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Kim Jong Un gives on-site guidance to reconstructed college

Supreme Leader Kim Jong Un, chairman of the Workers' Party of Korea, chairman of the DPRK State Affairs Commission and supreme commander of the Korean People's Army, provided field guidance to reconstructed Pyongyang Teachers Training College.

He was accompanied by Pak Thae Song, vice-chairman of the WPK Central Committee, and Jo Yong Won, deputy department director of the WPK Central Committee.

He got familiar with reconstruction and modernization, and instruction and edification while looking round the room dedicated to the college's history, education and science exhibition hall, education control room, multifunctional lecture room, library, gym, dormitory and other places of the college with a total floor space of over 24 100 square metres.

Established in September 1968, the college could follow the proud course of its development under the wise leadership and meticulous care of President Kim Il Sung and Chairman Kim Jong Il, he said. The officials and teaching staff of the college, he noted, should keep in mind the importance of their duty and dedicate their intelligence and enthusiasm to education so as to add eternal brilliance to the undying exploits of the great leaders.

The college has made notable achievements in scientific research in the past, he said, adding an improvement in education cannot be expected apart from success in educational science.

Saying that all the lecture rooms including a room for practical training in how to teach primary school pupils, a room for acquiring teaching methods for experiment in natural science and



a room for diffusing the technique of developing children's intelligence have been turned into multifunctional ones to conduct specialized practical training, he described the method of giving lessons in virtual and actual situations as novel and distinctive.

The method of evaluating students' performance by teachers' standard and other teaching methods adopted in a classroom furnished to combine school education and family education are also advantageous, he stated.

He was very pleased to see that the college is equipped with such cutting-edge educational apparatuses

as 3D image input device, 3D printer and electronic board, sophisticated teaching tools and management and operation facilities, he said. He was greatly satisfied to say he feels as if he has plucked stars from the sky and provided the educationists in charge of the future of the country with golden cushions and he can vividly visualize the rosy future of the country.

The viewpoint and attitude toward the reality are altered and consolidated according to how human beings receive what kind of education in their childhood, an important stage in

which human intelligence develops, he noted. The Party attaches importance to teachers training colleges, the "pedigree farms" for the training of teachers of children, and that is why it saw to it that Pyongyang Teachers Training College was renovated with much effort, he said, underlining the need for every province to spruce up their teachers training colleges with the one in Pyongyang as a model.

He had a photograph taken with the officials, lecturers and students of the college.

By PT staff reporter



Collective innovations are made at Pyongyang Electric Cable Factory 326.

KCNA

INDUSTRY

Key industrial sectors see growth in production

Workers in different economic sectors are advancing to a new target in high spirits after fulfilling the first ten-day plans of the new year through an increased production drive.

The Pyongyang Thermal Power Complex overfulfilled the first ten-day plan by 18 percent, and the Sunchon Thermal Power Station boosts power production significantly. The

hydropower generation management bureau exceeded the electric power production target for the first ten days by 10 percent.

The workers of the Hwanghae Iron and Steel Complex carried out the first ten-day plan of January three times more than the same period of last year by maximizing

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LEADING ARTICLE

Short cut to building independent economy

Supreme Leader Kim Jong Un, in his New Year Address, set it as the priority task to make a breakthrough in reenergizing overall economic sectors this year, the third year in implementing the five-year strategy for national economic development and specified the ways to carry it out.

The short cut to the growth of the independent national economy is to give precedence to science and technology and update economic planning and guidance.

It is the era of science and technology and knowledge economy age, and science and technology is an engine that propels social progress. Today general science and technology constitutes the most important strategic resources of each country.

Only when top priority is given to science and technology, can the national economy be made Juche-oriented and self-sufficient on a higher level and the diversified and comprehensive economic structure be perfected still further.

Last year the US and its vassal forces forged illegal UN sanctions resolutions one after another on the pretext of the DPRK's self-defensive measures while pursuing the harshest ever sanctions and blockade to strip the country and its people of the rights to sovereignty, existence and development.

Lots of industrial establishments, however, carried out their annual economic plans ahead of schedule and exceeded the levels of peak production year, model factories of modernization sprang up and tractors and other creations of self-reliance and self-development were mass-produced in the campaign to defend socialism, despite the frantic moves of the enemy.

This year the electric power, metallurgical, chemical and machine-building industries, railway transport, light industry, agriculture and all other sectors of the national economy have set themselves very high goals to achieve and they still face a multitude of difficulties and ordeals to overcome.

To carry out these tasks the scientific research sector is set to exert itself again as it did last year and play an important role. Herein lies the direct path of building a self-supporting economic giant, a power of knowledge economy.

An important issue for enhancing the independence

and Juche character of the national economy by making the most of the already established economic foundations is to make innovations in economic planning and guidance.

Great are the potentials of the self-supporting economy which was built on the precious sweat of the Korean people under the wise leadership of President Kim Il Sung and Chairman Kim Jong Il.

A series of powerful Juche bombs and weapons of the Korean style have been developed and mass-produced in the defence industry sector, eye-opening monumental structures of lasting value spring up every year in large numbers and the history of "gold mountains", "golden fields" and "gold seas" goes on uninterrupted. This proud reality eloquently proves how strong the self-reliant economic capacity built up by the President and the Chairman is.

The strenuous efforts made by the model units in last year's campaign to create the Mallima speed clearly showed that the key to success is to make innovations in economic planning and guidance to exploit the potentials of such self-reliant economy.

These units could make an unprecedentedly great leap in production and prove in practice the advantages of the socialist system of responsible business operation, as officials adopted science-based management and business strategies and worked assiduously.

Expert planning to set correct targets, select the central tasks and fix the right order of work in line with the given conditions and environment, innovative and bold habit of work to plan everything in a bold way and carry it out in a three-dimensional way and at a lightning speed, enterprising working manner of taking proactive and positive measures to deal with ever-changing situations—these are the important qualities most often found in the business management of the officials in model units.

Innovative economic planning and guidance—this is the key to great success in the efforts to make all sectors and units of the national economy independent and Juche-based and in this year's increased production drive of them.

By **Jong Sun Bok** PT

COMMEMORATION

Newspaper *Saenal* commemorates 90th anniv

On January 15 90 years ago the first revolutionary newspaper, named *Saenal*, was published thanks to the tireless efforts and meticulous guidance of young Kim Il Sung.

As he organized the Down-with-Imperialism Union and other revolutionary organizations embracing young people and others from all walks of life back in the 1920s, he grasped the important role publications play in closely uniting the revolutionary ranks organizationally and ideologically, and energetically guided the work to publish the revolutionary newspaper in the face of difficult conditions under the oppression by the Japanese imperialists.

The founding of newspaper *Saenal* was a solemn declaration which heralded the birth of the Juche-oriented revolutionary publication that works to realize the independence of the working people and marked the beginning of the media of the Workers' Party.

It made it possible for the Korean revolutionaries and people to dynamically advance along the road of victory, firmly grasping the powerful ideological weapon with which to safeguard the ideology and cause of the leader.

A meeting took place at the



A meeting is held at the Central Youth Hall to commemorate the 90th anniversary of newspaper *Saenal*.

Central Youth Hall on January 15 to commemorate the 90th anniversary of the launch of newspaper *Saenal* by President Kim Il Sung.

It was attended by Choe Hwi, vice-chairman of the Central Committee Workers' Party of Korea, Pak Chol Min, first secretary of the youth league central committee, officials, journalists and editors of the Kumsong Youth Publishing House, youth league officials, students and other young people.

Choe Hwi, in his report, referred to the fact that the newspaper founded by the President had attracted great interest from the masses from the first issue and served as a powerful ideological

weapon to give confidence in victory of the revolution to the people and younger generations and warn the enemy of their ruin, greatly contributing to achieving the cause of national liberation. Officials, journalists and editors in the media for schoolchildren including the newspaper should focus on information activities to prepare them to become young vanguard and children's guards boundlessly faithful to the Party and leader, staunch patriots, passionate fighters with indomitable revolutionary faith and firm anti-imperialist and class consciousness and civilized persons with high cultural attainments and noble moral qualities.

By **Yang Ryon Hui** PT

Kanggye spirit named by Chairman: 20 years on



Locals look round photos on display at a photo exhibition in Kanggye, Jagang Province.

A meeting took place in Jagang Province on January 15 to mark the 20th anniversary of the Kanggye spirit named by Chairman Kim Jong Il.

The event brought together officials and working people from Party and government organs, working people's organizations, industrial establishments and cooperative farms in the province.

Kim Jae Ryong, chairman of the Jagang Provincial Committee of the Workers' Party of Korea, referred to the fact that the Chairman inspected different units in the province in January 1998 despite

the biting cold of midwinter, highly appreciated the fighting spirit of the provincial population and put them forward as the creators of the Kanggye spirit.

The Chairman repeatedly visited the province and led the locals to exalt the honour of being creators of the spirit in the campaign for building an economic giant, he said.

Though he was busy leading the efforts to build a powerful socialist country, he noted, Supreme Leader Kim Jong Un paid close concern for the development of the province which is closely associated with

the Chairman's undying leadership exploits and wisely led the locals to further efforts.

Under the meticulous care of the peerlessly great men, the province has made remarkable progress in all domains over the past two decades, he emphasized.

He called on the provincial officials, Party members and other working people to turn out like one in the campaign to carry out the important tasks set forth by the Supreme Leader in his New Year Address, full of confidence in victory and optimism as befitting the creators of the spirit.

That day, a photo exhibition opened with due ceremony in Kanggye.

Making the rounds of the venue, participants looked back with emotion upon the revolutionary exploits of the Chairman who had made the history of love for the people and the proud days when they ushered in an era of sea change on this land and a great heyday of building a socialist power, braving all manner of trials and hardships of history under the leadership of the Party.

An art performance was also given.

By **Pang Un Ju** PT

YOUTH

Youth power demonstrates invincible might

In the DPRK, young people are the most vigorous social force and a powerful force that propels social development.

Monumental structures named after youth are seen everywhere and touching stories about their traits are heard everywhere.

People still remember and respect a young hero coal miner who dedicated himself to saving comrades, a "girl mother" who adopted parentless children, young men and women who marry disabled soldiers and those who leave their hometowns and volunteer to work at labour-consuming workplaces like coal mines, construction sites and forestry and fishery stations.

Asked how they could do such commendable deeds, young people answer that it is their filial duty to save the troubles of parents and to do a lot of work for the socialist country which brought them up and put them forward.

As President Kim Il Sung and Chairman Kim Jong Il had attached importance to the issue of young people and maintained the line of prioritizing and

loving them throughout their revolutionary struggle, the Korean youth could have such a laudable spiritual world, win the love of the people and become the heroes and the source of pride of the country.

History remembers the feats of young people who were the first to put their shoulders to the wheel in the face of ordeals and difficulties and even laid down their lives for the country.

Those passionate young men and women defeated the huge Japanese army in the face of hunger and biting cold of around 40 degrees below zero during Japanese military rule, were the first to take up spades to build a new Korea under the banner of democracy after liberation, and blocked the enemy's gun muzzles with their chests to ensure the advance of the Korean People's Army units during the fierce Fatherland Liberation War.

They actively took part in the postwar rehabilitation for building up the country on war debris and socialist construction for which everyone rushed in

the spirit of Chollima, and made the Arduous March and forced march in hearty response to the Party's call.

The DPRK is powerful as it has such a reliable army of young people trained under the care of the great leaders.

During his field guidance tour of the completed Paektusan Hero Youth Power Station Supreme Leader Kim Jong Un said that our young people proved in reality the Workers' Party of Korea's history of attaching importance to youth in the course of building the dam of the power station, adding the height of the dam is that of dignity of our country, the youth power, with heroic youths.

On January 17 the Kimilsungist-Kimjongilist Youth League celebrated its 72nd founding anniversary.

Marking the day, the Korean young people hardened their resolve to demonstrate the dignity and might of the youth power to the world for all ages by carrying on the tradition of supporting the country single-mindedly.

By Ri Sung Ik PT



Students are told about the leadership exploits of the great leaders associated with the Korean youth movement.

KCNA

CELEBRATION

Youth league anniversary highlighted by performance

The central youth artistic motivational team gave a performance "We are successors to revolution" at the Central Youth Hall on January 17 in celebration of the 72nd anniversary of the Kimilsungist-Kimjongilist Youth League.

The performance was seen by Choe Hwi, vice-chairman of the Central Committee of the Workers' Party of Korea, Pak Chol Min, first secretary of the youth league central committee,

youth league officials and other young people.

Starting with light music and chorus *Korean Youth March*, the entertainers staged a variety of numbers including a medley of songs, poetic narratives, dance and mixed chorus.

They sang highly of the undying exploits of President Kim Il Sung and Chairman Kim Jong Il who, throughout their revolutionary leadership, had administered the original

politics of attaching importance to and loving young people to train Korean young men and women to be the powerful vanguard ranks of the revolution and staunch and reliable reserve of the Workers' Party of Korea and to build the one and only youth power in the world.

The performance, which powerfully demonstrated the firm conviction of Korean young people to storm towards the final victory of the socialist cause of Juche under the leadership of Supreme Leader Kim Jong Un, ended with poems and choruses *Golden Cushion* and *We Are Successors to Revolution*.

Compiled from KCNA

22nd Kimjongilia festival to be held

The 22nd Kimjongilia Festival will run in Pyongyang to mark the Day of the Shining Star, birthday of Chairman Kim Jong Il.

It is to be held at the Kimilsungia-Kimjongilia Exhibition House from mid-February this year, the 30th anniversary of the naming of the immortal flower of Kimjongilia, and draw military organs, ministries, national agencies, the General Association of Korean Residents in Japan and other overseas Koreans' organizations, local people including schoolchildren and foreigners.

During the festival similar events will take place at Kimilsungia-Kimjongilia greenhouses in local areas.

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TECHNICAL INNOVATION

Mass technical innovation drive prolific

Members of the April 15 technical innovation shock brigades in industrial establishments and farms across the country worked out and introduced more than 34 000 technical innovation plans last year under the banner of self-reliance, thereby making a great contribution to enhancing the independence and Juche character of the national economy and increasing production.

Amid the movement for winning the title of model technical innovation unit gaining strength in society, last year saw over a hundred units winning the title (double and thrice honoured included) and the April 15 technical innovation shock brigades newly organized in more than 550 units, with the number on the steady rise.

The shock brigade members across the country vigorously conducted the mass technical innovation drive to establish Juche-based production processes and reenergize production by relying on locally abundant raw and other materials and homemade equipment, keeping in mind that the strength of self-reliance and self-development is that of science and technology.

Those of the East Pyongyang Thermal Power Station made a new safety valve test device and introduced an intermediate air preheater replacing method to ensure normal operation and shorten the period of repair of equipment.

Officials and shock brigade members of the Kim Chaek Iron and Steel Complex built a Korean-style oxygen blast furnace by pooling intelligence and technology, making it possible to put anthracite-based pig iron production on a normal footing.

Those of the February 8 Jiktong Youth Coal Mine established an air compound coal dressing process with a hundred tons per hour capacity in close collaboration with

scientists to supply quality coal to thermal power stations.

Officials and shock brigade members of the Kumsong Tractor Factory worked hard to fulfil the production plan for 80 hp tractors by making necessary jigs, moulds and parts.

Those of the Pyongyang Trolley Bus Factory modernized all of its facilities in dozens of kinds, newly made oxygen generator and many other pieces of equipment and completed the production line of trolley bus at a high level.

Those of the Pyongyang Children's Foodstuff Factory automated and robotized all the production processes, made them germ- and dust-free and established an integrated manufacturing system, enabling the factory to overfulfil its production plan of delicious and nutritious foodstuffs including soya milk.

Shock brigade members of the Kangso Mineral Water Factory and Ryongaksan Spring Water Factory also put production and management on an IT and scientific basis at a higher level by establishing an integrated manufacturing system.

Fully aware that the key to increased production is science and technology, those of the Pyongyang Condiments Factory set up production lines of fermented soybean and processed sandfish, whose processes are all automated from preparation of raw materials to packaging.

Those of the Oguk Cooperative Farm in Anak County, South Hwanghae Province, adopted scientific farming methods including advanced rice seedlings growing method and that of sparsely planting fast-growing tall rice seedlings and introduced a variety of microelement fertilizers and biological activators to help the farm exceed the level of peak harvest year last year and become a model unit.

By Pang Un Ju PT

FROM PAGE 1

the production of iron and steel by dint of the oxygen blast furnace. Miners of the Musan Mining Complex boosted the production of concentrated iron ore by operating rotary drilling rigs, excavators and heavy-duty lorries at full capacity, and those of the Jaeryong Mine kept up a 120 percent production record every day by conducting a collective innovation drive in the stopes with rich deposits. The Puryong Ferroalloy Factory fulfilled the production plan of ferrosilicon in the Juche-oriented ferroalloy production processes at 110 percent.

Coal miners of the Tukjang Area Coal-mining Complex,

Pukchang Area Youth Coal-mining Complex, Sunchon Area Youth Coal-mining Complex, Tokchon Area Coal-mining Complex and other coal mines produced over 19 000 tons of more coal than the same period of last year.

Officials, engine drivers and other working people in the rail transport sector including those of Pyongyang, Hamhung and Chongjin railway bureaus are now making joint efforts to carry more freight needed for every economic sector faster by planning and controlling rail transport scientifically and rationally and making the most of the existing transport capacity.

The Ranam Coal-mining

Machine Complex, Anju Pump Factory, Hoeryong Coal-mining Machine Factory and other units under the Mining Machine Industry Bureau conducted a dynamic increased production drive to hit the first 10-day target at 120 percent.

In the same period the Bureau of Sericulture and Silk Industry recorded 180 and 120 percent production of ordinary cloth and silk threads respectively and the Kyongryon Aeguk Soda Pop Factory overfulfilled the soda pop production plan of January by 10 percent. A marked growth was seen in the production of sweets, cakes and soy and bean paste at the Pyongyang Cornstarch Factory and Pyongyang Condiments

Factory, and the Pyongyang and Sinuiju cosmetics factories hit the toilet soap production target at 150 and 100 percent respectively. The fishermen of the Kim Chaek Taegyong General Fishery Enterprise have provided a sure guarantee for carrying out the fishing plan for the first quarter of the year ahead of schedule as they more than double the winter fishing plan every day.

By Chae Hyang Ok PT



KCNA

Production picks up at the Rangnang Disabled Soldiers' Essential Plastic Goods Factory.

PRODUCTION

Electric locomotive factory in high gear

The Kim Jong Thae Electric Locomotive Complex concentrates all its technical staff and economic potentials on the production and repair of electric locomotives to bring about notable achievements.

The motorplant and processing workshop No. 2 are producing highly efficient motors with less consumption of manpower and materials than before while repairing motors of various sizes such as traction and compression motors. In particular, the technical personnel of the motor plant have increased the life of products and reduced the impregnation time by developing a hardening additive to raise the quality of insulating varnish in the impregnation process of motor parts.

The forge and casting workshops have put the production of materials for component parts of various sizes on normal footing and processing workshop No. 1 has invented a new facility needed for the processing of large parts such as wheels.

The material workshop has reduced processing time to a third and the steel consumption by half by transforming the old forging production process into a casting one.

Processing workshop No. 3 has applied CNC technology to a large turning lathe and other lathes to more than double the production speed, resulting in an increase in the processing precision in the work process and removal of naked-eye measurement in processing.

An efficient heat painting

method has been introduced into painting work to lengthen the life and improve the quality of paints for locomotive body.

The complex also pushes ahead with the reconstruction project in parallel.

The workers of the complex finished the repair of electric locomotive Pulgungi 5350 on January 10. The repair of another electric locomotive Pulgungi 6007 is under way at the final stage.

By Choe Kwang Jin PT



KIM CHOL / THE PYONGYANG TIMES

Workers of the Kim Jong Thae Electric Locomotive Complex repair engine Pulgungi 6.

ARBITRATION

For prompt and fair mediation

Amid brisk international business activities between nations and regions, trade disputes arise as an unavoidable phenomenon.

Such problems are often resolved by arbitration, rather than trial, as the former requires less time for the settlement of disputes and is simpler in procedures and thereby more prompt, efficient and cost-effective.

Herein lies the reason why mediation constitutes a universal means of settlement of trade conflicts worldwide.

The Korea International Trade Arbitration Committee also provides such service.

A permanent international arbitration service of the DPRK, it works to settle with legal grounds the disagreements that occur in the course of trade, investment, service and other international economic transactions.

The KITAC, which is staffed with arbitrators with expertise in law, economics and different other fields as well as practical experience, has settled many disputes related to companies in different countries, including China, Japan, Singapore, Britain and Russia, impartially and promptly, pursuant to their domestic and international laws.

It also provides legal service for domestic businesses in case their disputes with foreign companies are dealt with by foreign arbitration institutions. It revised and supplemented



HAM YONG SOK / THE PYONGYANG TIMES

its arbitration rules by referring to the model arbitration rules of UNCITRAL revised in 2010 and international practices concerning dispute settlement.

In accordance with the rules, it works to provide kind and fair arbitration service at a higher level in order to contribute to reenergizing the country's external economic transactions while guaranteeing its credit in foreign trade.

It also strives to promote exchange and cooperation with leading international economic institutions around the world including the Arbitration Institute of the Stockholm Chamber in Sweden, so as to enhance its independence, impartiality and reliability at home and abroad.

Kim Ji Hyok, chairman of the Korea International Trade Arbitration Committee

PRODUCTION

Organic fertilizer increases crop yield

The housewives' livestock management board in Kangso District, Nampho, produces quality organic compound granulated fertilizer.

The main ingredients of the fertilizer are the excrement and bristles of pigs from the meat processing workshop of the management board.

The workshop is equipped with a pumping power system, tanks capable of storing hundreds of tons of the waste with a lift and pump, cold storage and storehouses.

The waste from the workshop is carried to the fertilizer production base furnished with a production line involving raw materials yard, mixing and moulding grounds and drying and packaging processes.

There, different raw materials such as potassium and saltpeter are mixed with the waste, and the mixture goes through drying, grinding, moulding and coating

processes to be granulated fertilizer.

What is noteworthy is that the pig bristles with a high protein content are aminated before being added to fertilizer.

The fertilizer contains sufficient nutrients including nitrogen, phosphor and potassium needed for the growth of vegetables as well as paddy rice and maize.

It improves the physicochemical quality of soil and helps increase per-hectare yield.

The grains of crops grown with the fertilizer contain no chemical elements and the husk of rice is glossy and grains and fruit vegetables are tasty.

The management board also turns out liquid fertilizer that is applied to crop leaves.

The granulated fertilizer is favoured by users and lots of people visit the management board to learn its experience.

By Jong Hwa Sun PT

SPECIAL FEATURE

Jagang Province makes proud achievements by dint of spirit of the times

It has been 20 years since Chairman Kim Jong Il visited Jagang Province in the period of the Arduous March, the hardest time in the Korean revolution, and named the spirit of the times created by the provincial population "Kanggye spirit".

In the midst of the constant innovations and continuous advance, a large number of medium- and small-sized power stations were built to increase the hydropower generation capacity by tens of thousands of kW, new factories and enterprises sprang up and streets, villages and workplaces underwent facelift to unfold socialist fairylands and new looks of "Jarang (proud) Province" in the past 20 years.

In January 1998 the Chairman visited the province making his way through the wild snowstorm in the northern highland, highly praised the fighting spirit of the workers there who operated their machines and jumped into rivers in the biting cold to build power stations by burning their heart with firm faith and will, and called the provincial population creators of the Kanggye spirit.

On his visit to various units in Kanggye in June 2013, Supreme Leader Kim Jong Un said Jagang Province, which is closely associated with the leadership exploits of the Chairman, should lead all others in all aspects in the country today and brightly illuminated the path to be followed by the province.

Officials and people in the province made a "long and arduous journey towards paradise and happiness" in the spirit of self-reliance and fortitude and that of revolutionary optimism to go the thorny path cheerfully, stoking up the flames of the campaign to carry out the behests of the leader and defend Party policies at the cost of their lives.



Power generation is on the increase at the locally-built power station.

KIM JU SON

Construction projects of small and medium-sized hydropower stations were pushed ahead dynamically, resulting in the completion of Hungju youth power station units 1, 2 and 3 and the construction of small power stations on the rivers and streams in Usi, Chosan and Hwaphyong counties to suit their geographical conditions.

Large hydroelectric plants carried out technical reconstruction and modernization projects to operate all generators at full capacity.

The Huichon Precision Machine Factory exceeded the production targets of parts for new models of tractors and lorries with modern production facilities and is now making innovations in the production of parts of vehicles.

The Kanggye Winery refurbished its buildings, upgraded production processes and planted a new variety of grape in over 120 hectares to build a solid groundwork for production.

Integrated manufacturing systems were established and

new technical innovation plans widely introduced to increase productivity at the Huichon Silk Mill, Kanggye Unha Garment Factory and other light industry factories.

Double and triple cropping and good strains of crops suitable for the northern highland were widely introduced to further increase crop yields and the production of cocoon.

The material and technical foundations of livestock farming bases were consolidated and the newly built Jagang additive factory was run effectively, with the result that the production of meat and eggs was put on normal footing.

Marked achievements were made in land administration, backed by the patriotic-minded officials and people in the province.

In about 10 years alone over 960 million trees were planted in over

213 000 hectares of forests, road networks repaired or reconstructed and rivers and streams improved to spruce up the province.

The Jangjagang People's Recreation Ground, Ryudong Water Park and other parks and pleasure grounds were built wonderfully and the

illuminations of multi-storeyed apartment houses and public buildings refashioned to add colours to the "night as bright as day on the Jangja River".

The Kanggye Baby Home and Orphanage, Huichon Primary School and Middle School for Orphans were built, the "1 000-ri Journey for Learning" Schoolchildren's Palace and Jangjagan Children's Camp reconstructed as monumental edifices in the era of the Workers' Party and the Kanggye ski resort, provincial gymnasium and dozens of other major buildings and many houses newly constructed as a demonstration of the love of the Party for younger generations and the future.

As part of the nationwide efforts to lay material and technical foundations for the educational sector, a library was wonderfully rebuilt in the province, Mirae e-libraries built in cities and counties and over 5 300 multifunctional classrooms set up in recent years to modernize education on a high level.

Compiled from KCNA



RI KWANG SONG

An increased production drive goes on at the Manpho Spinning Mill.

VEGETABLE

New kinds of nutritious vegetables bred



KCNA

The Pyongyang Vegetable Science Institute takes the lead in putting vegetable production on a scientific footing.

The Pyongyang Vegetable Science Institute has bred new varieties of nutritious vegetables.

The new kind of chives is a perennial vegetable related to onion. It is bigger and more fragrant than the existing one and 1.4 times productive. It can be cultivated with less labour on idle land with much sunshine and appropriate moisture. It is harvested 8-10 times a year. It is highly resistant to cold and highly adaptable to any kind of soil and its leaves contain such nutrients as vitamins C and E, protein and carotene. It has the

highest carotene content among green vegetables.

The new *Gynura bicolor DC.* with rich contents of iron and manganese is a perennial plant belonging to the composite family. It is highly resistant to high temperature and humidity, drought, blights and harmful insects. A vegetable of high nutritive and food value, its iron content per 100 grams is 7.5 milligrams, or 20-30 times as much as those of pak choi, radish and gourd family veg, and its manganese content is 8.13 milligrams, the highest among green crops. With a per-hectare yield of 90-100 tons, it can be grown effectively under greenhouse conditions.

Another nutritious vegetable belonging to the composite family is a high-yield plant that can be gathered several times a year. The appropriate

temperatures for its growth range from 15 to 20 degrees centigrade and it can be cultivated rationally in greenhouses in all seasons.

The new variety of *Brassica Bailey* can be cultivated effectively even on highlands as it is highly resistant to cold and grows well in low temperatures. With high contents of such essential nutrients as protein, carbohydrate, carotene, vitamins, calcium and iron, it is efficacious for the prevention of thrombosis and arteriosclerosis, detoxification and enhancement of immunity and has antibiotic, anticancer and beauty effects. It also makes bones and teeth healthy.

The researchers have also bred new kinds of lettuce, cabbage and other vegetables with rich nutrients and original tastes and aromas.

By Choe Kwang Jin PT

EDUCATION

Nurse school focuses on improving efficiency of education

South Phyongan Provincial Nurse School in Phongsong is a model school in the nurse education sector which is highly appreciated by the World Health Organization.

Its two-storey building consists of multifunctional lecture rooms and labs for nursing, midwifery and anatomy.

It has made lots of achievements in the course of pushing the undertakings to improve educational conditions and environment and to put education

on a higher IT and modern basis in line with the requirements of developing reality.

It has developed excellent teaching methods to increase the efficiency of education.

In the course of this, lecturers have markedly built their capacity, devised practicable teaching methods using multimedia and developed effective study support programs.

Among them are a 100-odd nursing skills program and remote nursing and midwifery

study support program which were highly evaluated at the national exhibition of sci-tech achievements of young people.

The school recently put on IT basis the practical training in injection based on computer image processing and generalized it at nurse schools throughout the country.

Based on the conception of headmistress Ju Ran Ok, it completed a full-length model for multipurpose nursing practice in enema, catheterization and injection. The model was highly praised at the national exhibition of experimental apparatuses and teaching aids in the educational sector.

An adviser to the United Nations Population Fund, who visited the school a few years ago, said it is a model school in the Southeast Asian region and it can be claimed to be the best one in the future. And a midwifery adviser to the UNFPA, on a visit to the school in October last year, said education was going well at the school.



KIM CHOL / THE PYONGYANG TIMES

Students are under training in injection based on computer image processing at South Phyongan Provincial Nurse School.

By Han Ryo Gyong PT

IT

IT centre wins popularity for latest apps

Information technology is indispensable to the people who live in cyber space.

So the world can be claimed to be in a sharp competition to develop new IT products. Today various IT products based on latest science and technology have found their way deeper into human life along with the appearance of smartphones and other high-tech products.

In keeping with this worldwide trend, the Samhung IT Exchange Centre has developed many popular IT products in recent years.

They include computer games, e-books, multimedia presentations and recordings.

Among them are Companion 1.0 and My Companion 3.3 which win growing popularity among the customers. They were chosen as the best local IT products last year.

Companion 1.0, an application for guide showing road networks in Pyongyang, not only helps users find their way to destinations but also provides them with information about the correct locations of sports, scientific, cultural and public health facilities and any other institutions and

their phone numbers.

My Companion 3.3 helps users of smartphone and tablet PC have access to games and other applications, e-books and recordings. It is now widely used among people as their good companion.

The centre also develops computer games containing various fundamentals of education to help improve children's intelligence.

Applications such as Learning of Korean Language, Counting and Children's Intelligent Games are becoming familiar to the

children as the days go by as they help children at nurseries, kindergartens and primary schools have a better understanding of the interesting world.

It also develops valuable programs conducive to the development of science as well as various kinds of folk, battle, card, sports, intelligent and functional games.

The centre concentrates on the development of IT products to help improve public health this year.

By Jong Tang Song PT



HAM YONG SOK / THE PYONGYANG TIMES

Technical staff have a group discussion at the Samhung IT Exchange Centre.

CAMPING

Winter camping starts at Songdowon

The first-term winter camping of schoolchildren began on January 8 at the Songdowon International Children's Camp.

Young campers had a pleasant time conducting various camping activities at the stylish "palace" built in the scenic attraction on the east coast.

Skiing, skating and sledging at the Masikryong Ski Resort are the favourite sports of schoolchildren during winter camping.

Schoolchildren wearing coloured skis, boots and clothing added colour to the snowscape of the ski resort.

Many of them improved their skills while learning the elementary movements of skiing under the careful guidance of ski instructors. Some of them enjoyed the camping skating and spinning tops.

They also conducted other joyful activities at the camp.

The indoor stadium and wading pool were crowded

with children who were happy to swim and play in water. Brave children were engaged in cliff-climbing practice competitively.

Attractive was the cooking competition between boys and girls at the cooking practice room.

Everywhere in the camp—sea animal contact area of the aquarium, flower greenhouse and 4-D simulation cinema—was alive with excitement and joy of young campers who visited them in pursuit of their dream.

The aviary and stuffed specimen showroom also drew interest of the schoolchildren in nature.

The enjoyable camping also provided schoolchildren with good opportunities to develop noble moral qualities and spirit of collectivism and consolidate what they learned at school.

By Jong Sun Bok PT

R&D

New nanoproducts developed

The Nanomaterials Institute of the State Academy of Sciences has recently developed products using nanomaterials to meet the urgent need for putting the national economy on Juche basis.

Typical of them are an air purifier, dipeptide soap and zirconia oxygen analyser.

Characterized by self-sterilization and great resolving and dust-collecting power, the air purifier helps free production processes from germs and dust.

Its developers solved the problem of secondary pollution by introducing a nano antibacterial technique and it has great filtering efficiency and long serviceable life.

Researchers also conducted research to make soap with locally available raw materials with great detergency, instead of imported cooking oil, by recycling inexpensive materials.

Key developer Ri Su Yong and other researchers discovered that crude protein in the dregs of bean curd and processed maize food, byproducts of foodstuff factories, is hydrolysed in alkaline medium to be dipeptide salt, which is similar to fatty acid soap in molecular structure and which has higher rate of penetration into fibre and greater washing efficiency.

They set up a soap production process at the Sunchon Area Youth Coal-mining Complex and carried out pilot introduction and trial industrial production to confirm its technical and

economic effectiveness, and established an integrated manufacturing system for soap, thereby laying a foundation for producing it with locally available industrial byproducts.

They also developed a method of detecting caustic potash from slag, a byproduct from a production process at the Sangwon Cement Complex, by dint of power-free self-hardening and percolation, thus opening up a prospect of producing soap without using caustic soda.

The zirconia oxygen analyser is capable of measuring oxygen concentration in real time and badly needed in the extension project for the 400 000 kW generating facility at the Pukchang Thermal Power Complex. The analyser with a measuring range of 0.1-99.9% has been introduced into a coal ignition process to set fire to dust coal without using imported heavy oil.

The institute also developed and introduced techniques of over ten other nanoproducts like powdered silicon dioxide, contributing to putting production in different sectors on normal footing and improving the quality of products.

Researchers are redoubling their efforts by setting themselves higher development goals so as to establish a high-tech nanoindustry.

By Chae Hyang Ok PT

VIEW

Inter-Korean issue needs to be resolved by Koreans

The homogeneous Korean nation with a 5 000-year history was divided into north and south in 1945 due to the partitionist move of the US that pursued military domination over the Asian continent.

Since then the US has turned south Korea into its military foothold and logistic base for the invasion of the continent for over seven decades, mercilessly dampening the desire of Koreans for national reunification.

Whenever inter-Korean relations warmed up for reunification, it intensified all obstructive moves clamping down on south Koreans aspiring after reunification and democracy.

And now that inter-Korean relations which were in a fix are rapidly turning to those of dialogue and cooperation thanks to the DPRK's policy of great turn in relations, the Americans are openly pressurizing the south Korean authorities, describing the DPRK's proposal for dialogue as an "act to alienate south Korea from the US" and arguing "the US remains unchanged in its stand to apply maximum pressure on north Korea for the denuclearization of the peninsula", while concentrating its huge naval and air forces around the peninsula to

tense the situation.

The US does never want improved inter-Korean relations as it tries to take control of south Korea forever.

This requires the authorities of the north and south to be masters in improving inter-Korean relations.

Supreme Leader Kim Jong Un in his New Year Address said that to improve north-south relations as early as possible, authorities of both sides should hold the banner of national independence higher than ever before and fulfil their responsibility and role on behalf of the times and nation.

National independence is the lifeblood of the reunification movement that ensures improved relations.

Fence-mending and reunification are in all respects the internal issue of the Korean nation that should be resolved by the north and south as its masters.

It is just the Koreans that earnestly wish for reunification and that will live on a reunified Korea. No foreign forces sincerely wish for the settlement of the Korean issue and can resolve it.

Nothing will be gained from touring foreign countries to solicit their help on the issue of the relations and such behaviour

will give the outsiders pursuing dishonest goals an excuse for their interference and complicate matters further.

The Korean nation is not the weak one of the past when it was deprived of its sovereignty and territory by foreign forces and forced territorial division. It has grown to be a resourceful and powerful nation capable of realizing reunification and shaping its destiny by itself.

The Koreans need to worship their own nation, believe in their national strength and discuss reunification by their nation itself.

The more complicated and acute the situation around the Korean peninsula becomes and the more extreme the US obstructive moves get, the more strictly the Koreans should adhere to the principle of independence in settling national issues including reunification.

A new chapter will surely be opened up this year in the history of the Korean reunification movement when the authorities of both sides approach and resolve all issues from the standpoint of national independence and By Our Nation Itself.

By Kim Rye Yong PT

COMMENT

Americans poke their nose into Koreans' event

The US rulers are behaving perversely, following with uneasiness the Korean peninsula situation which is developing favourably in the New Year.

When the historic New Year Address was made public in the DPRK, American politicians crossly spat out such rubbish as "tactic of opening to the south and shutting out the US" and "act of driving a wedge" between south Korea and the US, arguing that north Korea might proceed to commit additional missile "provocation" after the Olympics are over.

And before the inter-Korean high-level talks were held, they intimidated the south Korean authorities and spread the rumour that the talks are a trick to divide Seoul and Washington and weaken the US-led sanctions and pressure on the DPRK, insisting that there should be no such talks and that the improvement of inter-Korean relations and the settlement of "north Korea's nuclear issue" cannot be pushed ahead separately as these are inseparable from each other.

When north-south high-level talks made unexpected success thanks to the DPRK's magnanimity and goodwill, the US authorities including Trump, struggling to hide their embarrassment, made a U-turn in their attitude describing it as the direct outcome of their unprecedented pressure on the DPRK in a reckless bid to attribute the result common to the north and south of Korea to their "efforts".

They are trying to put a damper on the climate of inter-Korean concord, asserting that though the north and south had jointly entered the venue of Olympic Games several times, that did not lead to north Korea's switch in its nuclear policy, and that they would not ease the maximum sanctions and pressure before it scraps its nuclear and ballistic missile programmes.

The Carl Vinson nuclear-powered carrier strike group is heading for the Korean peninsula bringing the dark clouds of war. The Stennis carrier strike group is about to set sail. Consequently, if the USS Ronald Reagan in Japanese port is added, it means that three carrier strike groups are closing in on the peninsula at the same time. In addition, three landing helicopter carriers comparable to an aircraft carrier are said to be busy preparing to come carrying marines.

Three B-2 strategic nuclear bombers have been dispatched urgently to Guam for reinforcement and seven US air bases in south Korea and Japan are reportedly saturated with fighters and troops

unexpectedly dispatched from the US mainland for buildup.

This shows that Trump is an awful liar as he said that he truly hopes the north and south of Korea would be successful and cooperate with each other beyond the Olympics, he fully supports their effort and there will not be any military action during their dialogue. It also reveals nakedly what the US really pursues.

What cannot be overlooked is that all these military actions are related to their attempt at surprise preemptive attack on the DPRK.

Greatly astonished by the DPRK's successful test-fire of ICBM Hwasong 15 on November 29 last year, the US has since endeavoured to get ready a powerful military countermeasure, saying it has only three months left to check north Korea.

Actually, the US military is preparing a DPRK-targeted preemptive attack operation plan for the Trump administration although the atmosphere of improved inter-Korean relations is being built up.

Such preparations are being made in earnest at alpine infantry divisions in the mainland and at special forces committed to its Osan and Kunsan bases in south Korea.

All its moves vividly show that the US is recklessly zeroing in on a war.

What is more dangerous is that such military moves are being made pursuant to the lunatic president's ignorance and frenzy, not in accordance with any political need or reasonable judgment.

The US should take careful consideration. Trump and his clan quite often brag that the DPRK-related options including military strike are on the table of the White House, but the varied options of the DPRK's supreme leadership are in a secluded place, not on a table that is visible to anyone, waiting for an order to show up its alarming appearance at an opportune time.

The DPRK, a world nuclear and missile power, has the pluck to tell the group of warmongers to swarm before its gate if they can afford to deal with the consequences.

The US should keep in mind that an end will be put to its sinful fate the moment it dares to make a move, bereft of reason, to hurt the dignity of socialist Korea which is demonstrating its might and peace in the Korean peninsula.

This is an abridgment of an article published by Choe Kang Chol, researcher at the Institute of International Studies of the DPRK.

COMMENT

S. Korea warned against having illusion

The south Korean chief executive has recently said that the start of inter-Korean dialogue can be claimed to be the outcome of the US-led sanctions and pressure and President Trump has performed great feats for it, expressing his gratitude to him. He even spat out the sophism that guiding the north to the negotiating table is not for improved inter-Korean relations but for opening a chapter for dialogue aimed at "denuclearizing the north".

He also revealed his wicked intention by saying that they will not softly pursue dialogue only, the start of dialogue does not mean the settlement of the "north's nuclear issue", they will keep pace with the international community in the anti-north sanctions, they have no intention to ease sanctions independently and fence-mending with the north cannot but go along with the settlement of "its nuke issue".

He was so ignorant that he said talks for talks' sake are not the goal and summit talks are also possible only when conditions are ripe and there is any good result.

It is well known that the US,

which outwardly "supports" and "welcomes" inter-Korean dialogue, has been so disconcerted by that inwardly that it is pressurizing the south Korean authorities, grumbling that the improvement of north-south relations unhelpful to "north Korea's nuclear abandonment" is meaningless.

It is not accidental that local and foreign media deride the south Korean authorities, describing their attitude as a weathercock showing the US' mood.

It is a duty of human beings to respond to goodwill with goodwill and sincerity with sincerity.

At this outset of dialogue for improved relations, which is more important—to save their face or to bring about good results for the nation?

As the DPRK has the earnest will to improve relations in accordance with the ardent expectation and desire of the whole nation, it has made every effort, ensuring the successful high-level talks in the direction of solving all problems as the south Korean authorities wish over the participation in the Winter Olympic Games in a

short period.

But the south Korean authorities have an ulterior motive.

They do not hesitate to deliberately exacerbate the situation, although they announced that they would postpone the joint military exercises with the US.

This vividly shows that they are a group of pro-US lackeys who have no regard for the interests and demands of the nation and who are only satisfied when they are able to maintain their power by currying favour with their master even by offering the Winter Olympics and the precious bud of improved inter-Korean relations as a sacrifice.

The south Korean chief executive must not have an illusion.

The DPRK will continue to make active efforts for improved relations, but not remain an onlooker to such an impure act of putting a damper on them.

Everything is merely a beginning yet.

The south Korean authorities should know that the train or bus carrying our delegation to the Olympics is still in Pyongyang.

They had better ponder on the unsavoury consequences of their indecent conduct.

This is an abridgment of an article published by Jong Kyong Sik, department chief of the National Reunification Institute.

SPORTS

Civil servants celebrate first sports day

Officials from ministries and national agencies gathered at Kim Il Sung Square in Pyongyang on January 14 to have a group running to mark the first sports day of the new year.

After the remarks of Ju Yong Gil, chairman of the Central Committee of the General Federation of Trade Unions of Korea, the participants started to have a group running.

Those from the ministries of Electric Power Industry,

Metallurgical Industry, Chemical Industry and Machine-building Industry ran streets with heightened enthusiasm to become standard-bearers in the efforts to make a breakthrough in reenergizing the overall economic front and raise the overall strength of the country to a new stage of development this year, the third year in implementing the five-year strategy for national economic development.

The group running was followed by mass rhythmic

exercise, health-promoting Taekwon-Do and demonstration of Taekwon-Do patterns.

That day, officials, workers and children at industrial establishments and schools in Pyongyang and local areas marked this year's first sports day conducting various mass sporting activities. Cooperative farms throughout the country also conducted group running and other sporting activities.

By Ri Sung Ik PT



PAK CHANG BOK / THE PYONGYANG TIMES

Civil servants have a group running at Kim Il Sung Square to mark the first sports day of the year.

ICH

Jongol, traditional food

Jongol, or stew, is a traditional Korean food enjoyed by its people.

It is prepared with minced meat, fish, vegetables, tofu, mushroom and other ingredients and they are cooked in water in a casserole dish.

It is largely divided into beef, chicken, pork, squid and tofu ones.

Chicken *jongol* is made by broiling spiced chicken on casserole dish and then stewing it by adding *songi* mushroom to it. Beef *jongol* is cooked by frying minced beef spiced with Welsh onion, garlic, soy sauce, sesame oil, salt with parched sesame and powdered black pepper on casserole dish, adding mushroom, oak buds, cabbage and Welsh onion and boiling them in meat stock before seasoning it.

Main ingredients of pork stew are pork, tofu, potato,

egg, dehydrated starch noodle, cabbage, green pepper and crown daisy.

Before cooking, pork is kept spiced with sliced and smashed Welsh onion and garlic, sugar, seasoning powder, powdered black pepper and salt for about 30 minutes. Cut tofu, carrot, potato, crown daisy, mushroom, pumpkin, cabbage and green pepper in proper sizes, and cook dehydrated starch noodle in boiling water to swell and cut it into proper lengths. Put prepared ingredients on casserole dish to match colours and cook them in meat stock by adding egg and sauce of various spices. People say pork stew tastes good and distinctive.

Jongol is tasty, highly nutritive and very digestive.

The Korean women have

long made *jongol* at homes, taught children how to make it and shared experiences in its making with neighbours to promote harmony.

Jongol has been listed as a national intangible cultural heritage element.

By Han Ryo Gyong PT



AN YONG CHOL

Catfish *jongol*

international

International football in 2017 full of wonders

Last year saw many dramatic events in the international football.

Old records were renewed in several items, in particular.

No clubs had ever achieved two consecutive wins in the European Cup Champions League, the top European football event, over the past 20-odd years. But in 2017 Real Madrid beat Juventus 4-1 to break the record.

Real Madrid's Cristiano Ronaldo set several new landmark records in 2017. The Portuguese superstar became the only player to score in three Champions League final matches and the first player to score over 100 goals in the Champions League. The 32-year-old scored over 600 goals in total during his professional career.

His brilliant successes in 2017 earned him the fifth Ballon d'Or, and he became a Ballon d'Or master who won the award most together with Lionel Messi.

Many stars and famous clubs bade farewell to the 2018 World Cup as they were eliminated

in the qualifying matches in 2017. They include Italy, the Netherlands, Chile and several other powerful teams.

As soon as Italy and the Netherlands were confirmed to be disqualified, Buffon, de Rossi, Robben and other veteran players declared their retirement from the national teams one after another.

On the other hand, lots of young players stole the show including Mbappe and Dembele.

Neymar wins Samba d'Or for 2017

Neymar obtained the Samba d'Or for 2017, the award for the best Brazilian player active in Europe.

The Brazilian striker in Paris SG won the title three times including the recent one in the past four years. The winner of the title is reportedly decided by the vote of journalists, former football players and internet soccer fans. Neymar won 27.72 percent of the vote to top the rankings.

He was also selected as a best player after Ronaldo and Messi at the FIFA award ceremony in October 2017.

Compiled from KCNA

HISTORY

Pigyokjinchonroe, world's first time-shell

Pigyokjinchonroe is a kind of shell with a fuse (a device designed to detonate explosive at a set time) which was developed by Korean ancestors in the period of the Imjin Patriotic War against Japanese Invaders (1592-1598).

When it was fired, it blew up with a terrific explosion like a thunderclap, shaking heaven and earth, hence the present name *jinchonroe*.

Ammunition engineer Ri Jang Son made it in the course of developing such guns as *hwaroe*, *jiroe* and *chungchonroe*, which were made in the period of the Three Kingdoms.

The spherical shell included three forms: extra-large shell which is 330mm in external diameter and weighs 71.62kg, large shell which is 246mm in external diameter and weighs 39.39kg and middle one with external diameter of 190mm and weight of 17.90kg.

It was made of cast iron. The globular shell body with two explosive fuse holes was filled with gunpowder and calthrops (steel splinters), as well as a bamboo tube fit with a fuse. The bamboo tube was made by winding an explosive fuse around a screwed wood and putting it into the bamboo tube, and the one end of the fuse was linked to explosion charge. The fuse wound around the wood screw ten times was called *sok*, and when it was applied to the shell, the shell exploded quickly. The one coiled around the wood screw 15 times was named *ji* and the shell containing it detonated a little slower. It shows that the time of explosion was decided by the number of screw boxes, or the length of fuse.

Pigyokjinchonroe was fired by extra-large, large and middle-size guns and their ranges were 750 to 900 metres.

It is known as the first shell with a fuse device, the first kind of time-bomb, in the world history of guns.

By Jong Tang Song PT