR OF THE ECOLOGICAL STATE OF SURFACE WATER BODIES. Korovin A.A., Okrut S.V., Stepanenko E.E. In the collection: Natural resource potential, ecology and sustainable development of Russian regions. Collection of articles of the XX International Scientific and Practical Conference. Edited by V.A. Seleznev, I.A. Lushkin. Penza, 2022. pp. 108-110.

VETERINARY AND SANITARY ASSESSMENT OF FRESHWATER FISH SELECTED IN PLACES OF SPONTANEOUS TRADE IN INVASIVE DISEASES. Dyachenko Yu.V., Lutsuk S.N. In the collection: Modern problems of general and private parasitology. Proceedings of the IV International Parasitological Symposium. St. Petersburg, 2022. pp. 71-74.

РОССИЙСКИЙ ИНДЕКС НАУЧНОГО ЦИТИРОВАНИЯ

# Science Index



DYNAMICS OF CHANGES IN THE WATER QUALITY OF THE TASHLA RIVER. Kulitskaya O.Yu., Babansky M.S., Stepanenko E.E., Khalikova V.A., Zelenskaya T.G. In the collection: A YOUNG RESEARCHER: OPPORTUNITIES AND PROSPECTS. Collection of scientific articles based on the materials of the International Scientific and Practical Conference. Stavropol, 2022. pp. 187-192.

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THE RESULTS OF A PARASITOLOGICAL STUDY OF FRESHWATER FISH SELECTED IN PLACES OF SPONTANEOUS TRADE FOR THE PRESENCE OF PATHOGENS OF INVASIVE DISEASES. Lutsuk S.N., Dyachenko Yu.V. In the collection: Modern problems of general and private parasitology. Proceedings of the IV International Parasitological Symposium. St. Petersburg, 2022. pp. 145-147.

COMPOSITION OF A BLISTER CELL FOR THE DETERMINATION OF PHOSPHATES IN AQUEOUS SOLUTIONS. Belopukhov S.L., Trukhachev V.I., Zhevnerov A.V., Seregina I.I. Patent for invention 2776016 C1, 12.07.2022. Application No. 2021119479 dated 02.07.2021.

# AFFORDABLE AND

## **Goal 7:**

Ensure access to affordable, reliable, sustainable and modern energy

## Educational programs for training specialists in the field of sustainable energy development

#### **Educational programs**



13.03.02 - ELECTRIC POWER AND ELECTRICAL ENGINEERING



35.03.06 AGRO-ENGINEERING (ELECTRICAL EQUIPMENT AND ELECTRICAL TECHNOLOGIES)



35.03.06 AGROENGINEERING (AUTOMATION AND ROBOTIZATION OF TECHNOLOGICAL PROCESSES)

2500 sq.m area of the educational and laboratory base

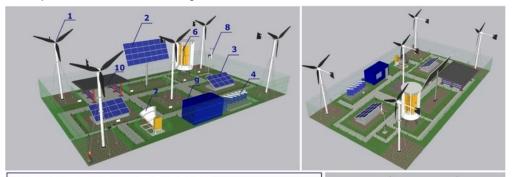
33 educational and research laboratories

The faculty has laboratories "Simulation modeling of electrical systems and devices in the SimInTech environment" and "Intelligent systems of integrated accounting of energy resources", the only educational laboratory in Russia – the competence center "Intelligent sensor systems for dispatching control and control of heat consumption parameters", the largest training ground in the South "Alternative Energy" is under construction, a training ground for electrical installation works, a virtual reality (VR) training and research laboratory "Installation and technical operation of heat metering units", etc.

## Scientific and educational projects in the field of sustainable energy development



Solar panels on the roof of SSAU building



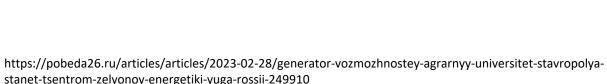
#### Техническое оснащение полигона:

- 1. Ветроэнергетические установки 5 шт., общей мощностью 15 КВт.
- 2. Солнечная интеллектуальная трек-система 1 шт., общей мощностью 15 КВт.
- 3. Стационарная солнечная электростанция 2 модуля, общей мощностью 6 КВт.
- 4. Солнечные коллекторы (тепловая энергия) 5 модулей, общей мощностью 5 КВт.
- 5. Тепловой насос (тепловая энергия) 1 шт., общей мощностью 5 КВт.
- 6. Ветроэнергетическая установка с вертикальным ротором 1 шт., общей мощностью 3,5 КВт.
- 7. Концентратор солнечной энергии 1 шт., общей мощностью 5 КВт.
- 8. Метеостанция 1 шт.
- 9. Технологический блок-контейнер полигона.
- Брифинг зона

The educational program "Traditional and renewable energy in the agroindustrial complex" studies in detail two strategic types of green energy for Stavropol – wind and solar.

At the same time, emphasis is placed on the joint operation of power grids, wind generators and solar modules, solving problems of accumulation and transportation of electricity over long distances with minimal losses. If earlier knowledge in the field of green energy was given to students only point-by-point, now teachers give a wide range of theory and practice in 2 years.

The scientific developments of SSAU in the field of green energy are primarily focused on remote farms and structures: for example, apiaries, pastures and fisheries facilities, but in the future they may also switch to large enterprises.





## Popularization of sustainable energy development among young people







Energy Conference, 2022

As part of the week of the National Technological Initiative (NTI) of faculties, a conference dedicated to the development of intellectual energy in Russia was held at the Boiling Point of Stavropol State Agrarian University.

Today scientists, engineers, today's students, and in the future specialists in the field of energy face not ambitious tasks for sustainable energy development.





## WEB OF SCIENCE





Synthesis of the structure of an automated power management system in an industrial enterprise / Khorolsky V., Anikuev S., Mastepanenko M., Gabrielyan S., Sharipov I. // Revista gestao & tecnologia-journal of management and technology. 2022. Vol. 22 (SI). pp. 58-72.

Concept, purpose, and objectives of building an automated power management system of an industrial enterprise / Khorolsky V., Anikuev S., Mastepanenko M., Gabrielyan S., Sharipov I. // Revista gestao & tecnologia-journal of management and technology. 2022. Vol. 22 (SI). pp. 200-209.

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Optimal routes choice for maintenance units moving to service electrical equipment of agricultural facilities / Zhdanov V. G., Logacheva E. A., Yarosh V. A., Ivashina A. V. // Journal of Physics: Conference Series. Vol. 2176 (1). A. no. 012092.

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Goal 8:

Promote inclusive and sustainable economic growth, employment and decent work for all

## Free retraining programs based on SSAU

## SSAU is a platform of free projects for students to improve competitiveness in the labor market

#### Who can take free training?

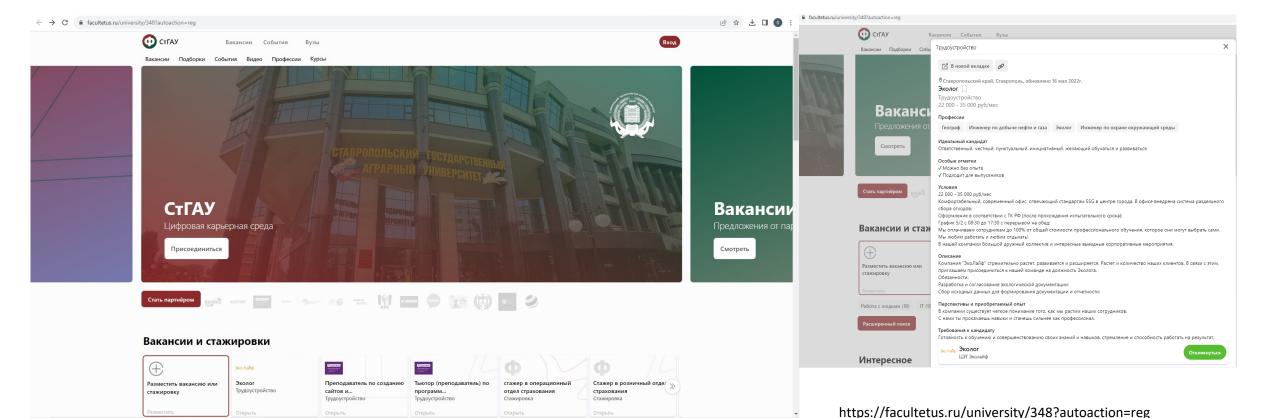
- Citizens aged 50 years and older, citizens of pre-retirement age;
- Women on parental leave under 3 years of age;
- Women who are not in an employment relationship and have preschool children aged 0 to 7 years inclusive;
- Unemployed citizens registered with the employment service;
- Employees at risk of dismissal, including the introduction of part-time work, downtime, temporary suspension of work, provision of leave without pay, measures to release employees
- And other citizens



# **Everyone will find a job! The system of employment assistance in SSAU**

## **Digital career environment of SSAU**

Trainings on the formation of a resume, career strategy and a pool of vacancies from enterprises and organizations are available daily for students and graduates of the university.

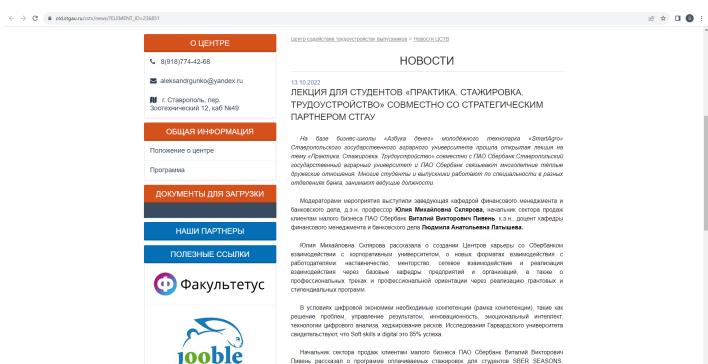




# Everyone will find a job! The system of employment assistance in SSAU

#### University as a platform for career development

On a regular basis, SSAU, together with leading enterprises and organizations, conducts events and implements specialized events aimed at promoting the employment of students and graduates.



Целями данной программы являются:

Lecture for students "Practice. Internship. Employment" together with a strategic partner – Sberbank



https://old.stgau.ru/cstv/news/?ELEMENT\_ID=236851

Creating optimal conditions for involving young people in research and project activities and promoting the brand "Young scientist of SSAU - researcher, inventor and entrepreneur"



## **Dynamics of the initiative implementation**

Formation of values of entrepreneurial culture and project activity





- Workshop "Startup, entrepreneur, project manager"
- Business simulation on entrepreneurial competencies
- Hackathon on FoodNet business cases
- Rapid-foresight session "Development of student potential in PTK"
- ☐ Clubs. A day with an entrepreneur
- ☐ Ted-talks Team Management Technologies
- Crash test "How to find, create and test the genius of a new business idea?"

#### More than 80 events in 3 years More than 6 thousand participants





# **Involvement of students in project activities**

- 5 design and educational intensive courses based on the University model 2035
- Acceleration program in cooperation with Uralchem Innovation LLC
- the program of support and acceleration of startup projects
   "New philosophy of entrepreneurship" 2025

98 events

**19** regions of Russia

The best Entrepreneurial "Boiling Point" by Food Net

**52** Start-up projects

**19** winners of the Student Start-up Program

**14** winners of the federal program UMNIK

Total amount of funds raised

26,5 million rubles

## Work plan for 2023 - 2024

Increase in the number of winners of the "Student Startup" and "UMNIK" programs

growth by 2 times

Date	Name
20 – 30 October 2023	Entrepreneur's Lecture Hall  Basic educational course on the basics of entrepreneurship
03 – 30 November 2023	Case workshop Practice-oriented block together with business representatives
01 – 10 December 2023	Regional demo day based on the results of the discipline "Project activity"
February – March 2024	Acceleration program "AgroStart"
May 2024	Mayak Scientific Management Platform A set of educational events for startup project managers

















## Scopus

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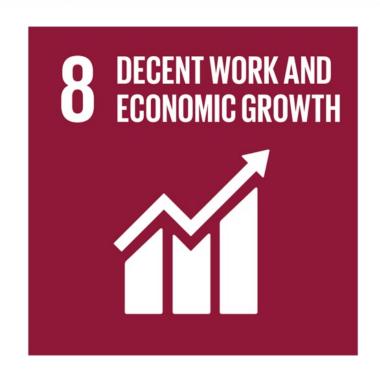
Development of Budgeting and Cost Planning Methodology / Agafonova N. P., Kulish N. V., Belgibayeva A. S., Oksenyuk E. E., Sytnik O. E. // Advances in Science, Technology and Innovation. 2022. P. 359-364

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Goal 9:

**Build resilient** infrastructure, promote sustainable industrialization and foster innovation



## **CORE OF THE DEVELOPMENT PROGRAM**

## • Transition from the model of a branch university to the model of an entrepreneurial one

Elements of an entrepreneurial university	What is the university doing in this direction		
Enhanced management core	The presence of a strong leadership that is able to respond to the demands of the market economy, while maintaining a balance of new managerial and traditional academic values	University's Turn to Business     New academic and industrial partners (agroholdings, MGIMO, HSE, MIPT, Lomonosov Moscow State University, UNN Lobachevsky University)	
Expanded periphery of development	<ul> <li>Reorganization of the organizational structure</li> <li>The functionality of the first Vice-rector and the reassembly of the Board of Trustees</li> </ul>	Introduction of representatives of R&D departments of agricultural holdings to the STS	
Diversified funding base	Obtaining new types of financing:  • Priority-2030+ region and the Ministry of Agriculture of the Russian Federation, RSF, targeted business donations (20 million in 2022, for 2023-2024 academic years – already 50), Professionalism, grants for SSS, acceleration program and PTC	Expanding the number of customers of scientific and technical services and R&D	
Stimulated academic structures	<ul> <li>Establishment of the Institute of Agricultural Breeding and Genetics</li> <li>Consolidation of faculties into institutes</li> </ul>	New standards for the organization and support of research and development (grants to groups, researchers, youth)	
Integrated entrepreneurial culture	Traditions according to the SPA rating: innovation and student project contests, funds raised, patent activity, etc.	New norms and traditions: design and educational intensive courses, startup as a diploma, disciplines on project activities	

## SSAU as the center of innovative development of the region

TRANSFORMATION OF EDUCATION IN ACCORDANCE WITH THE DEMANDS OF THE ECONOMY

FORMATION OF THE PERSONNEL POTENTIAL OF THE AGRO-INDUSTRIAL COMPLEX OF THE STAVROPOL TERRITORY

UNIVERSITY CONTRIBUTION IN TECHNOLOGICAL DEVELOPMENT:

**Breeding and nursery of fruit and berry crops** 

Breeding and genetics in animal husbandry



## MANAGEMENT OF THE DEVELOPMENT PROGRAM

#### Directorate – balanced resource allocation

**Project Office – coordination of the launch and implementation of program activities** 

Passports of strategic projects and short-term projects – tasks and results

Road maps – organization and control of execution

Stimulating project participants - 80% employees are involved in the implementation of the program

Presentation of the program and its results at the new annual forum – synchronization of subpoenas with stakeholders

Protection of reports in the Duma of the Stavropol Territory and profile committees – providing external expertise of the contribution to the development of the region and the industry

Governor – head of the university team on defense before the Council "Priority – 2030" – tasks and interests of the region











## RESEARCH POLICY. POLICY IN THE FIELD OF INNOVATION AND COMMERCIALIZATION OF DEVELOPMENTS

## **Policy objective**

Creation of conditions for the formation of fundamental knowledge and competitive applied developments in the subject areas of the Agroinopolis-2030 program, development of tools for stimulating and motivating SPS to increase the effectiveness of intellectual activity, their commercialization and promotion, in order to strengthen the University in the status of a leader in the transfer of research, production, educational and digital technologies aimed at sustainable development region

## Партнеры









University





## **Key priorities/directions**

- 1. Improving the scientific and innovative ecosystem of the University
- 2. Increasing the publication activity of scientists and young researchers, including in priority areas of scientific and technological development
- 3. Stimulating research and innovation activity in the areas of the University's subject specialization
- 4. Formation of a system of selection and support of researchers
- 5. Involvement of students in project activities based on the integration of interdisciplinary research on strategic projects and in the areas of subject specialization of the university





# Formation of a system of selection and support of researchers

## Competition for young scientists LABORATORY ASSISTANT-RESEARCHER

- 1. 6 projects supported
- 2. 15 young researchers were employed
- 3. Purchase of reagents
- 4. Additional payment to the scientific supervisor

## Competition for an increased scholarship for graduate students

 graduate students receive an additional scholarship to carry out research and development

## Grant for young scientists in the field of science and innovation

- 1. Research grant.
- 2. In 2022, 9 projects were supported.
- 3. The opportunity to purchase equipment.

## Competition of research projects and researchers

- 1. 21 supported projects
- 2. More than 50 young researchers are involved
- 3. Supported by financial incentives for high results in scientific activity 117 teaching staff

## Immediate plans 2023-2024

- Industrial Scholarship Program for graduate students
- Competition "Laboratory under the guidance of a young scientist"





1.3 times - growth of extrabudgetary income from R&D, thousand rubles per 1 SPS

- A startup center
- The student scientific society "Agroinopolis-2030" (274 students)
- The youth techno-park "Smartagro" was created (600 students)

## Increasing the publication activity of researchers, including in priority areas of science

## **Dynamics / Current status**

 More than 30 training and methodological measures of professional development were carried out according to the programs:

"Academic writing: the construction of a scientific text in accordance with the requirements of publications indexed in international databases".

"International quality standards for scientific publications and journals on agriculture and related fields"...;

- 170 SPS of the university and more than 400 SPS of universities members of the consortium were trained.
- 4 international conferences were held with indexing in Scopus and WoS databases
- Since 2021, the electronic scientific journal "Research of problems of Economics and Finance" has been published
- In 2023, the student network journal "Problems of Agrarian Science"

#### Results

- increase in the number of publications in Scopus databases by 26%, in WoS by 15% annually.
- improving the quality of publications: in 2022, 15 articles were published in Scopus Q1-Q2, 22 articles in WoS

## Immediate plans 2023-2024

- Holding an international conference with indexing in Scopus
- Translation of the journal "Agrarian Bulletin of the North Caucasus" to the digital platform Elpab
- The inclusion of the journal "Research of Problems of Economics and Finance" into the list of the Higher Attestation Commission
- Development of the student network magazine "Problems of Agrarian Science"







Creating optimal conditions for involving young people in research and project activities and promoting the brand "Young scientist of SSAU - researcher, inventor and entrepreneur"



## **Dynamics of the initiative implementation**

#### Popularization of science and invention



- The scientist says
- School of a young scientist
- Scientific and educational intensive
- Science Slam
- Master class "Competitive activity of SSS members"
- ☐ Intellectual game "Energy Umnik-2022"
- ☐ Financial stand-up, etc...

#### More than 150 events in 3 years More than 9 thousand participants





# Popularization of science and formation of a community of young researchers



One of the key objectives of the research policy and policy in the field of commercialization of developments of Stavropol State Agrarian University is the development of youth initiatives and the popularization of science.

Science Slam on the basis of SSAU, October 2022

https://vk.com/album-187658431\_287975662





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### Scientific articles on achieving the Sustainable Development Goal



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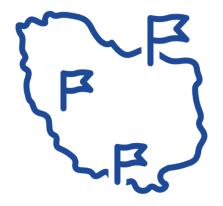
Goal 10:
Reduce inequality within and

among countries

## Educational programs for training specialists in the field of sustainable development of territories

## In 2022, the university implemented the following educational programs dedicated to reducing the level of inequality within and between countries:

- 38.03.01 Economics World Economy
- 38.03.04 State and municipal administration Municipal administration
- 38.03.04 State and municipal administration Regional Administration
- 38.04.04 State and municipal administration State Regional Administration
- 38.04.02 Management Human Resource management
- 38.04.02 Management Project Management











## Scientific and educational projects in the field of reducing inequality within and between countries





SSAU together with HSE University has created a mirror laboratory to develop a new spatially differentiated approach to the management of the Stavropol agro-industrial complex.

The Laboratory for Monitoring Sustainable Socio-Economic Development of Rural Areas of Stavropol State Agrarian University together with the Institute of Agrarian Research of the Higher School of Economics (Moscow) is implementing a project in the direction of "Spatial analysis as a key tool for managing rural development in the region: principles, methods, practical recommendations".



## Scientific and educational projects in the field of reducing inequality within and between countries



The new laboratory is developing a new spatially differentiated approach to the management of the agro-industrial complex of Stavropol Krai.

GIS technologies are used to create a project that is potentially in demand throughout the country.

Criteria are being developed to accurately determine the level of development of a particular territory.

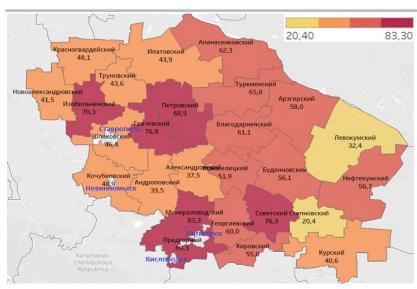
The next stage of the work will be the approbation of the methodology in certain areas of Stavropol.

According to the results of the research, scientists will give not only proposals for the zoning of the region, but also recommendations for the authorities on measures to support the agro-industrial complex.





## Scientific and educational projects in the field of reducing inequality within and between countries



The proportion of rural residents who do not consider the development of alternative employment as a priority, %



### Key areas of work:

- Collection, compilation and analysis of data on the socio-economic condition of the municipality, through a comprehensive survey of the territory. Preparation of analytical materials.
- 2. Formation of a database and indicators of the level of socio-economic condition of the territory of municipalities and the region
- Monitoring of socio-economic development of the municipality and development of recommendations for its development management
- 4. Forecasting of socio-economic development of municipalities
- 5. Development of a Strategy for the socio-economic development of the municipality
- 6. Development of the passport of the municipality and recommendations for its management
- 7. Consulting support of regional and municipal authorities on issues of integrated rural development



## **Identified problems of rural development**



The outflow of the able-bodied population. Depopulation of rural areas



Low income level of the rural population



Aging of the rural population and youth by the age of 18



Low employment and high unemployment



Diversification of activities



# Creation of a problem-oriented center for rural development in the South of Russia

### **SOLUTIONS**

## Rural Development Center of the South of Russia

- Identification, analysis and development of solutions based on the social expectations of rural residents
- Monitoring the effectiveness and quality of the implementation of federal, regional, and municipal programs
- Professional development of management teams

### **RESULTS**

**Profiles of rural areas** (for the population, entrepreneurs, authorities)

Development strategies of 26 city and municipal districts

Geo-information system "Rural territories of the region"

**New educational programs** (Master's degree and APE)

30%
The growth of the tourist flow

**12**<sub>сфер</sub>

**Quality of life standards** 











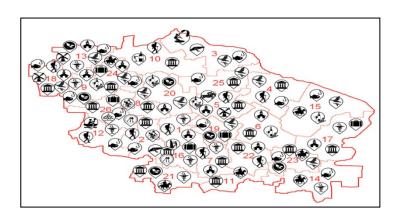


## Integrated rural development The project "Development of innovative types of tourism in Stavropol Krai"

#### 1. Study and analysis of the resource potential of the region



3. Ranking of different types of tourism by priority of development for the district





4. Creating a "Portrait" of a tourist KMV (CMW) and positioning of the behavior



## 2. Adjusting the direction of tourist flow throughout Stavropol Krai



Strategic objectives

Increase the tourist flow to 5 million in the region

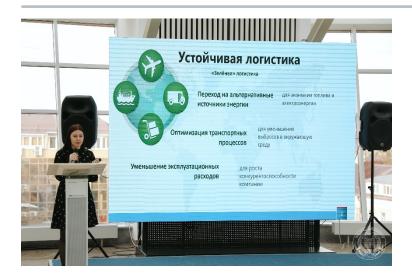
Development of indirect 54 industries

Increase the number of job positions in tourism to 45 thousand people





## Participation of young people in the development of solutions for sustainable development of territories





SSAU students are involved in the problems of sustainable development of territories within the framework of the educational process and scientific activity.

The result of this work is their first research in this field, theses, as well as participation in popular science lectures, conferences, etc.

Students also participate in the organization of sociological research on sustainable rural development.

Round table "Sustainable regional development as a response to the global challenges of our time", 2022

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### Scientific articles on achieving the Sustainable Development Goal



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### Scientific articles on achieving the Sustainable Development Goal



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Goal 11:

Make cities inclusive,

safe, resilient

and sustainable



#### **General information on SSAU**



In terms of the occupied area, SSAU is one of the largest agricultural universities in the country, which in its structure has 105 real estate objects with a total area of 163,958.41 sq. m, including: 124.3 thousand sq. m -educational and laboratory facilities (75.8%); 37.6 thousand sq. m - hostels; 9459.1 hectares of land, of which 9422 hectares are agricultural lands.

The University campus facilities are located in several areas - in the center of Stavropol and in the industrial zone of the city, which sets the priorities of the campus policy.

Student dormitories are located within walking distance from educational buildings in each of the territories. The University pays much attention to ensuring the security of all its facilities, therefore, starting in 2013, a modern access control system (ACS) based on the Sigur software, developed at the University, has been introduced.

All buildings and structures are included in a unified access control and management system.

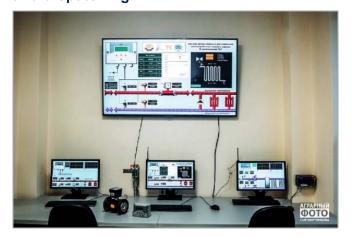
The University became the first university in the South of Russia to introduce a biometric facial recognition system using artificial intelligence and computer vision "Vizir", which identifies visitors passing through the turnstile.

The ACS system includes 35 turnstiles and 440 video surveillance cameras.

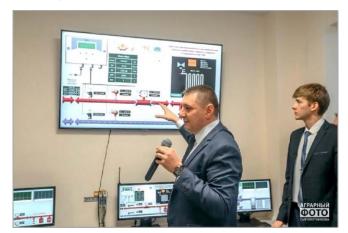


#### **General information on SSAU**

#### Educational and research laboratory of SSAU "Energy efficient Technologies heat consumption and dispatching"



**Faculty of Electrical Power** 



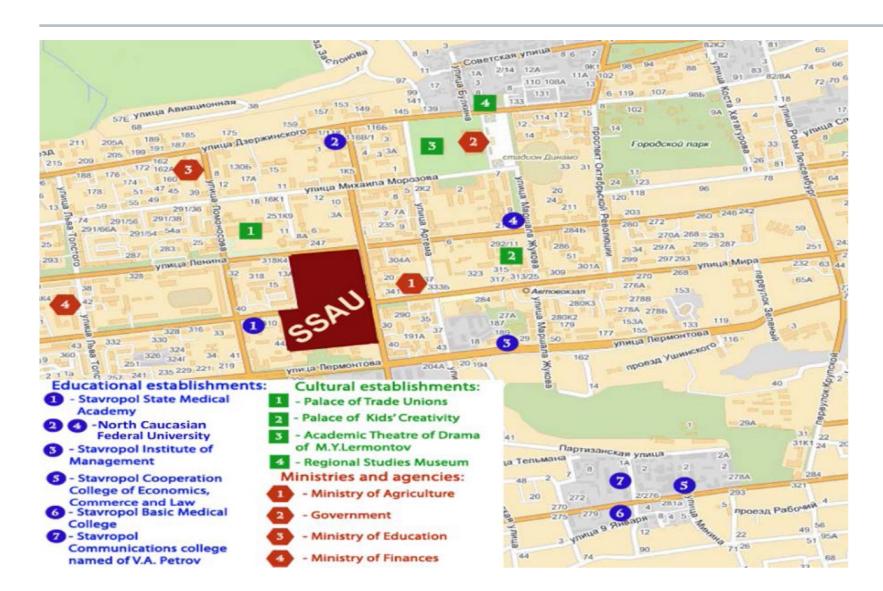
In 2018, SSAU together with strategic partners - the companies TEPLOCOM, VZLET (St. Petersburg) and JSC Teploset (Stavropol) developed and implemented an automated complex for remote dispatch control and management into the thermal power system of SSAU heat consumption parameters of the university, which allows real-time remote monitoring and control of heat consumption parameters (heating and hot water supply systems), taking into account automatic weather compensation of the coolant temperature. Savings of the University from the introduction of this system in 2019-2020 amounted to 135,714.28 euros.



A comprehensive system of alternative energy sources also operates on the campus, which allows illuminating both the inner and the adjacent urban area at night.



## General information on SSAU Social environment of the main building of the university











1887, the building of the Caucasian Diocesan Women's School



2022, the Main building of the main campus of SSAU

In 1875, on the initiative of Bishop German of the Caucasus and Yekaterinodar, by decree of the Holy Government Synod and with the permission of Emperor Alexander II, a diocesan school for women was opened in Stavropol. In 1887, according to the project of the famous Stavropol architect Fyodor Karlovich Knorre, the own building of the Caucasian Diocesan Women's School was erected on the northeastern side of Sofievskaya Square. This extraordinary three-storey building made of polished shell-rock, facing Nevinnomysskaya street (today - Mira street), has become a special phenomenon in the provincial center. On its third floor, in a large hall full of sunlight, a house church in honor of the Tikhvin Icon of the Mother of God, renamed in 1896 in honor of the Intercession of the Most Holy Theotokos, settled. The building soon became cramped for three hundred pupils and teachers of the school. In 1908, engineer and architect Grigory Kuskov proposed a project to expand the building. No less venerable architect Andrian Petrovich Bulygin proposed his project. It was this project of expanding the building at the expense of an extension on Mitrofanovsky (today -Zootechnical) lane that was approved by a special diocesan commission. In 1910, the construction of a three-story extension began, to a large extent repeating the facade drawing of the first building.

The construction lasted for over five years. The newly built building with two main entrances was an example of urban planning, becoming the most majestic in Stavropol.

In 1932, the sheep breeding institute moved from Moscow to the building of the former diocesan school, later transformed into SSAU.

The building of the main building of SSAU is officially recognized as a historical and cultural monument of regional significance.



#### A protective commitment that confirms the historical and cultural value of the main building of SSAU





### Territory of the Main building of SSAU -

an open area for city, regional, federal and international projects, events, programs in the field of culture and sports, volunteering, dialogue between the authorities and the local community



























'The house where the general and historian lived I.D. Popko", 2019

Among the significant objects of the country's historical and cultural heritage there are buildings-objects of cultural heritage of regional significance. For example, on Mira street 345 in Stavropol there is a "House where general and historian I.D. Popko ". The historical monument was built in 1860.Today, this building houses the educational and laboratory building of SSAU, on the basis of which advanced training and professional training programs, as well as free education and retraining programs for people over 55 years old, are implemented.

Ivan Diomidovich Popko was the best connoisseur and writer of Cossack history, his works were published and highly appreciated even at the St. Petersburg Academy of Sciences.

For a long time, the building was in a state requiring major overhaul; it housed a night restaurant and private grocery stores. SSAU managed to obtain the right to manage the "House where the general and historian I.D. Popko "and by 2019 the building was overhauled and an official security obligation was received for it as an object of cultural heritage of regional significance (Stavropol Territory).



#### Protective obligation as an object of cultural heritage of regional significance









# "Monument to Student Records-Book" on the territory adjacent to the main building of SSAU

The young man, deeply immersed in the study of a textbook against the background of a huge record book, "sits" at the intersection of Lenin Street and Zootekhnichesky Lane, not far from the entrance to Stavropol State Agrarian University (SSAU).

The sculpture is 1 meter and 70 centimeters high and 3 meters wide. The author of the composition is Stavropol sculptor Vasily Chuikov, a member of the Union of Designers of Russia, laureate of the Governor's Prize in design.

Chuikov himself sincerely hopes that the monument will become a place of pilgrimage for students.

Indeed, not even an hour has passed since the opening, and the students have already come up with a new tradition - if you want to get a "pass" or "excellent" in the exam, be sure to touch the bronze record.



### Providing free public access to open green spaces of SSAU









In the very center of the city of Stavropol, at the intersection of Pushkin and Lenin streets along the perimeter of the educational buildings of SSAU, in March 2019, the grand opening of Student Avenue took place. The holiday was attended by the first persons of the city and the region. The grand opening of Student Prospect united the youth of the city of Stavropol - more than 2,000 people took part in a significant historical event.

The Governor of the Stavropol Territory, Vladimir Vladimirovich Vladimirov, addressed the young generation with a welcoming speech: "For about 20 years, the long-term construction at this place was surrounded by a fence. And only in 2019, through the joint efforts of the city authorities and SSAU, the territory around the educational buildings of SSAU was equipped as a wide pedestrian zone with benches, lighting and "green" areas - 38 decorative linden trees, which were bred specifically for the urban environment.

Mayor of the city of Stavropol, graduate of SSAU (1984) -Andrei Khasanovich Dzhatdoev (03.09.1962 - 30.04.2020) recalled his student years, within the walls of the university, noted the development of SSAU: "The new Student Avenue will become a favorite place of communication for all students of the city of Stavropol the pearl of the urban environment "



# Providing free public access to open green spaces of SSAU Examples of landscape designs of territories adjacent to SSAU

SSAU campuses are an integral space of educational, administrative buildings, student dormitories, sports complexes, outdoor sports grounds. The campus areas are open to the public.

The main campus of SSAU is located in the very center of the city of Stavropol, which for many years has been the leader of the All-Russian competition for the most comfortable urban (rural) settlement.

SSAU, sharing the policy of improvement of the city of Stavropol, since 2015, has been the winner of the city competition "The best territory adjacent to an enterprise, institution".



Territory of SSAU campus No. 2 - faculties biotechnological and veterinary medicine



The territory of the SSAU campus No. 2 - the alley leading to the operating veterinary clinic of SSAU, serving the pets of the city residents



Territory of the main campus of SSAU No. 1



Adjacent to the main building of SSAU No. 1 city alley leading to the underpass - lawns created by SSAU specialists



Adjacent to SSAU dormitories city alley leading to the underpass - landscaping is maintained by SSAU specialists



Flower beds at the central entrance new 11 -storey dormitory of SSAU, decorated by specialists

# Providing free public access to open green spaces of SSAU Improvement of the streets of the city of Stavropol and the territories adjacent to the city



Territory of Kindergarten "Zhuravushka" next to campus number 1



Territory of multi-apartment 9-storey houses located near dormitories of SSAU campus number 1





Old objects of the city of Stavropol



The adjacent territory to the campus of SSAU number 2 park zones



Territory of private households, located near the campus of SSAU number 2

### **Priority of pedestrian access in SSAU campuses**

The facilities of each of the 2 SSAU campuses - educational buildings, laboratories, utility rooms, dormitories, sports facilities are located within walking distance inside the SSAU territory.

But since each campus occupies one or two blocks in the city, and some facilities are located on opposite sides of city highways, SSAU pays special attention to the presence of pedestrian zones that ensure safe movement in the urban areas adjacent to the university not only for its employees and students, but and for city dwellers. Therefore, all objects of SSAU campuses can be reached via pedestrian crossings and an underground passage.





Underground passage from educational buildings of the main campus to 3 dormitories of SSAU





Pedestrian crossings leading to the educational buildings of the main campus and to the 11-storey dormitory of SSAU





Pedestrian crossings leading to the educational buildings of the main campus and to the 11-storey dormitory of SSAU

### **Priority of pedestrian access in SSAU campuses**

SSAU campus facilities are located in the very center of the city of Stavropol and in the center of one from the sleeping areas of the city of Stavropol, therefore SSAU took on voluntary responsibility for the improvement, lighting and landscaping of the urban areas adjacent to the buildings and dormitories of the campus.

SSAU, with the support of the Stavropol city administration, overhauled the underground passage through which students and residents of the city can safely go both to SSAU campus facilities and to other city objects - the perinatal center of the Stavropol Territory, an old church, kindergartens for children aged 3 to 7 years.

SSAU ensures the cleanliness of the underpass, and in winter - a safe anti-slip coating of the steps of the transition.



Underpass, 2000 - 2017



Underpass, 2022



## Bicycle parking on the campuses of SSAU

Walking is a priority way to move around the campuses of SSAU. Free entry and exit of cars is prohibited on the territory of SSAU. The territory of the campuses is equipped with bicycle parking.















### **Provision of affordable housing for students (dormitories)**







SSAU has 5 hostels for students. Places in the Campus are provided: nonresident and foreign students and postgraduates students of advanced training and professional retraining programs guests of SSAU for the period of their participation in the implementation of joint projects. Places in the dormitories of the Campus allocated to nonresident family students are determined by a joint decision of the SSAU administration and the student trade union based on the available housing stock.

To represent the interests of students in each hostel, there is a collegial public body of self-government - the student council of the hostel.

Student rooms correspond to the standards of equipment of student dormitories, are equipped with everything necessary for living -furniture and other equipment.

Equipped places for self-study, equipped with Internet access; a library, gyms and sports halls, conditions for the work of creative studios have been created.

The sports rooms of the hostels are equipped with exercise bikes, power trainers, wall bars, and punching bags.

On the territory of student dormitories there is a workout area, a universal sports ground with three play areas for volleyball, streetball and badminton.







### **Providing affordable housing for employees**

### An apartment building built for university staff





In 2005, a plot of land was allocated from federal land for SSAU for the construction of a multi-storey residential complex on Lenin Street, 482/1 with an area of 6301 m2 with the transfer of the house to the permanent use of SSAU.

The construction of a multi-storey residential building was entrusted to the housing construction cooperative "Agrariy", which consists of SSAU employees - the future owners of apartments.

When designing the house, the requirements for compliance with environmental protection requirements were taken into account as much as possible, as well as for creating maximum convenience and comfort for apartment owners - the presence of a closed courtyard, a recreation area for adults and children, access roads, a parking area for personal vehicles, etc.

In November 2008, the house for employees was put into operation, and in the period 2009-2019. 223 employees with their families moved into the house. Until 2008, SSAU did not have its own house providing housing for its employees.



### Providing free access for the population to open spaces of SSAU

On October 19, 2019, on the basis of the new educational building of SSAU, the official opening of the collective work space "Boiling points of SSAU" took place.





The boiling point is a project of the Agency for Strategic Initiatives (ASI), which was launched in 2014 in Moscow.

In 2019, within the framework of the federal project, 82 "Boiling Points" were opened, of which 54 were created on the basis of universities. In 2019, the "Boiling Point of SSAU" was the only space for collective work opened on the basis of an agricultural university (there are 54 agricultural universities in Russia) as part of a project of the Agency for Strategic Initiatives.

Each of the Boiling Points has its own agenda and reflects the specifics of the region. "Boiling point of SSAU" is focused on the agricultural sector of the economy. The key areas are the promising markets of FoodNet (all segments), TechNet (competence in rapid 3D prototyping), EnergyNet (alternative energy for agriculture) and EduNet (educational technologies in the agricultural education system). "

### Providing free access for the population to open spaces of SSAU

Mission "Boiling points" - rebranding of agriculture in the Stavropol Territory through improvement training systems for the future









The number of events within the Boiling Point - more than 250 The number of event participants - more than 6,000 people

### **Participants**

- Students and schoolchildren
- Young Scientists
- University teachers and staff
- Representatives of business, public organizations and authorities
- Volunteers

#### **Event formats**

- FORESIGHT	HAKATON
- MEETINGS OF THE	BUSINESS
WORKING GROUPS	ACCELERATOR
- STRATEGIC	TRAINING
SESSIONS	PRESS
- BRIFFING	CONFERENCES

### Providing free access for the population to open spaces of SSAU





Center for youth innovative creativity Fab Lab "VECTOR" on the basis of SSAU - the first in Russia \* (\* - at the time of creation in 2017), accredited according to WorldSkills Russia standards, the national center for the competence "Prototyping" - conducts intensives, master classes, training for schoolchildren, students on a free basis





### Championship







Korolevsky Maxim



**Visilev Dmitry** 

## Providing public access to libraries, including books and publications Library as a center for scientific communication and accessible education



Total area- 2300 m<sup>2</sup>

Storage facility - 700 m2

- Reading room- 568,6 m<sup>2</sup> User
- space 1600 m2
- Auxiliary storage 186,6 m2

- Center for Bibliographic and Scientometric Information
- Educational support center
- Scientific library media center
- Reading room for researchers
- Reading room for visitors and library guests





WI-FIZONE

## Providing public access to libraries, including books and publications Construction of new buildings in accordance with environmental standards



New academic building



Lecture hall-transformer "AtriUm

Total area - 26 745,8 m<sup>2</sup>

Teaching and laboratory area - 20 317 m2 Auditorium capacity - 800 pl.

Library area - 3 900 m2 (720 pl.) Auditorium fund (63 rooms)

Number of training places - 2542 pcs Number of workplaces - 353 pcs



Library co-working center



Conference hall



Lecture auditorium



# Providing public access to museums, exhibition spaces The History Museum of SSAU





The History Museum of Stavropol State Agrarian University has more than 45 years of history.

The museum is the keeper of history, the memory of the university. Here you can get acquainted with the cultural and historical heritage of the university entrants, students, and its guests. Employees come here to share interesting material or, on the contrary, to get the information they need. After all, the history of SSAU is not only the history of buildings, classrooms, educational buildings, it is, first of all, the history of the formation of the teaching staff, the development of scientific schools.

That is why the Museum of the History of the University is a unique place for storing the rich history of SSAU and its traditions, a place for students to familiarize themselves with this priceless heritage.

Currently, there are 30 exhibition showcases in the museum hall, where more than 5 thousand exhibits are presented.



The Museum of History is implementing the Open Museum project, within the framework of which the residents of the city of Stavropol and its guests can plunge into the history of the development of SSAU and the agro-industrial complex of the Stavropol Territory.

More than 2,500 people visit the Museum of History annually

## Implementation of projects for the preservation of intangible cultural heritage such as local folklore, traditions, language and knowledge

The interethnic council of SSAU unites representatives of 8 diasporas













Key areas of work of the Interethnic Council strengthening friendly ties and interaction with national cultural centers of the region to maintain interethnic peace and interreligious harmony in the Stavropol Territory and the North Caucasian Federal District; implementation of cultural, educational programs and public initiatives that ensure the preservation and development of traditional culture, education and a distinctive way of life of representatives of ethnic groups studying at SSAU



### **Scientific articles on achieving the Sustainable Development Goal**



# Scopus



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# RESPONSIBLE **AND PRODUCTION**

**Goal 12:** 

Ensure
sustainable
consumption and
production patterns

# Educational programs for training specialists in the field of ensuring rational consumption and production models

# In 2022, the university implemented the following educational programs dedicated to ensuring rational consumption and production models:

05.04.06 Ecology and nature management, Environmental management in the organization 05.04.06 Ecology and nature management, Innovative technologies in the field of resource conservation and environmental control

- 38.04.01 Economics, Economics and business in the context of digitalization
- 38.04.01 Economics, Economic and legal support of business
- 38.03.05 Business informatics, Electronic business
- 38.04.01 Economics, Audit and Financial Consulting
- 38.04.01 Economics, Accounting and tax consulting
- 38.04.01 Economics, Economic and financial security
- 38.04.01 Economics, Management accounting and controlling
- 38.04.02 Management, Financial management
- 23.04.03 Operation of transport and technological machines and complexes, Reliability and efficiency of technical means









## Educational programs for training specialists in the field of ensuring rational consumption and production models

# The University implements the following professional development programs dedicated to ensuring rational consumption and production models:

- Lean manufacturing technologies in the agro-industrial complex
- Environmentally safe handling of animal by-products in the agro-ecosystem
- Techniques and means of biological protection against harmful organisms in the production of crop with improved characteristics
- Optimization of the machine and tractor fleet for specific conditions of farms in the conditions of digital transformation of the agro-industrial complex
- Current changes in procurement activities
- State and municipal procurement management
- Contract system in the field of procurement









#### Projects in the field of ensuring rational consumption and production models

Within the framework of achieving the sustainable development goal "Goal 12: Ensure sustainable consumption and production patterns", the university implements :

- Hazardous Waste Disposal Policy
- Plastic Waste Reduction Policy
- Policies that ensure sustainable food cultivation
- Supplier's Code of Ethics.

ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ БЮДЖЕТНОЕ ОБРАЗОВАТЕЛЬНОЕ УЧРЕЖДЕНИЕ ВЫСШЕГО ОБРАЗОВАНИЯ «СТАВРОПОЛЬСКИЙ ГОСУДАРСТВЕННЫЙ АГРАРНЫЙ УНИВЕРСИТЕТ»





#### ПОЛИТИКА ПО СОКРАЩЕНИЮ ПЛАСТИКОВЫХ ОТХОДОВ

Ресурсосбережение, обеспечение экологической безопасности, рационального использования природных ресурсов и охраны окружающей среды в настоящее время являются приоритетными направлениями в рамках реализации курса на устойчивое развитие. Одной из нерешенных задач на федеральном и региональном уровнях является создание инновационной, технико-экономической системы, позволяющей минимизировать количество пластиковых отходов, максимально обеспечив при этом ресурсосбережение, повторное вовлечение в хозяйственный оборот утилизируемых компонентов отходов в кичестве сырья, материалов, изделий, превращение отходов во вторичное сырье для изготовления новой продукции и получения знастим.

Устойчивое развитие в данной сфере предусматривает требования к системе обращения с пластиковыми отходами. Для их выполнения принят порядок приоритетов в управлении потоками пластиковых отходов, регламентирующий использование таких возможностей, как ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ БЮДЖЕТНОЕ ОБРАЗОВАТЕЛЬНОЕ УФЕЖДЕНИЕ ВЫСШЕГО ОБРАЗОВАНИЯ «СТАВРОПОЛЬСКИЙ ГОСУДАРСТВЕННЫЙ АГРАРНЫЙ УНИВЕРСИТЕТ»



КОДЕКС ДЕЛОВОГО ПОВЕДЕНИЯ ЗАКУПЩИКА И ПОСТАВЩИКА СТАВРОПОЛЬСКОГО ГОСУДАРСТВЕННОГО АГРАРНОГО УНИВЕРСИТЕТА

#### Общие положени:

 В Кодексе делового поведения Закупщика и Поставщика (далее -Кодекс) Ставропольского государственного аграрного университета используются следующие понятия:

Закупщик – работник Ставропольского государственного аграрного университета (далее – СтГАУ), участвующий в организации и проведении закупки товаров, работ, услуг для нужд СтГАУ.

Поставщих – юридическое или физическое лицо, в том числе индивидуальный предприниматель, способное поставить необходимые для СтГАУ товары, выполнить работы, оказать услуги, и участвующий в закупках СтГАУ.

- Никакое положение настоящего Кодекса не должно толковаться как предлисывающее или допускающее совершение деяний, противоречащих требованиям законодательства о закупках.
- Стгау поддерживает такие принципы сотрудничества с Поставщиками, как добросовестная конкуренция, открытость и честность.

СтГАУ дорожит своей репутацией честного, открытого и законопослушного участника закупочного процесса и стремится к укреплению доверия со стороны делового сообщества. Репутация СтГАУ,

1

# Scientific and educational projects in the field of ensuring rational consumption and production models



Separate garbage collection is carried out at the university: paper; plastic; others.

There is a student volunteer group "Ecologist".

During the year, the student environmental group "Ecologist" organized the third, fourth and fifth competitions "Caps. Waste paper. Batteries" for higher and secondary educational institutions of the city, where prizes were waiting for participants.

As a result we collected 40 educational institutions participated, more than 130 kilograms of batteries, almost 107 kilograms of plastic bottle caps and over 4 thousand kilograms of waste paper.





## Scientific infrastructure and projects of the University in the field of ensuring rational consumption and production models

#### **Environmental Monitoring Laboratory**

The main scientific activity of the laboratory is ecological monitoring of natural and anthropogenic–disturbed ecosystems.

As part of the implementation of the direction, research is being conducted in the field of :

- assessment of the composition and quality of natural mineral waters of the North Caucasus and Southern Russia:
- conducting a comprehensive environmental survey of specially protected territories of regional significance;
- determination of the level of degradation of ecosystems of low-water areas;
- monitoring and assessment of the vegetation condition of techno-genically disturbed territories;
- development of methods for processing curd and cheese whey);
- preparation of biologically active preparations of a given composition and properties based on salt concentrates of whey and mineral waters.

On the basis of the strategic partner of CJSC Shpakovskaya Poultry Farm, a resource-saving technology for processing poultry waste has been introduced: environmentally friendly biologically active fertilizers (ECOBAF), environmentally friendly granular organic fertilizers (ECOGOF), protein-vitamin concentrate (PVC) and an alternative energy source - biogas.5 patents for technical devices, 2 patents for a method of obtaining organic fertilizers. ECOBAF fertilizers are recommended for growing cereals, legumes, oilseeds, vegetables, berries. The laboratory offers individual studies together with the customer in his fields on the effectiveness of the use of fertilizers (ECOBAF) for different agricultural crops.













## Participation of young people in ensuring rational consumption and production models



SSAU students, within the framework of the educational process and scientific activity, are involved in the problems of ensuring rational consumption and production models.

The result of this work is their first researching this field, theses, as well as participation in popular science lectures, conferences, etc.

North Caucasus Interregional Environmental Forum https://vk.com/album-187658431 284671334



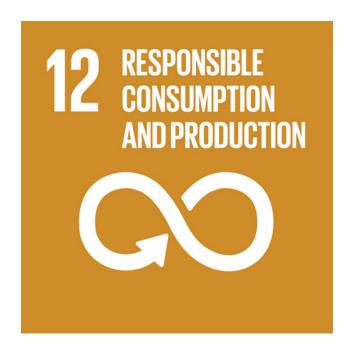








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12 RESPONSIBLE CONSUMPTION AND PRODUCTION

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**Goal 13:** 

Take urgent action to combat climate change and its impacts

# Participation of young people in urgent action to combat climate change and its impacts



SSAU students, within the framework of the educational process and scientific activity, are involved in the problems of urgent action to combat climate change and its impacts.

The result of this work is their first researching this field, theses, as well as participation in popular science lectures, conferences, etc.

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North Caucasus Interregional Environmental Forum https://vk.com/album-187658431 284671334











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## **Goal 14:**

Conserve and sustainably use the oceans, seas and marine resources

# The University's activities in the field of conservation and rational use of oceans, seas and marine resources for sustainable development

слайд 123

Within the framework of achieving the sustainable development Goal "Goal 14: Conserve and sustainably use the oceans, seas and marine resources", SSAU implements:

- Environmental policy of SSAU
- Hazardous Waste Disposal Policy
- Plastic Waste Reduction Policy

МИНИСТЕРСТВО СЕЛЬСКОГО ХОЗЯЙСТВА РОССИЙСКОЙ ФЕДЕРАЦИИ ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ БЮДЖЕТНОЕ ОБРАЗОВАТЕЛЬНОІ УЧРЕЖДЕНИЕ ВЫСШЕГО ОБРАЗОВАНИЯ «СТАВРОПОЛЬСКИЙ ГОСУДАРСТВЕННЫЙ АГРАРНЫЙ УНИВЕРСИТЕТ»



ЭКОЛОГИЧЕСКАЯ ПОЛИТИКА ФГБОУ ВО СТГАУ

https://old.stgau.ru/goals/eco/%D0%AD%D0%BA%D0%BE%D0%BB%D0%BE%D0%B3%D0%B8%D1%87%D0%B5%D1%81%D0%BA%D0%B0%D1 %8F%D0%9F%D0%BE%D0%BB%D0%B8%D1%82%D0%B8%D0%BA%D0%B0%D0%A1%D1%82%D0%93%D0%90%D0%A3.pdf

https://old.stgau.ru/goals/eco/%D0%AD%D0%BA%D0%BE%D0%BB%D0%BE%D0%B3%D0%B8%D1%87%D0%B5%D1%81%D0%BA%D0%B0%D1 %8F%D0%9F%D0%BE%D0%BB%D0%B8%D1%82%D0%B8%D0%BA%D0%B0%D0%A1%D1%82%D0%93%D0%90%D0%A3.pdf

# The University's activities in the field of conservation and rational use of oceans, seas and marine resources for sustainable development

The University organizes and conducts environmental control of its activities, including in the field of protection and use of water bodies.

The results of industrial environmental control are freely available on the University's website at the link: https://old.stgau.ru/goals/water/

#### 1. Общие сведения об организации и результатах производственного экологического контроля

#### Таблица 1.1. Общие сведения

№ п/п	Наименование данных		Данные		
1	<ol> <li>Полное наименование (сокращения наименование) юридического лица или фамили имя, отчество (при налични) индивидуальног предпринимателя</li> </ol>		бюджетное образовательное учреждение		
адрес юридическо		ьекта Российской федерации, ого лица, место жительства предпринимателя, с указанием	Юридический адрес: 355017 Ставропольский край, г. Ставрополь пер. Зоотехнический, 12		
	3. ИНН	OГРН (либо сведения о внесении записи в государственный реестр аккредитованных филиалов, представительств иностранных юридических лиц)	Наименование объекта, оказывающего негативное воздействие на окружающую среду (далее – объект)		
2634003069		1022601993468	Площадка №1. Главный корпус университета совместно с территорией факультета агробиологии и земельных ресурсов и вспомогательных подразделений		
<ol> <li>Адрес места нахождения объекта</li> </ol>		7. Код объекта	8. Категория объекта		
г. Ставрополь, пер. Зоотехнический, квартал 112; ул. Мира, д. 302; 304/1; 306; 308; кадастровые номера земельных участков: 26:12:030120:13; 26:12:030120:33; 26:12:030120:32; 26:12:030120:32;		07-0226-005214-П	ш		

#### 3. Результаты производственного контроля в области охраны и использования водных объектов

Таблица 3.1. Сведения о результатах учета объема забора (изъятия) водных ресурсов из водных объектов и объема сброса сточных, в том числе дренажных, вод, их качества

Реквизиты письма (номер (при наличин) и дата), которым направлены сведения о результатах учета забора (изъятия) водных оресурсов из водных объектов и сброса сточных, в том числе дренажных, вод, их качества	Территориальный орган Росподресурсов, в который направлены результаты учета забора (изъятия) водных ресурсов из водных объектов и сброса сточных, в том числе дренажных, вод, их качества	Количество загрязняющих в вществ, содержащихся в забранной (изъятой) воде из водного объекта (по каждому контролируемому загрязняющему веществу), тони/год (заполняется в случае использования одного и того же водного объекта для забора воды и для сброса сточных вод)
1	2	

Таблица 3.2. Сведения о результатах наблюдения за водными объектами (их морфометрическими особенностями) и их водоохранными зонами, а также о результатах учета качества поверхностных вод в местах сброса сточных, в том числе дренажных, вод выше и ниже мест сброса (в фоновом и контрольном створах)

Реквизиты письма (номер (при наличин) и дата), которым направлены сведения о результатах учета качества поверхностных вод в местах сброса сточных, в том числе дренажных, вод выше и ниже мест сброса	Федеральный орган исполнительной власти, орган исполнительной власти субъекта Российской Федерации или орган местного самоуправления, в который направлены результаты учета качества поверхностных вод в местах сброса сточных, в том числе дренажных, вод выше и ниже мест сброса	Режизиты письма (номер (при наличии) и дата), которым направлены сведения о результатах наблюдения за водными объектами (им морфометрическими особенностями) и их особенностями) и их особами особенностями и особами	Территориальный орга Росводресурсов, в который направлены сведения о результата наблюдения за водным объектами (их морфометрическими особенностями) и их водоохранными зонами
1	2	3	4

## Youth participation in ensuring the conservation and rational use of oceans, seas and marine resources for sustainable development



SSAU students are involved in the problems of ensuring the conservation and rational use of oceans, seas and marine resources in the interests of sustainable development within the framework of the educational process and scientific activities.

The result of this work is their first research in this field, theses, as well as participation in popular science lectures, conferences, etc.

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Science Index



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**Goal 15: Sustainably manage** forests, combat desertification, halt and reverse land degradation, halt biodiversity loss

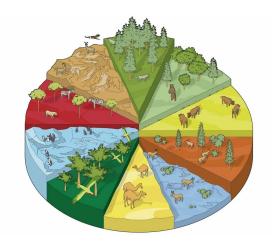


Strategic guidelines at national and university level Formed in Russia, an extensive and comprehensive legislative framework in the field of natural resource management and environmental protection is evolving towards the development of environmental principles and increasing environmental responsibility, detailing and deepening state regulation of the rational use and protection of natural resources, improving the distribution of powers between levels of government (federal, regional) and local self-government, improving control and supervisory activities, developing institutions of public control and enhancing the role and participation of civil society in ensuring the constitutional rights of citizens to a healthy environment. In recent years, responsible business companies and non-governmental organizations have become a serious agent for preserving the environment. The national project "Ecology" is aimed at ensuring the environmental safety of Russia, which includes the projects "Clean Water", "Rehabilitation of the Volga", "Preservation of Lake Baikal", "Preservation of unique water bodies", "Preservation of forests", "Preservation of biological diversity and "Development of ecological tourism".

As measures for the protection and rational use of land resources in Russia, work is being carried out to restore and reclaim degraded and disturbed lands. Measures for the protection and rational use of land are carried out, inter alia, within the framework of national strategies. The main objectives of the Strategy for Environmental Safety of the Russian Federation for the period up to 2025 include the elimination of accumulated harm to the environment and the prevention of land and soil degradation.

The Strategy for Sustainable Development of Rural Areas of the Russian Federation for the period up to 2030 sets a task to preserve and improve the land fund. To achieve this task, the Strategy provides for such measures as: ensuring land protection from water erosion, flooding and waterlogging; introduction of cost-effective irrigation systems; ensuring land protection from wind erosion; creation of a system of protective afforestation that would increase the effectiveness of measures to combat land degradation and desertification, to restore soil fertility, ensure the country's environmental and food security, and reduce the level of discomfort in places of work and residence of the population. The Strategy for the Development of the Forestry Complex of the Russian Federation for the period up to 2020 established that in order to prevent the processes of desertification and land erosion, it is necessary to ensure the implementation of work on the creation and cultivation of protective forest plantations (anti-erosion, field protection, plantations on arid pastures and sands, along the banks of small rivers and around the villages).







At the university level, the Program for the Development of the Federal State Budgetary Educational Institution of Higher Education "Stavropol State Agrarian University" for the period 2021-2030. is a backbone document that defines the tasks and measures of the University to achieve SDG 15 "Life on Earth", which implies the implementation of the following priority directions of the University's development:

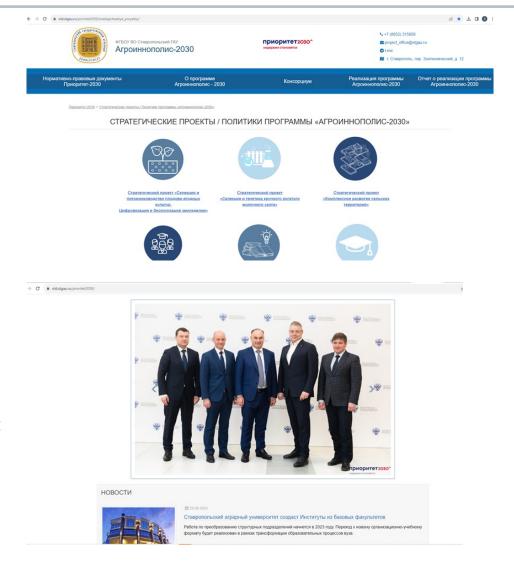
improvement of the saving biologized system of agriculture on an adaptive-landscape basis, which ensures the development of resource-saving technologies and technical means for optimizing production processes in the agro-industrial complex;

improvement of the integrated system of animals protection from diseases of infectious and non-infectious etiology of biotechnological design of prophylactic agents of a new generation;

improvement of economic production of ecologically clean and competitive agricultural products on world markets, ensuring financial stability and accelerated development of the agro-industrial complex;

improvement of the main directions of rural areas development, ensuring the growth of employment of the rural population, harmonious development of the individual and an increase in human capital in the countryside;

development of the recreational potential of the North Caucasian Federal District, including tourism, hospitality, ecology, ensuring biodiversity and rational nature management; an increase in the yield of cultivated crops, a decrease in the cost of production, an increase in soil fertility and an improvement in the ecological situation.







# Scopus

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**Goal 16:** Promote just, peaceful and inclusive societies





# Scopus



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Substantiation of the Dividend Policy as a Tool for Improving the Corporate Governance System / Agarkova L. V., Gurnovich T. G., Rusetskiy M. G., Aydinyan K. F., Logvinova, I. K. // Advances in Science, Technology and Innovation. 2022. P. 353-357

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Cherepanov V. A. ON THE ROTATION OF PERSONS HOLDING THE PRESIDENCY: EXPERIENCE IN SCIENTIFIC COMPREHENSION // Gosudarstvo i Pravo. 2022. Vol. 3. P. 19-30



The educational process and scientific research in accordance with Goal 16:

Promote just, peaceful and inclusive societies is conducted at the

Department of Public and Municipal Administration and Law.

The mission of the department is the purposeful training of highly professional civil servants of state authorities at the federal and regional levels, as well as municipal employees of municipal authorities, the formation of a reserve of managerial personnel with deep professional knowledge, high organizational and managerial skills, social competence and communicative qualities aimed at achieving success, able to make managerial decisions quickly and effectively.









# Scopus



Conceptual Foundations of Management Accounting in Budgetary Institutions / Sapozhnikova N. G., Igonina E. S., Shamrina S. Y., Tunin S. A., Germanova V. S. // Advances in Science, Technology and Innovation. 2022. P. 359-364

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# **PARTNERSHIPS** FOR THE GOALS

**Goal 17:** Revitalize the global partnership for sustainable development

### **Key priorities/directions**

- 1. Intensification of research and international activities of the University (academic mobility of students and SPS).
- 2. Preparation of students to participate in global international student Olympiads, scientific and pedagogical workers to participate in the selection for prestigious and innovative scientific awards to increase the recognition of the university as a developer of technologies and an educational center in such areas as smart and highly productive agriculture, technologies of biologization of agriculture, animal genomics and biotechnology, development and application of digital and engineering solutions in agriculture, and an active participant in achieving sustainable development goals in order to form sustainable scientific and business communications.
- 3. Development of the University as an attractive educational center for foreign citizens due to: participation in educational exhibitions and fairs in Russia and abroad; increasing the number and efficiency of international agreements and agreements concluded on double degree programs; international student mobility and academic exchanges; increasing the number of foreign citizens studying at the expense of the federal budget of the Russian Federation (quotas), etc.
- 4. Development of intercultural communication through: implementation of programs to promote the Russian language and intercultural communication; involvement of foreign students in socially significant project activities of the university; identification and development of talents among foreign students through support of creative self-realization (participation in the work of amateur teams and sports sections of the university), etc.



# Direction 1. Intensification of research and international activities of the University



Meeting at the Russian House in Mexico



Meeting with the Director, Academic and Technical Secretaries of CIGA-UNAM



Meeting with management



Interview at the Self-Study Language Center (Mediateca)

The main areas of work will be veterinary medicine, agronomy and GIS technologies, of particular interest to the Stavropol Territory is the experience of cultivating corn, virus-free material and vegetable crops.

List of countries with which cooperation agreements have been concluded

#### "North-South" countries:

- Azerbaijan Republic 1
- Republic of Armenia 2
- Republic of Belarus 7
- Islamic Republic of Iran 3
- Republic of Kazakhstan 7
- Kyrgyz Republic 1
- Republic of Tajikistan 1
- People's Republic of China 3
- Mexico 1



Due to the changed geopolitical situation, Stavropol State Agrarian University has revised the vector of strategic cooperation, currently working with the countries of Central Asia, the Southeast and the Middle East.



Negotiations are underway with universities in China and Iran

- 1. North-western University of Agriculture and Forestry, Shaanxi Province (China);
- 2. Nanjing Agricultural University (China);
- 3. Liuhai Business Professional Institute (Anhui Province, China);
- 4. Liaoning Vocational College (Liaoning Province, China);
- 5. Khuzestan Agro-technological University (Iran)

#### **Partners**



National Autonomous University of Mexico (UNAM)



Kyrgyz National Agrarian University named after K.I. Scriabin



Karakalpak Institute of Agriculture and Agro-technologies



Northwestern University of Agriculture and Forestry of Shaanxi Province



Kazakh Agrotechnical University named after S. Seifullin



# Direction 2. Preparation of students for participation in global international student Olympiads, scientific and pedagogical workers



International Conference on Rural Innovation at the National Autonomous University of Mexico (UNAM)



XI international scientific and practical conference "Innovative aspects of service and tourism development"



XII International scientific and practical conference "April Scientific Readings named after Professor Viktor Arkadyevich Pipko"



IX International Scientific and Practical Conference "Actual problems and achievements of regional economic systems"



International Conference on Crop Breeding "Field Day — 2023"



Stavropol State University signed an agreement with the Academy of Education and Culture "Confucius"



The program is aimed at popularizing Russian as a foreign language, and also helps to integrate students from other countries into the Russian-speaking educational community.





The project "Cross Talk: Russia and Mexico"

Students of Stavropol State University and the National Autonomous University of Mexico (UNAM) have the opportunity to get acquainted with the traditions, culture, science, sports, creativity of Russia and Mexico, as well as communicate with each other.



Figure 1 - Dynamics of the number of foreign students studying at SSAU

#### Партнеры



National Autonomous University of Mexico (UNAM)



Academy of Education and Culture "Confucius"



Tashkent State
University of Economics



Harbin Engineering University



Belarusian State Agrarian Technical University



STAVROPOL STATE AGRARIAN UNIVERSITY

# Direction 3 and 4. Development of the University as an attractive educational center for foreign citizens

## Participation of SSAU in international educational exhibitions



Stavropol State University at the International Exhibition "Education and Career EXPO 2023", the Republic of Kyrgyzstan



Stavropol State University at the International Exhibition "Education and Career EXPO 2023", Republic of Uzbekistan



International
Educational Exhibition:
"Study in Russia
"Republic of
Kazakhstan



Stavropol State
University at the
International Exhibition
"Education and Career
EXPO 2023", Republic
of Armenia



Stavropol State
University at the
International Exhibition
"Education and Career
EXPO 2023", Republic
of Belarus

In 2023, Stavropol State Agrarian University is preparing a roadmap and agreements with Rossotrudnichestvo to include the university in the number of applicants for training of foreign citizens within the quotas allocated by the Government of the Russian Federation.





- Armenia
- Belarus
- Kazakhstan
- Kyrgyzstan
- Uzbekistan
  - Vietnam
  - Mexico
    - Iran



#### **DEVELOPMENT PROGRAM CONSORTIA**

#### Consortium of performers of applied scientific research and experimental developments

Goal: reliable scientific technological and personnel support of the agricultural sector of the economy and rural areas of the Russian Federation to achieve a synergetic effect in the joint activities of the consortium entities



Российский государственный аграрный университет - МСХА имени К.А. Тимирязева



Кабардино-Балкарский государственный аграрный университет имени В.М.



Горский государственный аграрный университет



государственный аграрный университет имени М.М. Джамбулатова

**POCHAHO** 



Всероссийский научноисследовательский институт защиты растений

филиал

АО «Россельхозбанк»



Федеральный научный агроинженерный центр ВИМ





Ставропольский Фонд инфраструктурных и противочумный институт образовательных программ Роспотребнадзора



Ставропольский региональный

«Полёт»

000 Опытно-«Челябинский радиозавод Производственное хозяйство «Луч»

Федеральное казенное предприятие «Ставропольская биофабрика»

#### New partnerships 2021-2023





- Joint Master's degree program "Economics" ("World agricultural markets")
- Bachelor's degree network programs "Tourism", "Economics" (world agricultural markets) (plan 2024)



- Preparation of the personnel reserve for genomic plant breeding in the magistracy
- Designing a mirror laboratory



Institute of BioorganicChemistry of the Russian Academy of Sciences

- Joining the Consortium "Bioorganica" within the framework of the activities of the NTI Competence Center for the "end-to-end" technology management of properties of biological objects»
- 5 projects in crop and animal husbandry (the content of the projects is protected by a confidentiality agreement)



- Joint postdoctoral studies from 2021
- Mirror Laboratory

# DEVELOPMENT PROGRAM CONSORTIUM: KEY RESULTS

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# ASS ASS



#### in science and innovation

Technologies of microclonal reproduction and biologization technologies of cultivation of fruit and berry crops

FIA

Дагестанский гду

Technologies for improving the genetic potential of dairy cattle of Dagestan



Technologies of biologization of agriculture based on the expansion of the genetic diversity of agricultural crops and the improvement of elements of agro-biotechnologies

Development of an innovative breeding and genetic model for the

creation of dairy herds of Holstein and black-and-white breeds of

breeding cattle in the South of Russia



КБГА



Дагестанский СК ФНАЦ

Applications for registration of protection documents for new varieties of winter soft wheat, triticale and amaranth



Biological nitrogen fixation and optimization of environmental factors for the creation of highly productive agro-phytocenoses of traditional and non-traditional crops



КБГАУ



Дагестанский гду



#### in education

VEP programs for the development of skills and competencies of the digital economy, project management, technological entrepreneurship for the development of rural areas



РГАУ



Дагестанский ГАУ

#### VEP programs:

- "Environmentally safe handling of animal by-products in the agro-ecosystem"
- Statistical analysis of data using modern information technologies"
- "Provision of services in the field of rural tourism"
- "Innovative approaches in agro-engineering practice with the use of digital technologies";
- "Organic agriculture and a biologized system of crop production"





# Scopus



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**QUESTIONS?** 

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#### STAVROPOL STATE AGRARIAN UNIVERSITY



















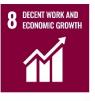






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