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Supreme Leader Kim Jong Un oversees fire of latest weapon system, views new sub

Kim Jong Un, chairman of the Workers' Party of Korea, chairman of the State Affairs Commission of the DPRK and supreme commander of the armed forces of the DPRK, organized and guided the power demonstration fire of a new type of tactical guided weapon on July 25.

The Supreme Leader arranged and directed the fire of the new tactical guided weapon as part of the power demonstration which is aimed at sending a stern warning to the south Korean military warlike forces who are hell-bent on staging a military exercise in the wake of introducing ultramodern offensive weapons into the south in defiance of the DPRK's repeated warnings.

The combat performance indexes of the guided weapon system was verified satisfactorily once again through the demonstration fire.

Carefully watching the overall process of the fire, he said that today we came to have a better understanding of the advantages and perfection of the system, adding he was especially satisfied that he could directly confirm and feel sure of

the rapid response capability of the system, the characteristics of the low-altitude gliding and leaping flight orbit of the tactical guided missile, which might be hard to intercept, and its combat power. He noted that the fact of the DPRK's development and possession of such state-of-the-art weapon system is of enormous significance in developing its armed forces and guaranteeing national security by military force.

Indicating the direction of research into important strategic and tactical weapon systems to be developed in succession to the leading officials in

the fields of the munitions industry and national defence science, he set forth methodological issues for further building up the nation's self-defence capabilities.

He said that as he sends the news of the power demonstration fire to the south, he gives his advice to the south Korean chief executive to realize in time the danger of the development of situation, discontinue such suicidal acts as the introduction of ultra-modern weapons and staging of military exercises and get back the proper approach he had had in April and September last year as early as

possible.

The south Korean chief executive should not make a mistake of ignoring the warning from Pyongyang, however displeasing it may be.

Supreme Leader Kim Jong Un inspected a newly built submarine.

He was accompanied by senior officials of the Party Central Committee and the sector of national defence science.

The ship built under his meticulous guidance is to perform its mission in the operational waters of the East Sea of Korea and its deployment for

operation is near at hand.

He expressed great satisfaction over the fact that the craft was so designed and built as to be capable of implementing the military strategic intention of the Party under various circumstances.

Explaining the Party's strategic plan for the use and underwater operation of subs, he elaborated on the immediate and strategic tasks the sectors of national defence science and submarine industry should tackle to carry out the plan.

Compiled from KCNA



Kim Jong Un casts votes in local elections

Kim Jong Un, chairman of the Workers' Party of Korea, chairman of the State Affairs Commission of the DPRK and supreme commander of the armed forces of the DPRK, visited the polling station of Sub-constituency No. 94 of Constituency No. 201 of South Hamgyong Province on July 21 to take part in the elections of deputies to the provincial, city and county people's assemblies.

He was accompanied by Jo Yong Won, Kim Yong Su, Ri Yong Sik, Hyon Song Wol and other senior officials of the Party Central Committee.

The Supreme Leader received ballots from the chairperson of the sub-constituency election committee and voted for Ju Song Ho and Jong Song Sik, candidates for deputies to local assemblies.

He met the candidates and warmly encouraged them, expressing the hope that they would become faithful servants of the people by being fully aware of and fulfilling their duties as representatives of the people to live up to their expectations.

The electors, who were honoured to take part in the elections with the Supreme Leader in attendance, were full of a determination to

consolidate the people's power and add lustre to the country's socialist system by making positive efforts to carry out the line of building a powerful socialist country set forth by the WPK holding high the banner of self-reliance with great pride in being citizens of dignified Juche Korea.

Compiled from KCNA

ELECTION

Elections held for deputies to local assemblies

The elections of deputies to provincial (city under direct jurisdiction of the government), city (district) and county people's assemblies of the DPRK was successfully held on July 21.

According to data available at the Central Election Guidance Committee, 99.98 percent of electors participated in voting, except those on foreign tour or working in oceans.

Those who were unable to go to polling stations for old age or illness cast their ballots into mobile ballot boxes.

That day, senior Party and government officials went to the polls in different parts of the country to join electors in the elections.

Choe Ryong Hae, Pak Pong Ju, Kim Jae Ryong and other senior Party and government officials voted for the candidates registered at relevant constituencies.

They met and gave a pep talk to candidates and voters who have devoted their patriotic mind to glorifying the people-centred socialism of the Korean style, and asked them to accelerate the general march of self-reliance for bringing about a great upsurge in socialist construction with loyalty to the Party and the spirit of making



Voters dance happily in front of polls, livening up the election atmosphere.

selfless, devoted efforts for the good of the people.

Local elections took place throughout the country.

Voters with all social backgrounds thronged to polls in their residential quarters.

At the polls bedecked in festive attire, they danced merrily to lilting tunes with the joy of electing the people's representatives, adding colours to the festive mood.

When the voting started, all voters cast their ballots for candidates with absolute support for and trust in the DPRK's power organs embodying the people-first principle.

Elections were also

participated by builders in Samjiyon County, Wonsan-Kalma coastal tourist area and other major construction sites, smelters in the Songjin Steel Complex and Hwanghae Iron and Steel Complex, workers of machine-building bases in Taean and Ryongsong, coal miners of Sunchon, power generators of Pukchang, and other working people in education and public health sectors who are pushing the building of a civilized socialist power.

As she saw the voters leaving the polling station after voting for the people's representatives, Kim Song Gum, secretary general of the election

RETURNS

Results of local elections made public

The elections of deputies to provincial (city under direct jurisdiction of the government), city (district) and county people's assemblies of the DPRK were successfully held on July 21 in conformity with the Law on the Elections of Deputies to the People's Assemblies at All Levels.

According to the election results from the provincial, city and county election committees put together, 99.98 percent of all electors on the electoral register took part in the elections and voted for the candidates for deputies registered in the relevant constituencies.

Those on foreign tour or working in the deep seas were unable to take part in the elections.

In the elections 27 876 workers, farmers, intellectuals and officials were elected deputies to provincial, city and county people's assemblies.

Through the elections all the

voters fully demonstrated the might of single-hearted unity of the country behind Supreme Leader Kim Jong Un and the advantages and solidity of its socialist state political system as well as their firm conviction and will to open up a new phase of prosperity and achieve the ideal and goal of building a powerful country by their own efforts under the leadership of the great Party.

The local elections in the DPRK marked an important occasion in further consolidating the people's power as the powerful weapon for the building of a powerful socialist country by holding fast to the great Kimilsungist-Kimjongilist state-building ideology as the steadfast guideline and in further strengthening unified guidance over the whole society in line with the requirements of the developing revolution.

Compiled from KCNA

and take an active part in the management of the state and society as masters of the state and politics.

Ho Myong Gum, trolley bus driver at the Ryomot Trolley Bus Station, and Sin Sun Thae, workshop manager at the Kim Jong Thae Electric Locomotive Complex, expressed their determination to fulfil their responsibilities and duties in the ongoing grand march of self-reliance as deputies of the people by always cherishing deep in their mind the instructions of Supreme Leader Kim Jong Un, who voted for them in local elections four years ago and called on them to work hard as befit the people's deputies.

The elections were successfully rounded off, backed by the patriotic enthusiasm of all the Korean people.



Electors enter the polling station while others dance in a festive mood.



Foreigners have a look at the voters' list at a polling station.

By Pang Un Ju PT

PLEDGE

Deputies vow to live up to voters' expectations

I feel heavily responsible for my duty after being elected deputy to the Pyongyang Municipal People's Assembly.

Our East Pyongyang Thermal Power Station has the duty to supply steam for production to different units while contributing to national power generation.

We have built up the capacity of lagging production bases and introduced several technical plans to raise the efficiency of generating turbines this year, thereby generating more power in the second quarter of the year than in the first quarter.

In the period, we have been convinced that our own strength is best and there is nothing impossible for those who hold up science and technology.

We are now intensifying research to boost power generation while lowering coal consumption.

Success hinges on how to give free scope to the workers' uplifted zeal, and I think it is just my duty.

I will work hard to live up to the expectations of the people who put me forward as their representative.

Jang Yong Nam, manager of the East Pyongyang Thermal Power Station



I have been working as a deputy to the Pyongyang Municipal People's Assembly since 2015.

This time, too, I keep worrying about how I will live up to the people's expectations.

I have overfulfilled my cloth production plan every year for 37 years and threw myself into carrying out the tasks of our workteam.

Since I was elected deputy, I have tried my best with the consciousness that deputies ought to do more work for the good of the people and strive to satisfy their interests.

I have hit my cloth production target for the past four years and led young spinners in our workteam to be labour innovators.

Now our workteam leads others in the workshop.

Whenever I see children going to school happily in school uniforms and with satchels made of cloth we have woven, I feel great pride in my work and make up my mind to weave more fabrics.

I will do my best to come up to the expectations of the people.

Sonu Ok, worker at the Pyongyang Kim Jong Suk Textile Mill



Many thoughts rush upon me in the wake of being elected a deputy to the Pyongyang Municipal People's Assembly.

In my family of cobblers, my father was a deputy to the Central District People's Assembly in Pyongyang and my mother worked as a deputy to the Haeju City People's Assembly in South Hwanghae Province. In fact, shoemaking is trifling, but it is indispensable in our life.

I think not only my parents but also I could be elected deputies of the people as our society puts forward everything for the people and their convenience, big or small, as primary and important affairs.

It is my duty and family tradition to repair shoes properly so as to satisfy customers.

I have directed big efforts to improving my skills for over 30 years while rendering mobile services for customers.

I will redouble my efforts to become a true servant of the people.

Kim Tong Chol, cobbler at the public service station in Central District, Pyongyang



VICTORY DAY

'Led by brilliant commander, we could win'



of such teams armed with rifles, light and heavy machine guns and anti-tank rifles were organized. A shooter of an anti-aircraft machine gun, I was also involved in the team in my unit.

It was not easy to bring down enemy planes as they flew high in the air and quickly at a low altitude.

When we were impatient for making vain efforts for a few days, the Supreme Commander's instruction was passed onto us again.

After learning about the activities of the teams, he specified ways for us including shooting down enemy warplanes by luring them into the base and firing directly swooping planes instead of the ones flying in the air.

We shot down the enemy planes one after another as taught by the Supreme Commander.

On January 24 1951 when our team was in the Inchon area, we were the first to shoot down an enemy plane among other teams. At that time US warplanes attacked the false gun emplacements we built and were thunder-struck by our severe firing. One of them was shot down by my anti-aircraft machine gun.

In a little over a month since then, I brought down five enemy planes.

Though I fought as instructed by the Supreme Commander, he sent a congratulatory message in recognition of my combat exploits, and I was awarded the title of the DPRK Hero on March 3 1951.

The enemies lost lots of planes every day due to the strenuous activities of our teams. So, they

switched over from the daytime flight to the night one, low-altitude flight to high-altitude one, and solo flight to formation one. But they were no match for our undaunted, adroit and consummate tactics.

Therefore, the anti-aircraft teams shot down and damaged 1 754 enemy planes in 1951.

Through the three-year war experience, I keenly realized that we can defeat any formidable enemy when we are led by the brilliant commander.

DPRK Hero Kim Sung Un, lecturer at the Victorious Fatherland Liberation War Museum



War veterans, together with young people, pay homage to fallen soldiers at the Fatherland Liberation War Martyrs Cemetery to mark war victory day.

Accordingly, large numbers

SALTERN

In an effort to break peak-year records

The Kwangmyongsong Salt Works carried out its annual production plan until late May.

With an ambitious goal to exceed the peak-year level in production this year, it directed a great deal of energies to preparations to this end.

It removed huge amounts of earth in over 1 000 metres of section and carried out stone covering, clearing of several kilometres of drainages and overhauling of hundreds of hectares of salt pans in a short time.

It put drainage pumping stations in good order to prevent flood damage to salt fields and go on with production even in heavy rain.

In order to manage salt fields in a scientific way, it started the production of salt water at evaporating ponds last February in parallel with the technical operation for the making of salt ground at crystallization ponds.

On the basis of full preparations it launched into production all at once, thereby turning out hundreds of tons of salt on a daily average.

The employees completed a repair project ten days earlier than scheduled, including the displacement of moss at

evaporating and crystallization ponds, levelling and ground making.

They gave precedence to the floor tiling of crystallization ponds and the levelling of evaporating ponds.

They worked scrupulously according to processes to meet climate conditions on the east coast of Korea and the characteristics of this area to prevent the loss of salt water and shorten the period of graduation.

At present, they try to inhibit salt water from sinking underground by spreading a great deal of vinyl sheets on the salt ground and calcium hydroxide mixed with bentonite over them before hardening them evenly.

By ensuring the normal operation of water pumps, they make seawater with high salinity flow into evaporating ponds.

Meanwhile, they steadily push ahead with an undertaking to introduce a technology of producing salt based on ion-exchange membrane in close collaboration with the scientists of the Hamhung Branch under the State Academy of Sciences.

By Kim Ryong Jin PT

ECONOMY

Many units overfulfil economic plans

Standards and records continue to be updated in the textile industry sector.

According to data available, over 120 workers at textile mills throughout the country carried out their production plans for five years.

A weaver at the silk-spinning combined workshop of the Pyongyang Kim Jong Suk Textile Mill established a record of fulfilling 15 years' economic plan before others in the textile industry sector.

She carried out four years' production plan every year by operating looms which are 2.5 times more than standard norms and maximizing their operational rate.

The Kusong Textile Mill produced a weaver who finished her 13 years' economic plan by fulfilling daily assignment over 400 percent as she steadily studied the method of making the rounds of weaving machines and introduced rational methods.

Many workers across the country carried out their plans for 12, 11 and 10 years one after another.

More than ten multi-loom operators at the Sariwon

Textile Mill wound up their production plans for five years, while some weavers at the Hamhung Woollen Textile Mill and the Sinuiju Textile Mill fulfilled their plans for ten years.

The Kaesong Organic Compound Fertilizer Factory overfulfilled its annual economic quotas by 6 percent as of July 15.

It found the way for normal production in giving priority to the supply of raw materials and increased production two times as compared to before.



RI CHUNG SONG / RODONG SINMUN

Workers help one another forward to make innovations at the Songyo Knitwear Factory.

DRINK

Functional soda pop wins favour in midsummer

"The weather is sweltering these days and the products of the Kyongryon Aeguk Soda Pop Factory are in great demand," says Kim Hyang Mi, a saleswoman of Pyongyang Department Store No. 2.

It is now midsummer and soda pop with the flavour of omija (*Schizandra chinensis*), ginger, barley and wormwood made by the factory are popular with customers at the soft drink counters of commercial and public service amenities in Pyongyang.

The factory well known to

the public for the production of Raengchon-brand soda pop is now focusing on the development of functional soft drinks which rely on local materials and are good for health.

The technical staff of the factory paid attention to *Schizandra chinensis*, wormwood, barley and ginger which have widely been used as medicinal materials by the Korean people since ancient times and conceived an idea to make functional soda pop with them.

Engineer Kim Jong Sil and other technicians invented a method of extracting all aromatic essences and nutritious elements from each of the materials to suit their processing features, a filtering method to remove sediments and cloudiness from drinks made of extracts from vegetative materials and a proper mixing ratio of extracts.

Omija-flavoured soda pop helps improve the function of the bronchus and relieve mental and physical fatigue. Barley- and wormwood-flavour soda pops help digestion and prevent heatstroke. Ginger-flavoured one helps clear mind and strengthen internal organs.

With unique, cool and refreshing tastes, the functional soda pops were highly appreciated at the 34th national science and technology festival and national consumer goods exhibition this year, and omija-flavoured soda pop was registered as the best 2018-2021 February 2 Product in the field of soft drinks.

By Ri Myong Jun PT



CHAE MYONG RIM / THE PYONGYANG TIMES
Functional soda pops produced at the Kyongryon Aeguk Soda Pop Factory.

R&D

New fibre-processing method developed

Korean textile experts have recently developed a new method of processing natural raw materials for fibre without using chemicals.

"Lots of chemicals, fuel and electricity are consumed when natural raw materials are processed for fibre. But our new method is to make quality hemp products by using composite microbes," said Ju Chol Ok, PhD and department chief of the Koryo Textile Faculty of Koryo Songgyungwan University.

According to her, the composite microbe-based hemp processing can completely remove non-cellulose in the hemp fibre on the basis of zymolysis of microbes, composite action of antioxidants, symbiosis and food chain.

This technique does not use fuel as necessary heat is generated by composite microbes through their natural dispersion and other activity.

Ju Chol Hui, section chief of the Koryo Insam Faculty of the university, said that they collected the composite microbes from microorganisms that exist in natural organic substances that are plentiful in

the country and atmosphere as well.

Ju Chol Ok established the hemp cloth weaving process according to the principle of removing non-cellulose of hemp by dint of composite microbes.

As a result, the previous production process using chemicals has been reduced by half and many scientific and technological problems have been solved to normalize production unaffected by weather conditions and seasons. The new technology has also heightened the unique qualities of hemp products with good absorption and evaporation and strong antibiotic effects.

"The composite microbe-based hemp goods production can be claimed to be a great turn in the textile industry," said Ju.

The technology whose functional effectiveness has been corroborated was highly appreciated at the 34th national sci-tech festival.

The production process is now in operation at the Kaesong Textile Mill and other mills.

By Jong Hwa Sun PT

ORPHANS

'Love should be returned'

"Love should be returned."

This is the saying often heard among the graduates from Pyongyang Middle School for Orphans.

Jang Jong Su now serves as an officer of the Korean People's Army after finishing the school course in April 2010.

He attended the Fifth Conference of Company Commanders and Political Instructors of the KPA in March this year and had a photo taken with Supreme Leader Kim Jong Un.

"For me military service is not merely my civic duty. It is the way to defend my precious home," said Jang to his teachers and students as he visited his alma mater.

On April 23 a meeting took place at Pyongyang University of Education to see off Kim Yong Sim, who volunteered as a primary class teacher of Kirin Island Senior Middle School in Ongjin County, South Hwanghae Province, after finishing the university course.

She was also a student of Pyongyang Middle School for Orphans. After graduation, she was enrolled at the university.

"The country gave me affection and love so that I could fulfil my hope. What I can do for it is to teach children what

their homeland is, I think," she told the lecturers and students who came out to see her off.

Ri Un Son is also a graduate of the school. After finishing her undergraduate course at the Math Faculty of Kim Chol Ju University of Education, she now continues her study at the postgraduate school.

Her dream is to become a PhD in her twenties.

"I want to race against time. I have no parents, but I've lived happily like other children under the care of the motherland and many people. All I want is to work harder and present them with a gift of excellent scientific research hits," Ri often says.

Among the graduates are Won Hyok Chol who has won five national program contests during his study at Pyongyang Medical College of Kim Il Sung University and Pak Kwang Myong who obtained two patents. When asked about the secret of their scholastic achievement, they told the students, "Think what you will do for the country."

In April the school graduates enrolled at universities, joined the army and volunteered to work at major construction sites and industrial establishments.

By Ri Sung Ik PT

EDUCATION

Academy steps up pedagogical research

The Academy of Pedagogical Science channels big efforts into scientific research for improving the quality of education in line with the modern trend.

The institution which opened up new fields including the theories of education control and talent type in recent years strives to resolve urgent pedagogical issues arising in practice.

In particular, it focuses on developing practical methods of training students into willing learners and searchers.

In keeping with the trend of educational development toward training talents with creativity, researchers make positive efforts to work out and apply teaching methods for increasing the capabilities of students by integrating theoretical education and practical training.

Such teaching methods are widely introduced into higher and general secondary education sectors, and they are paying off.

Researchers also perfected an educational information resource support system that is conducive to education at kindergartens and primary schools and an intelligence diagnosis program

with which to assess students' power of memory, reasoning and imagination.

They also carry on research projects to innovate the form of education.

A new teaching form for primary schools, which has recently been developed, is drawing the attention of educators as it enhances students' cognitive and application abilities by effectively arousing their emotion to meet their psychology.

"There is no fixed teaching content or method. Education is an undertaking that should be conducted creatively according to the specific purposes and contents of education and characteristic features of students. We will constantly update teaching methods to put them on a more scientific basis," said Jang Il Su, director of an institute of the academy.

The academy also deliberates on lots of new teaching methods developed by educational institutions and works to generalize excellent ones across the country.

By Jong Sun Bok PT

PROFILE

Woman sets an example as mechanical engineer

Jo Su Gyong (pictured), researcher at the faculty of natural resources development mechanical engineering at Pyongyang University of Mechanical Engineering, is one of the ten model working people in the Mallima era in the DPRK.

Ambitious target

A woman of small frame, the 47-year-old seems too simple and plain to be called an exemplar of the times.

But since she took up teaching at the university after graduation in 1998, she has obtained more than ten certificates of invention and introduction of invention, over a dozen certificates of registration and presentation of sci-tech hits and another dozen certificates of participation in exhibitions and festivals at all levels. She was also awarded a doctorate and the title of Merited Scientist.

She has researched and introduced lots of machines including a hydraulic fish processor, brass tableware polisher and platycodon peeler.

At present, she leads others in the design, manufacture and introduction of packaging process at light industry factories.

"What is extraordinary in her research is that her target is the perfect operation of machine," said section chief Choe Kum Su.

The perfect operation means that machines turn out every product perfectly without any error.

Even a malfunction of a machine on assembly line leads to the waste of a great deal of materials and the aftereffects of such an error are more serious at factories with a fast rate of packaging.



Jo cut a conspicuous figure during the project for upgrading the women's socks packing process at the Pyongyang Hosiery Factory.

In modernizing this large-capacity process, the knottiest problem was to fold each pair of summer socks woven with very fine thread, attach a label to it, put it in a small and thin vinyl pack, detach a protective piece from the sticker and stick the pack.

Though it was difficult to fully mechanize the complicated process, Jo succeeded in the project.

The same was the case with the mechanization project for the sanitary goods packaging process at the Ryugyong Sanitary Goods Factory. She ensured that the products that roll off the assembly line in hundreds per minute were correctly counted and packed in certain numbers.

"The perfect operation is the ideal target in mechanical engineering design. If this target is hit, every factory will be able to reach the top level of mechanization," Jo said.

Maxim of life

"A person must become an

TREE

Trees of high value widely encouraged

Amid the nationwide forest restoration campaign, trees of great economic value are widely encouraged in the DPRK.

Kumya black pine is a variety of ordinary black pine growing in the country.

The tree annually grows 80 cm taller on average and 110 cm at the maximum from the fourth year after planting, which means that it grows 30-50 centimetres faster than the common one.

This androgynous tree is highly resistant to saltiness and blight and though its demand for

temperature and humidity is high, that for soil is low.

Therefore, planting its forest on the seashore is helpful for providing protection against wind from the sea and preventing sand from flying, while keeping safe farmlands on the beach, especially reclaimed tideland.

There are more than 60 varieties of peach trees in the country, and a dozen of them produce fruits between June and September.

For example, Jungsan peach ripens in June and July.

ardent patriot before becoming a scientist. This is my maxim I accepted through my life experience and what I always tell students," the competent lecturer said.

Generally, it is more difficult for women to pursue science, especially mechanical engineering which is the aggregation of engineering.

Moreover, as she embarked on her career during the Arduous March when the country was experiencing untold hardship, Jo Su Gyong vacillated, worrying about her future.

"It was my old teacher that supervised me at the time," recalled Jo. "The lecturer who had performed great feats as he lived as accurately as machine instructed me that there should be no deviation in life, adding that if experts in mechanical engineering abandon it for the difficult situation, that would be a big loss to the country. The instruction served me as a coordinate of life."

Since then she had regarded scientific research into machines as the duty she assumed for the country and greatest devotion as well.

Whenever a research project was set, she would never leave the workplace before finding out the key to success.

"To Su Gyong, education and research mean everything. She loves machines like her own flesh and blood. Whenever a research project faces difficulty, she presents a novel idea no one can think of. Machines seem to unbosom themselves to her," said lecturer Pak Hak Won.

"There is a limit in honour, but not in the love for the country. I'll work harder for this beloved homeland," said Jo.

By Kim Rye Yong PT

This high-yielding tree has long been cultivated in the country and the fruit is fragrant and very sweet yet a bit sour. It has a high fructification rate based on self-pollination and is highly resistant to cold.

Sugar peach is picked in August.

It is as sweet as sugar and fragrant but not sour and its flesh is soft and juicy. The tree is highly resistant to cold.

Sweet September peach is eatable in September as shown in name.

It tastes sweet and is bigger than other peach varieties. This high-yielding tree is also highly resistant to blight, drought and cold.

By Kim Kum Myong PT

UNIVERSITY

Dynamic of provincial economic growth

Wonsan Jo Kun Sil University of Technology is recognized in Kangwon Province as a capable university.

"Our university has played an important role in resolving scientific and technical problems arising in activating production at factories and enterprises in the province," said Kim Ho Yong, head of the scientific research department of the university.

The university lecturers and researchers took an active part in the project to establish an integrated production system at the Wonsan Mushroom Farm: they built an effective

computer network of the farm for the planning of management resources and establishment of a production management system and developed 23 business management programs and a general control interface program with which to control all production processes.

They also made high-density temperature and humidity measurement and transmission devices needed for the cultivation grounds and introduced over 50 pieces of equipment into the production processes.

Their sincere efforts helped



CHOE MI GYONG / THE PYONGYANG TIMES
Researchers at Wonsan Jo Kun Sil University of Technology help solve technological problems at a local factory.

COSMETICS

Natural cosmetics material developed

There are many cases where a chance occurrence led to an ingenious invention.

A Russian chemist happened to discover saccharin that is 500 times sweeter than sugar as he took his meal without washing his hands in the middle of a chemical experiment.

Similarly, the Korean researchers have developed a fermented sponge cucumber juice with far greater functional effects than the existing ones.

"We came across lactic acid bacteria in the course of the research into the method of preserving the nutritive and pharmacological ingredients of sponge cucumber in their original state and maximize their effectiveness," said key developer Ri Kwon Il.

The sponge cucumber is widely used in the cosmetics industry as it has remarkable skincare effects with rich contents of protein, fat, vitamins and minerals.

Antiseptics are usually added to prevent the decomposition of cosmetics, but their chemical reaction keeps the cucumber

from displaying its nutritive and pharmacological action.

Developers solved the problem by applying heterogeneous lactic acid bacteria ferment to the sponge cucumber juice.

For their characteristic features, the bacteria yield a great deal of polysaccharide and lactic acid. When sponge cucumber is inoculated with them nutritive substances in it multiply explosively. In other words, they activate all useful substances in the cucumber.

Researchers prevented the decomposition by dint of a physical treatment and ensured the shelf life of the product at over two years.

Experimental results show that the fermented sponge cucumber juice is 6.5 times greater in antioxidant capacity than the existing sponge cucumber cosmetics, 1.2 times on average in nutritive value, 95 percent in moisturizing rate and over 80 percent in the rate of DDPH removal.

The production process is simple and highly economical.

The juice is used as it is or as

the farm produce mushroom 1.2 times more than before.

At the Kangwon provincial corn processing factory they made a PLC for the automatic control of production processes, developed and introduced control programs and informatized various processes to establish an integrated production control system.

The Wonsan Leather Shoes Factory and Wonsan Disabled Soldiers' Essential Plastic Goods Factory also benefit greatly from the university.

The former automated the sole pasting machine and the latter newly set up an artificial turf production process with the help of the university lecturers and researchers.

This year they have solved lots of technical problems arising in establishing the production process of the Maebongsan Spring Water Factory now under construction.

Researchers of the IT office and lecturers of the telematics department designed control boards needed for 0.5L and 18.5L bottled water packaging and tea and beer production processes and developed programs for setting up an integrated production system.

By Ko Kwang Yon PT

cosmetics additive for greater profitability.

The new development won a certificate of registration of high-tech products for the first time in the country's cosmetics sector last May.

By Kim Rye Yong PT

MALARIA

To eradicate disease carried by mosquitoes

A disease with high mortality, malaria is emerging as a serious problem as it is becoming increasingly prevalent in many regions and countries.

According to information released by the World Health Organization in 2016, over 1.4 million people were infected by vivax malaria in Africa, more than 500 000 in America, some three million in the Middle and Near East, at least 2 000 in Europe, over 11 million in Southeast Asia and some 200 000 in the Western Pacific, and the infection rate in Southeast Asia was the highest 74 percent. The world witnesses an average of 198 million malarial patients every year.

Malaria control activities are

DIABETES

With an eye to preventing diabetes



Shortly ago, *The Pyongyang Times* reporter Kim Rye Yong interviewed Sin Pong Chol, chairman of the Diabetes Committee of Hospitals Association of Korea, in connection of the management of diabetes in the DPRK.

Would you mind telling me about the prevalence of diabetes and practical measures taken in the country?

According to the investigation conducted last year, the prevalence of diabetes was 4.82 percent. The number is not so high as compared to other countries, but it is never negligible.

At present, we are carrying on the strategy for managing diabetes after working it out with emphasis placed on achieving maximum results with the smallest investment.

Primary attention is being given to the education in diabetes.

A lot of diabetics fail in the treatment for lack of scientific understanding of the disease. Accordingly, the International Diabetes Federation give voice to the replacement of the "treatment of diabetes" with the

"management of diabetes". It shows well the importance of giving publicity to the medical condition.

What about the actual condition of the diabetes management?

We have made some achievements in the management of diabetes thanks to the introduction of the district doctor system.

Doctors visit residential quarters and units in their charge on a regular basis to conduct information activities and exert themselves to correct wrong living habits.

We attached great importance to the value of glycosylated hemoglobin together with blood sugar in diabetes management indexes, raised the effect of hypoglycemic which is taken for two or three rounds of combined treatment by including a new medicine, and developed and introduced biological synthesis human insulin and other types of insulin analogues.

We have achieved successes in ensuring the domestic production of medicines for curing diabetes and developing Koryo medicines.

What kind of measures are you planning to take in the future?

Efforts will be directed to improving the quality of ongoing work.

That is, we will improve the quality of education in diabetes, increase the technical level of epidemiological study of diabetes and raise the proportion of locally-available diabetes medicines and curative apparatuses. We are planning to build a new modern ward for diabetes.

have practical knowledge of the epidemic and receive a medical treatment in time.

Particularly, in order to prevent infection by mosquitoes, the government ensures that mosquito nets that are processed by insecticide, are supplied to households in the areas vulnerable to malaria and insecticide is sprayed in every household to reduce the density of mosquitoes carrying malaria.

Various training courses are given to medical workers in counties and ris so that they can ensure scientific accuracy in the diagnosis and treatment of malarial patients and improve the quality of medical services.

According to the decisions made at the general meeting of the WHO in 2007 and the 60th regional general meeting to commemorate an appropriate day as World Malaria Day, the DPRK designated July 30 as the day.

By Kil Chung Il PT

NAM

DPRK committed to strengthening Non-Aligned Movement

"Despite continued efforts made by NAM member nations, the imperialists are becoming more undisguised than ever before in their attempts to arbitrarily trample on the sovereignty of other countries in the international arena in disregard of the UN Charter and international law," said the head of the DPRK delegation to the Ministerial Meeting of the Coordinating Bureau of the Non-Aligned Movement held in Caracas, Venezuela, on July 20-21.

He said that only when NAM member nations that make up the overwhelming majority of the UN membership further intensify collective actions, can NAM perform a leading role in ensuring peace and security of the world.

In order to defend the collective interests of the member states and implement

the principles of impartiality and equality at the UN, he said, it is important for NAM member states elected as non-permanent members of the UN Security Council to further enhance their role.

If they conduct proactive activities to represent the interests of the Non-Aligned Movement, they can contribute to prevailing over all sorts of attempts of the West against developing countries and helping the UN fulfil its mission for ensuring world peace and security in good faith, he noted.

He said the DPRK, as a NAM member state, has directed consistent efforts to developing and strengthening it in conformity with the purposes of its founding and principles of activities.

Though the challenges of the hostile forces continue to

stand in its way, the DPRK government remains firm and unshakeable in its will to build a lasting and durable peace mechanism on the Korean peninsula, open up a new phase of prosperity by its own efforts and achieve the ideal and goal of building a powerful country, he said.

The DPRK government will actively support and encourage NAM member nations in their efforts to hold fast to its ideal of independence against imperialism and peace against war and to defend sovereignty, he said.

"It will as ever make every possible effort to strengthen and develop the movement in accordance with the ideals of its foreign policy—independence, peace and friendship."

By Min Chol PT

COMMEMORATION

Event marks IFRC's 100th founding anniversary

A briefing on RC activities was arranged by the DPRK Red Cross Society in commemoration of the centenary of the International Federation of Red Cross and Red Crescent Societies (IFRC) at the Taedonggang Diplomatic Club in Pyongyang on July 24.

Present there were officials from the DPRK Red Cross Society and relevant sectors, members of the IFRC delegation, resident IFRC delegation and the delegation of the International Committee of the Red Cross (ICRC), and diplomatic envoys of different countries and representatives of international organizations in Pyongyang.

Kang Ji Yong, chairman of the Central Committee of the DPRK Red Cross Society, and Mirlan Kaarov, acting head of the ICRC delegation, in their congratulatory addresses, referred to the diverse humanitarian activities the federation has promoted to prevent and alleviate misfortune and sufferings of the people since its founding.

They expressed the belief that the federation would honourably fulfil its important and responsible mission and duty in the future, too.

Elhadji As Sy, IFRC secretary-general, spoke about the founding of the federation and the achievements made in the activities of the DPRK RC Society.

"The best of our work is in preempting the disasters of the future and building the livelihoods of the future," he noted.

A medal of honour and diploma of the Central Committee of the DPRK RC Society were awarded to the IFRC Secretary-General.

The participants saw a video showing the federation's activities in the DPRK and other countries and regions.

Pang Mi Ryong, member of the calligraphy group of the Mangyongdae Schoolchildren's Palace, wrote "100 years with the power of humanity" with a brush and handed it over to the Secretary-General.

The participants saw a performance given by

artistic group members of the Mangyongdae Schoolchildren's Palace and young RC members, and looked round photos on display.

By Om Ryong PT

IMPRESSION

Federation stands with you, says IFRC chief in Pyongyang

Today, I looked back on the past one hundred years of the International Federation of Red Cross and Red Crescent Societies with the members of the DPRK Red Cross Society in Pyongyang, and felt pride in our work once again.



PAK KWANG HUN / THE PYONGYANG TIMES
The participants in a briefing on RC activities look round photos showing the IFRC's 100-year activities.

COMMENT

Berlin, Washington go different ways

The relationship between Germany and the US has recently come under international spotlight.

Germany's DPA reported that Washington made a thinly veiled threat against Berlin that it might refuse information sharing with the countries that are going to use networks based on Chinese technology and that the divergence of opinion as to the JCPOA (Iranian nuclear deal) has aggravated the transatlantic tension centring on trade and security.

The US wants European nations including Germany to withdraw from the JCPOA as they dance to its tune, but they insist on adhering to the agreement.

The German foreign minister said European countries are expressing dissatisfaction at the US' unilateral withdrawal from the nuclear deal, adding its anti-Iran pressure tactics are of no help to anyone.

Based on such viewpoint, Germany, together with France and the UK, established the Instrument of Support of Trade Exchange geared to facilitating financial dealings of the European businesses seeking to maintain trade relations with Iran.

The US Treasury, in a recent letter to the chief of the INSTEX, warned that if the instrument starts working, not only the organization but also any person connected to it might be denied access to the

American financial system, saying it had better deliberate over the sanctions it might face.

Besides, there has been a great deal of discord between Germany and the US in recent years.

Germany is displeased with the US' quit from the Paris agreement, while the US is dissatisfied with the former's military expenditure that fails to reach the standard.

The Americans argue that Germany harms the energy safety of Europe by pushing ahead with the Nord Stream 2 natural gas pipeline project with Russia. And the Germans retort that Europe's policy on energy is determined by European nations, demanding the US refrain from interference.

Such facts are inflaming scepticism about German-US alliance.

The Russian newspaper *Nezavisimaya Gazetta* commented that "Berlin and Washington are going different ways".

This conflict is not confined to the bilateral ties but is affecting the whole transatlantic alliance.

An American magazine said that no one would think only inwardly and withhold their opinion any longer in the pan-Atlantic relationship and European nations including Germany have been compelled to reassess relationships with the US.

By Song Jong Ho PT



community including the Korean people.

The IFRC will do more good things by strengthening cooperation and collaboration in close liaison with the DPRK Red Cross Society.

Elhadji As Sy, secretary-general of the International Federation of Red Cross and Red Crescent Societies

TABLE TENNIS

Pyongyang hosts international table-tennis tournament

See Master 2019 ITTF Challenge plus Pyongyang Open started at the Table Tennis Gymnasium on Chongchun Street in Pyongyang on July 24.

The tournament that will run till July 28 drew players from different countries and regions including the DPRK, Chinese Taipei, Iran, India, Thailand, Scotland and Norway.

Players are competing in men's and women's singles and doubles and mixed doubles and U-21 men's and women's singles.

After group league matches players of singles are to play knockout games, and eight players high on the world rankings set by the ITTF are qualified to take part in knockout matches without going through group league matches.

Doubles are played on knockout basis.

On July 24, competitors played U-21 and senior male and female singles, which drew



See Master 2019 ITTF Challenge plus Pyongyang Open is held at the Table Tennis Gymnasium on Chongchun Street in Pyongyang.

special interest of experts and fans from the beginning.

DPRK players Ham Yu Song, Pyon Song Gyong, Pak Su Gyong and Cha Su Yong who contended in U-21 singles overpowered their opponents as they mounted offensive and took the initiative from the beginning of matches.

Ham Yu Song beat India's

Dani Mudit 3-0.

Remarkable skills were also shown off by Chinese Taipei's Feng Yi-Hsin, Chu Yi-Ching and Chien Tung-Chuan, Iran's Hodaei Amir Hossein and Norway's Doval Ilka.

The game between Doval Ilka and Chu Yi-Ching was a seesaw battle.

They drew 2-2 before playing the fifth round which got fiercer.

Poise enabled the Norwegian to score two points first and win.

The match between DPRK's Kim Un Song and Chinese Taipei's Chang Ju-Chia was also an eye-catcher.

In the fifth round, the Korean disrupted the opponent's rhythm with correct counter drive and won the game 11-7.

By Ri Sung Ik PT



A women's singles match.

RELIC

Temple gives glimpse of Koryo architecture

Korea has many famous temples.

Among them, there is the Kangso Temple which was built in the period of Koryo Kingdom (918-1392).

The temple is located in Kangho-ri of Paechon County, South Hwanghae Province.

It was called the Ryongun Temple and renamed the present one in a meaning that it is a temple in the west of the Ryesong River.

It was built in the early period of Koryo and expanded in the period between the late Koryo era and the early years of the feudal Joson dynasty along with several attached buildings including the Manse Pavilion.

It was burnt down several times and rebuilt. At present, there remain the Taeung Hall and

a Buddhist nunnery which were rebuilt in 1665, as well as seven- and five-storey pagodas and a stone monument which were built in the period of Koryo.

The temple's main building is the Taeung Hall.

The hall is a gabled house with 16 metres of facade and 8.62 metres of flank, and stands on a well-trimmed stone platform.

The overall building is gorgeously decorated with *kumtanchong*, and the gabled roof with double eaves adds weight to the appearance of the building.

The door of the Taeung Hall included lotus flower-, *Prunus mume*- and chrysanthemum-shaped openwork, but all that remains now is only diaper patterns.

In front of the hall, there is a seven-storey quadrangular

granite pagoda built in the period of Koryo and it is 4.86 metres high.

The stone tower consists of the platform, body and head. The body tapers upward and each corner of the body is supported by square pillars and Buddhist images are carved in relief on each storey. The roof stone is a thick plate and the edge of every angle rafter is slightly lifted.

A five-storey pagoda stands in the west of the temple together with a seven-storey one, and at the foot of a mountain there is a monument to the temple about 200 metres east of the Taeung Hall.

The monument contains information about the period when the temple was built, the fact that it was burnt down during and after the Imjin Patriotic War (1592-1598) and the date when the present temple was rebuilt.

The Taehung Hall of the Kangso Temple is now under good preservation.

By Jong Chol PT

DICTIONARY

Korea's first natural history dictionary

Compiled in 1824, *Mulmyonggo* is the first natural classification dictionary in Korea.

It gives the names of natural phenomena and things and explains terms related to them. It had been passed on as copies of five volumes before being published in a photoprint edition in the early 20th century.

With Vol. 1 dealing with birds and animals, Vol. 2 fishes and shellfish, Vol. 3 plants, Vol. 4 trees and Vol. 5 soil, stone, metals, fire, water and others, it gives names of and explanations about related things and terms.

Described in it are 442 species of living organisms, 739 kinds of inanimate objects and 173 kinds of others, over 1 350 in all, with a total of some 9 300 entries.

As for animals, it contains the mode of life and breeding of

the male, female and young and even the way of catching them.

At the beginning of each division it gives a general and common explanation about the division as a whole, arranges words belonging to the names of related things and gives explanations.

Entries are given in Chinese characters with corresponding Korean words, followed by explanations.

It also introduces necessary materials and adds the author's opinion.

The first comprehensive natural classification dictionary in Korea, *Mulmyonggo* is a valuable national classic showcasing the development of dictionary compilation and natural science and technology in the middle ages.

By Jong Tang Song PT

HERITAGE

Mask legacy seen through masquerades

Among the cultural heritage of Koreans is the mask that was created and developed through a long historical course.

The mask that is worn over the face is made with various materials including paper, wood, hemp cloth, gourd and silk and decorated with fur or coloured paper. And it comes in various shapes.

Humans began to use the mask in artistic activities like dance and masquerade and it became varied in shape.

Pongsan and Kangryong mask dances of the Hwanghae provincial area have a long history and they are known as the representative mask dances of Korea.

The mask also got diversified. Famous masks are that of the Hwanghae provincial area,

lion's mask and *sandae* mask (which was used in artistic performance) of the Pukchong area and *ogwangdae* mask (which was used in satirical dance) of South Kyongsang Province.

The mask developed along with masquerade through the Koryo period to the period of feudal Joson dynasty as it assumed different regional characters in terms of making method and form.

Mask makers of the Hwanghae area mainly used paper and those of the Hamgyong area wood.

At present, the mask is widely used for cheering players in sports games and in artistic performances.

By Kwon Hyo Song PT



PAK CHANG BOK / THE PYONGYANG TIMES

Pongsan mask dance.

