ЕКОЛІУА ЭКОНИВА ПСЛУВА ПСЛУВА Тhe corporate journal of EkoNiva Group

Challenge accepted

Finding high-class specialists is a challenge EkoNiva has learned to cope with. The company implements career development practices and internal training sessions, which ensure that every second student doing internship at EkoNiva stays to work for the company. You will find more details on young specialist support programmes and true success stories at pages 3, 12 and 13.

Big milk to come in 2020

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Focus on intellectual production

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Perfect combination

People often ask me what the secret of our success is. I always answer that it is the people or, to be more specific, the harmonious combination of the wisdom and professionalism of experienced employees and the energy and overwhelming enthusiasm of their younger colleagues.

Youth and maturity are like two sides of the coin, a perfect combination, which leads to success. Each side balances and improves the other: young people gain experience from more mature employees, who, in their turn, have to keep constantly developing and mastering new technologies urged by the enthusiasm and vigour of the younger generation. Just a few years ago, young people seemed to enter agricultural universities only to receive a certificate of higher education or, at most, to work as vets treating cats or dogs, which pays pretty well. Almost none of the students wanted to deal with real agriculture.

Currently, the situation has changed dramatically. Working with almost all agricultural institutions of higher education, we can see that there are many motivated young people who are eager to work in the farming sector. These people come to our company to do internships or work as trainees while they are studying. They are really broad-minded people with a high potential.

EkoNiva is happy to welcome such 'players'

into the team. We invest a lot in our young employees helping them to develop both professionally and socially: we are not afraid to entrust young specialists with important positions. Those who love their job, who are not afraid of hardships and who consider farming their calling can make a good career in our company.

However, we should not forget that agriculture is not a bed of roses, although modern technologies have made the industry more advanced and attractive. It still requires a lot of hard labour and involves a considerable number of difficulties. Nevertheless, growing bread and producing milk to feed people is an interesting, challenging and noble work that we take pride in.

> Stefan DUERR, President of EkoNiva Group



A double start

At the beginning of the year, the top officials of Kaluga and Voronezh oblasts launched rotaries at EkoNiva's new dairy facilities.

he dairy giants for 2,800 head each are like twin brothers both built within what must be recordbreaking time. The construction started last April.

'No one has ever implemented projects of this scope within such a short term', says Leonid Gromov, Kaluga oblast Minister of Agriculture. 'EkoNiva has proved its professionalism once again.'

Each dairy facility includes three cow barns, two milking parlours — a 72-stall rotary and a 16-stall herringbone parlour, — five lagoons and a feed centre. When the dairies reach their full capacity, each will employ approximately 90 people. The total investment volume for Vysokoye and Bushovka amounted to 2.2 million rub each. 80% of the invested amount is loan funds provided by Rosselkhozbank.

'The pedigree cattle for the new dairies were brought from Germany, Hungary, the Netherlands and Russia', states Ramon Schenk, Deputy Director General for Livestock Production, EkoNiva-APK Holding. 'We expect to receive 26,000 tonnes of milk per year at each dairy.'

At the end of the current year, EkoNiva is planning to launch two more dairies of this kind in Ferzikovo district of Kaluga oblast and Bobrov district of Voronezh oblast. Both dairies will make a significant contribution to the development of agriculture of the regions.





'A modern farm means good standards of living for the rural dwellers', comments Aleksey Gordeyev.

'Voronezh oblast has 17 mega-dairies, but the region needs not less than 30.'

The Governor also observed that today, EkoNiva is #1 in the farming sector, and the talent of its director, Stefan Duerr, serves as a guarantee of the company's successful development.

'We have known each other for over 20 years', says Aleksey Gordeyev. 'Stefan is not only a successful businessman; he also plays an important political role: despite Russia's complicated relationship with Europe, he acts as a mediator and an advisor promoting the interests of both Russia and Germany. He sets a good example for both countries showing how people should work and build their common future together.'

By Olga ATANOVA and Oleg PANOV



s a result. there was no Russian pavilion at the fair. However, this year, the relationship between Germany and Russia has somewhat warmed. Despite the fact that Aleksandr Tkachev is included into the EU List of Persons Subject to Sanctions, Germany put a lot of effort to ensure that the Russian Minister of Agriculture attended the G20 Summit of Agriculture Ministers. The meeting took place in Berlin as well as the International Green Week trade fair. Aleksandr Tkachev accepted the invitation to participate in the summit. Besides the G20 meeting, the Russian Minister of Agriculture held bilateral meetings with his colleagues from Germany, Brazil and Mexico. They

International Green Week is waiting for Russia

For the second year in a row, the Minister of Agriculture of Russia has not attended the International Green Week, the largest agricultural trade fair held in Berlin.

discussed trade relations and joint participation in investment projects. According to Tkachev, Russian agricultural sector is a modern and competitive industry, which has been showing impressive performance within the past few years and which has all the potential to make Russia the world's leading agricultural country.

A group of representatives of the Ministry of Agriculture of Russia headed by Evgeniy Gromyko, Deputy Minister, visited the International Green Week. Evgeniy Gromyko had a friendly meeting with Lars Jaeger, Director of the trade fair, who expressed regrets about the absence of the Russian pavilion. The visitors of the trade fair shared his emotions. Lars Jaeger expressed a hope that Russian exhibitors would come back next year to take their rightful place at the trade fair. For many Berliners, Russian pavilion was the favorite one.

The Russian group conducted negotiations with the Minister of Agriculture of Mecklenburg-Western Pomerania as well as the colleagues from Bavarian Agricultural Department. They discussed cooperation in the farming sector with regard to the industries which had not been affected by the sanctions. Representatives of the Russian Ministry of Agriculture visited the Farming Operation As It Is exposition of the German Farmers Association where the Russian group had a meeting with Mr Kruesken, General Secretary of the Association.



It may be said without exaggeration that AgroFarm trade fair is the key event of the year for Russian livestock specialists. The best expertise and advanced developments are lined up here.

ore than 360 exhibitors from over 30 countries showcased their products and services. For EkoNiva, it was not only a chance to announce great offers on seeds, pedigree cattle and machinery, but also an opportunity to meet old friends.

EkoNiva is one of the largest suppliers of pedigree cattle of Holstein Friesian, Redand-White, Brown Swiss, Simmental and Hereford breeds. In 2016, the company sold over 4,000 head.

'Customers never leave our farms without willingness to sign an agreement for purchase or with negative impressions', says Vladimir Chirkov, Head of Seed and Pedigree Cattle Sales Department of EkoNiva-APK Holding. 'Our pedigree cattle are highly productive, with a good genetic potential, and we get orders for large



lots. There is a demand, and so far, it has even been exceeding our offer. Another reason why customers buy from us is that we gladly share our expertise about cow management, feeding practices, best equipment choice for the whole range of operations and ways to increase milk yields. EkoNiva has acquired this knowhow within 10 years of hard work. And we do not intend to stop at what we have accomplished.'

EkoNiva continues expanding its range of field crop seeds offering varieties with a high genetic potential. Besides novelties in cereal and pulse crops, forage grasses have become a true discovery for farmers.

'Alongside with Triso spring wheat variety, which is in high demand year in year out, the novelties like Licamero soft wheat and Laurikka spring barley are popular, too', says Aleksandr Novosyolov, Manager of Seed and Pedigree Cattle Sales Department of EkoNIva-APK Holding. 'Peas, in particular, new green variety Madras suitable for food production, have shown good performance. Another sought-after crop is alfalfa. We are ready to meet any needs of farmers, whatever crop they produce.'

Continued on page 15

Big milk to come in 2020

The 8th Congress of the National Alliance of Milk Producers (Soyuzmoloko) raised lots of topics to discuss. This year has brought some changes in subsidy policy, reimbursement of farm construction capital costs and soft bank loans.

hese and other matters have provoked debates at the highest level. Arkadiy Dvorkovich, Vice Prime-Minister, and Aleksandr Tkachev, Minister of Agriculture, attended the congress.

Andrey Danilenko, Head of the Alliance, noted that currently Russia meets only 70% of its milk demand, and the situation would be even worse but for the sanctions, countersanctions and ruble devaluation.

All dairy producers were worried about state support decrease, especially for short-term loans. The Vice Prime-Minister assured that together with the Ministry of Agriculture, he would insist on more funding to be allocated. If this initiative succeeds, additional funds will be used for investment project support and for short-term loans. However, this issue cannot be solved earlier than the second half of the year.

According to Aleksandr Tkachev, Minister of Agriculture, our priority targets are to reequip the industry, increase milk performance and reduce costs to make us competitive enough by the time the sanctions are lifted and European products enter the market. 'Annual increase in the industry shall be 5%-7%', says the Minister. 'We have to stimulate the investments to build 800 farms with increased milk performance, over 6,000 kg of milk per a dairy cow, by 2020. If we use all the resources at our disposal, we will get 36 million tonnes of milk.'

Stefan Duerr, President of EkoNiva, was concerned about the reimbursement of farm construction capital costs. Currently, the funds for this purpose cannot be reserved. Aleksandr Tkachev said that, beyond all doubts, the costs would be reimbursed, but farmers could receive the subsidy only upon completion of the facility.

Another hot topic was dairy product adulteration. As Anna Popova, Head of Federal Service for Surveillance on Consumer Rights Protection and Human Wellbeing, declared, two laws tightening punishment for dairy product adulteration had been drafted. These laws provide for increased penalties and even criminalise adulterated product sale.

By Svetlana WEBER





Academicians are on-trend!

The Academy of Dairy Sciences took part in Prodexpo — the largest food and beverage trade show in Russia.

Prodexpo took the visitors' breath away with its scale: over 2,100 companies from 57 countries, including 1,500 Russian exhibitors! Milk and Dairy Products hall was the third largest at the trade show. The booth of the Academicians was very easy to spot! They presented a full range of natural dairy products: milk, sour cream, yoghurt, kefir and curds with different percentage of fat.

The undoubted strength of the brand is strict quality control all the way from the farm to shop shelves. Products are made from milk produced on EkoNiva's own farms and processed at its own dairy plant.

The stylish booth was designed to welcome a lot of guests, which praised both the design and the taste of the products.

'People search for natural products, and we make them happy by offering what they are looking for', says Konstantin Chernitsyn, Tour Guide of the Academy of Dairy Products. 'Kefir made from milk fermented with fungi is selling like hotcakes! Whole milk and yoghurt also attract customers looking for high quality. We invite everybody to take a tour of our farms in Voronezh and Kaluga oblasts. Our transparency is the best quality proof!'

The products are in good demand. Currently, they are sold at over 360 retail shops and large chains in Voronezh, Lipetsk and Tambov oblasts. Dairy producers, who stopped by for a visit, said that the enthusiasts from Voronezh were true idealists. Meanwhile, the Academy of Dairy Sciences characters continued inviting new guests and posing for pictures with them.

'We noticed a high demand for Fitness Line yoghurts', says Andrey Pronin, Director of the Academy of Dairy Sciences processing plant. 'Frankly speaking, it was unexpected. Russian people are used to eating sweet products, but our Fitness Line yoghurts are almost sugar-free. The original recipe includes only high-quality milk and fruits. We have an idea to branch out into a new line of yoghurt with different flavours, for example, dried plums or cereals. It will be possible to eat these yoghurts with a spoon.'

Another idea is to launch a cheese factory, which will process 200 tonnes of raw milk daily. We have held negotiations with Austrian equipment suppliers at the fair. Currently, the Academy of Dairy Sciences is doing a market research. It is quite possible that with a positive customer feedback, the company will start producing hard and semi-hard cheese.

By Tatiana SIMONENKOVA

HIPP

Organic beef for baby food

Savinskaya Niva started supplying organic beef to Hipp, a German producer of baby food.

ipp is one of the largest European producers of organic baby food. All raw materials undergo a strict control for the presence of prohibited trace materials. According to specialists, Hipp laboratories can filter out a salt grain in a 50-metre pool.

'Detailed preparations for beef supply to Hipp started last spring', says Anatoliy Nakaryakov, Director of Savinskaya Niva, 'we exchanged specification sheets and beef quality requirements, discussed the technical standards required for baby food beef and their compliance with the Sanitary Regulations and Standards.'

After that, Savinskaya Niva found a partner to slaughter cattle. The main criterion was compliance with the EU organic standards. REMIT, Podolsk meat processing plant established by a German company Ponnant, met all requirements.

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The slaughter facility of the plant has the status of an organic operation.

After all preparations and testing, the first batch of beef — over 3 tonnes was sent to the Russian plant of the German partner. Savinskaya Niva is planning to deliver 15 tonnes of beef and 5 tonnes of veal annually.

Organic beef production in Savinskaya Niva started in 2012. The company purchased some Charolais beef cattle and Aberdeen-Angus bulls to improve beef traits. Currently, Savinskaya Niva houses 1,000 head of cattle, including 550 head of breeding stock. The certification is performed in accordance with the EU 834/2007 and St0 'Agrosofia' standards. The last certification was performed by BCS, one of the leading European certification authorities based in Germany. By Olga ATANOVA



Finnish quality with Russian temper

Over 400 companies from all over the world have come to Cereals-Mixed Feed-Veterinary 2017 agricultural trade fair in Moscow.

koNiva-Tekhnika showcased products by Mepu, the largest grain dryer manufacturer in Northern Europe.

'We are attending an event of such scale in Russia for the first time', says Jerker Soderholm, Marketing and Sales Director of Mepu. 'Due to the country's harsh climatic conditions, farmers here can't do without drying plants. Therefore, our dryers are in great demand. We hope we will be able to help Russian farmers to preserve their harvests.'

The Vjatka continuous flow dryer has been designed with the Russian market in mind. Having been tested in complex climatic conditions of Kirov oblast, it has proved to be reliable and cost-efficient equipment. In 2017, the region is going to be supplied with a number of Vjatka units of different capacity.

Vjatka makes it possible to dry all types of grain without compromising the quality. The fuel options are natural and liquid gas or diesel fuel. Also, it can be equipped with a multi-fuel burner to enable the operator to run it both on diesel fuel and on natural gas just by switching between the modes, thus yielding substantial savings.

'When operating at low temperatures, the major part of heat is used for heating the ambient air', says Vladimir Krupskiy, Manager of Turlatovo branch office of EkoNiva-Tekhnika, 'whereas Vjatka uses heat efficiently due to heat



insulation of the hot air channel.'

The unique channel design also contributes to saving heat. The drying cells, i.e. the channels via which the heat passes through the grain, have a variable cross-section which ensures uniform pressure distribution over the width of the dryer, and the cellular pattern provides energy-saving effect during drying. Thanks to this, all grain is dried uniformly.

No kernel will retain moisture in such conditions. Moreover, Vjatka is equipped with an automatic grain feed rate adjustment system. The drying mode is monitored to a minute detail via a computer, thus minimising the human factor.

By Olga ATANOVA

Rational kernel

EkoNiva's team travelled to Canada to negotiate supply of new variety seeds.

The climates of Russia and Canada are similar; hence Russian specialists' interest in North American achievements in plant breeding. During the trip, the group visited the University of Guelph (Ontario), one of the top higher education institutions in Canada competing with Harvard University in agricultural education in global rankings. EkoNiva's specialists put focus on the breeding of early maturity soybeans.

'We are willing to invest in researching; currently, we are discussing our prospective cooperation', says Vladimir Chirkov, Executive Director of EkoNiva-Semena. 'The negotiations resulted in extension of the license for OAC Prudence and agreement on cooperation in breeding new soybean varieties.'

The second day of the trip brought the team to Saskatoon (Saskatchewan). The University of Saskatchewan comprises the Crop Development Centre (CDC). The CDC features a stateof-the-art laboratory and a multinational team of highly professional and highly passionate specialists.

'That is exactly how I have always imagined what a university research centre should look like', shares Vladimir Chirkov. 'Though it was high season for them and work was humming along, their specialists spared time to give us a very instructive tour and a very detailed account of the plant breeding stages. The centre employees upgrade the equipment and farm machinery on their own; they breed whole lineups of varieties possessing the traits required for different regions worldwide. It is not just work for them; it is their life.'

EkoNiva grows and distributes four varieties of lentils licensed by the CDC. The discussion demonstrated mutual interest of the parties in further cooperation. The Canadian party is ready to provide EkoNiva with varieties adapted to Russian conditions and the exclusive right to propagate and sell them.

The trip was concluded by negotiations with representatives of Northstar Seed. EkoNiva had already acquired a batch of Dakota alfalfa following the previous meeting with the company. In Canada, this time, EkoNiva signed a license contract for this variety and discussed prospects of supply of leaf-cutter bees, important pollinators of alfalfa.

By Tatiana SIMONENKOVA

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he group visited two dairies and the Academy of Dairy Sciences milk processing plant.

At each destination of the tour, the guests were welcomed by the head of the enterprise and the key specialists who told the them about their operations. No question was left unanswered. The topics for discussion covered a wide range of aspects: from the design of the manure removal system and the animals' ration, to the name of the subcontractor, which designed the ventilation system and the cost of the design and construction work.

'I liked it that we were able to see not only the milking herd but also the calf housing facilities', says Yana Brik, Chief Herd Manager of Polomskoye Farming Cooperative (Kirov oblast), 'The employees shared their production issues without hesitation and told us about the ways to solve them. As a heard manager, I am particularly interested in cattle feeding. The rations at our enterprise are more modest: for instance, we do not feed corn silage or soybeans. EkoNiva's specialists explained to us how to introduce these ingredients into the ration.

The visitors toured a new dairy unit in Verkhniy Ikorets, a renovated dairy facility in Dobrino, and a newly opened milk processing plant producing dairy products under the Academy of Dairy Sciences brand.

'We have visited really impressive facilities and observed modern business process management', says Yulia Shutkina, Herd Manager and Breeder



Farmers from Kirov and Kostroma oblasts visited EkoNivaAgro (Voronezh oblast). The tour was arranged by EkoNiva-Technika for its clients wishing to gain experience in dairy farming.

of Konyp Farming Cooperative (Kirov oblast). 'We wish we could upgrade our enterprise to this level. We would like to perform a reconstruction of our operation in order to be able to adopt the modern livestock management, feeding, milking and manure removal practices as well as other production procedures.'

The final part of the tour was the meeting with the President of the company. The guests thanked Stefan Duerr for the unique opportunity to gain the invaluable experience and invited

him to visit their farms. The guests were eager to learn about Stefan Duerr's plans for the future, his opinion on the prospects of the development of agriculture in Russia in 2017 and the extent of the governmental support.

'It is quite complicated to develop agriculture in Russia without governmental subsidies', commented Stefan Duerr. 'Let us hope for an optimal allocation of loan facilities among all industries of the Russian farming sector in the coming year.'

By Oleg PANOV

r machine operators



he specialists of EkoNiva-Tekhnika developed special test forms based on the operation manuals for each machine. All tasks were divided into two sections: the first contained questions on operation and machinery settings; the second was dedicated to servicing and maintenance.

The proficiency tests were based on the manuals for the John Deere S

Ryazan branch of EkoNiva-Tekhnika tested the theoretic knowledge of machine operators of the company's clients. The test was dedicated to operation and maintenance of farm machinery. The specialists of two enterprises — Pavlovskoye JSC and Okskaya poultry plant JSC took part in the testing programme.

harvesters, headers, the John Deere 8430, 8310R and 6150M tractors and the John Deere R4030 self-propelled sprayer, as well as the JCB 550-70 and JCB 541-70 telehandlers.

'Previously, we used to hold only educational workshops for our clients, this is the first time we have checked the knowledge of their employees', says Ilya Mirokhin, Engineer of Ryazan branch of EkoNiva-Tekhnika. 'This testing will help us to prepare the topics for the future educational sessions in a proper way. It will allow us to understand which

issues must be addressed and which areas need improvement. Considering that it was our first experience, we received a good result - most of the operators answered 90% to 100% of the theoretical questions correctly. Together with Pavlovskoye JSC, we have already set the dates and the topics of the upcoming training, which will take place before the sowing season.'

EkoNiva-Tekhnika granted certificates confirming the completion of the training course to all participants.

Studying German experience

Two groups of engineers of EkoNiva's farming operations visited German factories and enterprises. The visit started with the tour of Osters & Voß GmbH, the largest provider of services in the farming sector of Germany.

sters & Voß GmbH Group offers a wide range of field works: from pre-sowing soil preparation to harvesting and applying liquid manure

into the fields. Besides, the Group's activities include logistics services and biogas production.

EkoNiva's specialists paid special

News

attention to working process organisation, maintenance and repair of machinery, operation of the machines in the field and Trecker.com software.

The next destination of the trip was BvL factory producing machinery and equipment for feed mixing and distribution. During the tour, the guests had an excellent opportunity to study the organisation of the production process.

The tour also included a visit to Grimme factory producing a full line of equipment and machinery for potato growing as well as sugar beet harvesting equipment. EkoNiva's specialists had a unique chance to see the new Rexor 620 sugar beet harvester and discuss the latest upgrading of the Maxtron 620 harvester.

EkoNiva's engineers observed that German factories primarily custom tailor their machines in accordance with the requirements of each client. Therefore, each machinery unit is available in several options and individual specifications. The factories as well as farming operations of Osters & Voß do not have large spare parts storage facilities since the suppliers are in direct proximity and the necessary materials can be delivered promptly upon request. By Oleg PANOV

Large-scale living in a small kindergarten

The kindergarten in Shchuchye village (Liski district, Voronezh oblast) built by EkoNiva in cooperation with the district administration in 2009 is successfully operating and instilling the best qualities in its pupils.

he walls in the locker room are painted with colourful pictures and decorated with diplomas of the pupils. Bird feeders made by the children are lined up on the shelves.

'We made these feeders specially for the Feed the Birds community initiative', says Yuliya Kaplina, Superintendent of the kindergarten. 'Part of them have already been set up in the kindergarten garden. The rest will be placed in the local park, and the children will take turns to fill them with food for birds.'

Currently, our boys and girls are preparing for KVN (Traditional student Contest of the Funny and Inventive) games with first-graders of the local school. Besides, our pupils take part in all district competitions and creative Internet contests. Children draw, do clay modelling and crafts, sing and dance. 'Our children are very talented', says Yuliya Kaplina. 'We try to develop every child as a personality and cultivate their best human qualities. Unlike the kindergarten in the city, we admit children from 18 months old. The food for our kindergarten is supplied by EkoNiva, and we really appreciate this. The school fee is not high — 1,500 rubles; we have discounted rates for families with many children.'

Currently, the kindergarten is attended by 45 pupils. Residents of the neighbouring villages and even of Liski bring their children to the kindergarten with pleasure.

By Oleg PANOV





In search of new ideas

A group of EkoNiva's specialists visited some modern seed producing operations in Germany and Canada. The best technological solutions collected during the trip are being employed in construction of a seed plant on Zashchitnoye farm in Kursk oblast.



Food for thought

The majority of seed processing operations in Germany were constructed based on Reiter Seed Processing projects. EkoNiva's team toured four seed plants of this type: in Casekow, Blankenburg, Leopoldshoehe and Mannheim towns. They are different in design, capacity and brands of equipment installed.

In order to learn lentil seed processing know-how, EkoNiva's representatives headed for the Crop Development Centre at the University of Saskatchewan. Their focus was on technology, equipment and work process management. After a tour of the University, the team visited five operations specialising in seed processing and conditioning located in Saskatoon and Regina. The specialists brought the best solutions for their own project from the trip.

At full capacity

Zashchitnoye is one of the most comprehensively equipped seed processing operations in Russia.

'The facilities we have enable us to process 350 tonnes of cereals and pulses and 20 tonnes of grass seeds a day', states Yuriy Vasyukov, Executive Director of Zashchitnoye. 'Increased market demand requires additional investment and modernisation. Thus, an investment project for a new seed processing plant has been launched.'

The design plan of the new plant provides for three independent processing lines: pre-cleaning, seed sorting and treatment. 'The cleaning capacity for wheat will be 10 tonnes per hour, for soybean — 8 tonnes, for maize — 100 seed units', says Vitaliy Polyakov, Process Control Engineer of Seed Production, Storage and Processing Department of Zashchitnoye. 'The new plant also includes twelve storage bins with the capacity of 100 tonnes each. Directly from them, seeds will go to the packaging line, and thus, we will nearly double the ready product output.'

Since in 2016 Zashchitnoye started producing hybrid maize seeds, the new plant will be also equipped with maize-grading machines.

Fully automated

Harvesting of winter wheat and spring crops often coincide in time, at which point, the workload on the processing line increases. The new plant will help to deal with the issue.

'Currently, it takes us 24 hours to clean the line', explains Irina Dolzhenko, Head of Seed Production, Storage and Processing Department of Zashchitnoye, 'and at the new plant, it will take us only 4-6 hours, which will save us time. Besides, the air flow will aspire the rooms and clean the line, which will ensure a better result. The operator will be able to start the self-cleaning mode with a mere press of a button. At the plant, all technological processes are going to be automated, consequently, manual work is going to be minimised.'

'There will be a vacuum conveyor for bags installed', shares Vitaliy Polyakov. 'At the moment, the workers lift them onto the pallets by hand. There will also be a cutting-edge treatment unit eliminating people's contact with chemicals.'

With the new technology, the product will be packaged in paper 10-kg and 50-kg bags instead of propylene bags. The whole project is carefully thought-out in details



'The launch of the plant will take EkoNiva, in general, and Zashchitnoye, in particular, to a whole new level', affirms Yuriy Vasyukov. 'Ultimately, we will have not just an upgraded seed processing line, but a versatile operation capable of sorting seeds of lentil, pumpkin and F1 maize hybrid as well as any other crop common in Europe and Russia.' like that. Currently, it is going through the final approval. At this stage, equipment manufacturers are being looked at.

The next stage, after the project has been approved, will involve construction and installation. The total investment amounts to 400 million rubles. According to plan, the first batches of seeds are going to be processed at the new plant in the harvesting season 2018.

By Tatiana SIMONENKOVA



This time, we have a special guest of the issue: not a person as it is usually the case, but a loader. However, this outstanding 'personality' deserves special attention. It is the 1000th JCB loader, which EkoNiva-Chernozemye handed over to its long-standing customer Molvest in summer 2016. We visited the lucky owners of this machine and saw it in action.

he legendary JCB 535-95 painted in the colours of a Montbeliarde cow toils tirelessly on a dairy farm in Novomarkovka village, Kantemirovka district, Voronezh oblast.

When we arrived at the farm, the steel athlete was effortlessly throwing bales of hay into a bullpen, moving in the crab steering mode. The engraving 'EkoNiva 1000th' and the Montbeliarde cattle breed colours were still discernible through the thick layer of dust signifying hard work.

'This is the 1000th JCB loader sold by EkoNiva. We received the keys at this year's Voronezh Field Day', recounts Aleksandr Khoroshilov, the Head of the Service Department of Novomarkovskoye farming enterprise. 'The JCB



really cool machine, capable of working tirelessly and knowing no impossible tasks. We use the loader for all sorts of jobs: delivering feed, loading, unloading (including bulk materials) and throwing straw into pens without

getting inside them. We clean out the manure from the stalls with its help and use it extensively during the sowing campaign. This loader is manoeuvrable when handling heavy loads inside storage facilities: its lifting capacity is 3.5 tonnes at a 3.7-metre turning radius.'

Besides, Aleksandr paid special attention to the 4.4-litre Dieselmax engine with the capacity of 100 hp. The engine is located to the left of the cab under an integrated bonnet with a gas spring, which ensures unobstructed access not only to the heart of the machine, but also to many other essential mechanisms.

'The outstanding feature of the JCB 535-95 loader is its telescopic power-boom which boasts the most reliable design in its class. Besides, its maximum lift height is 9.5 metres', observed Aleksandr Khoroshilov. 'Any of the JCB implements can be easily coupled to it. This loader model is also distinguished by a simple and convenient mounted tool linkage, which the machine operator can attach to the boom from inside the cab. Currently, we are only using the $2.7 \cdot m^3$ bucket and the $2.5 \cdot m^3$ fork.' Aleksandr also pointed out that the operators really enjoy the ergonomic



air-conditioned cab. It is true that comfortable working conditions make a positive impact on the quality and volume of the work performed. The working interior of the JCB 535-95 loader cab includes three foot pedals, manual wheel rotation switches, a joystick for hydraulics, a gearbox and lighting controls, a soft seat and wide glass windows which never fog up.

In the meantime, having furnished the bulls with fresh hay, the dappled loader changed the fork for a bucket and headed to clean the dairy.

By Oleg PANOV



Green light to new staff

Expanding production capacities and putting several new mega-dairies into operation every year, EkoNiva, like other farming enterprises, faces the problem of deficiency of qualified employees capable of economic thinking and possessing profound knowledge of the industry and experience of working at innovative farming operations.

Search for high-class specialists is a challenge, but we have learned to cope with it', says Stefan Duerr, Director General of EkoNiva-APK.

Currently, the attitude of students to agriculture is changing considerably - they are finally able to appreciate the prospects of working in the



farming sector. Many of them are genuinely interested in building a career in their area of specialisation. EkoNiva looks for such motivated young people all over Russia, invites them for an internship, organises trainings and provides an insight into the future profession. In 2016, over 250 students of institutions of higher and professional education did an internship at EkoNiva for a period from 1 to 3 months. Most of them — about 200 people — in the dairy farming sector.

EkoNiva-APK intends to ensure that its former interns will return to work for the company thus providing an inflow of young specialists. The company's target is to employ at least 50% of the students arriving for an internship. The HR department of EkoNiva is planning to implement internship programmes in other areas of activity of the company as well.

Talented and open-minded students are invited to take part in other projects aimed at formation and development of the candidate pool. One of such programmes is EkoNiva-Student, which is going to be restarted next year. Within five years of implementation of this programme, over 600 undergraduate and graduate students from the leading agricultural universities of Russia took part in it. Fifty winners received a grant in the amount of 30 thousand rubles each.

Within the framework of partnership agreements with agricultural universities (currently, EkoNiva has signed 10 agreements), the company organises lectures and practical workshops for students with the participation of qualified specialists of the holding. Besides, EkoNiva-APK invites students for intensive 6-day training sessions dedicated to modern technologies of dairy farming within the Academy of Dairy Farming project allowing students to immerse into their profession and find their true calling. 'Our students are very good and clever', says Stefan Duerr. 'They are real enthusiasts! I always like to talk to them.'

In 2016, the company started cooperation with the Russian Student Troops and welcomed the Russian Student Agricultural Troop 'MOST', The Milk Standard of EkoNiva, which united 27 students studying livestock farming from 14 agricultural universities of Russia. Project curators hope for a continuation of this important initiative.

Fresh graduates are welcome to enroll in the 3.5-month inter-company training course held by EkoNiva-APK under the EkoNiva Academy programme. The company also implements a career development and employee promotion and rotation system, including appointment of employees showing good performance to key positions within the regional subdivisions of the holding.

Young EkoNiva programme, designed to assist the existing federal and regional governmental programmes in solving the problem of accommodation for young specialists, has been available to young employees of the company for a few years already.

'Motivation and professional development of our employees are extremely important to us since we owe our success to the professionalism of our specialists', commented Stefan Duerr.





Good start

First steps to success are always the most difficult. The most challenging thing is to be determined and make this first step, affirm our interviewees. They are so young, but already pursuing successful careers at EkoNiva.

Oleg Fefelov

26 years old, a graduate of Bashkir State Agricultural University,



a participant of APOLLO international internship programme. In 2015, Oleg took part in the Spring Academy of Livestock Management project. Then, after graduation, he came to

EkoNivaAgro to work as a vet. Now, he is a senior vet at a large dairy.

'To my mind, the first three years of work is the crucial development stage for a young specialist. It is during this period that the theoretical knowledge obtained earlier transforms into practical experience', says Oleg Fefelov.

Oleg's arrival at EkoNiva became a life-changing event in many ways. At EkoNiva, he found both: a worthwhile and interesting job and his future wife, a student trainee at his dairy at that time.

Anatoliy Latyshev

25 years old, a graduate of Nizhniy Novgorod Institute of Engineering and Economics

He got acquainted with EkoNiva during



h EkoNiva during his internship in Germany under APOLLO programme. Anatoliy has been working as an engineer for EkoNivaAgro since 2015, and his responsibility is to ensure uninterrupted operation of the machinery at the

dairies. Besides, though he has barely graduated from the university, he already

supervises student trainees coming to EkoNivaAgro. He believes that the most important thing is to fear nothing and start working toward your goals without any hesitation. 'I am positive that it is necessary to introduce new subjects on modern agricultural technology at universities, which would enhance professional level of graduates', says Anatoliy.

'Moreover, I would recommend current students to keep their notes on specialist disciplines — they will come in handy later!'

Yulia Shavel

26 years old, a graduate of Kursk State Agricultural Academy



Yulia was one of the winners of EkoNiva-Student Grant Programme in 2013. After graduation, she got a position of a herd manager at Kaluzhskaya Niva, currently, she is working as a Chief Genetics Specialist. Yulia is 000 cows. Besides,

responsible for over 7,000 cows. Besides, she quickly became an integral part of the operation's professional team. In 2015, the farm was granted the status of a breeding reproducer for Swiss Brown cattle, and soon, it will become a Breeding Reproducer for Holsteins.

'The most rewarding thing about my work is a result achieved that I can see. 'So far, I have been satisfied with the results, however, there is always room for perfection.'

Nadezhda Sadykova

23 years old, a graduate of the State Agricultural University of Northern Zauralye

Nadezhda was employed by EkoNiva in 2016, after participation in the Spring Academy of Livestock Management



project and EkoNiva Academy training course. Today, she is a herd manager with good career prospects at Sibirskaya Niva.

'Labour management at a dairy is the most challenging part of this work', asserts Nadezhda.

'All processes require thorough synchronisation.'

In the future, the young girl hopes to be promoted to the position of a deputy dairy manager. She believes that student need more practical training and advises them to come to work at EkoNiva.

Vladislav Savelyev 24 years old, a graduate of the





In October 2015, he started working as a Grain Cleaning Machinery Technician on Zashchitnoye farm, Kursk oblast. At present, he is a Deputy Head of Seed Production,

Storage and Processing Department.

'I really enjoy my job', shares Vladislav. 'Every day is full of action. Together with the team, we attain complicated performance goals. It feels so good to deliver quality result.'

Vladislav is determined to keep developing professionally and contribute to the company's success. He encourages young specialists not to be afraid of any hardships.

By Tatiana LIAPINA



Universal soldier

It is no secret that JCB, a British farming machinery brand, has a massive army of fans worldwide. Some of them fell in love with the loaders once for all a long time ago, and others got familiar with them and tried them out in operation conditions last year for the first time. Both, newbies and old-timers of JCB's army of fans, shared their impressions.

our JCB loaders are operating at Krasniy Mayak farming enterprise (Yaroslavl oblast); two of them were acquired last year.

'First, we bought a JCB 531-70', says Vasiliy Finogeyev, Director of the company, 'but later, we realised that we needed another loader to cope with the amount of work we had. We opted for the JCB 527-58. Compact and quickmoving, it can manoeuvre comfortably anywhere!'

According to Vasiliy Finogeyev, they first saw the 'quick-moving little fellow' on a neighbouring Novy Put' farm.

The compact dimensions of the JCB 527-58 provide superb manoeuvrability, and the short wheelbase and large steering allow working with ease and at a high speed around a farm yard.

'All our loaders operate 24 hours a day', shares Vasiliy Finogeyev. 'The milking herd alone exceeds 2,000 head, so there is always a lot of work to do.'

Agromir company (Kaluga oblast) took its time deciding on buying its first JCB.

'All the farmers we knew already owned JCB loaders, which delivered an excellent performance', recounts Yevgeniy Shavragov, Director of the farm. 'We had tried out machines of other brands, but they had not met our needs. Eventually, we opted for a more reliable and comfortable JCB 541-70 Agri telehandler.'

The operator's comfort in JCB

541-70 Agri is ensured by all round visibility from the cab, and the high manoeuvrability — by instant selection between all-wheel steer, front-wheel steer and crab-steer modes, which, ultimately, increases the external turn radius. At the same time, due to a fourwheel drive with four forward and four



reverse gears and a high clearance, the machine can make excellent progress in any conditions or terrain. Its maximum lifting capacity is 4.1 tonnes and lift height is 7 metres.

'Six years ago, we acquired a JCB 541-70 Agri, and since then we have never faced a problem the loader can't deal with', recalls Mikhail Ponomaryov, Director of Agrozarechye (Voronezh oblast). 'The machine is engaged in handling grain and construction supplies. Apart from



high performance and reliability, another beneficial feature is that all the assemblies and units are produced by one manufacturer — JCB. It means that one dealer — EkoNivaChernozemye — can provide both services and spare parts.'

Novomarkovskoye farming enterprise can't imagine its life without a JCB 225 Power Boom skid steer loader.

'The JCB 225 Power Boom loader is a very manoeuvrable and, at the same time, quick machine', comments Aleksandr Khoroshilov, Maintenance Department Head of Novomarkovskove farming enterprise. 'Its turn radius is only 2.2 metres. Our farm bought the loader in 2013, and since then, it has not been idling for a single day. With its help, we perform a number of handling and hauling jobs all day long.' Aleksandr also points out its serviceability and convenient access to key components. The 74-hp engine is at the rear of the skid steer, hidden behind an easy-to-open large steel door. A wide-opening cab door is positioned on the side of the machine and allows the operator to enter the cab easily and safely even when the boom is up, which is a unique competitive advantage of JCB loaders. The rated operating capacity of 1,021 kg with the lift capacity of 2,669 kg are also worth mentioning.

'We also paid our attention to an easy interchange between attachments', explains Aleksandr Khoroshilov. 'To change a bucket, the operator just has to set it down on the ground, unlock the clamps on the boom and drive back. Following the same procedure, you can couple any other attachment from JCB's wide range to the loader's boom.'

By Olga ATANOVA and Oleg PANOV



Meeting time at AgroFarm

Continued from page 5

BvL and Fliegl, farming machinery manufacturers and long-standing partners of EkoNiva, were also represented at AgroFarm.

BvL received an award for feeding management service backup system. A BvL mixer wagon was granted the 'Best Product' award. These machines are already operating at EkoNiva's dairies in Tyumen, Novosibirsk, Kaluga and Voronezh oblasts. Each mixer wagon has the capacity of 10 tonnes of TMR and has to handle 18 batches a day.

'At EkoNiva's request, we designed a completely new chassis of the

mixer wagon which has no equivalents so far', says Konstantin Shilling, Export Sales Manager in Eastern Europe for BvL Maschinenfabrik. 'Internally, we call the machine an off-roader, since it is intended for farms with rough road conditions. It is equipped with a dual-speed reduction gearbox. We can use a tractor with a smaller output, and thus, we spare the gear-box

and PTO and undoubtedly save fuel.'

Fliegl also presented machinery which had been test-driven on EkoNiva farms. The centrifugal transport tank trailer is a must-have when it comes to cleaning out organics in enclosed areas.

'We have two machines like this successfully operating in Voronezh oblast', says Aleksey Sidorov, representative of Fliegl Agrartechnik Works. 'After we delivered the first transport tank trailer, employees of EkoNivaAgro decided to improve some elements, the recommendations were then sent to Fliegl Agrartechnik Works, where they were taken into account and accommodated. At the trade fair, we are unveiling the new improved model. We are positive that the demand for the machine will be high, since it does an excellent job of cleaning cow barns.' Throughout the exhibiting hours, Willi Drews, Doctor of Agronomy, was giving practical advice to farmers. And representatives of EkoNiva-Tekhnika were welcoming the customers the relation with which has long become more than 'just business'. Zelenogradskoye, Moscow oblast, processes its own milk and supplies its dairy products even to The House of Government of Moscow oblast. The company's director, Yuriy Valetskiy, calls himself the 'godfather' of livestock farming of EkoNiva without false modesty.

'Stefan Duerr once visited our farm, which rekindled his dream of engaging



in livestock production', says Yuriy Valetskiy. 'Later, it was our turn to go to Voronezh to see his achievements! We have been buying machinery from EkoNiva since the very beginning. We have a complete mutual understanding; they always accommodate our payment

preferences and deliver high-quality services. We love EkoNiva, and we know that it is forever!' Another honoured guest from Moscow oblast, Sergey Goryachev, Director General of Vasilyevskoye breeding reproducer, has been loyal to EkoNiva since 2002. 'We have purchased tractors, loaders, ploughs, combine harvesters and seed drills', says Sergey Goryachev. 'All investment has long paid back. And the most noteworthy thing is that we have been operating the machinery to this day. As to the service - no claims whatsoever. We have never had to wait for a spare part or service for long.'

About 10 years ago, our neighbours – farmers Boris Kovalev and Vasiliy Finogeyev - became EkoNiva's first customers in Yaroslavl oblast. To AgroFarm, they have come to exchange experience with their friends.

'In the farming sector, machinery runs seven days a week, practically non-stop. In such cases, service is vital', says Vasiliy Finogeyev, Director General of Krasniy Mayak. 'In terms of on-site servicing, spare part delivery and general work, EkoNiva is unrivalled, therefore it is our machinery supplier. Last year, we invested around 100 million rubles in agricultural equipment.'

'EkoNiva sells very sophisticated machinery. We have tried out almost all brands presented,' says Boris Kovalev, Director General of Noviy Put' farm. 'But first and foremost, we appreciate prompt service. By the way, we always recommend EkoNiva to our colleagues and neighbours. We can confirm that this equipment has enabled us to move to a completely new level. As a result, our performance has skyrocketed.'

By Tatiana SIMONENKOVA



Expanding geography

EkoNivaSibir has obtained its first client on the territory of Chistoozerniy district, Novosibirsk oblast.

gor Klimont, Head of farming operation, has bought a John Deere 6150M tractor with a 6.8-litre 6-cylinder engine. The farmer had considered different options: from Japanese to Belarusian brands. However, he finally opted for John Deere.

'I am convinced that choosing the right service centre is as important for farmers as choosing the right tractor', says Igor Klimont. 'I was looking for a medium-power tractor and studying the offers in the market. I contacted EkoNivaSibir, and two months later, we made a deal. For me, the technical features of the machine are no less important than service availability.'

The tractor will be equipped with the GPS system, including the cutting-edge SF 6000 transmitter and the GreenStar 1800 screen.

'The StarFire 6000 receives signals from all types of geostationary satellites simultaneously', explains Aleksey

Burkhovetskiy, Senior Sales Manager of EkoNivaSibir. 'It means that home signal is stronger, which ensures accuracy when making repeated passes. Moreover, the machine 'remembers' the itinerary for the entire operating season. This precision farming system facilitates the control significantly and prevents the machine from damaging the plants during the season.'

The specialists of EkoNivaSibir hope that this purchase will set a trend for other farmers from Chistoozerniy district.

By Tatiana SIMONENKOVA

Cold no obstacle to work

EkoNiva-Tekhnika wrapped up the year by two demo shows held at farming enterprises in Kaluga and Tula oblasts. The John Deere 8370R tractor and the John Deere 3810 plough were tested at the events.

espite quite harsh weather conditions, the machines coped with their tasks flawlessly.

'The topsoil has frozen', says Sergey Plotnikov, Sales Manager of Tula Branch Office of EkoNiva-Tekhnika, 'so the ploughing speed didn't exceed 4 km/h. But the Efficiency Manager function sustained the engine speed at 1,700 - 1,900 rpm, and the automatic revolution setting had a positive impact on fuel efficiency.'

The John Deere 8370R is the most powerful model in the 8 Series range. Its maximum power is 408 hp. Apart from the high power, the attendees of the demo show pointed out the smart contents of the tractor. Particular attention was paid to the new E 23 gearbox enabling the tractor to adjust automatically to the working conditions based on the speed set by the operator. 'Having driven the 8370R tractor across the pre-worked plots, the operator found the movement smoothness similar to tracked tractors', says Sergey Plotnikov, 'very few wheel tractors deserve a compliment like this.'

Such a flattering comparison is possible due to the combination of the ILS independent suspension and the Mechanical Front Wheel Drive which ensures perfect road holding at full tractive force, thus unprecedented riding comfort.'

'The shows left no one indifferent', continues Sergey Plotnikov, 'straight after the tractor demo show, we drew up two agreements for the purchase of three John Deere 8370R units.'

The John Deere machinery is much loved and respected at Zelenye Linii enterprise, Kaluga oblast. A John Deere 9RT tracked tractor, two grain combine harvesters and a forage combine harvester are operating in the fields of the enterprise.

'The 8 Series stands out for its capacity', says Valeriy Zolotukhin, Engineer of Zelenye Linii, 'which is of paramount importance when it comes to coupling to soil-working implements. With such capacity, neither speed nor cultivation quality are affected.'

According to Sergey Plotnikov, in order to be confident about the ploughing quality, one should pay attention to the new John Deere 3810 plough. It features five to nine furrows, can be quickly set in the field and is versatile in use.

'The plough is excellent. It is light, but due to the high-tensile steel it is made of, it can work in extremely dry soil with ploughing depth down to 35 cm', says Anatoliy Seleznev, Head of Udarnik farming enterprise, Tula oblast.

Efficient fertiliser application

Many farmers complain that they do not get the desirable effect from liquid fertiliser application in the fields. This happens because 70% of the nitrogen in manure evaporates as soon as it reaches the surface of the plants. In order to prevent the nitrogen from evaporating, fertiliser must be applied as deep into the soil as possible. This task can be easily fulfilled by the Skate trailing shoe spreader from Fliegl.

The Skate is a mounted implement for manure tankers equipped with hoses, which carry liquid fertiliser to the soil. Automatic slope compensation ensures perfect ground adaptation and the special iron tines located on the hoses cut through the residue and apply fertiliser at the depth of 3-5 cm, which facilitates the penetration of the manure into the soil.

'In fact, it is as good as precision fertiliser application', says Willi Drews, Agronomy PhD. 'Besides, this prevents soiling of the leaves, and the crops remain clean, which results in a higher feed intake and better milk quality. The narrow hose distance of 250 mm is ideal for grassland and farmland. Due to the special folding mechanism, the discharge hoses are not bent when they are swiveled up and inwards, which also increases their service life. Each boom section can be mechanically switched off. The spreader can be mounted on any tanker. Thanks to the small transport width (2.6 m) and the extremely low installation height of the distributor (2.3 m), driving the Skate becomes even safer since the rearview mirrors provide a good view of what is happening on the sides of the vehicle.

The Skate trailing shoe spreader is standard equipped with the EASY comfort control system, which ensures safe and reliable operation of the equipment. Folding of the distributor booms is monitored via sensors in every position ensuring synchronised and damped folding even on slopes. With pump tankers, the position of the three-way valve is visually displayed on the control panel. The implement can be optionally equipped with the Fliegl Slurry Tanker software connected to the ISOBUS control system.

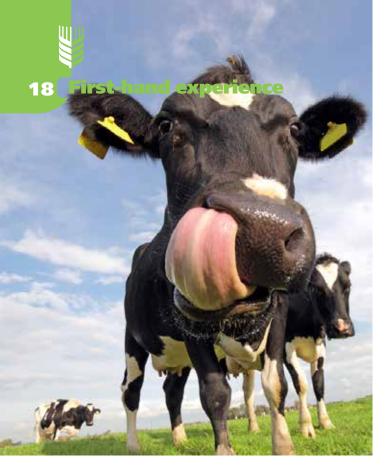
Farmers call this system 'the language of communication' between the electronic content of the tractor and the implements coupled to it. The system allows documenting all operations performed. The data is uploaded from a USB stick and displayed on the monitor. The operators use this data for precision farming, for example, for variable rate fertiliser application. Besides, Fliegl Slurry Tanker enables the operator to adjust the implements without leaving the tractor cab. All the settings are displayed on the monitor. The operator can either change them or save until the next time he uses the equipment.

The ISOBUS control system offers three different modes: road, farm and field operation. Each of the modes activates only the relevant functions, which excludes unwanted malfunctions.

By Olga ATANOVA

inspection





Menu for Siberian cows

Sibirskaya Niva produces over 110 tonnes of milk daily. This performance became possible due in no small part to efficient feeding practices. Production of forages in Siberia requires consideration of the climatic conditions of the area.

aize silage that we routinely use on our farms in Voronezh, Kaluga and Kursk oblasts is not an option here due to unstable maturation of maize ears. By the time kernels achieve the dough stage, the ear accumulates a sufficient amount of starch, which results in high metabolisable energy of forage. However, even the earliest hybrids of Russian and foreign breeding offered by such companies as KWS, Pioneer or Syngenta with FAO-numbers exceeding 160 do not guarantee that the ears will reach the required stage of ripeness every year.

Quality haylage from perennial legume grasses such as alfalfa or red clover, timothy and fescue mix make up a large part of EkoNiva's fodder supply in Siberian region. It accounts for 60% of all the forages in the ration of high-yielding cows. So, what is the right way to produce high-quality haylage from legume and grass components and what are the common pitfalls in the process?

1. First of all, farmers need to set the dates for haylage cutting correctly. The highest net energy for lactation (NEL being the energy used for milk production) and a low fibre content in the forage are observed at early stages of plant development (in the bud stage for legumes and in the ear emergence stage for grasses). Besides, forage is highly digestible and palatable at this time.

Delays in cutting time entail significant loss of milk.

So, for example, the crude protein content of alfalfa and clover harvested

regrowth buds ensuring a faster regrowth and allowing a larger number of cuttings. When cut higher, the forages tend to get less dirty, and, as a result, haylage

Forage quality of different crops depending

on harvest time (per 1 kg dry matter)

	(per	I Ng ury ma			
Crop and harvest time	Total protein, g	Digestible protein, g	Fiber, g	Metabolisable energy, MJ	NEI, MJ
Alfalfa 1 st cutting Bud stage Early bloom End of bloom	216 188 169	139 137 132	228 276 325	9.68 9.31 8.66	5.74 5.45 5.00
Clover 1 st cutting Before budding Bud stage Mid-bloom	210 180 160	155 142 131	192 240 282	10.57 9.91 9.31	6.37 5.89 5.47
Common ryegrass 1 st cutting Ear emergence Beginning of bloom	195 165 125	151 140 123	200 235 290	11.11 10.5 9.53	6.77 6.33 5.63
Fodder oats Booting Ear emergence Mid-bloom	173 142 120	149 135 127	220 260 300	11.18 10.4 9.67	6.83 6.26 5.73
Rye Booting	185	152	230	11.33	6.94
Ear emergence	150	138	280	10.53	6.34

Source: Gruber. Table for feeding. Issue 39. 2015

in the early stages of development (bud stage) is by 47-50 g higher than that of grasses procured at later stages, i.e. in mid-bloom — end of bloom stage. Within the same time, alfalfa and clover lose 13% and 14.1% of NEI, respectively.

Most widespread grasses, i.e. perennial ryegrass and fodder oats, lose 53-70 g of crude protein in dry matter from booting stage until early — mid-bloom.

2. Cutting height for forages should be from 6 to 8 cm. This leaves more

contains lower levels of butyric acid.

3. Legume cutting should be carried out only by means of rubber-roller conditioners so that stems and leaves could release moisture simultaneously upon crushing. In addition, a mower conditioner should be immediately followed by a tedder rake. The tedder rake spreads the green material across the field in a uniform pattern and promotes faster curing thus ensuring up to 35% dry matter content in the forage.

4. There is a useful rule of thumb for





determining dry matter (moisture) content. Twist a wisp of cut material: if the palm is moist, but the juice is not running through the fingers, then the target 35% dry matter has been reached.

5. The cutting width of the forage harvester should be set to 4-5 cm. If the material is somewhat dry (40% - 45% dry matter), the cutting width of the harvester should be reduced in order to improve haylage compaction in the bunker.

The choice of crop plays an important role in high-quality haylage production. The main haylage crop in EkoNiva is alfalfa. Two varieties of purple alfalfa are grown at our enterprises: Planet by DSV and MF 4020, a Canadian variety. Upon every cutting, the varieties feature consistently high dry matter and protein content, good winter hardiness and disease resistance. In Siberian conditions, alfalfa averages 2 to 3 cuttings per year with a cured material yield of 25 tonnes/ha (35% dry matter content).

Cultivation of red clover mixed with timothy and fescue is preferable in sod-podzolic soils and gray forest soils with acidity below PH - 5.5, since alfalfa is unable to tolerate acidic soils. Delets and Oniks red clover varieties of Russian breeding are capable of producing up to 6 tonnes/ha of dry matter with a protein content of 15% - 16%.

Among all perennial grasses, ryegrass is the most valuable one.

Perennial ryegrass variety Veymar (bred by Penza Agricultural Research Institute) combines high winter hardiness with excellent performance when used for pasture and haymaking. Mixed with white (creeping) clover and other components, it produces abundant vegetation rapidly. Besides, it Agriculture and Peat Research), make a great addition to mixtures with purple alfalfa and red clover.

Haylage produced from annual grasses accounts for around 40% of the forage in the feeding ration of Siberian dairies. The leading position is still held by vetch and oats mixture. However, in



is trampling resistant and has an active regrowth habit after grazing.

The high yield and quality of meadow timothy is noteworthy in grass mixtures. In terms of nutritional value, timothy and perennial ryegrass have the highest score - 8 points. Timothy varieties, Lishka (by Euro Grass, Germany) and Narymskaya (Siberian Institute of

Species	NE	Species	NE
Perennial ryegrass	8	Orchard grass	7
Italian ryegrass	8	Ryegrass	7
Hybrid ryegrass	8	Yellow oat	7
Annual ryegrass	8	Reed canarygrass	5
Meadow fescue grass	8	Redtop	7
Red fescue	5	Colonial bentgrass	5
Common meadow grass	8	Soft bromegrass	3
Rough bluegrass	7	Smooth bromegrass	<u>5</u>
Annual meadow grass	5	Upright brome	6
Timothy	8	Creeping quackgrass	5
		Meadow foxtail	7

terms of nutritional value, the best performance is demonstrated by the mixture of Common annual ryegrass and Rusti annual (Persian) clover. If sown in spring at a seeding rate of 25 kg/ha (ryegrass) and 10 kg/ha (Persian clover), the mixture is ready for the first cutting in just eight weeks. Siberian conditions allow two cuttings of the mixture. Ryegrass ensures a high level of sugar (up to 150 g/kg dry matter), whereas clover provides a high protein content.

The correct choice of annual and perennial forage crops in the mixtures and strict compliance with forage production technology are instrumental in receiving high-quality forage and, consequently, profitable milk production.

> By Willi DREWS, Doctor of Agronomy, Advisor of EkoNiva



Intellectual property is one of the most valuable resources of the 21st century, and Zashchitnoye LLC is fully aware of it. Hence the company is intensively evolving its own plant breeding programme aimed at the development of new soft winter wheat varieties resistant to unfavourable biotic and abiotic environmental factors and delivering consistently high yield and excellent grain quality.

Results

The breeding programme has yielded results already. The first varieties of soft winter wheat have been created and submitted for state variety testing:

— Variety 3B-77 (Erythrospermum 77) of an intensive type, flexible in terms of growing on different predecessors and at various soil fertility levels. In 2015, the variety was submitted for state variety testing.

— Variety Alioth (Lutescens 1009), versatile and undemanding in terms of growing conditions. It is suitable for cultivation on a wide range of preceding crops (best: clean and green fallow, perennial grasses and maize for silage) employing either extensive or intensive farming practices;

— Variety Sheratan (Erythrospermum 1377), versatile, suitable for growing on any predecessor (best: clean and green fallow, perennial grasses and maize for silage) employing either extensive or intensive farming practices;

 Variety Cephey (Erythrospermum 1406) of an intensive type, flexible in terms of growing on different predecessors and at various soil fertility levels.

In 2016, the farm commenced production of hybrid maize in mechanically controlled pollination conditions.

'A hybridisation plot of 1.5 ha with a 2:4 layout was sown with parental forms', says Andrey Zvyagin, Head of Variety Testing and Primary Seed Breeding Department of Zashchitnoye. 'The result was F1 seeds of Grizzly, a tetraploid hybrid.'

In 2017, it is expected to considerably



increase the F1 hybrid plot area and get three F1 hybrids.

'The Grizzly hybrid has been officially listed in the State Register for Central and Black Soil regions to be harvested for grain and silage and for Nizhnevolzhskiy region to be harvested for silage', says Andrey Zvyagin. 'The originator is Delley Seeds and Plants, Switzerland. The hybrid is mid-early, with FAO 210 for grain and FAO 190 for silage. For grain, the maximum yield amounted to 14 tonnes in Kursk oblast, and for silage — 48 tonnes in Lipetsk oblast.

Plans

The work will enable us to produce high-quality seeds of early generations and to sell the rights to their multiplication to other seed growing enterprises.

'We intend making intellectual property the principal source of our income within upcoming 15 to 20 years', says Yuriy Vasyukov, Executive Director of Zashchitnoye. 'In just 5 years, the revenue from the sale of science-intensive products can reach 150 million rubles.'



Successful dairy farming and animal well-being require an efficient herd management system. EkoNiva's dairies employ cutting-edge herd management software, DairyPlan and DairyComp 305, in order to maximise the efficiency of their working processes. The software systems receive information from RFID devices located inside ear tags or necklaces.

'Ear tags have a number of advantages as compared to necklaces', asserts Konstantin Kapiturov, Herd Management Software Specialist of EkoNiva-APK Holding. 'The information from transponders located in the necklaces can be read only by the stationary gates at the milking parlour. All other information has to be taken down on paper and typed into the computer. Unlike necklaces, ear tags make it possible to work with the herd management software right in the barns. The herd manager just has to place the tag reader in front of the animal's ear tag, and all the information on the cow or the calf will be displayed on the portable computer screen. The data from the portable computer is transferred to the central data base via USB on a daily basis.'

Each ear tag has a unique 15-digit code, which cannot be erased or reprogrammed.

'Nevertheless, the necklace-type transponders store more information than ear tags', says Konstantin Kapiturov. 'It includes the data on the activity of the animal, which is very important. If the cow has been moving more than usual, we can suppose that it is in heat and it is time to breed it. In this case, we should send the breeder to inseminate this cow. Ear tags do not provide this type of information. However, they have a clear advantage



Electronic piercing of the dairy herd

Ear tags to replace necklaces at EkoNiva's dairies.

in terms of data flow promptness: ear tags allow herd managers to receive the necessary information immediately, avoiding the mistakes, which can happen in case of manual introduction of data from the paper. Besides, ear tags are less expensive.'

Another advantage is that ear tags can be used only once: one tag for one animal, while necklaces can be reused, which might lead to data confusion; besides, they can simply get lost. We discussed the advantages and features of the new technology with Sergey Usikov, Chief Veterinarian of EkoNivaAgro-Vostochnoye:

'We scan fresh cows every day for two weeks after calving: from day 1 to day 14. The breeders scan their groups four times a week when they give hormone injections, perform preg checks or breed cows.'



Ear tags were first implemented by EkoNivaAgro at Kolybelka dairy in January 2015. In December, the new technology was already applied at Verkhny Ikorets dairy and a bit later at Vysokoye and Bushovka dairies. Each of the dairies is equipped with three ear tag reader kits, which include Agrident



readers, MobileBase DS5 devices and a mobile DairyComp 305 app. The equipment is shared by vets, breeders and herd managers.

'We tag only heifers on the day of their birth. Bulls do not get ear tags', comments Natalia Nikolayeva, Cattle Record Keeper at Verkhny Ikorets dairy. 'It is a sort of piercing: the calf's ear has two sinews, the tag is installed right netween them. Like a big ear-ring, it is placed far from the edge of the ear. It is lighter than a necklace so it does not disturb the calf and it does not catch on different objects when the calf is moving. The tag is attached to the left ear since the stationary reader on the rotary is located to the left of the cow. A similar reader is installed in the sort gate through which cows pass after the milking."

Konstantin Kapiturov shared that the decision on switching over to ear tags had not been made yet but in future, EkoNiva is considering a possibility of using ear tags at all dairies.

By Oleg PANOV



Siberian fun

The employees of Sibirskaya Niva delivered a distinguished performance at Winter Fun Youth Festival held for the enterprises of Maslyanino district, Novosibirsk oblast.

The Siberians proved once again that they did not fear severe frost. Guys took part in a race towing girls on tubes. The maze contest demonstrated that young Siberians are hard to intimidate by enormous two-metre snowdrifts. Some participants found out that traditional Russian felt boots keep you warm, especially when you compete in throwing an extra pair as far as possible. And traditionally, no one could miss a great snowball fight.

John Deere - king of the hil

Sibirskoye Zerno farming operation (Tomsk oblast) prepared a surprise for both the local children and EkoNivaSibir, John Deere dealer. Employees of the farm made a sledding hill in the shape of a John Deere tractor.

'The children of our employees as well as boys and girls from the village come to have a ride and meanwhile get an understanding of how a farming operation works', shares Ilya Ivanov, Agronomist of Sibirskoye Zerno. 'Previously, a local John Deere "fan club" had already put up a wooden tractor painted in the company colours.'

'People usually put an old tractor on the pedestal as a tribute to the John Deere brand. We decided to do something different', says Ilya Ivanov. 'We have chosen this shape of the sledding hill for a reason: we are sure that John Deere is one of the best brands ever.'



Come on, let's ski!



School #3 of Maslyanino village, Novosibirsk oblast has unveiled a new hockey rink.

The longed for present for the schoolchildren was made by EkoNiva. Sergey Lyakhov, Regional Director for Siberian Region, EkoNiva-APK Holding, commented that this was a tribute to an old tradition, therefore, the builders had put their souls into the project along with their efforts.

Vyacheslav Yarmanov, Head of Maslyanino district, added that initiatives like that enhanced the popularity of hockey and instilled the love of the native village and the Siberian winter in children.

After the opening ceremony, the young hockey players of Maslyanino and Cherepanovo districts held a friendly match on the new rink.

Some people in EkoNiva prefer skiing! Stefan Duerr, EkoNiva's President, sets the pace in Shchuchye village, Voronezh oblast. Employees of Zashchitnoye manage to ski around the fields of the farm during the lunch break. And EkoNiva-Media spends a sporting weekend on a ski-track at the city park of Kursk. By Tatiana SIMONENKOVA







The Academy of **Dairy Sciences plant** has launched a new lineup of sugar-free yoghurts.

Energy boost from natural milk

pecially for health-conscious people pursuing an active lifestyle, a new sugar-free yoghurt Fitness Line has been designed. The natural fruit sweetness ensures the subtle taste of these products.

'As you know, sugar, especially in big amounts, brings in not only sweet taste, but also some health problems', notes Andrey Pronin, Director of Academy of Dairy Sciences Plant. 'The Fitness Line has been developed specially for people who strive to minimise sugar consumption in their diet. The good balance of protein and carbohydrates in these yoghurts boosts physiological

functions and improves metabolism, which makes the yoghurts both delicious and healthy.

Consumers have already formed an opinion of the new product range.

'I have been buying the new Fitness Line peach yoghurt for the past three weeks', shares Vera Dolmatova, a housewife. 'I love its natural flavour. There is no excessive sweetness, which usually overwhelms the flavour of natural components. Besides, after one week of regular consumption of this yoghurt I even started feeling more vivacious.'

The Fitness Line fruit yoghurt contains normalised cow milk supplied by

EkoNiva's dairy farms, yoghurt starter and natural fruit. The four types of yoghurt have pieces of cherries, peaches, strawberries, blueberries and raspberries. One hundred grammes of the new product contains 2.5 g of fat, 2.8 g of protein and 9.6 g of carbohydrates. The fruit-free 'Traditional' yoghurt contains normalised milk and yoghurt starter only. One hundred grammes of the product contains 2.5 g of fat, 3.2 g of protein and 4.7 g of carbohydrates.

Every week, three tonnes of sugar-free natural yoghurt come off the Academy of Dairy Sciences' processing line. Have you tried them yet?

By Oleg PANOV

MOOdia award

The leading journalists of the Central Black Soil Region enjoyed the products from the Academy of Dairy Sciences.

koNiva treated journalists from the Central Black Soil Region to its products at the traditional Media Ball organised by Abireg Information Agency in Voronezh. The event gathered approximately three hundred journalists, PR and media specialists and bloggers of Voronezh, Belgorod, Kursk and Lipetsk oblasts.

The award ceremony was preceded by a versatile programme including blogging and social networking master classes and panel discussions for journalists and PR specialists

Specially for the participants of the event, EkoNiva presented the Academy of Dairy Sciences products: milk, kefir, curds, sour cream and yoghurts made from natural milk produced on EkoNiva's own farms. The journalists enjoyed the dairy products very much. As creative people, they started making suggestions on promotion of the

'Academic Milk' in the market.

In its turn, the Academy of Dairy Sciences arranged a competition among the journalists. The task was to come up with a media-related name for a cow. Journalists as unconventionally thinking people with a rich imagination suggested a number of

creative names. The most interesting and symbolic of them was MOOdia. The author of the name received the first prize.

Besides awards and diplomas granted by the organisers, 24 winners of the Journalist Contest received gifts from EkoNiva: baskets with dairy products of the Academy of Dairy Sciences so that the 'Academic Milk' could inspire the representatives of 'the fourth branch of power' to create new articles and reports.

By Oleg PANOV



Announcements

26 February – 8 March SIMA 2017 International Agribusiness Show Venue: Paris, France Organiser: Comexposium

28 February – 3 March Dairy and Beef Industry 2017 Venue: Booth B 309, Hall 2, Crocus Expo, Moscow Organiser: ITE Group

February – March Workshops on Farming Technologies Venue: Service centres of EkoNivaSibir Organiser: EkoNivaSibir

21-24 March Visit to JCB factory in the UK Venue: Rocester County, United Kingdom Organiser: EkoNivaTekhnika-Holding, JCB



To download the electronic version of the journal scan the QR code



21-24 March

EkoNiva-Tekhnika invites you to take an instructive trip to JCB factory manufacturing telehandlers, UK.



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The journal «ЭкоНива-Вести/EkoNiva-News» is registered by the Federal Service for Supervision in the Sphere of Communication and Mass Communications. Registered Certificate for Mass Media ПИ№ ФС77-34820 of 23 December 2008.

Signed for printing According to the schedule: 15.03.2017 at 11 am, In fact: 15.03.2017 at 11 am. Issue date: 22.03.2017 Translated by the International Projects Department of EkoNiva-APK Holding, LLC

Printed by VIP Publishing House LLC, 51st Mokovsky lane, 305007, Kursk The circulation of the issue: 720 copies. Order N° Distributed free of charge