

DEAR COLLEAGUES!

Integrated Scientific Expedition Program
August 14 (Friday) - arrival of participants,
meeting at the airport of Yakutsk

August 15 (Saturday) - departure to the
ship "Demyan Bedny" at 19:00 local time, the
riverport of Yakutsk

Opening ceremony of the International
Integrated Scientific Expedition

- Location 1 - Zhigansk (crossing on the
ferry. Evenk ritual Welcome ceremony on the
shore. Walking tour to the village, stay 4-5
hours for samples collection).

- Location 2 - Kyusyr Arctic Circle
(walking tour, stay 4-5 hours for samples
collection).

- Location 3 - Neyolova (Tiksi - Bulunsky
district) Transfer by bus to Tiksi 40km, (Visit to
the Lena-Nordensheld International Biological
Station, stay 4-5 hours for samples collection).

- Location 4 - Tit-Ary (the northernmost
border of taiga boundary) and Stolb Island
(stay 4-5 hours for samples collection, travel
time on the Tiksi-Yakutsk route 3 days)

Separate program on the way

Green camping - Free program on the
beach.

- Location 5 - Sottintsy, Transfer by bus to
the Druzhba open-air museum. (Walking tour,
stay 4-5 hours for samples collection)

August 25 (Tuesday) - arrival of the ship to
the riverport of Yakutsk at 04:00 local time.

August 26 (Wednesday) - departure of
participants, transfer to the airport of Yakutsk

Program changes are possible.

Inquiries on scientific expedition:

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Yours Respectfully,
Conference Organizing Committee



FEDERAL RESEARCH CENTER
"YAKUT SCIENTIFIC CENTER SB RAS"
YAKUT SCIENTIFIC RESEARCH INSTITUTE
OF AGRICULTURE
NAMED AFTER M.G. SAFRONOV

DEAR COLLEAGUES!

Siberian Branch of the Russian Academy of Sciences, Federal Research Center "Yakut Scientific Center of the Siberian Branch of the Russian Academy of Sciences", Siberian Federal Scientific Center for Agrobiotechnology of the Russian Academy of Sciences (SFSCA RAS), Yakutsk Agricultural Research Institute named after M.G. Safronov, Institute of Biological Problems of Cryolithozone SB RAS, Melnikov Permafrost Institute of SB RAS will carry out the International Comprehensive Scientific Expedition in 2020:

"EFFECTS OF GLOBAL WARMING ON TRADITIONAL AGRICULTURAL PRACTICES, PRESERVING THE LIFESTYLE OF INDIGENOUS MINORITIES OF THE POLAR ARCTIC"

August 14-26, 2020, Yakutsk, Russia

MAIN TOPICS AND SECTIONS:

- Arable farming, crop and fodder production
- Plant protection
- Ecology and conservation of natural resources
- Economics and land management
- Technology of animal husbandry and biotechnology
- Veterinary medicine
- Earth system science



The international integrated scientific expedition "Effects of global warming on traditional agricultural practices, preserving the lifestyle of indigenous minorities of the Polar Arctic" will be carried out on August 14-26, 2020. Expedition tour will be on the ship "Demyan Bedny" on the route Yakutsk - Tiksi - Yakutsk

Languages - Russian, English.

ORGANISING COMMITTEE

Co-Chairs of the organizing committee:

Donchenko A.S. - Scientific director SFSCA RAS, Academician of RAS

Lebedev M.P. - Chairman of the Yakut Scientific Center of SB RAS, corresponding member of RAS.

Vladimirov L.N. - Director of M.G. Safronov Yakutsk Research Institute of Agriculture, s, corresponding member of RAS.

Okhlopov I.M. - Director of the Institute of Biological Problems of Cryolithozone SB RAS, candidate of biological sciences.

Zheleznyak M.N. - Director of Melnikov Institute of Permafrost, Doctor of geological and mineralogical sciences.

GENERAL INFORMATION

Conducting in-depth scientific research on the impact of climate warming on the development of traditional agricultural sectors, maintaining the lifestyle of the indigenous minorities of Yakutia in the land of the Arctic zone of the Russian Federation, included in paragraph 6 in Decree of the President of the Russian Federation dated May 2, 2014 No. 296: Abyysky, Allaikhovsky, Bulunsky, Verkhnekolymsky, Verkhoyansk, Zhigansky, Momsky, Nizhnekolymsky, Oleneksky, Srednekolymsky, Ust-Yansky and Eveno-Bytantaysky districts. An international integrated scientific expedition to study the ongoing climatic changes in the Arctic and their consequences along the middle course of the Lena River to the Arctic territories with parking at the Lena-Nordensheld international biological station in Tiksi.

During the expedition tour, according to a separate program, round table discussions will be organized at the conference hall of the ship "Demyan Bedny". Submission of abstracts is required.

Yakut Scientific Research Institute of Agriculture offers:

- seeds of grain crops: spring soft wheat "Prilenskaya 19", "Tuymaada", oats "Pokrovsky", barley "Tammi";
- seeds of perennial grasses: brambling grate "Manchaary", "Bootur", red fescue "Myuryunskaya", alfalfa "Yakutskaya yellow", white clover "Nemyugyunskaya", awnless brome "Erkeeni", Siberian wheatgrass "Amginsky", seeds of the sowing spring vetch "Lenskaya 15";
- blackcurrant seedlings "Yakutskaya", "Hara Kytalyk", "Myuryucheene", "Erkeeni", "In memory of Kyndyl";
- seedlings of strawberries, raspberries and honeysuckle;
- seed potatoes of zoned varieties in Yakutia "Yakutyanka" and "Severnny";
- a bacterial strain *Bacillus subtilis* used to disinfect bird droppings and manure from pathogenic microorganisms;
- horse salmonella abortion vaccine;
- probiotic "Sakhabactisubtil" for the treatment and prevention of gastrointestinal diseases of young farm animals;
- development of technical conditions and specifications for food products (obtaining a patent);
- feasibility studies of individual projects;
- preparation of business plans;
- development of social economic programs for the rural development.



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FEDERAL STATE BUDGETARY SCIENTIFIC INSTITUTION
FEDERAL RESEARCH CENTER
"YAKUT SCIENTIFIC CENTER SB RAS"
YAKUT SCIENTIFIC RESEARCH INSTITUTE OF AGRICULTURE
NAMED AFTER M.G. SAFRONOV
(YSRIA)



FEDERAL RESEARCH CENTER
"YAKUT SCIENTIFIC CENTER SB RAS"
YAKUT SCIENTIFIC RESEARCH INSTITUTE OF AGRICULTURE
NAMED AFTER M.G. SAFRONOV

The Yakut Scientific Research Institute of Agriculture was founded in 1956 on the basis of the Yakut Republican Experimental Station for Animal Production, the Yakut State Breeding Station and the Animal Production Department of the Yakutsk Branch of the USSR Academy of Sciences.

By order of the Federal Agency for Scientific Organizations of Russia №8 dated January 14, 2016, the Federal State Budgetary Scientific Institution "Yakut Scientific Research Institute of Agriculture" was named after Mikhail Grigoryevich Safronov.

The institute includes 12 laboratories, the Department of Social and Economic Development of the Rural Areas, the Scientific Department, the Financial and Economic Department, the Department of Administration and Management Support, the Scientific Library, the Federal State Unitary Enterprise "Yuchygeiskoe", 16 scientific stationaries, 2 small innovative enterprises: LLC "Nauka", SPC "Hotu-Bact" LLC is a member of the Skolkovo Foundation, a resident of SAI "Technopark Yakutia". There are also 5 postgraduate programs at the Graduate School.

There is a Council of Young Scientists and Specialists in the institute. The Junior Agricultural Academy coordinates the activities of rural secondary schools specializing on an agrotechnological profile.

The director of the Yakut Scientific Research Institute of Agriculture is Leonid Nikolaevich Vladimirov, Doctor of Biological Sciences, Professor, correspondent member of the RAS.

The main research topics:

- Economics and Land Management;
- Crop Production and Arable Farming;
- Crop Protection;
- Technology of Animal Husbandry;
- Veterinary Medicine;
- Storage and Processing of Agricultural Products.

Research and Development:

- zonal technologies for growing crops based on adaptive landscape farming;
- technology for the creation, improvement and use of natural, old-age, highly productive seeded hayfields, pastures and winter pasture hayfields;
- technology for the improvement and rational use of natural meadows, shortened, shallow valley, lowland and floodplain meadows;
- zonal system of mineral and organic fertilizers use; agricultural technology of cultivation of grain and forage crops; intensive fodder crop rotation on floodplain lands and on saline soils;

- technology for harvesting green cryofeed, creating a "green conveyor" technology, wrapped haylage production, forage conservation techniques;

- technology for conservation cropping system; gypsum remediation for saline soils in Central Yakutia, resource efficient practices for cryosols;

- area-based crop cultivation technology, varieties of potatoes, cereals, fodder and berry crops, perennial grasses and their cultivation technology were selected;

- 15 varieties of perennial grasses, 1 variety of vetch, 1 variety of pea, 11 varieties of soft spring wheat, 5 varieties of spring barley, 7 varieties of oat, 3 varieties of winter rye forage, 6 varieties of black currant; 6 varieties of strawberries, 3 varieties of potato of local selection were bred;

- "Talba" wheat varieties, winter rye "Cholbon", cultivar alfalfa "Myandiginskoe", sowing peas "Saryal", awnless brome "Ayistal", "Aldan" potatoes and 2 varieties of wild strawberries were transferred for state testing.

- cereals, perennial herbs, potato seed production systems;

- environmentally safe integrated pest management;

- diversity of species causing fungal infection of cereals and perennial herbs study, environmentally safe protection of white cabbage from pests development, the timing of processing crops from weeds and potatoes from the most common diseases development;

- the breeds of domestic reindeer – "Evensky", "Evenkiysky" and "Chukotsky" were approved with direct participation and coordination of efforts. A system was developed and introduced for the industrial crossing of "Chukotsky" breed Khargin and "Evenskiysky" reindeer, as well as the technology for organizing antler harvesting, the technological standard for reindeer keeping, and technologies for increasing the production and processing of venison;

- the Yakut breed of horses, two new breeds of herd breeding horses – "Prilenskaya" and "Megezhekskaya", and two inbreed types – "Kolymsky" and "Yansky" were bred and entered into the State Register of Breeding Achievements of the Russian Federation;

- load standards for horses, horse capacity of natural pastures and optimization of the number of horses in the areas of their placement;

- the technology of rearing young horses intended for sale at the age of 1.5 years;

- improvement of protein-mineral-vitamin nutrition of young animals and production composition of horses;

- technologies for the creation and use of seeded winter pasture grass stands from perennial and annual (cryofeed) grasses;

- instructions for appraising horses of the Yakut breed, on the methodology for determining stress reactivity in horses, on dressing of Yakut horses, on determining the suit of Yakut horses, a guide for conducting selection and breeding work in productive horse breeding, plans for selection and breeding work from 1970-2016;

- improved design glacier, refrigeration unit using cold outside air;

- vaccines against the horse strangles and salmonella abortion of horses, probiotic preparations "Sakhabactisubtil", "Nord-Bact", "Hongurinobact", "Pantobact";

- methods for disinfecting manure and bird droppings, environmental objects using a local strain of bacteria Bacillus subtilis;

- a system of measures to fight parasitic diseases of animals and fish under conditions of Yakutia, technology for protecting reindeer from bloodsucking dipteran insects and adult gadflies under conditions of Yakutia, technology for deworming herd breeding horses using a probiotic preparation;

- a system of measures to fight against reindeer brucellosis;

- 24 technical conditions and 1 organization standard with technological instructions for products (16 of them for dairy products, 5 for meat products and 2 for food plants) have been developed for the processing of agricultural products;

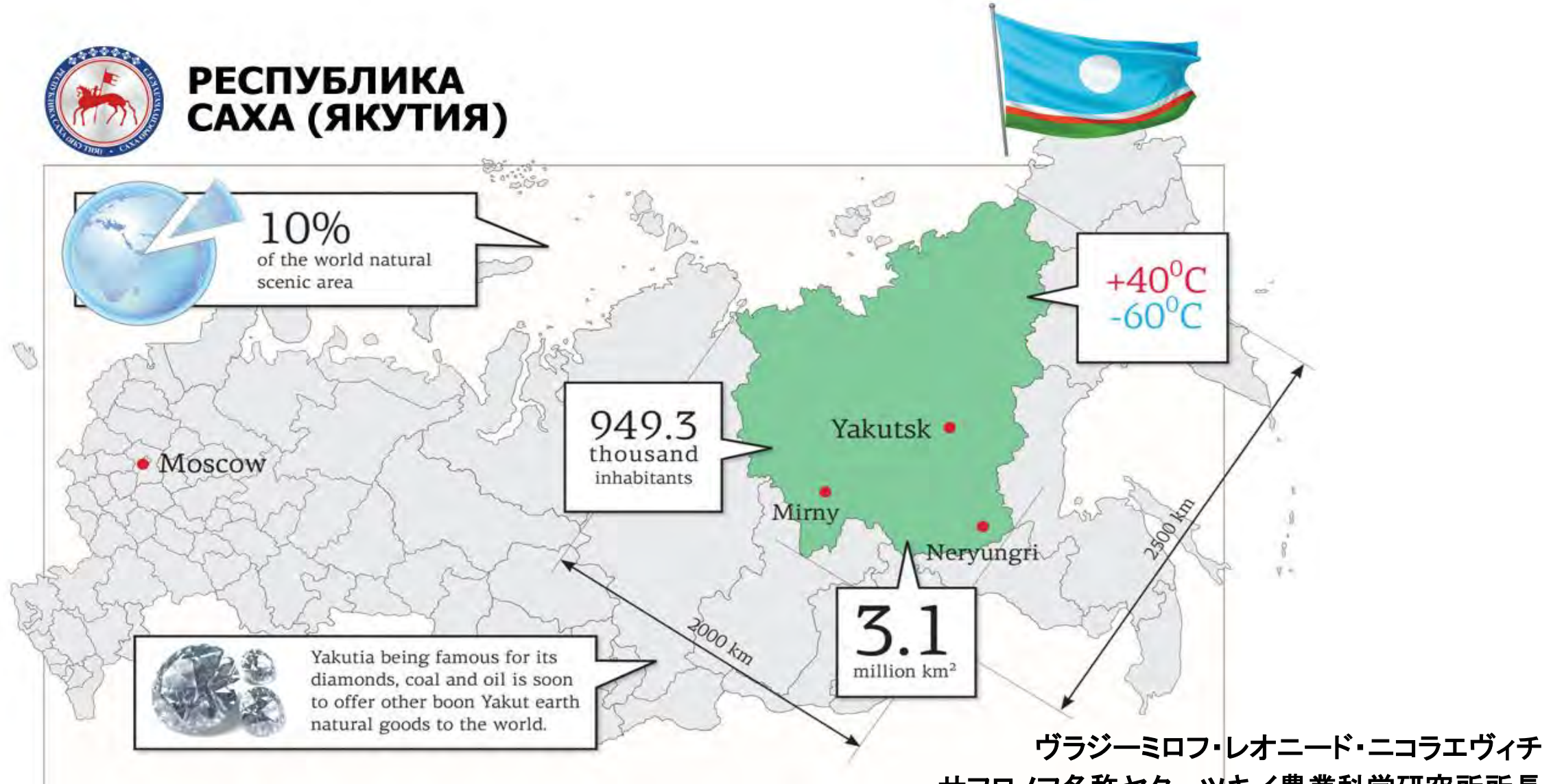
- mechanisms to improve the functioning of the agribusiness sectors of the Republic of Sakha (Yakutia), including the growth of economic efficiency and the formation of effective integration systems, as well as the scientific basis for the development of rural areas through the formation of the cluster development concept of the village and the social nutrition system of the Republic of Sakha (Yakutia);

- a scheme for the complex development and deployment of productive forces in the agricultural sector of the Republic of Sakha (Yakutia);

- a methodology for determining the volume of state support for traditional sectors of the agro-industrial complex of the Republic of Sakha (Yakutia) based on the calculation of normative profitability;

- regional norms, methodology for calculating the standard cost of agricultural products of the Republic of Sakha (Yakutia) taking into account the natural and economic conditions of the Far North.

農業科学と農工部門におけるヤクーチアと日本の国際協力の見通し



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