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SEMINAR

Nordic seminar calls for the cause of independence

A Nordic seminar on the Juche idea for the "cause of independence in northern Europe" took place in Helsinki, Finland, on June 16.

It was attended by the secretary general of the International Institute of the Juche Idea, deputy directorgeneral of the European Society for the Study of the Juche Idea, and personages from political parties, organizations and institutions in Finland, Sweden and Denmark.

Juha Kicksy, deputy directorgeneral of the European Society for the Study of the Juche Idea and chairman of the Finnish National Committee for the Study of the Juche Idea, made a keynote speech, followed by other speakers. The seminar is meaningful as it is held at a time when the whole world is excited with the news about the first DPRK-US summit meeting and talks, praising Supreme Leader Kim Jong Un for contributing greatly to ensuring peace and security on the Korean peninsula and beyond, speakers said.

The Juche idea created by President Kim Il Sung and the principle of independence in politics, self-sustenance in the economy and self-reliance in defence based on the idea serve as a starting point for building an independent society in which the masses of people are provided with genuine democratic rights, they noted.

Chairman Kim Jong II

firmly defended national dignity and sovereignty in the face of all challenges by dint of independent politics and the DPRK is now flexing its muscles as a powerful country under the sagacious leadership of the Supreme Leader, they said.

All the achievements made by the Korean people prove that they can accomplish the cause of global independence when they advance under the banner of the Juche idea, they said, expressing their will to put spurs to the study and dissemination of the peerlessly great men's works.

A letter to the DPRK leader was adopted at the meeting.

Compiled from KCNA

PRODUCTION

Coal mines achieve steady rise in production

The Tokchon Area Coalmining Complex has registered good results in production by concentrating manpower on tunnelling.

It has hit the daily target in June, while completing the tunnelling plan each month this year.

It often organizes tunnelling contests in the areas with rich deposits and good mining conditions to create many coalfields in a short time, and makes sure that coal mines generalize advanced drilling and blasting methods that have been applied to the competitions.

As a result, many tunnelling

units of the complex hit the first half-yearly target ahead of schedule, securing dozens of reserve coal pits.

The Kujang Area Coalmining Complex is making a breakthrough for increased output by dint of technical innovation.

It is boosting production on the strength of collective innovation in the spirit it displayed while carrying out the tunnelling assignment for the first half of the year before the set time by applying effective blasting methods.

As a result an increasing number of units have completed their production quotas for the first six months.

Similar successes are being made at the Kowon Coal

It has supplied each coal face with necessary equipment, materials and spare parts in time so that they can ensure high production.

Despite unfavourable working conditions, it is ensuring a full operation of all facilities including compressor and maximizing the transport capacity as it introduces effective mining methods.

By Song Yong Sok PT



KCNA

The East Pyongyang Thermal Power Station registers an increase in power generation.

STUDY TOUR

Youths make study tour to Mt Paektu area



KCNA

Young men and women visit Chairman Kim Jong II's birthplace in the Paektusan Secret Camp during the study tour.

A group of youth and students from across the country made a study tour of revolutionary battle sites in the Mt Paektu area between June 10 and 24 to mark the 62nd anniversary of Chairman Kim Jong Il's initiation of study tour of revolutionary battle sites in the area.

The marchers left Hyesan and paid floral tribute at the statue of Commander Kim Il Sung in military uniform in Pochonbo.

After looking round the command post of the Battle of Pochonbo, police substation, subcounty office, post office and other places, they arrived in Samjiyon County on June 12.

In front of the statue of Chairman Kim Jong II in Samjiyon County, they hardened their resolve to remain faithful to Supreme Leader Kim Jong Un who is carrying forward the cause of the Sun.

They visited the Paektusan Hero Youth Power Station on June 15. They toured the Monument to the Victorious Battle of the Musan Area, Sinsadong Revolutionary Battle Site and Mupho Bivouac and scaled Mt Paektu, the sacred mountain of the revolution, on June 20.

They got together on the summit of Mt Paektu and expressed their resolve to steadily go on the march to Paektu following the Supreme Leader.

At Kim Jong II's birthplace in the Paektusan Secret Camp, the study tourists looked round the historic materials preserved in their original state as they looked back upon the revolutionary career of the Chairman who had dedicated his whole life to the country's prosperity and the people's well-being.

They also dropped in at the Rimyongsu Revolutionary Site and the Chongbong and Konchang bivouacs.

During their study tour, they conducted a variety of political and cultural activities, and helped builders at the construction site of Samjiyon County.

Compiled from KCNA

COMMEMORATION

Workshop commemorates 1 100th anniv of Koryo Dynasty

A social science workshop was held on June 27 at Koryo Songgyungwan University to commemorate the 1 100th anniversary of the foundation of the Koryo Dynasty.

The event was attended by President Ri Hye Jong of the Academy of Social Sciences and lecturers, researchers, curators, writers, journalists, editors, students and officials in the fields of science, education, media and national heritage protection.

Speakers gave in-depth explanations about the history and culture of Koryo Kingdom, the first unified state of Korea, **LEADING ARTICLE**

Demonstrating the might of Juche Korea

Kim Jong Un was elected chairman of the State Affairs Commission of the DPRK at the Fourth Session of the 13th Supreme People's Assembly on June 29 2016.

Over the past two years which can be said to be a moment in the history of a nation, the DPRK had an unprecedentedly great impact on the world.

World media are praising Supreme Leader Kim Jong Un as an ideal head of state at the present times and a statesman who prioritizes the people.

The last two years were a phenomenal period in which the DPRK increased its strength drastically under the wise leadership of Kim Jong Un.

He worked hard to build up the country's sci-tech and economic capabilities according to his far-reaching plan for building a world sci-tech power and economic giant.

In January 2018 he opened the door to the new year with the inspection of the State Academy of Sciences under the gaze of the world people.

As he inspected the academy he appreciated the achievements made by Korean scientists and stated that a powerful socialist country we are building is a knowledge-based economy which relies on the world's advanced science and technologies.

In the present-day world, sci-tech forces and economic potentials are regarded as the most important strategic assets of countries and a major index to national strength.

With keen insight into the role of science and technology in building up national strength the Supreme Leader made sure that the whole country established a habit of attaching importance to science and technology and talents and indicated relevant orientations and methods as he toured scientific research institutions and economic sectors.

Thanks to the warm love and trust of the leader who put forward sci-tech talents

as treasures of the country, an army of scientists and technicians has grown up, the ranks of intelligent workers have increased and the country's science and technology have made rapid progress.

nationwide Amid the campaign to break through the cutting edge and the mass technical innovation movement, production Juche-oriented systems relying on local efforts, technology and resources have been established and many units have exceeded the all-time high in production, demonstrating the validity and vitality of the line of attaching importance to science and technology.

The Supreme Leader translates into brilliant reality the people's dreams and ideals with the spirit of making selfless efforts for the good of them.

He placed a high premium on education and public health as images of socialism and begrudged nothing to invariably pursue the popular policies of the Workers' Party of Korea and

the government despite difficult conditions.

Last year alone, he inspected newly built Pyongyang Primary School for Orphans and had a photograph taken with its pupils and proposed building the Pyongyang Dental Hygiene Supplies Factory, inspected the completed factory and gave instructions for providing the people with quality supplies.

He also set "gold mountains, golden fields and gold seas" as a symbol of the advantages of Korean socialism and three strategic assets showcasing national strength and continued journey of devotion uninterruptedly to provide the people with a more affluent and civilized life.

His on-site inspection tours have been followed by the mass-production of famous products and commodities, big haul of fish, rich harvest of fruit and other eye-opening events to enliven the whole country.

modern apartment houses for scientists, lecturers and workers, bases for cultural and leisure activities that mushroom across the country and the laughter of happiness ringing out from schools and schoolchildren's camps are just the incomparable strength of Korean socialism.

As they remember the past course they covered following the Supreme Leader, the Korean people are filled with infinite pride and happiness of exalting the dignity and might of a powerful country under the leadership of the peerlessly great man.

The outstanding leadership ability of the world-recognized leader is bringing about a series of unprecedented, thrilling

The Korean people are striving to make a leap forward towards a knowledge-based economic giant and civilized power with great vigour, united more firmly around the Supreme Leader.

Kim Hyok Ju

week news

Film show in commemoration of Kim Il Sung's Mongolia visit

There was a film show at theTaedonggangDiplomatic Club in Pyongyang on June 28 to mark the 30th anniversary of President Kim Il Sung's second visit to Mongolia.

The event was attended by Kang Mun Ryol, vicechairman of the Korean Committee for Cultural Relations with Foreign Countries, relevant officials, Pyongyang and charge citizens d'affaires Sukhbat Sodnomtsog and staff member of the Mongolian embassy to the DPRK.

After speeches were made, the participants watched DPRK "President documentary Kim Il Sung pays official to the People's Republic of Mongolia" (June 28-July 1, 1988) showing the undying exploits the President performed as he conducted energetic external activities to consolidate and develop the ties of the two countries and their peoples onto a higher stage.

Revolutionary martyr's centenary commemorated

A national meeting took



The bust of Kang Kon.

place at the Central Youth Hall in Pyongyang on June 22 to commemorate the 100th birthday of revolutionary martyr Kang Kon.

Army General No Kwang Chol, minister of the People's Armed Forces, addressed the meeting.

Referring to the brilliant of anti-Japanese fighter Kang Kon, he said that the martyr, with the firm confidence in Korean revolution Commander by Kim Il Sung, undauntedly fought and carried out the leader's lines, orders and instructions without fail while accepting them as an absolute truth and displaying unbounded selfsacrificing spirit.

Kang Kon always went straight ahead along the road indicated by the Commander, and absolutely trusted and followed the leader only and remained faithful to the Party and revolution, he noted.

He called for upholding the ideas and leadership Supreme leader Kim Jong Un and pushing grand march of economic construction for the implementation of the decisions of the April 2018 plenary meeting of the Party Central Committee by carrying forward the tradition of loyalty created in the forests of Mt Paektu, so as to bring earlier the bright future desired by revolutionary martyrs.

Stamps about 2018 FIFA World Cup issued

A miniature sheet and four stamps have been issued in the DPRK in



A miniature sheet.

commemoration of the 2018 FIFA World Cup.

The stamps bear words "FIFA World Cup Russia 2018" in Korean and English.

A Russian church and the cup are portrayed on both sides of the miniature sheet against the backdrop of a football stadium and two competing players at the centre. And individual stamps show footballers tackling the opponent and dribbling, kicking and

catching the ball.

Pochonbo Torch **Prize Games**

A shooting tournament was held shortly ago as part of the Pochonbo Torch Prize Games.

National records were renewed in the men's individual trap shooting, individual and team skeet, individual and team 10m air rifle and individual 50m rifle three position

Shooters from the Defence Sports Club of the Korean People's Army snatched 19 gold medals.

Meanwhile, there was a marathon race (30km) on Kwangbok Street in Pyongyang.

Over 100 marathoners repeatedly ran an exhausting a 5-km track.

In the senior-level event, Kigwancha's male and Kim Chaek University of Technology's female runners came first respectively.

The men and women of Amnokgang and Ryomyong proved triumphant in the youthlevel event.

Many runners who clocked in within the standard timeframe earned qualifications for the national championships (October) and youth championships (September).

Compiled from KCNA

Workshop: Features of first unified state of Korea highlighted

through what they have newly discovered in the scientific research into the national cultural heritage true to the earnest requests of President Kim II Sung and Chairman Kim Jong II and the state policy on the protection of the cultural heritage.

Koryo Kingdom was founded in 918 and existed till 1392, during which it fully demonstrated the dignity and mettle as the unified state by developing the economy and culture and firmly defending national sovereignty, they said.

The historical significance of its foundation, they noted, lies in that it carried on the national traditions by succeeding Koguryo, a powerful state of Korea that existed for nearly 1 000 years, and paved the way for the unified development of the nation by accomplishing the historic cause of the country's unification.

They said Koryo succeeded Koguryo and integrated Later Silla and Later Paekje to unify the country and nation, adding that the emergence of the first unified state of Korea by Koryo helped the nation realize the desire to live in a unified country, further solidify the national homogeneity and dynamically promote the unified progress of the country.

They also referred to the facts that the people of Koryo invented metal type for the first time in the world to radically develop printing industry and enhanced its reputation by making Koryo ceramics which are regarded as treasures by the world people for its unique colour, pattern and shape, that the layout of Kwangbok Temple, a temple site newly unearthed, and many other newly discovered relics showcase the high profile of the architecture and handicrafts in the period of Koryo, and that Koryo faithfully inherited the dietary life, ondol (underfloor heating system) and marriage customs, lunar New Year's Day and chusok or Harvest Moon Day, ssirum (Korean wrestling), yut game and others of the Koguryo people.

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SHIPBUILDING

Plastic ships satisfy needs of local customers

Plastic ship has become a world trend in shipbuilding industry.

Plastic is considered to be the second best shipbuilding material after aluminium as it is high in intensity and has a low fuel consumption and the hull has a lifespan of more than 20 years. In particular, glass fibre reinforced plastic is very suitable for building fishing boats for its better insulation properties and shock absorptiveness than such metal materials as iron and aluminium and other materials.

A plastic ship does not corrode and leak and plankton and other plants do not stick to it, so it is easier to maintain than the ships made of wood, steel and concrete. And as it has smooth surface and is light, the hull has low frictional resistance and the ship can sail 1.2 times as fast as a steel vessel.

The building cost of the plastic vessel is higher than wooden, iron and concrete ones, but it is offset by mass production. Therefore, many countries build plastic fishing vessels and even warships like minesweepers and frigates up to 80 metres long.

The Thongchon Jisong Plastic Ship Factory newly built in Jangjin-ri, Thongchon County of Kangwon Province, builds plastic vessels for various purposes.

According to a technical official, it is important to provide proper temperature and humidity when plastic ships are built.

The Thongchon area is warmer than other areas, so it is easier to provide suitable conditions in winter, and geographically it is situated within easy access, he said.

With several major production buildings, wharfs and auxiliary

buildings distributed in a balanced way, the shipyard is equipped with different facilities for various purposes and builds fishing vessel, pleasure boat, rowboat, passenger ship and others of various shapes.

The design and building methods rely on glass fibre reinforced plastic.

As demoulding is more difficult for bigger ships, engineers invented an idea of preventing changes in the form while reducing the weight of the hull before demoulding by fabricating the carcass in some prop areas and parts which can be easily changed, quite different from the previous method in which the carcass is assembled before demoulding.

They solved many technical problems: they reduced the vibration of engines by fixing a rational height of main engine base and proposed a method of connecting plastic

and steel structures by water seal.

And they built plastic vessels strictly to the technical specifications including the minimum resistance sector, regular and irregular wave external force assessment method and righting moment to ensure the quality of products.

The shipyard will soon launch a 55hp plastic fishing vessel.

Though it is only a year since its inauguration, the shipyard has built several plastic fishing vessels which are popular among fishermen.

By Chae Hyang Ok PT



KIM CHOL / THE PYONGYANG TIMES

The Thongchon Jisong Plastic Shipyard builds different types of plastic vessels.

SHOEMAKING

Shoe factory concentrates on new products



PAK CHANG BOK / THE PYONGYANG TIMES

A wide variety of shoes roll off the production line at the Ryuwon Footwear Factory.

The Ryuwon Footwear Factory's trainers are popular with consumers.

The factory has updated all production processes from the preparing of raw materials to the shipment of products in keeping with the trend of the shoemaking industry and established a strict quality management system. It encourages employees to participate in technical innovation drive to diversify the products in terms of kind, shape and colour and make them lighter.

Technicians have established a shoetree and shoe design system based on a 3D foot measuring device to overcome the uniformity in the production of sneakers of different kinds. Sneakers are made to meet individual athletes' shapes and the characteristics of strength applied to foot according to sports. So they help athletes to perform well in matches, lighten physical burdens and conduct training and playing more scientifically.

They have also installed an efficient cloth cutting and spreading machine and shoetree demoulding machine in the process of producing the outer rim of footwear to double production. The homemade air-pressure type

shoetree demoulding machine helps reduce manual work and increase work speed three times, contributing to making the process fully automated, and raise productivity per unit hour in overall production processes.

The factory ensures qualitative indexes of all products by establishing a quality inspection system for all products. The product checking room near the production site is furnished with various facilities for examining and assessing the characteristics of different trainers, including ageing, bending-and-unbending and impact testers. Especially, the machine for testing the features of trainers for football players is very effective in raising the quality as it helps take an accurate measurement of physical strength by simulating diverse kicking manners and strength of footballers.

The factory has also solved a number of technical issues by its own efforts, namely the sewing-free outer rim production method based on hot pressing, the colour decorative effects by the multicolour screen printing technology and the technique of lightening trainers with the micro foaming and moulding technology.

By Choe Kwang Jin PT

Tree nursery built in Kangwon Province

A tree sapling production base covering an area of dozens of hectares has been built in Kangwon Province.

Provincial officials and other working people built a vinyl sheet greenhouse, outdoor cultivation ground, round cutting bed, light substrate production ground, seed selection and sowing ground, office building, service amenities and dwelling houses by displaying the revolutionary spirit of self-reliance and fortitude as befit the creators of the spirit of Kangwon Province, true to the Party's intention to cover the whole country with forests and gardens.

The tree nursery is equipped with an integrated manufacturing system capable of creating optimal conditions and environment for sapling cultivation and is able to put sapling production on a scientific, industrial and intensive basis.

An inaugural ceremony was held on June 24.



KCNA

ENERGY

Efforts are made to exploit renewable energy

Amid the country's drive to exploit renewable energy sources such as solar, wind and geotherm, the solar panel manufacturer of the Jinung trading company has developed a solar power system for industrial use.

The manufacturer produces all equipment needed for the system including solar panels and inverters at the monocrystal and polycrystal silicon solar panel module production processes and research and development bases of equipment for the electric power system.

Its production processes are dust-free and equipped with air-conditioning systems. Its products are to pass the high-level technical test using modern measurement facilities.

The manufacturer undertakes research to replace raw and other materials and equipment with locally available ones while introducing the world trend and advanced technologies.

In the course of this, it developed a highly efficient

window-style solar panel, which can be used as a finishing material.

It has built solar power systems for over 30 units including the Taegyong Laver Processing Factory and Taehung trading company.

Kim Chack University of Technology has developed a compound semiconductor

solar panel, which costs less than silicon crystal one and depends on local materials 100 percent by inventing a new transparent conductibility glass for solar panel.

The Natural E n e r g y Institute under the State A c a d e m y of Sciences pushes ahead with the production of several hundred watt-

capacity solar panels after establishing a new production process of solar panels with various outputs.

The renewable energy development centre under the institute has set up a large solar panel production process to develop solar panels and application products, providing a powerful impetus

for establishing solar power system. It builds several hundred kW-capacity system parallel solar power stations across the country to meet the power needs of relevant units. They are very popular with the users for their high efficiency.

By Chae Hyang Ok PT



PAK KWANG HUN / THE PYONGYANG TIMES

Employees at the Jinung Trading Company assemble solar panels.

PROFILE

Dedicating his life to theoretical physics

Ko Yong Hae (pictured), lecturer at the Faculty of Physics of Kim II Sung University, was awarded the title of academician at the ceremony to confer state academic degrees and titles in April.

The 77-year-old professor, PhD and Merited Scientist has devoted his time and energy to education and scientific research for over 50 years.

It was in the mid-1960s that he took his first step into the field of theoretical physics.

When he became a lecturer after graduating from Kim II Sung University, he had an ambition to become a pacesetter for raising the country's physics.

As he set out on the road of scientific research with such an ambitious dream, he jumped into the world of research into modern physics and made his way through the unknown world with unusual enthusiasm.

A few years after he took up career as a lecturer he pioneered such new subjects as electrodynamics and plasma physics and started research into the quantum theory of field and theory of elementary particles, to the surprise of the academic world.

A man with enterprising approach and ample



 $\ensuremath{\mathsf{KIM}}$ CHOL / THE PYONGYANG TIMES

knowledge, he proposed original and novel ideas to unlock the secrets of theoretical physics with many doubts and mysteries one after another.

During the inquiry he made valuable achievements in research on problems which demanded urgent solution including the study of modern medium electrodynamics and electromagnetic properties of plasma in succession, rising to fame as an authority on physics.

His name was widely known to the world physics circle at the international symposium on modern physics held in China in 1990. There he presented his research hit on the theories of elementary particle and field he had made after decadeslong painstaking efforts, causing a worldwide sensation.

At the time many foreign scholars and journalists asked him where he studied with what financial support and who was his teacher and others.

He proudly replied that he studied at Kim Il Sung University under the socialist free education system.

Since then he has published nearly 20 dissertations on the theory of elementary particle field, which is believed to be the core of theoretical physics, in SCI-class international journals.

And he presented papers

to international symposiums several times, earning admiration from scholars of various countries who said that the DPRK's level of theoretical physics is world-class.

He is a talented scientist and an excellent teacher as well.

He has put his heart and soul into transferring all his knowledge to young scientists. Kang Jin U, PhD, who broke fresh ground in particle cosmology, the focus of the worldwide attention, and dozens of other promising scholars owe much to him.

His students are now active as members of the international centre for theoretical physics, attracting the attention of the academic circle with worldclass scientific research hits.

He also authored over 50 books including Encyclopedia of Theoretical Physics (10 volumes) and Dictionary of Modern Science and Technology, leaving an inedible footprint in the development of the country's science and technology.

Kim II Sung Prize was awarded to him in 2014 in recognition of his contribution to making the national economy Juche-based and modern and his training of many talented scientists and technicians.

Even in the twilight of his life he still works hard to train more talents.

By Jong Sun Bok PT

Environment-friendly pesticides developed

Given that environmental pollution threatens the existence of mankind, developing environment-friendly agrochemicals is the main focus of agricultural scientific research.

The plant protection scientific research institute of the Academy of Agricultural Science has recently developed some biological pest-killers which help increase crop yields and have no adverse effect on ecology and human body.

Among them is the one made of a nematode.

The pest-killer is made by culturing a parasitic nematode that causes diseases in insects. The nematode carrying symbiotic bacteria enters into bodies of insects through their mouths or vents to spread bacteria in their haemolymph. And the bacteria in turn multiply as they derive nutrients from the insects and finally kill them.

The application of the pesticide to grub, *Agriotes sericeus*, cutworm and other underground pests that cause damage to maize showed that the pest control rate accounted for over 70 percent and the crop yield increased by over 10 percent.

The agrochemical is simple in the production process which relies on locally abundant raw materials, and the conditions for the mass-culture of symbiotic bacteria are provided sufficiently.

The other one is the nicotinemineral oil emulsion, a vegetable chemical developed at the pilot plant of the institute. It is also winning favour with the users as a pollutionfree and atoxic pesticide.

The broad-spectrum insecticide kills various harmful insects which cause damage to grains, vegetables, industrial crops, fruit trees, garden plants and forests.

Researchers have established an extraction technique ensuring 0.6 percent of nicotine concentration and fixed the rational mixing ratio of adjuvants to develop an optimal method of mass-production. They confirmed that the production cost of the pesticide is a tenth of that of the previous nicotine pesticide production method based on alkaliorganic solvent extraction, the range of its application increased four to five times and the pest control efficiency is 1.5 times more than before.

The institute has also developed a peprolium spray oil that increases the pest control rate of agrochemicals and the duration of their effects.

When sprayed, the emulsion forms a film of oil on the surface of the eggs of harmful insects to keep them from breathing. Some of it enters the eggs through the stigmas to coagulate protein in them so that they cannot hatch into larvae. It also helps agrochemicals sufficiently touch the surface of plants and pests and prevents them from being washed away once they contact them, and retards the disintegration of the active components of pesticides by ultraviolet rays. The spray emulsion proved effective through its application to over ten species of harmful insects.

By Jong Tang Song PT

HEALTHCARE

New procedures applied to children's heart diseases

The cardiovascular surgical department at the Okryu Children's Hospital has registered good results in the treatment of children's congenital heart diseases by introducing new techniques.

The department succeeded in adopting a procedure of dealing with tetralogy of Fallot, a complex congenital heart disease considered as intractable in the cardiac surgery, by way of the right chest wall incision approach, which is recognized as a cutting-edge technique in the medical world.

The procedure imposes heavy mental and physical burden on the operator due to the narrow vision and the depth of the operation. But the risk of complications such as postoperative haemorrhage is lower, and the patient comes under less operative burden as the time of operation is shorter than previously.

In the context of beauty, the operative scar is not so considerable as to cause psychological distress to the patient.

Last February Ri Jin A, a

3-year-old girl from Sukchon County, South Phyongan Province, received such an operation successfully.

The department has also established a new surgical method for Ebstein's anomaly, making it possible to cure the children suffering from the disease completely.

More recently, it successfully

carried out a conical tricuspid plastic operation on Kim Ju Un, a five-year-old child from Nampho.

The department also conducts operations of the infantile congenital heart diseases complicated with severe pulmonary hypertension.

By Pang Un Ju PT



PAK CHANG BOK / THE PYONGYANG TIMES

Children are under close observation of medical workers after surgery.

EDUCATION

Information analysis system helps improve teaching

Kumsong Middle School No.1 recently developed a school education information analysis system which helps realize science- and IT-based education on a high level.

The reality requires a system which can scientifically define and correctly analyse and assess educational information including knowledge of students, qualifications of teachers, educational conditions and environment and various other indices.

The school used to improve its education by introducing realistic programs. This time, however, it set a goal of newly establishing a method of analysing educational information in the middle school stage.

The developers had discussions repeatedly with education and information analysis experts to find rational methods with which to gain correct analysis results.

They delved into the correlations between the existing information analysis systems and invented a new method to correctly analyse all educational information in real time.

On the basis of laying the foundations for enhancing scientific accuracy practicability of information analysis, they established a rational school education information analysis system, which can conduct visual and scientific analysis and assessment of the overall objects of school including teachers and students, and sections and classes as well and support necessary decision-making.

The new system helps students improve their scientific knowledge by correctly judging and predicting it.

It also helps make school education science- and IT-based on a higher level by improving education in line with the requirements of the developing times on the basis of a correct visual prediction and assessment of educational level.

With the help of this system the school has rapidly improved the knowledge of many students. And the system was highly appreciated at the annual national IT achievement show and listed as a national sci-tech hit.

By Jong Sun Bok PT

VEGETABLE CULTIVATION

Workshop focuses on greenhouse vegetable farming

Officials and researchers in the sector of greenhouse vegetables get together at the Pyongyang Vegetable Science Institute under the Academy of Agricultural Science to hold a workshop between June 11 and 26.

With the theme of "Enthusiasm for greenhouse vegetable farming: cultivation and introduction of diverse vegetable varieties", the symposium was divided into theoretical and practical training lectures on greenhouse vegetable growing technologies.

over dozen technologies were introduced in the lectures, including the vegetable growing in "window farms", the nutrition diagnosis in the cultivation of vegetables through visual observation, and the orientation of breeding various pepper varieties and their application. In particular, the lecture on vegetable growing in "window farms" evoked a positive response among the participants as it gave a scientific explanation of the technologies of effectively raising various vegetables in towns and the effects of environmental protection and urban reclamation.

Presentations were given for research hits made by greenhouse vegetable science research units last year, together with an experience sharing by exemplary production units.

The use of deep seawater in the cultivation of crown daisy, the introduction of mineral sterilizing nutrient, the distribution plan of high-yielding crops and scores of other research findings drew the interest of visitors. Officials and researchers gave an account of good experiences they gained in putting greenhouse vegetable farming on a scientific basis.

The symposium which drew more agronomists and other technicians than last year provided a platform for sharing experiences and having a comprehensive understanding of the trend and actual conditions of greenhouse vegetable farming. All the lectures were accompanied by videos to promote the visual representation of new cultivation methods.

Books explaining technical issues in developing greenhouse vegetable farming and new varieties of high-yielding vegetable seeds were distributed to the participants.

At the closing ceremony on June 26, certificates were awarded to those who won appraisal at the workshop.

By Choe Kwang Jin PT

MEDICINE

Bifidus yeast powder recognized as effective medicine

Bifid bacterium proves to play a vital role in the treatment of such incurable diseases as cancer. According to research findings, bifid bacterium holds a large proportion of enteric bacteria of 80 to 90-year-olds, whereas there is no or a very little amount of the bacterium in patients with cancer and other kinds of diseases. Though it is good for human body, it is difficult to culture it and its production cost is very high.

The Korea Mannyon Health Corporation has developed a powdered bifidus yeast medicine with natural raw materials.

Through years of lab and clinical tests, Ri Tong Ok, Im Ui Song, Kim Hyon Bok and other members of the research team fixed a highly active substrate for the bacterium, found out favourable conditions for its culture and completed a method of maximizing the number of the bacterium per unit with a low cost.

One gram of the powdered medicine contains ten billion bifid bacteria, and

once they enter the intestines they force out saprogenic bacteria, staphylococci and modified bacilli to become dominant, stimulating digestion, absorption, synthesis of vitamins, nourishment, growth, improvement of immunocompetence and prevention of infection.

The medicine is especially efficacious for cases with chronic enteritis and colitis, other digestive disorders, chronic hepatitis and liver cirrhosis as it helps increase the rate of digestion and absorption and normalize the enzyme count and serum colloid reaction.

It also helps lower serum cholesterol levels sharply among arteriosclerosis patients and is very effective in the treatment of children's indigestion and old people's malabsorption.

Almost no cancer cases have been reported from among the regular users of this medicine, and it helps patients with cholecystitis, pancreatitis and diabetes normalize their blood and urine sugar levels.

With a cure rate of 80-90 percent, the medicine also helps people maintain good health.

By Jong Tang Song PT



PAK CHANG BOK / THE PYONGYANG TIMES

Powdered bifidus yeast medicines are under inspection at the Korea Mannyon Health Corporation.

SPECIAL FEATURE

Insam, Korea's speciality

Lots of insam (ginseng) products were put on display at the 21st Pyongyang Spring International Trade Fair held last May.

Visitors showed deep interest in hundreds of kinds of insam products including medicines, health foods, other foodstuffs and cosmetics which were presented by different domestic companies such as the Korea Kaesong Koryo Insam Trading Company, Korea Jangsu Trading Company and Korea Mannyon Health Corporation.

World-famous insam is Korea's traditional medicinal material that has widely been used for curing and preventing diseases for thousands of years.

Place of origin

Insam is now cultivated in many countries and regions, but Kaesong in the middle of the Korean peninsula is noted as a leading insam producer of the world. The city is renowned not only as the provenance of insam but as its processor.

"Koryo insam" and "Kaesong Koryo insam" derive from the fact that the plant originated from this area which was the capital of Koryo Kingdom (918-1392).

The area of Mts Songak and Chonma, scenic attraction in the city, is known as the best place for insam cultivation.

A legend has it that a local girl cured her illness with a decoction made with the root of a plant with red fruits growing on Mt Songak. It was just wild insam (*Panax schinseng*) that was known as a wonder plant among folks. As demands for the plant grew, the locals gathered its seeds for cultivation.

Kaesong Koryo insam has far better pharmacological effects than the same plants in other areas for the soil, water and weather peculiar to the locality and original cultivation and processing methods.

There is a peak shaped like a woman carrying a baby on her back between Mts Songak and Chonma. As the wild insam growing there is believed to be especially effective, people still climb the peak to dig the medicinal plant.

Insam is less tolerant of strong sunlight and the rays of the setting sun than sunbeams streaming down through forests and the beams of the rising sun.

To suit the physiological features of the plant ancestors cultivated insam on mountains by sowing its seeds, in earthenware pots and wooden boxes moving them to different places according to weather conditions and in fields covering it with sunshades made of straw matting. They also invented the method of raising it for six years.

In Kaesong there are historical sites, which show that Koreans had long cultivated insam, including the cauldron site where red insam (steamed and dried insam) was made, and interesting legends and anecdotes related to the plant are still conveyed.

In the area there are insam farms, processing factory, research institute and Kaesong Koryo insam exhibition hall and shop.

There is the one and only Koryo insam faculty at Koryo Songgyungwan University.

Kaesong can rightly claim to be a large open-air insam museum.

King of medicinal herbs

"Insam derives its name from the shape of its root, the main medicinal part which is resemblant to human figure. It can be dubbed the most ideal tonic as it helps restore the nerve, immune and endocrine systems which adjust body functions," says Mun Kwan Sim, candidate academician, professor and PhD at the pharmacology institute of the Academy of Medical Science.

Insam has long been used as a medicinal material in Korea.

It was widely known as an especially efficacious medicine already in the period of the Three Kingdoms (3rd century BC-AD 7th century) and used as the best blood-producing restorative in the periods of Koryo and the feudal Joson dynasty (1392-1910).

Prescriptions of medicines containing insam make up a large proportion of remedies cited in Korea's old medical classics. *Utbangryuchwi* (Manual of Traditional Medicine of Korea). *Hyangyakjipsongbang* (Collection of Remedies of Traditional Medicine of Korea) and *Tonguibogam* (Encyclopaedia of Traditional Medicine

of Korea)

Its root, leaf, stem, bud and fruit contain over ten kinds of glycosides, saccharides, amino acids, peptides, organic acids, proper amounts of radium and microelements and various vitamins that are beneficial to health and longevity.

It protects five viscera, has a good influence on the brain, heart and vascular system and stimulates endocrine glands to promote metabolism and, therefore, it is widely used as a major material for various traditional medicines and tonics.

People of neighbouring countries visited Korea from afar to procure it. It is said that Pyongnando which was a trade port of Koryo was crowded with foreign merchant ships that came to get insam, and pharmacies selling Koryo insam were also packed with clients from neighbouring countries.

neighbouring countries.

It is classified into red insam, white insam (roughly trimmed and sun-dried insam) and sugared insam in terms of processing method. They are of good quality and highly efficacious.

The Kacsong Koryo Insam-processing Factory with a 60-year history is located in a good place at the foot of Mt Songak.

The country's leading insam processor produces more than 50 kinds of insam products including powder, fancy rice cake, tea, extract and juice.

Insam contains 0.05 percent of perfume, and cosmetics made with it are in great demand for the unique aroma.

"Kaesong Koryo insam seems to have a quicker medicinal effect for people in other localities. That is why it became all the more famous around the world, I think," said Ri Un Hui, workteam leader at the Osan Daesong Insam Company.

Insam culture

The Korean people process insam in various ways to make original health foods and drinks.

Traditional insam dishes that have been developed in the direction of maximizing the medicinal effects of materials include *samgyethang* (a young hen boiled with insam, glutinous rice and garlic in its stomach without salt), steamed, dehydrated and seasoned rootlets, boiled insam preserved in syrup or honey, steamed rice cake

that is especially delicious in winter, salad with sweet and bitter tastes and a unique fragrance and wrapped-up kimchi which is appetizing and savoury for a good blend of the aroma of insam and kimchi.

Typical health drinks are the tea made by boiling insam root cut in a certain size and adding honey and liquor made by steeping insam in alcohol.

Popular insam products are nutritious toffee, patterned savoury cake and canned powder milk that are good for children's growth and health, and instant noodles.

The insam research institute is intensifying research into a highly digestive fermented health food with a high content of saponin of the plant.

Foreign tourists who relished various insam dishes including sweet rice dish, kimchi made with less peppered seasoning and salad gave the thumbs up to them, saying Kaesong's specialities are unique and Kaesong leads the world in creating the insam culture.

Demand for Kaesong Koryo insam is on the rise for the unrivalled medicinal virtue.

By Yang Ryon Hui PT



Kaesong Koryo insam liquor and samgyethang, or chicken boiled with insam.





An insam field in Kaesong.

VIEW

Summit heralds fresh start of DPRK-US relations

The greatest event in June around the world is apparently the DPRK-US Singapore summit.

The Singapore summit meeting and talks, which brought about a U-turn in the DPRK-US relationship from the decadeslong acute confrontation into that of cooperation, peace and stability, sent shock waves through the international community and they linger to date.

World media still splash the event under the headlines, "It seems as if the world time has got faster this year than ever before thanks to the proactive and continued diplomatic foray of Chairman Kim Jong Un", "Successful holding of DPRK-US summit imagined only in science fiction", "Prominent leader and great patriot who defends supreme interests of Korean people", "The curtain raised: Kim Jong Un and Trump meet" and "An epochmaking handshake".

As they put it, through the summit the international community keenly realized again the firm decision and will of Supreme Leader Kim Jong Un to write a new chapter of the DPRK-US relationship out of his commitment to peace in the Korean peninsula and the world.

No relationship in the world will be more acute and volatile

than that between the DPRK and the US, which has remained hostile for over 70 years.

The Supreme Leader decided to end this relationship which causes enormous sufferings to the peoples of the two countries and build a new relationship in line with the requirements of the changed era, and devoted time and energy to holding the DPRK-US summit meeting and talks, the first of its kind in history.

He made clear the peaceloving stand of the Workers' Party of Korea and the DPRK government to positively contribute to the building of a nuclear-free world in conformity with the common desire and aspiration of humankind. He not only took proactive measures to this end, but also made time to meet the US Secretary of State on a visit to Pyongyang and reached an agreement on practical matters for the successful holding of the summit talks. And as a sign of goodwill and broadmindedness towards the party of the talks he took courageous steps then and there to settle an issue officially raised by the US president.

At the first DPRK-US summit meeting and talks both sides shared the understanding that they would work towards a new relationship in response to the desire of the peoples of the two countries for peace and prosperity and establish

a durable and solid peace mechanism in the Korean peninsula, and confirmed that to the world through a joint statement.

At the same time they had an in-depth discussion about the matters: that they would have an understanding of each other and drop hostility to achieve peace and stability and realize denuclearization of the Korean peninsula and take legal and institutional measures to guarantee it; that they would take practical steps positively to settle the discussed issues and implement the joint statement in a short time; that they would immediately refrain from any military acts that are provocative and hostile to the other to establish a durable and solid peace regime in the Korean peninsula; and that it is important to maintain the principle of simultaneous action in each stage in the course of achieving peace and stability in the Korean peninsula and denuclearizing it.

The Singapore summit marked a turning point in building a fresh DPRK-US relationship and assumed worldwide significance in achieving regional and world peace and stability by building a lasting and solid peace-keeping mechanism in the Korean peninsula.

By Kim Rye Yong PT

COMMENT

Japan must redress its sinful past first

Speaking at a televised conference on June 16, Japanese Prime Minister Abe said "Japan is willing to share the financial burden for the denuclearization of north Korea".

His remarks illustrate where Japan finds itself today, shut out of the mainstream in the region.

In fact, Japan intended to fish in the troubled waters by whipping up tension on the Korean peninsula.

But things did not work out as they expected.

A trend of peace and stability has come on the Korean peninsula, which was teetering on the brink of conflict even several months ago, and the 70-odd-year hostile relationship between the DPRK and the US has been put on the track of dialogue and negotiation in response to the requirements of the new era.

Beleaguered Japan is now

acting in such a narrow-minded way as to wave its purse on the pretext of "sharing the financial burden of the denuclearization of north Korea".

It remains to be seen whether such a mean act would do the trick

As former chief cabinet secretary Kono Yohei told a recent gathering in Tokyo, "what Japan should do for now is to apologize for its colonization of the Korean peninsula".

Akira Kimura, a professor at Japan's Kagoshima University, criticized Abe's approach towards the DPRK in an op-ed article for the *Global Times*, saying that Japan is obliged to bear the responsibility for its past of aggression against Korea and that it is not too late to translate the responsibility into actions.

In the previous century Japan occupied Korea militarily to enforce colonial rule for over 40

years, but it still fails to make a sincere apology and reparation for its sinful past at least seven decades later.

Instead, the Japanese authorities have tried to cover up the evidence of the past wrongdoings and whitewash the history of aggression. They have officially published blueprints or white papers to distort what Japan had committed in the past, and encouraged the pilgrimage to the Yasukuni Shrine that enshrines the souls of militarism. Notably, since the inauguration of the Abe regime Japan's distortion and embellishment of its wartime history has gained fresh momentum.

Such being the case, Japan is attempting to approach the DPRK by using the card of "sharing the financial burden of denuclearization". Such a move is quite preposterous.

Japan which fails to address its sinful past remains a detestable state of aggression for the Korean nation.

Therefore, what Japan must do first is to make a thorough apology and reparation for its wartime crimes.

By Song Jong Ho PT

COMMENT

What do the results of s. Korean local elections tell?

In the seventh local elections and by-elections held in south Korea on June 13, the democratic reformist forces won a landslide victory, prevailing in 14 areas including Seoul and Pusan and securing 11 out of 12 parliamentary seats.

Reunification enthusiasm vs. gale of confrontation

Among the several rounds of local elections held so far in south Korea, the recent one can be claimed to be the fiercest one that took place amid the growing signs of rapprochement between the north and south of Korea.

The Liberty Korea Party and other conservative groups in south Korea that seek their way out in confrontation with the fellow countrymen viciously challenged public opinion aspiring to national reconciliation and unity.

It has been a conventional trick of conservative groups to reduce elections to an arena of confrontation against the DPRK by spreading the rumours about the "north's threat, provocation and terrorism", prompted by their impure political goals. This time, they clung to the anti-north campaign more desperately than ever before.

They attempted to overpower democratic reformist forces and pave the way for comeback to power, but the trick boomeranged to bring miserable ruin upon themselves.

Local media and pundits commented that despite the vicious smear campaign, the election returns show that the hard line taken by the conservatives ended in failure, abandoned by the people.

'Myth' of conservatives shattered

It has long been a customary practice for the eastern areas including Kyongsang provinces to favour conservative parties and the western areas embracing Jolla and Kyonggi provinces and Inchon to support democratic parties. But such practices and mindset have been broken in the recent elections.

Reporting that the wind of change has blown from the Kyongsang provincial region the LKP has long held out, local media said the onrush of democratic reformist forces has caused a "political quake" to shake the foothold of the conservatives in its entirety and alter the deep-seated regional landscape.

It has been known so far in south Korea that the middle-aged and old have strong conservative

leanings, but the majority of them turned their back on the conservatives with the impeachment of Park Geun Hye as a momentum and have come to vote for democratic reformist forces in the last elections.

This means that the "myth" of the conservatives that has been handed down successively has been shattered to smithereens by the awakened people.

Nowhere to go, but grave

In the last elections, the LKP put up novices, defectors and the like as candidates as part of the last-ditch effort to "engage talent" and "build a foothold for comeback", and dreamt of putting forward sole candidates, but such attempt only precipitated internal contradiction, discord and antagonism.

In the Kyongsang provincial region, at least 1 000 LKP members left the party to join the other party, claiming the LKP had no chances of win. Moreover, LKP candidates for governors and mayors of South Chungchong Province, Pusan City and other large areas turned to "independent campaigning", complaining that their approval rating would fall if the then LKP representative Hong Jun Phyo came to their constituencies, thereby unfolding an unprecedented farce in which the representative of a political party is kept from stumping around. The factions of Ryu Sung Min and An Chol Su of the "righteous future party" also became the butt of public ridicule as they presented a melee over the recommendation of candidates.

The recent local elections proved that the conservatives have no future and the nefarious traitors who turn their back on the public are doomed to a total destruction.

The group of traitors, who have committed hideous crimes against the fellow countrymen and history, cannot avoid stern punishment as they duped and fooled the people and challenged the trend of the times in order to revive conservatism and return to power, instead of making soul-searching. The election returns showed once again how tragic the end of those who run counter to public opinion and general trend is.

This is an abridgement of the article "What the returns of local elections held in south Korea show" which was carried on June 26 in Rodong Sinmun, the organ of the Central Committee of the Workers' Party of Korea.

SOCCER

April 25 still takes lead in premier league

The 2017-2018 DPRK premier league soccer tournament which started on December 2 last year is now at its height.

All teams have so far played more than half of their games.

According to information available, April 25 is still leading others with 32 points.

The team is the only to lose

no game, with ten wins and two draws of 12 matches.

"It is the goal of our team to win again this year," said O Yun Son, April 25's head coach.

Hwaeppul and Ryomyong are hot on its heels, making its hope for triumph uncertain.

Now they have come second and third in the team

rankings respectively, ending their games with April 25 in a scoreless draw.

Experts and fans choose them as the odds-on favourites, predicting a fierce fight between the three powers.

The second leg between Hwaeppul and Jebi took place at Kim Il Sung Stadium on June 24.

The two teams had



A scene from the match between Hwaeppul and Jebi.

competed several times in various tournaments, and the former won most of them.

In particular, Hwaeppul snatched a 2-0 home win against Jebi.

They fought a seesawing battle from the kick-off as both of them had a good grasp of each other.

Hwaeppul was dominant in ball possession and shooting, but it allowed Jebi to open the scoring.

In the 13th minute, Jebi's No. 19 switched over to a sudden fast break through the opponent's defence line to shoot the ball home.

However, in the 15th minute Hwaeppul equalized with a two- to three-person combination and led the opponent a minute later by scoring again with a powerful long-distance shot.

Hwaeppul dominated the centre areas and mounted attack on both sides, scoring another goal from a long distance shot in the 36th minute.

It held the initiative in the second half and scored the fourth goal at the end of the match, sealing the match 4-1.

By Jong Tang Song PT

Historic sites added to national list

The National Authority for the Protection of Cultural Heritage has listed two sites as of national treasure and preservation value.

The site of Kwangbok Temple in Sadong-ri, Phangyo County, Kangwon Province, is one of them.

The site situated in a valley about 2 kilometres northeast of the ri-seat covers an area of over 17 000 square metres, and it has been confirmed that the temple dates back to the Koryo Kingdom (918-1392), the 11th century to be more specific, on the basis of historical records, building disposition and remains found during the excavation.

The sites of a building housing the Buddhist image and a lecture hall are the largest ones among the same kind of buildings in the period of Koryo that have been found so far. In particular, the site of the lecture hall is longer than the main hall of Hoegyongjon, the main state chamber of Manwoltae, the royal palace of Koryo.

The excavation made it possible to explain the characteristics and changes of Koryo temples and have a better understanding of the development of culture including architecture in those days.

The Jangsuwondong tomb with murals registered as a relic of preservation was unearthed in the area of Jangsuwon-dong, Samsok District, Pyongyang.

At the time of excavation, signs of murals were seen on all walls of the tomb chamber and the pieces of ceiling mural were found on the floor.

The tombs with murals in the period of Koguryo are distributed in a wider areas of Samsok District.

Compiled from KCNA

TRADITIONAL DRINK

Scorched-rice tea

Sungnyung, or scorchedrice tea, is a traditional drink which has been handed down and developed in all parts of Korea through a long historical period

It is made by pouring water to the scorched rice at the bottom of a pot and heating it.

When rice is almost cooked, you leave it to steam by putting away fire. After scooping out cooked rice, you heat the remainder of rice again and there will be almost no water at the bottom.

Then the rice grains scorch, stick to the bottom and turn brown, and when you pour water on the crust and boil it, the savoury tea is made.

The tea rinses your mouth clean and refreshes you, and its temperature warms your body and makes you feel nice.

Ancient records including *Rimwonsimnyukji* (a multivolume book on agriculture, culture and customs compiled in 1825) from the period of the

feudal Joson dynasty say that scorched-rice tea dates back to ancient times and had been handed down and developed in the whole period from Ancient Joson through the Three Kingdoms of Koguryo, Paekje and Silla to Koryo and the feudal Joson dynasty.

Old Korean records describe it as *panthang*, *chwithang* and *suksu* indicating "frugal meal" and the ordinary people called it *kamachimul*, *nurungjimul* and *papsungnyung* signifying "water made of scorched rice".

Scorched-rice tea has a long history, given Korean ancestors cultivated and cooked rice to eat from ancient times.

An element of national intangible cultural heritage, sungnyung is easy to make and highly nutritious and has a unique aroma, so it is widely used in the diet of the Korean people.

Sim In Dok

PADUK

Pyongyang tops total rankings in paduk contests

The national children's paduk contest and the national amateur paduk competition ran between June 20 and 27 at the Taekwon-Do Hall.

More than 250 children and 100 amateurs selected from across the country competed in male and female individual,

team and mixed doubles events, divided into A, B and C grades.

The players flaunted their skills, concentration and perseverance as they correctly read the opponent's moves and situation.

Pyongyang topped the total rankings in both contests.

North Hamgyong and North Phyongan provinces finished second and third in the children's competition and South Phyongan Province and Nampho came second and third in the amateur event.

Compiled from KCNA



KCNA

The national children's paduk contest takes place at the Taekwon-Do Hall.