# Alumni Workshop
# Plant Breeding and Seed Production
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# "Seed industry of the Kyrgyz Republic"


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## 1.0 Introduction


The Kyrgyzstan is country in Central Asia bordering Kazakhstan in the north, China in the east, Tajikistan in the south and Uzbekistan in the west. Seventy percent of the country is situated more than 2000 m above sea level, with extensive mountainous areas.

The climate is continental, with hot and dry summers and cold winters with large local variations depending on the altitude. Annual precipitation is unevenly distributed, ranging from 200 mm in the lowlands to more than 1000 mm in other areas. In the winter there is frost in all regions.

Kyrgyzstan has a total area close to 200 000 sq. km. About 1.5 million ha is arable land of which around 1 million ha is irrigated. Nearly 10 million ha is natural grazing land. The agricultural sector is of great importance and contributes 40 % of the national GDP. The agricultural sector provides employment for over 50 % of the population. The main crops are cereals, potato, cotton, oilseeds, sugar beet, vegetables, fruits, and forage crops like alfalfa and sainfoin.

During the Soviet era, agriculture was focused on animal production. After independence the country shifted towards self-sufficiency for agricultural products. This has led to changes in national agricultural policies and diversified the range of crops grown in the country.

Among the new Central Asian countries, Kyrgyz was a pioneer in land and agrarian reform process and thus received strong encouragement and support from the international donor community. The majority of large farms were distributed among all the employees, leading to very small holdings by individual families, especially in the south of the country. There are more than 330 thousand peasant farms in Kyrgyzstan with average land size about 3 ha. There was a provision that 25% of the land should be handed to local authorities to provide a tax base, although some of this land has been subsequently sold off.

Historically, Kyrgyzstan was a major seed producer within the former Soviet Union due to favourable growing conditions, low humidity resulting in low disease pressure, allowing high quality seeds to be produced. As in all post-Soviet countries, the basic structure of the seed industry was based on the activities of the Ministry of Agriculture and only the formal seed sector operated. Therefore, countries in the region do not face the same difficulties that other regions are experiencing in developing their seed industry.

The Swedish International Development Agency (Sida) has supported the development of Kyrgyzstan national seed industry development from 2004 till December 2010. Previously the European Union provided technical assistance during a four year period (2000-2004),

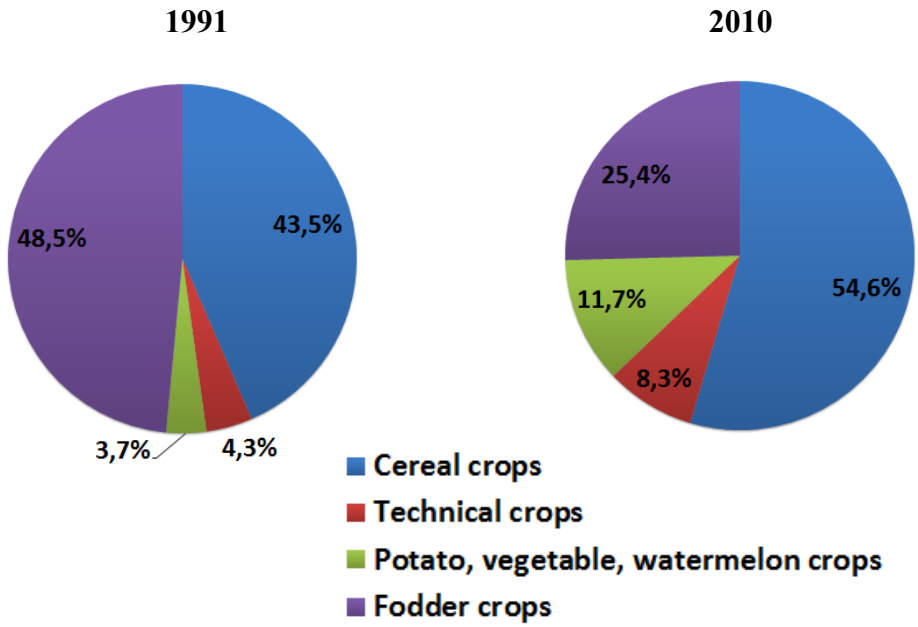
complementary to investment support provided by the World Bank Agricultural Sector Support Program (ASSP).

The World Bank funded 'Agricultural Support Services Project' (ASSP) began in 1998 and continued with extensions until June 2008. Among many different activities, it provided investment support to plant breeding, variety testing and seed quality control as well as financial support to the operations of the Seed Association of Kyrgyzstan (SAK) and the establishment of Community Seed Funds as a mechanism for low-cost seed supply at a community level. The new Agricultural Investment and Services Project (AISP) has continued to support these funds. At present there are 272 seed funds were established, which work with staple and feed crops.
In October 2011 the USAID funded Seed Sector Support Program started. The purpose of the seed sector support is to upgrade the vital seed production sector to serve better the needs of farmers and to increase exports of seed. The program will provide the 14 selected seed farms in all regions of Kyrgyzstan with agricultural equipment, technical and business assistance and training on seed production, processing, marketing.

Table 1 Area planted with major crops in 2009 – 2011 crop seasons **(thousand ha)**

| **Crop** | **Crop seasons** | | |
|---|---|---|---|
| | **2009** | **2010** | **2011** |
| Cereals | 527 | 502 | 503 |
| Rice | 6,3 | 6,6 | 6,4 |
| Maize | 79 | 73,4 | 76 |
| Forage (alfalfa, sainfoin) | 41 | 42 | 44 |
| Cotton | 17 | 27 | 35 |
| Common beans | 36 | 43 | 35 |
| Sugar beet | 5 | 4,5 | 12 |
| Potato | 87.2 | 84.3 | 85 |
| Vegetables | 43.4 | 42 | 43 |

Figure 1 Structure under sowing area agricultural crops **(% of sum)**




## 2.0 National Seed Policy and Regulatory Framework

Kyrgyzstan is transforming from a centrally organized economy towards market-driven economy. The government policy encourages liberalization of the seed sector from a public sector managed system into a market oriented and internationally harmonized seed industry.
In general, the legal framework of the Republic relating to seeds is very comprehensive.

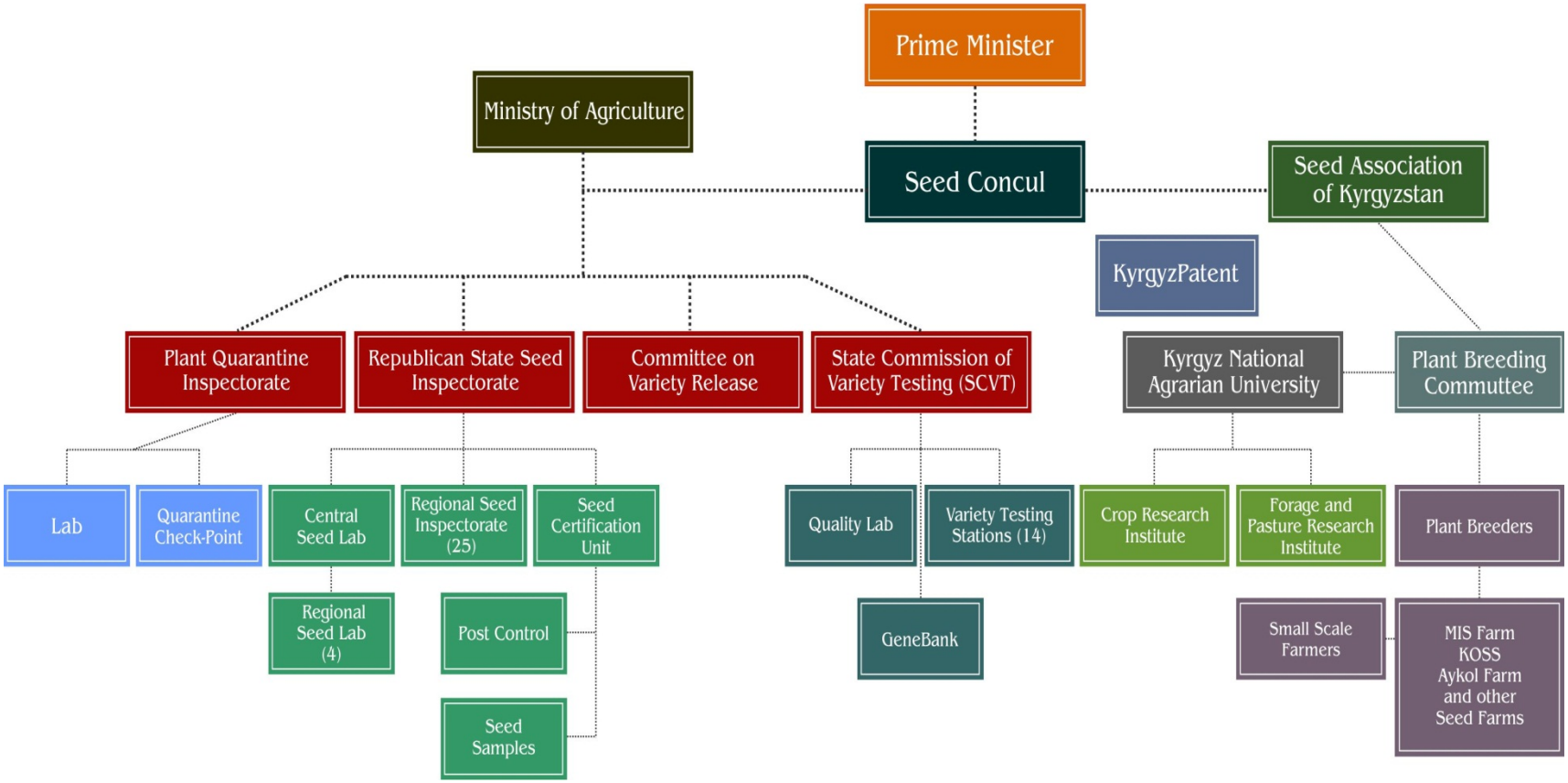
### 2.1 Seed Legislation

Parliament of Kyrgyz Republic as of 29th of May , 1997 passed the "Seed Law", which includes the main provisions of regulating the seed productivity, certification, marketing and using of all types of seed and planting materials, as well as assuring the basic legislation activities of private seed enterprises in the sphere of seed industry and regulate their relationships. The amended Seed Law was adopted on 8 January 2007.

Article 6 states that everyone has the right to produce seeds, as long as the producers have an agreement with the owners of the variety and acknowledge the breeder's rights.

Article 3 of the law refers to the National Seed Council as a high-level coordinating/advisory body to the Minister. The Council members are representatives of government organizations such as the State Center for Variety Testing and Genetic Resources, Republican State Seed Inspectorate, State Inspectorate on Sanitary, Veterinary and Phytosanitary Safety and the private sector, represented by the Kyrgyz Seed Association. The Council is supposed to meet on a regular basis in order to monitor the entire seed sector and make recommendations for its development.

**Figure 2.** The structure of the Kyrgyz seed industry



### *2.2.1 Plant Variety Protection*

The essential part of legislation of seed industry there is the Law of legal protection of breeding achievements (protection of new varieties and breeds) accepted by Parliament 26 of May 1998 and every other year amendments have been made to the law. The present law is regulating relations of property and private intellectual property (in details the law of intellectual property protection you can find in website of the Kyrgyzpatent): www.kyrgyzpatent.kg

The State Intellectual Property Service (Kyrgyzpatent) is the official body regulating patents and other intellectual property mechanisms such as copyright and trademarks. Plant variety protection is a small, specialized part of its work within the department of industrial property and selection achievements. The office handles the administrative aspects of PVP, while the technical task of DUS examination is delegated to SCVTGR, as mentioned above. Applications and grants of protection are published in the official journal of Kyrgyzpatent and it available on their website.

In respect of plant varieties, the law is fully consistent with the UPOV Convention (1991); the Kyrgyz Republic therefore signed this Convention and became a member of UPOV on 26 June 2000.

### *2.2.2 Plant Quarantine*

The State Inspectorate on Sanitary, Veterinary and Phytosanitary Safety (SISVS) under Government of Kyrgyz Republic is responsible for all phytosanitary issues and this operates under the Law on Plant Quarantine (1998) and the Regulations of 2000. There is also a Law on Pesticides and Plant Protection passed in 2003.

The law of 1996 and 1998 gives the legal framework for plant quarantine, which is harmonized with international regulations and is used for protecting plant wealth and preventing intrusion of weeds, pathogens, seed-borne diseases from other states and from quarantine zones within the republic. The plant quarantine facilities have been rehabilitated, the laboratory equipped and the staff has been trained. The main facilities of the State Inspectorate on Sanitary, Veterinary and Phytosanitary Safety are located in Bishkek.

An Import Permit is required for import and transit of seed and other plant parts and products. The Import Permit is valid for 30 days after issue. The Plant Quarantine service is responsible for issuing import and export permits which is valid for 30 days.

All imported commodities must be accompanied by a Phytosanitary Certificate (PC) issued by the National Plant Protection Organization in the exporting country in accordance with the IPPC. The certificate must accompany the consignment at the inspection point. The documents should specify where the seed has been produced, where the commodity has been grown and certify that the commodity is free from quarantine pests. If the commodity is re-exported, a re-exportation (RC) certificate must be issued according to the FAO model and attached to the PC. The PC and RC are valid for a maximum of 14 days from the time of inspection. In some specified cases, the commodities need to be accompanied with an Additional Declaration (AD), particularly if treatments are required. It is not prohibited to import GMO material into the country.

## 3.0 Agricultural Research and Variety Development

In the past, all agricultural research including plant breeding and variety development was carried out by government institutions. Agricultural research suffered severely when financial support was cut off after the collapse of the Soviet Union. Plant breeding is conducted mainly by the Crop Research Institute (CRI) and Livestock & Pasture Research Institute (LPRI), but after independence a few private breeding companies have emerged. The former main breeding institutes are mostly subsidiaries of the Ministry of Agriculture (MoA). (Figure 2).

According to official statistics, the origin of wheat varieties in current use is 54% Kyrgyzstan, 30% Russia, 10 % Kazakhstan, 3% Ukraine and Western Europe 3%. Given the small size of the cereal market (±500,000ha.), and the strength of breeding programs in other countries, the prospects for domestic 'breeding' are not good. The one crucial element in the seed chain is missing because the local breeders do not derive any royalty income from the use of their varieties, even when they have been granted a protection certificate. Therefore, the breeding and maintenance programs are seriously lacking in resources. The logical solution to this problem is for the existing breeders to enter into trialling and marketing agreements with overseas breeding programs. They would test new materials, either advanced lines or finished varieties and then maintain, multiply and market them.

## 3.1 Variety Development

Agricultural research and variety development is carried out by various public and private sector institutions.

### *3.1.1 Crop Research Institute*

The Crop Research Institute operates under the Ministry of Agriculture (Figure 2). There is a large breeding program at CRI central research station near Bishkek and regional research centers throughout the country in Chui, Issyk-Kul, Naryn and Osh. The main crops being bred are cereals (wheat, maize and barley), cotton, potato, sugar beet and fruits. CRI has an active crossing and selection program including both local germplasm and introduced germplasm received from international organizations, especially CIMMYT, ICARDA and the Turkey-CIMMYT-ICARDA International Winter Wheat Improvement Program (IWWIP).

### *3.1.2 Kyrgyz Sugar Beet Breeding and Experimental Station (KOSS)*

The KOSS is a state company specialized in sugar beet breeding since 1949 and is producing pre-basic seed. Previously, KOSS developed sugar beet varieties in partnership with European companies, but the cooperation and exchange of germplasm has now stopped. KOSS station also produces pre-basic seed of wheat, barley, hybrid maize and for the Crop Research Institute.

### *3.1.3 The Livestock and Pasture Research Institute (LPRI)*

The Livestock and Pasture Research Institute operate under the Livestock Institute, also a subsidiary of the Ministry of Agriculture (Figure 2). LPRI is located near Bishkek and conducts breeding of feed crops such as soybean, chickpea, alfalfa, lucerne, sainfoin, clovers, melilot and grasses *(Bromus, Dactylus, Lolium, Poa, Phleumand Festuca)* where several varieties have been released. The main focus is on alfalfa breeding, but sainfoin is also a high priority, especially for higher altitudes.

### *3.1.4 National Academy of Science*

This institution is responsible for breeding of ornamentals and woody species in the Botanical Garden in Bishkek. It also breeds fruit crops, turf grasses and herbs in a special laboratory. The Academy maintains and studies genetic resources of fruit trees and other crops that are used in the breeding program. The National Academy of Science also has a separate institute for breeding of walnut and forest trees.

### *3.1.5 MIS farm*

MIS farm is a private enterprise in Chuy Valley just outside Bishkek, specializing in seed production and processing. The wheat breeding program has been going on for 10 years, but they are also working on triticale, barley and to a lesser extent on oats. The breeding program cooperates with international organizations, and is mainly receiving and testing germplasm from the IWWIP program in Turkey. As the MIS has no crossing program, the main focus is on selection of already fixed lines and exploiting variation within almost fixed lines. The breeding and maintenance programs function efficiently, despite the limited resources they have at their disposal.

## 4.0 Variety Testing, Registration, and Release

The State Commission for Variety Testing and Genetic Recourses (SCVTGR) is operating under the Ministry of Agriculture (Figure 2). It is a well-functioning institution, coordinating 14 Variety Testing Stations (VTS) or Variety Testing Plots of which four have been fully equipped by the World Bank ASSP project. (VTP).The VTS and VTP differs in that the VTS are usually placed on large farms whereas the VTP are testing stations only managed by the SCVTGR. Each VTS or VTP has about 70 ha for variety testing. Annually, up to 1400 VCU (Value for cultivation and Use) and DUS (Distinctness, Uniformity and Stability) tests are conducted, including 1130 comparison trials and 300 tests for disease and pests resistance. The SCVT is exclusively financed from farming activities and testing services (VTS and VTP), to cover its operational costs.

There is recently established National Plant Genebank for preservation of main agricultural plants germplasm that was constructed and equipped by the Swedish Sida project financed project in 2010.

The SCVTGR has good capacity for quality testing, including 13 chemical and 20 technical tests. Annually up to 3000 tests are carried out in the laboratory. The information system contains a database 900 varieties and 140 breeding institutions. The SCVTGR conducts VCU (trials and increasing number of DUS trails each year. DUS tests are conducted for two growing seasons and in accordance with the UPOV guidelines. VCU tests are also carried out for two growing seasons and in more than one agro-ecological zone.

Both VCU and DUS tests are compulsory for variety release but DUS test results from other countries are recognized. The varieties on the national list are approved by the Variety Release Committee (VRC) at their annual meeting in December. The members of the VRC are representatives from the Ministry of Agriculture, SCVTGR, Republican State Seed Inspectorate (RSSI), breeders and the growers represented by the Seed Association of Kyrgyzstan (SAK). An updated national variety list is published every year and a booklet with the results of the VCU

trials is also published and distributed to interested parties. During recent years 301 new varieties have been registered and included in the National Variety Catalogue.

## 5.0 Formal Seed Production

About 75% of the seed sold in Kyrgyzstan is certified seed. The informal sector constitutes only 25% of the total seed market. The major part of the informal seed trade is vegetable and ornamental seeds.

In the past seed was produced by state or collective farms. Most of these farms have now been privatized. At present seed production is carried out by special seed farms, both public and private sector **(Fig. 3 and Fig. 4).**

Figure 3 The number of seed farms

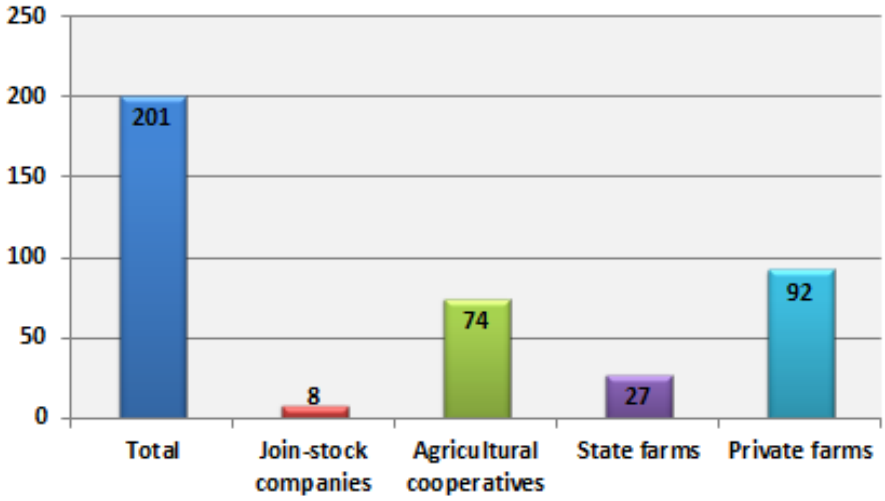
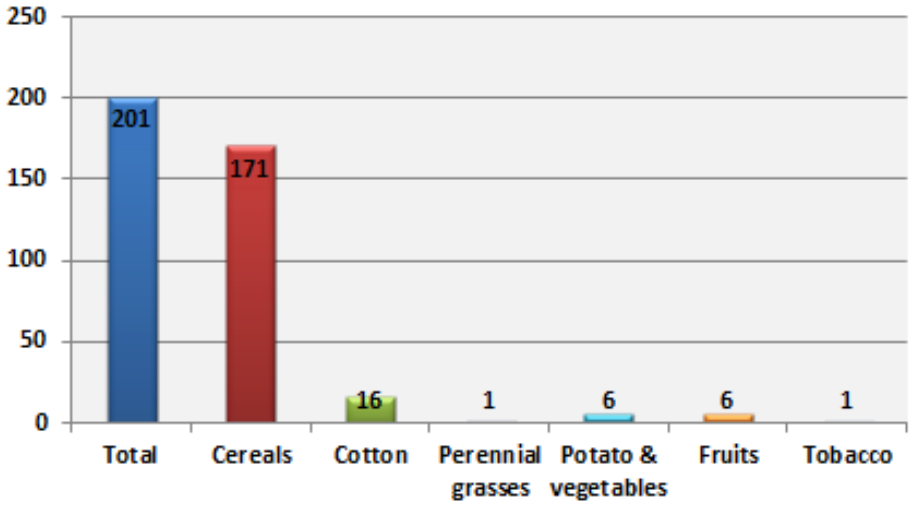



Figure 4 Specialization of seed farms



At present there are 201 farms were involved in production and marketing seeds. Kyrgyzstan is self-sufficient in agricultural crops except vegetables, maize, and oilseeds but at the same time around 10% of sugar beet seed is imported.

## 6.0 Seed Processing and Storage

The total national demand for certified seed in the country is approximately 120,000 tons that needs to be cleaned during the 150 days from harvesting to planting. About 25 major seed cleaning plants are in operation across the country and three of them have mechanical seed treatment facilities. However, due to outdated seed processing equipment, it is often difficult to meet the demand for processing and packaging seeds on time for planting.

Seed storage is regulated by the Seed Law. National and regional storage facilities are regulated by the Government of Kyrgyzstan in accordance with Ministry of Agriculture recommendation. All large seed farms have their own storage capacity of about 5,000 to 10,000 tons seeds per farm.

One of the main areas that need immediate attention is improving the level of variety maintenance. This task coordinates through the Seed Inspectorate and SAK, the breeders' committee which acts as the link between plant breeders and seed producers.

The breeder or owner of a variety is responsible for keeping adequate stocks and maintaining the variety. Variety maintenance is carried out by the breeder of the varieties, i.e. CRI, LPRI or MIS farm. They produce breeder seed and pre-basic seed which are then sold to seed farms that produce certified seed for farmers.

## 7.0 Seed Marketing and Promotion

The public sector does not market its varieties, instead it relies on the state to sell the seed. For the private sector, promotion of seed is carried out though field days, demonstration plots as well as through the extension services. Sometimes seeds of new crop varieties are given distributed free to farmers to test as a promotional activity.

For vegetables, ornamentals and turf grass, private companies promote their varieties. They are in the process of establishing a private seed retail network within the country.

The extension services (Rural Advisory Services) are present in all regions and they work independently. They are partly self-financed but also supported by the World Bank and the Swiss Development Agency. The extension service also promotes crop management technologies and other improved methodologies.

### *7.1 Seed prices*

The Anti-Monopoly Committee offers the highest seed prices, but in reality the open market prices have so far not been significantly lower. Therefore, the real seed price so far not been affected by this price. Seed prices for wheat and barley are very similar (Table 2).

Table 2 Seed prices in 2010-2011

| Crop | Price for 1 kg, USD ( 1 USD = 47 kyrgyz som) | | | |
|---|---|---|---|---|
| | Generation | | | |
| | **Prebasic** | **Basic** | **C1** | **C2** |
| Wheat | 0,70 | 0, 55 | 0, 40 | 0, 30 |
| Barley | 0, 65 | 0,50 | 0,40 | 0,30 |
| Alfalfa | | 10, 5 | 6, 0 | 4, 0 |

*7.2 Credit facilities*

Almost 90% of the Kyrgyz farms are now privatized. These farmers receive minimal financial support, and are exempted also from paying income tax. Although it is possible for farmers to get credit, it is often only possible to get short term and very expensive credit. Kyrgyz Agricultural Finance Cooperation (KFC) and the Baitsuschum are some examples of credit institutions for farmers. There are 19 commercial banks, 1 Government agricultural bank (Ayil Bank), 500 microfinance institutions (400 – credit unions), and only a few of it like Ayil Bank and Baistushum involved in agricultural credit system.

## 8.0 Seed Quality Control and Certification

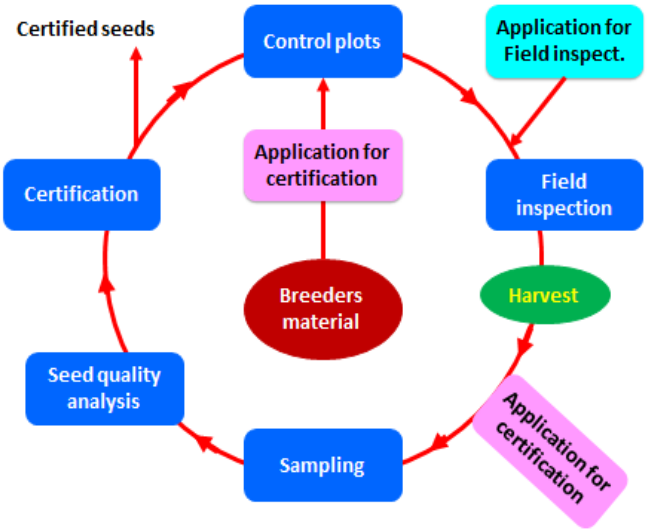
The Republican State Seed Inspectorate (RSSI): This is the official quality assurance agency which responsible for seed quality control and certification, carries out laboratory seed testing, control plot testing and field crop inspection for certification purposes (Fig. 2) and (Fig. 5).

It is a well-functioning institution, coordinating 25 Regional Seed Inspections. The central seed laboratory was ISTA accredited in 2005 and this was reaccredited in 2008 and 2011. This accreditation is a rigorous process requiring high technical and management standards in all aspects of the work. With this accreditation, the laboratory is authorised to issue 'Orange International Certificates' of seed quality which are essential for seed export to some countries, including Russia.

One cotton seed testing laboratory in south part of Kara Suu, in Fergana Valley, was modernized. In addition, in 2005, Kyrgyzstan joined the OECD Seed Scheme for cereals, sugar and fodder beets and in 2008 for grasses and legumes. This also involves an external evaluation of the certification procedures. RSSI has developed a well-functioning field inspection service, control plot tests.

The four regional seed testing laboratories are working to the same standards as the Central Seed Laboratory. At present time three national labs have passed the accreditation under ISO 17025. The Central laboratory controls more than 1000 samples per year.

Fig. 5 Seed certification process




The seed classes used for certification are harmonized with international standards. The seed classes are breeder, pre-basic, basic, certified seed 1st generation and subsequent generations. The Seed Law (with amendments in 2007) stipulates that all certified seeds must be packed in labelled and closed containers. However, the enforcement of the law has not yet been achieved. Therefore seeds in lower classes are stored in bulk. From 2008, Kyrgyz standards meet the OECD seed scheme standards for cereals, beet and legumes.

From 2008, Kyrgyz standards have begun meet the OECD Seed Scheme Standards for cereals, beet and legumes.

## 9.0 International Seed Trade

In the past Kyrgyzstan was a major producer and supplier of seed to the former Soviet Republics which had a highly centralized seed production system. In the 1980s, annually, it supplied about 5 to 5,500 tons of hybrid maize seed to Central Asia and Transcaucasian republics, 5 to 6,000 tons of lucerne seed to former Soviet Republics, and 10 to12,000 tons of sugar beet seed to Russia, Kazakhstan and Belorussia. However, seed production levels rationalized and declined gradually due to lack of external markets.

In Kyrgyzstan, seed export and import is duty free according to the legislation. Most seed trade is carried out by the seed farms, who sell their stock to other farmers interested in buying seeds. The import of seeds from Kyrgyzstan is largely unregulated. There are some reports on cross border illegal sale of seed and planting materials of maize, cotton, vegetables and fruits as well as fertilizers and agro-chemicals at the border neighbor countries.

At present the seed import prevails on export. Only during period 2010-2011 in Kyrgyzstan were imported about 1500 tons of winter wheat and 1000 tons of spring barley from Russia, 3000 kg of basic alfalfa seed from Belorussia and Russia. About 80% of vegetable seed is annually imported from European or other countries.
At same time 500 tons of alfalfa seed are sold annually to Tajikistan, Azerbaijan and Russia.

## 10.0 National Seed Association

The Seed Association of Kyrgyzstan (SAK) was established in 1999 (Fig. 2). Today, SAK has 167 member's i.e. private seed companies, public seed farms and farmers. SAK has regional representatives all across the country. The main task of SAK is to protect the rights and represent the interests of the members and to strengthen the technical base and knowledge of its members.

Table 3 Members of seed association

| Type of farms | No of Members |
|---|---|
| Joint peasant farms | 12 |
| Small seed farms | 85 |
| Joint stock farms | 9 |
| Agricultural cooperatives | 37 |
| Fruit and vegetable nurseries | 2 |
| State farms | 22 |

## 11.0 National Seed Organizations and International Membership

Kyrgyzstan is a member of major international organizations including the International Seed Testing Association (ISTA), International Union for Protection of New Varieties of Plants (UPOV), and Organization for Economic Cooperation and Development (OECD) seed schemes.

The Central Seed Laboratory of the Republican State Seed Inspectorate achieved ISTA accreditation in 2005 and re-accredited in 2008, 2011. The Kyrgyzstan become a member of OECD seed schemes for cereals, sugar and fodder beets in 2005 and in 2008 for legumes and grasses. Kyrgyzstan has been a member of WTO since 1998.

Kyrgyzstan is a member of EPPO (European Plant Protection Organization) since 2000 and ratified the IPPC (International Plant Protection Convention) on 11 December 2003.

Kyrgyzstan is a member of the Economic Cooperation Organization (ECO) based in Tehran and of the ECO Seed Association. This association is also promoting the goal of regional harmonization. Commercial contacts with Iran, Pakistan are limited and it is the CIS countries which provide the most promising commercial partners because of the historical connection. Hence, harmonization and trade promotion within the CIS community is likely to have better prospects, and benefits, in the short term.

The Asia and Pacific Seed Association (APSA) has expressed considerable interest in the Central Asian countries. Small business forums between APSA members and seed companies of CIS countries were held in Bishkek in 2008 and 2009 to build on these contacts. This may create a gateway for seed trade between the CIS countries and the APSA members, which include a very large community of companies. In principle, Kyrgyzstan could develop the contract production of vegetable seeds for APSA members, using its excellent production areas, and again the existence of an ISTA accredited laboratory would be a support for exporting those seeds.

## 12.0 Constraints to the Seed Sector

At present there is no specific national seed policy. Instead, seed issues are addressed within the government agricultural policy which partly deals with seeds. Variety maintenance remains one of the main constraints in the Kyrgyz seed sector. Breeders do not have any tradition of maintaining their varieties, limiting the availability of early generation seed The seed processing

and storage facilities are antiquated and need replacement for timely operation and supply of seed for planting. The lack of affordable credit limits farmer's ability to invest in improved machinery and techniques for seed production and processing. The willingness of farmers to pay extra for improved seed is low. This impedes the emergence of private seed companies, since the farmers are not convinced that the high priced seed is better than the local seed.

One fundamental problem of the seed industry is that it is still based on seed farms that are 'production-oriented' but lack marketing expertise. The farms do not have sufficient 'identity' in the market to develop a brand image for their seeds so they remain rather as 'commodity producers'.

## 13.0 Recommendations for the Seed Sector

- The seed sector plays an important role in Kyrgyz agriculture and there is an urgent need to develop a specific seed policy or more focused strategic plans including identifying priority crops and identifying the most efficient breeding methodologies and potential areas for regional cooperation.
- The National Seed Council should be reconstituted and made fully operational as soon as possible.
- The Government needs to provide further incentives to promote and facilitate investments in renovating seed processing infrastructure and facilities.
- It is very important to strengthen the royalty collection system to encourage foreign breeders to release their varieties in the country.
- Efforts need to attract young staff within the whole seed chain, from breeding to seed production, certification and marketing.
- Efforts should be made to promote contract production of seeds for the international trade and thus restore the previous status of the Kyrgyz Republic in this field. Contacts with regional seed organizations should be maintained and strengthened because it may be easier to work with the CIS countries in the first instance.

## 14. Conclusions

The seed industry in Kyrgyzstan is in a state of transition and seed institutions progressed well. However, the reform of the commercial seed industry has proved much more difficult due to problems affecting agriculture and by the failure of true commercial seed companies to emerge in the market as a replacement for the seed farms. This situation should gradually improve as more private farms appear with sufficient land areas to carry out seed production and to make new investments. At present, weak plant breeding programs and old style management of institutions are hampering progress. There is a need to engage a younger generation of people in agricultural research, particularly in breeding. Farmers need to be convinced of the increased profitability that comes from improved seeds and encouraged to purchase the more expensive seed. Also the international linkage needs to be strengthened to promote Kyrgyzstan as a high quality seed producing country. Immediate results cannot be expected. Further efforts are necessary to give rise to confidence in the system and promote Kyrgyzstan's role in the international seed trade.

## 15. Acknowledgements

We would like to express our appreciation to the Swedish International Development Cooperation Agency (Sida), Svalöf Consulting AB and Niras AB for great contribution to development of Seed sector of the Kyrgyz Republic and for giving us opportunities for many years.