

**Russia-China
joint program
with the assistance of:**

**Ministry of Agriculture of the RF
Ministry of Education and Science of the Russian Federation
Ministry of Education of the PRC
Russia-China Intergovernmental Commission**



**“Organization of scientific trials of malting barley
varieties”**

BEIJING PROGRAM* 2012-2015

Attachment:

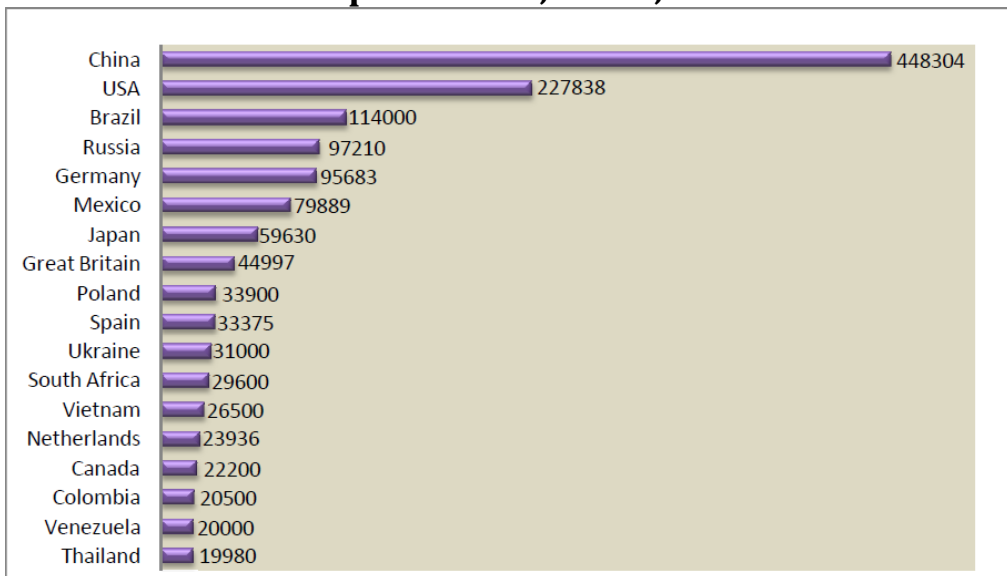
- **Cooperation agreement**
- **Protocol of the round table**
- **Decision of the Intergovernmental Commission**
- **Comprehensive research work “Analysis of malting barley production and processing system in the PRC”**
- **Presentation “Analysis of the malting barley market of the PRC and malt quality standards”**
- **Presentation “Chinese brewing industry – the past, the present and the future”**

*** approved at the XVI session of the Russia-China Intergovernmental Commission on Organization of Regular Meetings between the Heads of the Governments on 01.11.2012.**

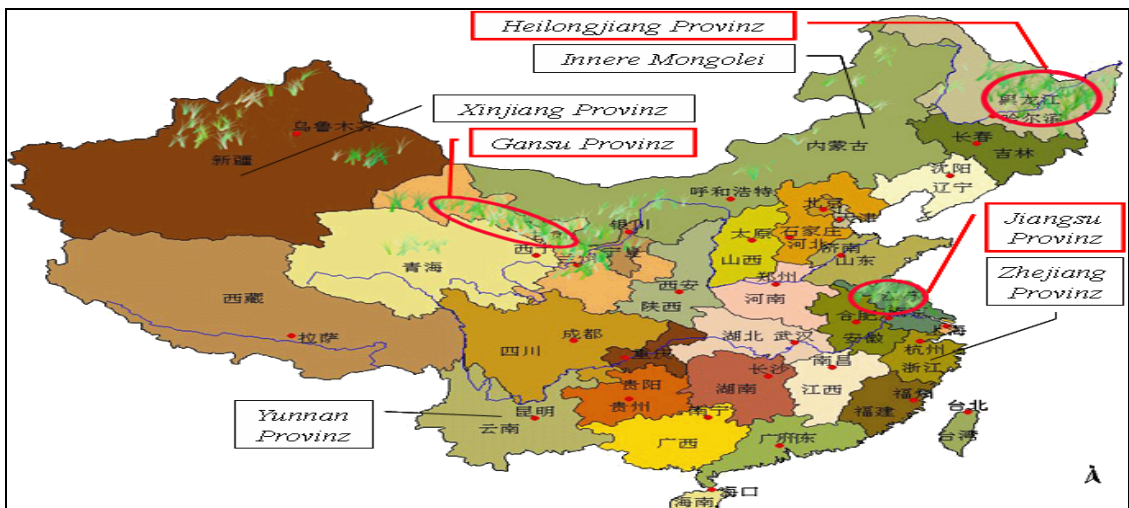
Geographical map



Beer production, mn hl, 2010



Regions of malting barley growing in the PRC



1	short title of the program	Beijing Program			
2	full title of the program	Organization of scientific trials of malting barley varieties			
3	short name of the Russian organization	Barley, Malt and Beer Union			
4	full name of the Russian organization	Barley, Malt, Hops, Beer and Beverage Union			
5	form of ownership of the organization	non-profit organization , union			
6	head of the organization (full name, position)	Rubtsov Alexey Vladimirovich, General Director			
7	program manager (full name, position)	Mordovin Alexander Nikolaevich, President			
8	address of the organization	Legal address: 152020, Yaroslavl region, Pereslavl-Zalessky, ul. Trudovaya, 1 Representative office in Moscow: 107139 Moscow, Orlikov lane 1/11, room 821a, Ministry of Agriculture of the RF			
9	contact phone number	number prefix	495	number	988-77-91
10	mobile phone number	+7 910 816-94-62			
11	fax number	number prefix	495	number	988-77-91
12	e-mail	info@barley-malt.ru			
13	website of the organization	http://barley-malt.ru			
14	name of Chinese organization	in Russian	Китайский национальный исследовательский институт пищевой и ферментной промышленности		
		in foreign language (Eng/Chin)	China National Research Institute of Food and Fermentation Industries / 中国食品发酵工业研究院		
15	form of ownership of the organization	State institution 国有企业			
16	program manager on the Chinese part (Eng/Chin)	Ph.D. Deliang Wang, Director of brewing department 王德良主任			
17	address of the Chinese organization (Rus/Eng/Chin)	100027, КНР, Пекин, район Чаоян, улица Сяюун, д. 32 32# Xiaoyun Road, Chaoyang District, Beijing, 100027 北京市朝阳区霄云路32号			
18	phone number	number prefix	8610	number	64649991
19	fax number	number prefix	8610	number	64645959

20	e-mail	wdlpost@163.com			
21	website of the organization	http://www.cnif.cn/En/index.aspx			
22	treaty/agreement/contract with Chinese partner	Agreement on Scientific and Technological Cooperation d/d 28.05.2012			
23	period of cooperation	beginning	<u>2012</u> <u>May</u>	end	<u>2015</u> <u>December</u>
24	kind of activity	<input type="checkbox"/> basic studies <input checked="" type="checkbox"/> applied research <input type="checkbox"/> technology commercialization <input type="checkbox"/> other (specify):			
25	field of specialization (branch of science and technology)	Agriculture, plant growing			
26	type of program result	<input checked="" type="checkbox"/> technology <input checked="" type="checkbox"/> product <input type="checkbox"/> service <input checked="" type="checkbox"/> research <input type="checkbox"/> infrastructure development <input type="checkbox"/> other (specify):			
27	novelty of an expected result of the program (researches, technologies, projects or other)	<input type="checkbox"/> has no analogue <input checked="" type="checkbox"/> is qualitatively higher than the existing level <input type="checkbox"/> improvement <input type="checkbox"/> complies with the existing level <input type="checkbox"/> other (specify):			

28. Substantiation of expediency of the program implementation in the framework of the Russia-China scientific and technological cooperation (briefly)

Every year the People's Republic of China imports over 2 million tons of malting barley (generally from Canada, Australia, the European Union) for malting and brewing; implementation of the program will give an opportunity to the Russian agro-industrial complex to enter the Chinese market with quality Russian product – malting barley, and to create scientific and practical platform for development of malting barley export to other countries (the estimated export potential is 5 million tons per year).

29. Presumptions of introduction / use of obtained by the Russian performer results of the program (briefly)

During the program implementation malting barley varieties and growing regions will be determined and optimal agricultural technologies will be developed, as well as the variants of deliveries to China will be elaborated which will result in orders of the Chinese malting and brewing industry for production of malting barley consignments of Russian origin.

30. Substantiation of the need to attract a foreign partner to implement the program (including the purpose of attracting the partner, including a brief description of the scientific and technological potential of the foreign partner)

China National Research Institute of Food and Fermentation Industries is the largest and the most respected in China specialized research institute occupied with the applied research in the field of malting and brewing. Specialists of the institute have full information about the requirements, problems and peculiarities of brewing and malting at Chinese enterprises and they can competently evaluate quality characteristics of the required raw material. The PRC actively finances research institutions of the country, so the China National Research Institute of Food and Fermentation Industries is equipped with the newest equipment and it has a number of modern laboratories and highly qualified staff. Also due to the fact that the program involves commercial introduction of the study results, an important component is an authoritativeness of the Institute among the enterprises of malting and brewing industry in China.

31. A brief annotation of the program, the main content of cooperation (a brief general description of the program; contribution of the Russian and Chinese parties; a brief description of expected results of works; whether commercialization of the results is expected, in what form and where (Russia, China, the third countries); specify: proactive research on request of a foreign partner or Russian enterprises, companies and others, as well as compliance with the Federal target programs (specific name of the program and direction) or other (specify):

The program aims to organize scientific trials of malting barley varieties of breeding companies on the territory of the Russian Federation in four agro-climatic zones: the Central and Central Black Earth region, Siberia and the Far East – to determine the most appropriate and demanded by the Chinese malting and brewing industry malting barley varieties with simultaneous study of growing agro-technologies to ensure appropriate quality characteristics for further growing of the variety by Russian agricultural producers (carrying of agro-climatic and agro-technological fitness study, while holding qualitative research of malting and brewing parameters of the examined barley varieties) with the view of export to China.

In the framework of the program the Russian party undertakes: attraction of the companies interested in the program implementation (scientific and research institutions, breeding and seed production companies, producers of plant protection agents and fertilizers, producers of tillage and harvesting machinery, elevator and grain processing equipment, etc.), organization of trial sites, provision with machinery, crop protection agents, fertilizers, soil studies, agro-technological support and elaboration of the logistic component of the program together with ZAO “Rusagrotrans” (CJSC), as well as elaboration with the Federal Agency for Veterinary and Phytosanitary Supervision of the system of interaction with the phytosanitary control authorities of the PRC for documentary support of future supplies and overall coordination of the program with the legislative and executive authorities of the RF and the PRC.

The Chinese party undertakes: attraction of Chinese processing companies interested in the program implementation, joint (with the Russian partner) selection of varieties for variety trial, comprehensive study (micro, semi-industrial and industrial malting and brewing) of quality characteristics obtained as a result of variety trials of malting barley lots represented as suitable for use by enterprises of Chinese malting and brewing business, making a report of Beijing Program on the results of the variety trials, semi-industrial and industrial malting and brewing as well as making recommendations on practical application of the Russian malting barley for Chinese companies of malting and brewing industry with assignment of a status: “Winner of the Beijing Program”, and overall

coordination of the program with the legislative and executive authorities of the RF and the PRC.

The program should result in a completely prepared scientific and practical platform for organization of malting barley production in Russia for export to the People's Republic of China.

Additional effects the program will be:

- material and technical re-equipment of Russian agricultural producers involved in the program;
- appearance of additional volumes of high quality malting barley demanded both in the domestic and external market – additional marketing opportunities for agricultural producers and saturation of the domestic market;
- increase of production volumes of feed barley in the regions participating in the program;
- appearance of the system of malting barley production for export that will make possible an intensive use of the program results to meet the needs for malting barley in the following countries: Mongolia, Kazakhstan, the EU countries, the Baltic countries, Poland, Germany etc., which are forced to import malting barley from other countries today.

Compliance with the Federal target programs:

Program “Economic and social development of the Far East and Trans-Baikal for the period up to 2013”, Program “Social development of village up to 2012”, Federal Law of December 29, 2006 No. 264-FL "On development of agriculture”, State Program for development of agriculture and regulation of agricultural products, raw materials and food markets for 2008-2012, approved by the RF Government decree of July 14, 2007 No. 446, State Program for development of agriculture and regulation of agricultural products, raw materials and food markets for 2013-2020 (Draft), Food Security Doctrine of the Russian Federation, approved by decree of the President of January 30, 2010 No. 120.

32. Presence of analogues in the world, a brief comparative description of the expected result with the world level, competitors in the global market of technology and high-tech products (specifying of foreign organizations, companies, etc., if any):

No.

33. Characteristics of intellectual property rights within the program (including the reflection of this issue in the treaty, agreement or contract with a foreign partner for the program implementation):

on the part of Russia	on the part of China
<input type="checkbox"/> terms for protection of intellectual and industrial property were established <input checked="" type="checkbox"/> the project uses patented solutions <input type="checkbox"/> patenting of the program results is planned <input type="checkbox"/> other (specify) _____	<input type="checkbox"/> terms for protection of intellectual and industrial property were established <input checked="" type="checkbox"/> the project uses patented solutions <input type="checkbox"/> patenting of the program results is planned <input type="checkbox"/> other (specify) _____

34. Expected sources of program funding (it is possible to mark several positions):

state budget funds	internal funds	funds means	bank funds	foreign partner funds	other (specify***)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	-----

*** Funds of the Union member companies interested in the program implementation

35. Qualifications of the personnel involved in the program implementation:

	on the part of Russia	on the part of China
academicians	2	1
Doctor of Science	2	1
Candidate of Science	2	2
engineering and technical personnel	5	3

36. Additional information:

Implementation of the program will help to increase the export of Russian agricultural production and it will strengthen the image position of Russian agricultural producers in the world.

Stages of the program:

December 2012

Definition of program participants and conditions of participation from the Russian and the Chinese parties:

- breeding companies and varieties
- producers of plant protection agents and fertilizers
- producers of materials and equipment for production of malting barley – development of agro-technological map of cultivation as well as storage, conditioning and shipment system (tilling and harvesting equipment, elevators and grain processing equipment, etc.)
- malting and brewing companies of Russia and China
- scientific and research institutions
- Russian and international traders
- sites and regions of variety trials
- interested agricultural producers

January-February 2013

- preparation of variety trials sites
- development of the form and content of the annual report as well as definition of a variety – winner of the Beijing Program
- round table with the RF Minister of Agriculture N.V. Fedorov, participants of the Beijing Program and the executive authorities of the RF and the PRC

- analysis of the existing potential of variety trials regions regarding malting barley varieties and volumes for the first deliveries to China (2013)

March-April 2013

- Delivery of seeds to variety trials regions
- Visit of Russian program participants to the PRC to enterprises of Chinese malting and brewing industry – participants of the Beijing programs

April-August 2013

- establishment of demonstration plots in the regions of variety trials
- accreditation of variety testing plots in the system of the State variety trials
- development of agro-technological map of malting barley cultivation and minimum requirements for the availability of the necessary tillage and harvesting machinery, elevators and grain processing equipment, etc. to the participants of the program – to Russian agricultural producers
- organization of visits of the Beijing Program participants to the regions of variety trials

August-December 2013

- harvesting from the plots, sampling, statistical processing of the results
- comprehensive study of samples, including micro-malting (scientific research institutions of China and Germany) to determine the demanded varieties for the second year of the program
- report for the participants “Beijing Program 2013 – part one”
- round table on the results of the first year of the program with participation of representatives of the executive power of the RF and the PRC

2014

- establishment of plots with new varieties and semi-industrial plots with varieties - winners of the Beijing Program in 2013, semi-industrial and industrial malting and brewing
- approval of the agro-technological map of malting barley growing in the regions of variety trials
- attracting agricultural producers of the regions to participate in the production of commercial batches of malting barley in 2015
- general political and technological support of the program
- organization of malting barley export to the PRC
- report for the participants “Beijing Program for 2014 – part two” and assignment of the status “Winner of the Beijing Program”. Only one variety in each region of variety trials can become the winner of the program
- visit of Russian participants of the program to the PRC to Chinese enterprises of malting and brewing industry – participants of the Beijing Program
- round table on the results of the second year of the program with participation of representatives of the executive power of the RF and the PRC

2015

- continuation of the Beijing Program work with new varieties and varieties-winners of 2014
- development of agricultural projects in the participating regions for formation of commodity volumes of malting barley varieties – winners of the Beijing Program of the required quality
- solving the issues of the logistical and documentation component of the export of Russian malting barley commodity volumes to the PRC, as well as to other interested countries (Mongolia, Kazakhstan, Iran, the EU countries)

Advantages of participation in the Beijing Program for an international grain crop trader

- the governments of the Russian Federation and the People's Republic of China have supported the possibility of implementation of the Beijing Program that indicates the high status of the program and the importance of the topic touched upon – Russian grain crops exports to China. The program will serve as a pilot project and it has to become a symbol of strengthening of the Russia-China relations and their deepening in the agrarian sector of the two countries' economies
- a potential for exports of Russian malting barley to the PRC is up to 2 million tons per year, and there is the possibility of reorienting of agricultural producers of Chinese northern regions (Provinces of Heilongjiang, Gansu, Xinjiang) to other crops and increasing of exports up to 4.5 million tons per year. Considering the growth of the Chinese brewing market at least 15% annually, we can predict the growth of raw material consumption by 10% per year
- the system of Russian and Chinese phytosanitary control implies accreditation of malting barley producing regions and a supplier – an international trader of malting barley; the Beijing Program provides for the transfer of exclusive rights for supply to one of the known international traders, so a trader can accumulate significant funds, performing the role of coordinator between Russian agricultural producers and traders (sellers) and Chinese malting and brewing companies (buyers)
- an international trader gains the opportunity to enter the markets of other countries with the Russian malting barley (Mongolia, Kazakhstan, Iran, the EU countries)
- an international trader can use barley lots to organize delivery scheme for enterprises of the Russian international malting and brewing business – currently there is no international trader of malting barley in Russia

Advantages of participation in the Beijing Program for enterprises of breeding business

- fair and open to participants of the Beijing Program system of malting barley variety trials both in traditional and promising regions (Siberia and the Far East), interesting for organization of export as well as for domestic consumption
- malting barley variety trials in the framework of the Beijing Program will be part of the Field Day of malting and brewing industry in Russia – the event known among members of the production chain “Malting barley – beer”
- winner of the Beijing Program – one variety in each region of variety trials will become widely known at the Russian national and international level
- the organizers of the program provides for the possibility of program expanding

and organization of other crops' testing (for example, demanded in China non-GMO soybeans – import volume is 7 million tons)

- results of variety trials due to the scheduled accreditation of variety trials plots will be recognized as the State variety trials system of the Russian Federation (2015)

- production of consignments for export does not require a variety to be included in the State Register of Selection Achievements, so if a variety wins in the Beijing Program a quick organization of seed production / production of consignments of the variety-winner is possible

- the status of the Russia-China intergovernmental program allows to implement an effective advertising campaign in the participating regions and in Russia in general

- introduction of the Endpoint-royalty system gives an opportunity to get a guaranteed reward, and due to the supply chain to China through international traders the royalty payment amount may exceed 1 million Euro in 2015

Advantages of participation in the Beijing Program for producers of plant protection chemicals and fertilizers

- Beijing Program allows development of the agro-technology map of malting barley growing with obligatory use of PPC and fertilizers. Inclusion in the agricultural project on production of malting barley of Russian agricultural producers (procurement contracts) will mean a permission to use an approved by the Beijing Program agro-technology map and obligatory purchase of recommended amounts of PPC and fertilizers needed to obtain the desired quality of commercial barley

- In 2015 it will be possible to involve agricultural producers with the area of 250,000 hectares under the malting barley in the project on growing of malting barley – that means the minimum purchase of PPC and fertilizers for the amount not less than 375 million rubles

Advantages of participation in the Beijing Program for producers of tillage and harvesting machinery, elevator and grain processing equipment

- Beijing Program allows development of the agro-technology map of malting barley growing and the minimum requirements on availability of necessary tillage and harvesting machinery, elevators and grain processing equipment to the program participants – Russian agricultural producers

- inclusion in the agricultural project on production of malting barley of Russian agricultural producers (procurement contracts) will mean a permission for modernization of enterprises and bringing them to meet the minimum requirements on availability of modern equipment necessary for production, conditioning and storage of malting barley (e.g.: grain complexes, grain conditioning, grain storages)

- As part of the Beijing Program intensive contact with the executive authority of the regions is provided in order to support agricultural producers to obtain various forms of regional support for participation in the program (provision of targeted loans, interest rate subsidy, and subsidy for procurement of elite seed, etc.)

- for 2015 one can predict funding necessary for modernization of enterprises – participants of the program, in the amount of not less than 1 billion rubles

Advantages of participation in the Beijing Program for Russian and foreign scientific research institutes

- Beijing Program requires testing of all malting barley varieties provided by the companies – participants of the program, with no distinction between malting barley varieties of Russian and foreign breeding. If a representative of the Chinese malting and brewing industry is interested in a variety of Russian breeding – it will be included in the list of tested varieties
- participation in the Beijing Program will be able to expand the geography of international cooperation of the institute, enhance its international image and lead to new promising contacts both with the scientific institutions of the participating countries (Russia-China-Germany) and with representatives of the business community as well as generate new ideas for development of the Beijing Program and other forms of cooperation

Advantages of participation in the Beijing Program for Russian agricultural producers and traders

- Beijing Program aims to organize production of malting barley in Russia for export to the PRC as well as to streamline the system of malting barley production and marketing in Russia
- participation in the Beijing Program will give the opportunity to work under long-term contracts (agro-programs) with companies of high or the highest degree of confidence
- Necessary for participation in the program modernization of the system of production, conditioning, storage and shipment will enable agricultural producers to use this positive effect for the benefit of the entire economy
- Beijing Program provides for intensive contact with regional authorities – participants of the program and development of comfortable modernization schemes, gaining preferential loans, grants, etc.

Advantages of participation in the Beijing Program for malting and brewing companies of the People's Republic of China

- climatic conditions of the Russian Federation will allow to get necessary for both domestic consumption and export volumes of malting barley. The main regions of production of malting barley of mostly foreign (German and French) breeding are the Central and the Central Black Earth region and the Siberian Federal District
- Russia has a high potential of malting barley production, with special conditions in Russia one can produce up to 5 million tons of barley per year, the maximum volume of about 2.5 million tons was gained in 2008 (by estimations of independent experts)
- expansion of malting barley production regions according to the Beijing program, which are located close to the border with China will reduce the logistical component and make the Russian malting barley unique offer available in the Chinese market
- participation in the Beijing Program means the possibility of malting barley procurement of the agreed varieties, volumes and quality at competitive prices
- transparency of variety trials, cultivation, storage, shipping and transportation can resolve the issues of raw material supplies to the company

Advantages of participation in the Beijing Program for malting and brewing companies of Russia

- expansion of malting barley production regions (Siberia and the Far East) means additional volumes of malting barley, which can be exported as well as used for domestic consumption
- favorable transportation logistics and location of production areas close to Russian brewing enterprises will allow to procure barley at competitive prices
- Organization of variety trials in the participating in the program regions in accordance with international standards will allow determining the best varieties and optimal agricultural technologies

Participation in the Beijing Program is is paid. Terms and conditions and detailed information is available on request.