

#### Trade & investment options in North Korea

### **Cooperation in the flower sector**



#### Briefing

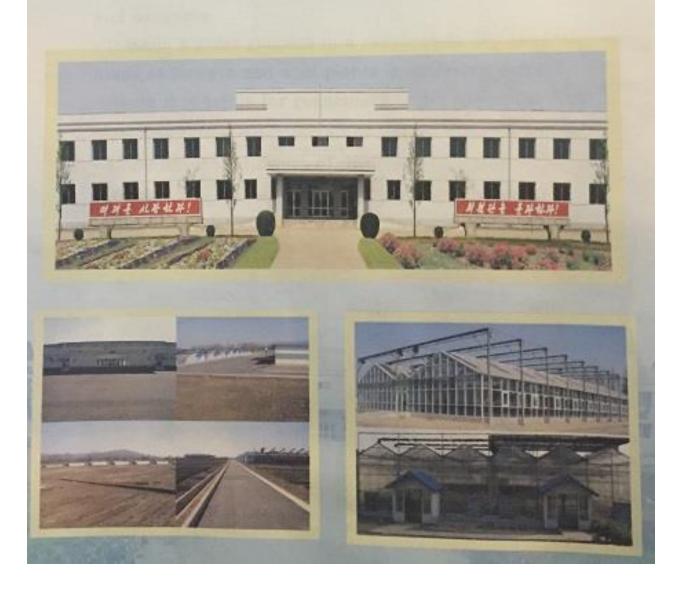
Pyongyang Floricultural Research Institute (PFRI) was established in July 14th, 2000 under the wise leadership of the great leader comrade Kim Jong II to provide people with a better living condition. It is the center of floricultural research, production and supply and it is situated in the suburb of Pyongyang, on the basis of Mt, Daesong.

The great leader comrade Kim Jong II and the respected Marshal Kim Jong Un visited it in March 3rd, 2011 and highly praised for the achievements of the last 10 years and told the members of PFRI to make the whole country be in full bloom with various flowers by cultivating them scientifically and industrially and they also showed a way to prosper. The respected Marshal Kim Jong Un paid his another visit to the expanded PFRI in September 21st, 2012 and told to acclimatize various flowers of other countries to provide us with a better living condition.

Now the institute has 4 breeding laboratories, 3 cultivation laboratories, 1 bioengineering laboratory, 1 laboratory for plant resources protection, 1 for insects and diseases control, information department and a factory of dried-flower products. To the institute also belongs a scientific administration department that coordinates the whole work of the laboratories, as well as a foreign exchange department and Daesong test site for the introduction of research results. It has many scientists and researchers including a candidate academician, professors and those with Doctor's and bachelor's degrees and many competent experts and skilled workers.



The institute is equipped well with modern facilities for the scientific research including facilities for bioengineering. Its total area is about 45 hectares. Ten hectares is for 140 PVC greenhouses and 20 hectares is for outdoor growing fields. Potted flowers or cut flowers from PFRI is tested in Daesong test site and introduced to the gardening centers of every province of the country. It produces about 5, 000, 000 cut flowers and potted flowers every year. It hopes to consolidate its material foundation and also it hopes to expand its scientific and technical exchanges with the floricultural research institutes and production companies of other countries including the Netherlands. It hopes to produce various flowers, bulbs and tissue-cultured seedlings and gather the seeds through joint venture and collaboration.



### Research on dried and preserved flower products

Under the deep interest of the state PFRI developed the techniques of dried-flowers and techniques of preserving the freshness of cut flower. It developed techniques to preserve the color and shape of cut flowers as it is and to preserve the freshness of them for more than 3~5 years. Now it produces any dried-flower products and freshness-preserved flower products according to the demands of consumers.

Its dried and preserved flower products of high grade and quality are widely sold domestically and it hopes to sell them abroad within the shortest time possible.



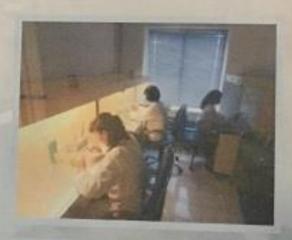




### Research on bioengineering

The bioengineering laboratory with several modern equipments and facilities is working hard to study the gene transformation of different characters and to make various plants-expressing cassettes.

It developed techniques of tissue-culturing 13 species of flowers such as cymbidium, orchids and anthurium and it is capable of producing 200, 000 tissue-cultured seedlings annually.







## Research on flower cultivation

Cultivation laboratories study on the cultivation of species of our country and on the acclimatization of species, got from the exchanges with other countries, to the climate and condition of our country. They also research to grow the flowers such as lily, gerbera and gladiolus all year round. It has already developed cultivation techniques of cymbidium and lily and did research work on several flowers such as chrysanthemum and salvia and set up a complete seed-gathering system of them. They classify flowers as flowers for bed, potted flowers and cut flowers and study them respectively.









### Research on breeding

Breeding laboratories study on the hybridization breeding and introduce foreign flowers to acclimatize them to the climate of our country. They bred new varieties by hybridizing tens of cymbidium varieties and hybridize petunia and Tagetes erecta. Along with this PFRI do research works on insects and diseases control and on the preservation of the resources of species from abroad in order to develop the flower industry on the basis of our development program in keeping up with those the world over within the shortest time possible.







### Daesong test site

Daesong test site has got a perfect management system to produce different kinds of flowers and hundreds of growers and skilled men take care of 120 PVC greenhouses of about 8 hectares and flower fields of about 20 hectares. It also has a fine warehouse to preserve and sell the flowers and has several kinds of vehicles to support it.

Newly bred or selected flowers by researchers are tested and seed-gathered there. Every year it produces five millions of flowers to decorate Pyongyang and to provide other gardening places.









# Foreign exchanges and cooperation

In 2004 PFRI invited the developing countries to hold an international seminar and now it cooperates and interchanges actively with different countries including China, Russia and the Netherlands.

Ambassadors of Russia and Germany visited PFRI and expressed great admiration at it and at the interests of the government to the institute and showed a disposition to develop scientific and technical exchanges and cooperation in floriculture.

In 2006 the International Floricultural Research
Center was organized by floricultural experts and investors from several countries. It produced and sold bulbs of lily through the board of directors. It hopes to cooperate with many countries through joint venture and collaboration in breeding new gene-transformed varieties by bioengineering and in producing cut flowers of excellent species, bulbs of lily and gladiolus and dried and preserved flower products and it is working hard to realize it.

Proposal for cooperation

Wishing to make scientific and technical exchanges in floriculture and to go to joint venture and collaboration on production of seedlings, tissue-cultured seedlings, bulbs and dried and preserved flower products, Pyongyang Floricultural Research Institute proposes as follows:

- 1. Scientific and technical exchanges
- -Two parties collaborate in the research and development of techniques on the production of gene-transformed flower, hydroponic cultivation and dried and preserved flower products and these techniques gained from both efforts would be joint ownership.
- 2. Production
- -We wish to be fully provided with all equipments and materials by the other party and we would produce various kinds of dried and preserved flower products and the sales of these products would be made by both or either party.
- On the condition of primary investment for production, we can provide with two millions of chrysanthemum cuttings and two hundred and thousand of tissue-cultured seedlings of several kinds of flowers such as various-colored calla and cymbidium for sales to the other party.
- -As request of the other party, we can send our researchers to the spot for research and production and the payment would be decided by the discussions of both parties.

  We would like to discuss in details on the practical matters by international communications and if it is necessary, we would invite the delegations of the other party for the field inspection and meetings.

#### For further information

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In May 2017, we will organize a general trade and investment mission to North Korea. A visit to the Pyongyang Floricultural Research Institute can be included. For the draft program, see: www.gpic.nl/NKmission2017.pdf.