AGRO ЦЕНТР News

№ 7 February 2012

The corporate journal of the AgroCentre Company

PROSPECTS

AgroCentre meets the demands of today's market

Last year, the AgroCentre Company developed rapidly, expanding its network of divisions. Three new maintenance centres were simultaneously opened in the Voronezh, Belgorod and Tyumen oblasts. The company has become an official dealer of AGCO Corporation, supplying Challenger self-propelled tilling and seeding machines. AgroCentre participated for the first time in the Agritechnica exhibition in Germany. This year, the company intends to go ahead just as steadily.

Today, the AgroCentre Company supplies agricultural equipment to 16 regions of Russia. They are the Kursk, Belgorod, Oryol, Tambov, Lipetsk, Bryansk, Moscow, Vladimir, Yaroslavl, Kostroma, Ivanovo, Smolensk, Tver, Tyumen, Kurgan and Chelyabinsk oblasts, plus the Republic of Mari El. It also plans to include a new oblast - Penza. In the future, it intends to purchase bases in the Moscow and Lipetsk oblasts. AgroCentre provides high quality servicing of the equipment it sells. This year, the company will open new high-tech servicing centres in Oryol, Tambov, Yaroslavl and Chelyabinsk. AgroCentre also plans to expand the range of its customers. This year it will start supplying KOLNAG potato growing equipment.

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FACTS FROM AROUND THE WORLD

Challenger sets a world record of 644 hectares in 24 hours

In Romania, the Challenger MT 875 (570 hp) tracked tractor fitted with a 14 metre disc harrow set a world record. In 24 hours it tilled 644 hectares, the equivalent of 780 football pitches. The average productivity of the tractor was 26.8 hectares per hour. It needed only two minutes to treat one «football pitch». The fuel consumption was 4.42 l/ha. The MT 875 proved it can operate from early spring till late autumn. Being the most powerful of tractors, in a season it can till the soil and prepare seeding on an area of more than 10,000 hectares.

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AgroCentre meets the demands of today's market

"For over a decade, AgroCentre has been quickly growing and steadily improving its work, supplying Russian farmers with modern technologies and innovative decisions that facilitate efficient farming", says Nikolay Ivanishchev, director general of AgroCentre-Holding LLC. "By building up our capabilities, we fill the needs of the current market. Today farmers choose the companies that they are comfortable to work with. They receive comprehensive solutions from a single source, i.e. modern machines, professional services, spare parts and business advice. We do our best to meet those requirements and change our work pattern with partners by opening maintenance centres and expanding the range of equipment we supply for all types of farming jobs.

Incidentally, at the moment AgroCentre is especially interested in attracting new personnel. It invites specialists in sales farming equipment and maintenance engineers.

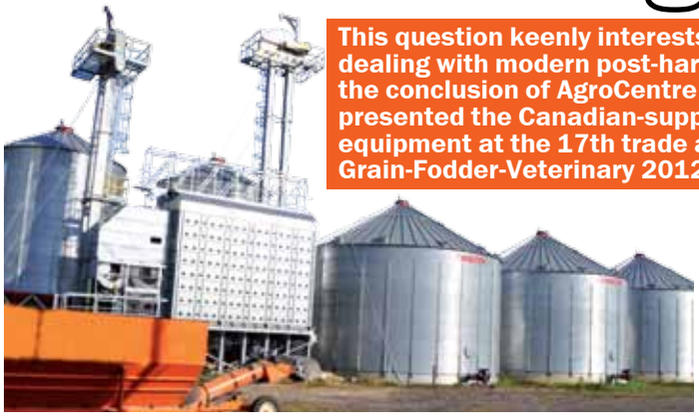
For its part, the company offers a stable salary, suitable working conditions, career growth, regular training sessions and refresher courses at the premises of equipment manufacturers abroad".

The suppliers of AgroCentre are also doing fine. This year, a Challenger farm equipment manufacturing facility was established in the Moscow oblast. This year AgroCentre will supply farmers with the first lot of 685D wheeled tractors assembled in Russia. Now the famous Monopill and Optima beetroot seeders, DG, Airseeder and Cultibar seeding systems, PN/RN ploughs, series 4300 Taarup mowers, Explorer sprayers and Exacta distributors will be assembled in Lipetsk. This year, the Vaderstad plant in the Voronezh oblast will start to assemble Seed Hawk wide grip seeders.

By Anna BORDUNOVA

EVENTS

How much does grain storage cost?



This question keenly interests many, especially those dealing with modern post-harvest equipment. Such is the conclusion of AgroCentre company specialists who presented the Canadian-supplied Twister post-harvest equipment at the 17th trade and industry exhibition Grain-Fodder-Veterinary 2012.

"Our exhibition stand was attended not only by representatives of large crop growing companies, but also by those of stock breeding enterprises", says Mikhail Zelenin, a specialist of the department of modern grain technologies of AgroCentreLiski LLC. "The interest in new highly productive elevators is determined by the natural desire not to depend on fodder suppliers either financially or in terms of fodder quality. As our customers point out, users of Twister succeed in cutting down the cost of grain storage in their elevators by 8 to 10 times".

The demand for the post-harvest processing equipment is supported by the state, which is seeking to build up the country's grain producing capability. Subsidised lending has increased the range of farmers who are able to acquire this equipment since modern post-harvest equipment is rather costly.

The specialists of AgroCentre noted that thrifty farming businessmen know perfectly well the cost of grain storage and do their best to reduce spending. That is why the Twister system is just what they want. Thus, the cost of storing 1 tonne of grain in 1,000-tonne silos is 200 rubles per year. Such amenities as fast installation, unhampered transportation, expandability, plus a "smart" ventilation and temperature control system that ensures the optimum grain moisture are an extra advantage.

By Yulia SALKOVA

IN BRIEF

On 11 February 2012, the Liskinsky district, Voronezh Oblast, held a final game of the mini-football championship. The AgroCentre team won third place among 13 participants. We congratulate the players and fans on the bronze victory!

"The idea to put together a team and participate in the championship emerged by itself", says Sergey Lomantsov, executive director of AgroCentreLiski LLC. "We just felt an urge to live a healthy life and simultaneously support football in Liski. As it happened, our team has lived up to our expectations, though this was its first attempt. We hope it's a beginning on the way to greater successes!"

Stimulus

for new engineering designs

Specialists of the Swedish concern Vaderstad, one of the leaders in seeding and tilling machines, believe that the chief «stimulus» for their engineering designs is constant dialogue with farmers.

At the seminar "Vaderstad machines: new models and capabilities" held at the AgroCentreLiski servicing centre, company managers familiarised themselves with improved models of the popular seeding systems Rapid and Seed Hawk.

"The new products demonstrated at the seminar are designed to fill the needs of Russian famers", said Philip Westman, import manager of Vaderstad. "We disagree with the Russian saying 'The best is often the enemy of the good'. That is why we have made still better machines based on Russian expertise. Rapid combined seeders are now fitted with a feeding screw conveyor with an output of 50 km/hour".

"Having no screw conveyor, the farms used to set records of inefficiency when the feeding time was 15 minutes and more", says Andrey Kharin, sales manager of AgroCentreLiski LLC. "Some used dedicated feeders, others fed manually, while still others adapted inefficient domestic screw conveyors for this purpose. Today feeding the Rapid's 6 tonne bin takes less than 8 minutes".

The Seed Hawk seeding system, the leader in no till-technology, has undergone changes. Its fertiliser introduction coulter was altered. The new design enables the coulter to cut a layer of straw, making place for the seed bed, not gathering it like a rake. Double-sided chisels are fitted on the Top Down multiple-purpose cultivator, which not only extends its service life, but also saves time on their installation.

Philipp Westman also spoke about the "novelty" of the 2013 season, a new Tempo seeder for row crops. It was first presented at the Agritechnica 2011 exhibition. This spring, it will undergo tests on the fields of AgroCentre customers in the Black Earth Region. The special feature of Tempo is its embedding technique, in which a seed is "shot" at a very high speed under high pressure from the seed duct. This method minimises vibration impact and maintains seeding accuracy despite the irregular terrain and high speed of movement of up to 20 km/h.

By Yulia SALKOVA

● **This year, the Swedish concern Vaderstad will expand its Russian-made product line. The facility in Sredny Ikorets village (Liskinsky district, Voronezh oblast) launched the assembly of mechanical Rapid seeders for grains and combined crops with an operating width of 3 and 4 m and Carrier stubble cultivators.**

Learning to plough

On the eve of the season, the Kursk branch of AgroCentre held a training session for company specialists on Challenger seeding and tilling equipment. A special guest of the event was Denis Pronin, product manager of AGCO.

AgroCentre sales specialists familiarised themselves with the wide range of Sunflower tilling tools like disc harrows, chisel ploughs, deep diggers and cultivators. The latest trend on the market is vertical (surface) tillage. This applies in the first place to harrows with a small disk diameter, not exceeding 460 mm.

According to Denis Pronin, today classical European harrows account for 20% of the Sunflower plant's product range, which attests to high demand for these tools. Worth a special note are harrow disks made from extra-strong and flexible steel, capable of withstanding heavy loads. In the biggest harrow, model 1444-1544, the load on one disc with a diameter of 610-660 mm, reaches 100 kg.

AGCO revolutionized the market, coming up with its multi-role tool 7600 featuring a Strip-Till system. This makes it possible to perform several operations (ploughing, cultivation, harrowing and compacting) in a single pass.

The focus was on the Challenger seeding equipment represented by a new Challenger CH9800 pneumatic seeding system with an operating width of 9 to 15 metres. This allows operating in three modes, i.e. no-tilling, minimal and traditional. The seeder maintains a regular depth of embedding and can be used on the driest of soils.

By Yekaterina GALUSHKINA

A weekend in America

AgroCentre has organised for its customers a trip to the AGCO plant, a manufacturer of Challenger farming equipment, in Jackson, Minnesota, USA. Russian farmers watched the assembly of the famous Challenger tracked and wheeled tractors, as well as Spra-Coupe, RoGator and Tetra-Gator sprayers. During the stay, the farmers attended the National Farm Machinery show where, in the AGCO section, they familiarised themselves with the Challenger WR self-propelled mower.

At the National Farm Machinery show, Louisville, Kentucky

"Funk Farms", a bull-calf fattening facility near Bloomington, Illinois

A group of AgroCentre customers, Bloomington, Illinois

By Anna BORDUNOVA

OUR CUSTOMERS

A beacon in the sea of farming produce

Lasting relations with customers are unthinkable without involvement in their production activities. We often learn from them, just as they learn from us. The AgroCentre News has established a new tradition of talking about those whom we work with.

Dmitry Tashlanov

Last year, an AgroCentre dealer centre was opened in the Tyumen oblast. Among the company's partners are "old-timers" of the region's farming industry. One such enterprise is the Agrokompleks Mayak CJSC.

There is a true saying that as a ship is named, so shall it sail. The adage fully applies to this agricultural enterprise bearing the name of Mayak, the Russian for "beacon". In the 20 odd years of its work, the company has become a guiding landmark, if not a beacon, for many organisations operating in the vast and unpredictable sea of farming business.

In 1991, Vladimir Tashlanov, the chief engineer of a kolkhoz, created the Mayak enterprise, which specialises in the construction of processing facilities for agricultural products. Shortly afterwards, they received the first large order, for construction of a meat processing complex. Every effort was made to do the job faultlessly and on time. Since then, this has become the company's guiding principle.

In the hard 1990s, Mayak learned how to survive under the new economic conditions. Practically all resources were invested in setting up its own base to process agricultural produce sold via the retail sales network. In 1995, Mayak assumed control of one loss-making kolkhoz. First off, it cleared the kolkhoz's debts, then eliminated the unproductive herd of sick bovine animals, acquired pedigree bull-calves, reduced the mortality of young animals and duly organised field husbandry. After that, it picked up several more kolkhozes and repaired the cattle-breeding farm. The first to be erected was a modern dairy production mill. Then highly productive Holstein-Friezes bovine cattle was imported. So, rather quickly, a small construction firm grew into a major agricultural complex.

Today, the Agrokompleks Mayak is a large dairy producer in the region, supplying each day more than 40 tonnes of milk. Its production and food processing facilities also have developed rapidly. Semi-finished meat products are in high demand with the local populace. Simultaneously, the company is making marked progress in crop production. Today, on an area of more than 20,000 hectares, it grows grains and beans. Less than a year ago, on the premises of one division, the Kolos farming firm, it built a cereal production plant. Soon, a new brand, Zlakovka, will appear on supermarket shelves.

"In the future we plan to fully master, improve and increase whatever technologies we now use", says Dmitry Tashlanov, first deputy head of the company. "We shall diversify the crops and build up the cattle herd. All this necessitates an increase of technological capabilities and machine inventory. Last year, we familiarised ourselves with the AgroCentre Company. Practically in the midst of the forage production season the Challenger self-propelled mower was supplied to us, and it was a huge help. We hope that our cooperation with AgroCentre will continue without fail".

Aleksey Yurtayev, *head of the AgroCentre LLC dealer centre in Tyumen:*

"The Agrokompleks Mayak enjoys indisputable authority not only in the farming industry, but also in all walks of life in the region. Its special forte is the permanent desire to move ahead, to develop new capabilities in farming and agricultural engineering, as well as in corporate and personnel management".

By Yulia SALKOVA

OUR SUPPLIERS

European equipment with a Russian name

AgroCentre represents one more supplier, the Russian company Kolnag. This is a manufacturer of agricultural equipment for growing potatoes and other vegetables, as well as for stock breeding.

The Kolnag Company is known in Russia as a manufacturer of modern equipment for global brands like AVR, Miedema, Trioliet, Celli, and Simon. Having started with assembly of knock-down components for three types of equipment, within 15 years the company has established its own production of 14 types of agricultural machines. The manufacturing facilities are based in Kolomna town near Moscow. The facilities have introduced a complete production cycle, from metal treatment to release of end products from the conveyer line. State-of-the-art high-tech manufacturing equipment, the employment of foreign knowhow and proprietary developments, plus rigorous quality control at all stages of manufacture, make it possible to manufacture European quality products.

"The Kolnag machines successfully operate at many Russian farms, helping farmers gather a high harvest at low cost", says Vasily Prokofyev, Kolnag Company's sales manager. "These machines enable us to grow potatoes and vegetables on different soils. They are easily adaptable both to the Western and traditional Russian technologies."

AgroCentre specialists have familiarised the leading agrarians of Moscow, Voronezh, Orel, and Bryansk oblasts with this brand of potato growing equipment. Looking forward to seeding, the farmers are particularly interested in the Miedema CP 42 P potato planter and CELLI Ranger vertical milling rotocultivator for soil tillage.

"In a single pass, the Miedema CP 42 P potato planter prepares the soil, sets the plants and makes potato drills," says Sergey Dorofeyev, sales manager of the Kursk branch of the AgroCentreLiski LLC. "The unique design of the planting device assures high operating speed and accurate planting.

The CELLI Ranger milling cultivator performs four operations at a time: loosening, mixing, levelling and compacting of soil. The machine is used for continuous pre-seeding soil treatment at a depth of up to 30 cm.

AgroCentre will supply the farmers with a complete range of Kolnag potato growing equipment, including cultivators, planters, haulm crushers and combine harvesters".

By Anna BORDUNOVA

AGROCENTRE RECOMMENDS

Stock for later

When AgroCentre began supplying imported agricultural machines and equipment, it initially focused on prompt servicing and providing original spare parts and expendable materials. Ten years of work in this area shows that only original components can maintain those capabilities of the machines which were originally conceived by the designers and initially created by the manufacturers.

Today AgroCentre offers Russian farmers a wide range of original spare parts for agricultural equipment of global brands like Vaderstad, JCB, Kverneland Group, Strautmann, Schulte, Degelman, Einbock, AGI, GEA Farm Technologies and MX. It also supplies LIQUI MOLY oils and Michelin tyres. Each regional maintenance centre has its own warehouse fully stocked with the required original spare parts and expendable materials. The service rooms are fitted with state-of-the-art equipment, including modern software for organising stock control, addressed storage systems and dedicated loading/unloading machines which make possible prompt acceptance and shipment of any quantity of spare parts. The list of materials on offer contains over 30,000 items, of which 10,000 are available at all times. The stocks are replenished daily. If some component is missing, the specialists can help find a substitute or will execute an order within 48 hours. During field work, the spare parts department works without days off, thus eliminating the down-time of equipment.

The spare parts department of AgroCentre employs over 40 skilled specialists who are always willing to consult on any relevant issue and recommend an optimum list of spare parts for servicing and maintenance of equipment.

At AgroCentre, farmers can choose high quality original spare parts, lubricants and tyres on advantageous terms. The company regularly makes special proposals, arranges reduced price sales and offers between-seasons and progressive discounts.

"Our chief principle is to always have the goods in stock and to execute orders as soon as possible", says Sergey Tikhomirov, head of the spare parts department of the AgroCentre-Holding LLC. "Last year, we became dealers of Challenger equipment. Today, in order to meet the demands of our customers, we are creating and outfitting Russia's largest high-tech storehouse of spare parts expressly for this brand of equipment".

The original spare parts mean:

- **rigorous high quality control**
- **use of only tested materials for manufacture, employment of the latest manufacturing technologies, creation of superior operating capabilities which considerably improve the product usability**
- **ideal compatibility with equipment**
- **assured quality throughout the entire service life**

By Anna BORDUNOVA

Precise distribution for accurate seeding

When choosing seeding equipment, farmers increasingly tend to set their sights on multi-role machines that can do several jobs at a time, employ different technologies and are not costly to acquire and maintain. AgroCentre advises both large and small farms to turn their attention to the Sunflower 9530-40 grain seeder.

The Sunflower 9530-40 grain seeder with an operating width of 12.2 m is designed for seeding fine seed crops and grasses. It operates using traditional, minimal and no-till technologies, thus ensuring precise seeding. The pride of the system is its two-disc Heads-up coulters. A parallelogrammic fastening arrangement rigorously controls the seeding depth and accurate penetration of seeds into the furrow. As a result, the sprouts come up even and in mass.

"Another forte is the unique design of the bin, with a capacity of 3,383 litres. This is divided into sections for seeds and mineral fertilisers", relates Nikolay Bashkirov, head of the AgroCentreZakharovo equipment ordering department. "Such a dual use system enables the operator to introduce fertilisers and seeds or to use the bin exclusively for seed introduction".

The press-wheel coverers with a hinge joint ensure a close contact with the soil. Three sections, arranged in staggered order, fold forward, thereby ensuring excellent terrain hugging and easy transportation of the entire system. The seeder is additionally fitted with sensors that compute the amount of work done. The surveillance ports at the bin filling level plus a safe platform with steps for the operator are a welcome addition to the seeder design, making the entire system user-friendly.

Specifications

Model	9530-30	9530-40
Technology	Minimal	Minimal
Operating width, m	9.14	12.2
Transportation width, m	4.24	4.24
Number of coulters, units	48	64
Inter-row spacing, cm	19	19
Fertiliser introduction	+	+
Bin capacity, l	4,050	5,475
Seeding system	Mechanical	Mechanical
Transmission drive	Chain	Chain
Frame type	Folding	
Coulter on-soil pressure, kg	up to 134	up to 134
Seeder weight, kg	7,470	9,820
Minimally required tractor power, hp	260	300

By Anna BORDUNOVA

Production of crops goes hand in hand with the struggle for their health. Protection of plants is an important step towards obtaining a high quality harvest. One of the means of disease prevention is spraying. However, before spraying, farmers face a question – which machines to choose? For simple and efficient plant treatment, the AgroCentre Company recommends the Challenger Spra-Coupe and Rogator 1194 self-propelled sprayers.

Machines that have proved their worth

Self-propelled Challenger sprayers emerged on the farm equipment market in 2002 and quickly became popular due to such unique capabilities as reduced fuel consumption, savings on pesticides, reduced operating time and superior efficiency. The sprayers underwent their first trials on the fields of Europe. In 2003, in France, a Spra-Coupe sprayer set the world record, treating 100 hectares in 1 hour and 12 minutes. In doing so, it introduced operating fluid at a rate of 16 litres per hectare. The first Spra-Coupe sprayers appeared in Russia in 2004. In seven months of work on a farm in the Voronezh oblast, Spra-Coupe machines treated 18,700 hectares. At the time, with a cost of 4,150,000 rubles, one machine paid back 2,674,000 rubles in a year. Within a year and a half the sprayer fully repaid itself.

A fast flying machine

Specialists of AgroCentre have high esteem for the Challenger Spra-Coupe series 4000 and 7000 self-propelled sprayers in light of their wide "wingspan", smooth movement and high speed. Unlike trailed machines whose speed reaches is 12-15 km/h, Spra-Coupe operates at a speed of 20-30 km/h, controlling each drop of the chemical weed- and pest killer.

"During high speed treatment, the drops of operating liquid fall onto the plant at a certain angle", explains Aleksandr Usov, senior sales manager of AgroCentreKursk LLC. "As a result, most of the chemical, around 72 drops per square centimetre, remains on the plant, whereas a lesser amount will be on the soil surface. This procedure ensures high quality treatment. Under such circumstances, the consumption of operating liquid varies from 30 to 35 litres per hectare".

The specialty of Spra-Coupe is the reliable sprayer control system fitted with a Raven 460 controller for series 4000 and Raven 500 for series 7000. This controls the chemical introduction dosage, spraying pressure and area, as well as the machine's operating speed.

According to Aleksandr Usov, these machines are remarkably steady on the move. Contributing to the Spra-Coupe sprayers' manoeuvrability and stability during movement is an independent suspension of the front and rear axles, plus a C-shaped flexible frame (brand name Flex).

The sprayer's hydraulically-driven pump output is 250 l/min (for series 4000) and 322 l/min (for series 7000). In non-stop mode, the pump ensures the required flow of the chemical's operating solution. Thanks to the powerful Caterpillar engine (from 125 to 174 hp, depending on the model), 24 to 27 metre wide steel rods and a tank with a capacity from 1,575 to 2,750 litres, the Spra-Coupe sprayers are "strong" enough for work on various fields. Due to its low equipment weight, the sprayer exerts minimal pressure on the soil.

Model	Power (hp)	Rod width (m)	Fluid tank (l)	Clearance, cm (option)
Spra-Coupe 4460	122	18/24	1,575	96.5
Spra-Coupe 4660	122	18/24	1,575	122 (141)
Spra-Coupe 7460	174	24/27	2,750	122
Spra-Coupe 7660	174	24/27	2,750	107

A higher and «more pronounced» clearance with an automatic gearbox makes it possible to treat uninterruptedly such high crops as maize and sunflower. Also, Spra-Coupe is ideal for work on fields sown with grains, potatoes and sugar beets.

High speed protection

The RoGator 1194 was first presented to Russian farmers in 2011 at the AGCO Machinery field day in Tula Oblast. The farmers found it interesting due to its ability to move at a maximum speed of 50 km/h, treating large sown areas in the process. An improved drive system, combined with pneumatic suspension and a flexible frame, enables the machine to quickly pick up optimum operating speed. RoGator is fitted with a powerful Caterpillar C-7 (275 hp) engine, 4,240 l tank, and 36.5 m wide rod. The latter features the AutoBoom automatic height control unit. This arrangement makes it possible to control the rod balance in operation on uneven fields. A single RoGator 1194 can replace several trailed prototypes, requiring only one operator to control it. Weather permitting, the machine can be used round the clock.

The Agritechnica 2011 exhibition presented a new self-propelled sprayer, RoGator 1396. The model was expressly developed for large farms. Its chief advantage is the capability of using liquid and dry compounds. Right from the cabin, the sprayer wheels are adjusted in seconds for the crop being treated. The new machine is due to appear shortly on the Russian market.

By Anna BORDUNOVA

AGROCENTRE RECOMMENDS

Kverneland equipment. Punctuality is the politeness of kings

The new products of Kverneland have again won over Russian and foreign farmers. At the Agritechnica 2011 exhibition, the company received a silver medal for its GEOspread® fertiliser distribution system. Beginning this year, Exacta CL and HL distributors, fitted with this system, will also be manufactured in Russia.

GEOspread® system for precise fertiliser introduction

The GEOspread® system rules out overlaps and gaps on turning areas of rugged terrain fields. The system itself adjusts the fertiliser introduction depending on the batching rate and speed of the system. This improves the precision, saves fertiliser, protects the environment and cuts spending.

All Exacta distributors feature a unique mineral fertiliser introduction system, CentreFlow. In it, the granules fed to the spreading blades are already rotating. This additional movement of the granules saves them from destruction as they come onto the spreading disc blades, thus maintaining the fertiliser quality.

The Kverneland Accord Exacta product range includes:

Exacta EL – the most compact model fitted with all subsystems of the Exacta distributors. This ensures the even distribution of fertilisers over the width of introduction, up to 21 m.

Exacta CL – in this model, each distributing disc has 8 blades, whose installation and length determine the operating width (from 12 to 28 m) of fertiliser introduction, which assures even distribution and regular introduction. The new product of the season is the CL EW model with a weighing system.

Exacta HL – is a highly efficient distributor with a maximum capacity of 3450 l. A trailed version is also available.

Exacta TL –this distributor is supplied without a terminal. For controlling it, the terminal of the ISOBUS 11783 tractor is used. The TL cone-shaped bin is isolated from the main frame by four 4x5 t weight supports, the use of which ensures the permanent control of the actual weight in the bin.

Demand for the Optima Kverneland pinpoint seeder is growing due to its high accuracy and simple operability.

OPTIMUM seeding

Designed for traditional and mulch seeding, this is used for seeding maize, sugar beetroots, sunflowers, beans and soya. It can be combined with both imported and domestic tractors.

The supplied machine features an operating width of 3 to 9 metres, a minimum between-rows space of 35 to 90 cm and a variety of additional appliances. The seeding module thoroughly embeds the seeds, which ensures their prompt sprouting. Double-disc coulters, in association with a wedge share, cut a V-shaped furrow well. With the ISO terminal available, the seeder can be fitted with an electric drive for seeding units; the drive flexibly adjusts the space between seeds or even deactivates some rows by using the ISOMatch Tellus terminal in the tractor cabin.

At a speed of 10-15 km/h, the seeder assures accurate seeding. Further increase of speed will impair the seeding quality.

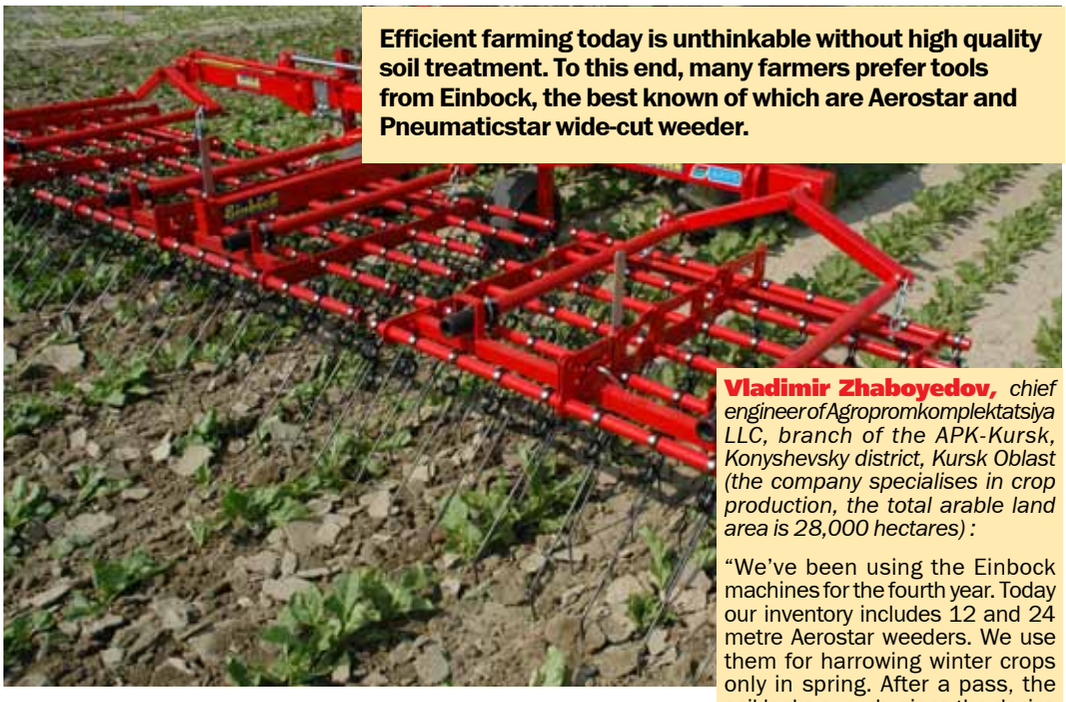
In 2013, Kverneland will start series production of Optima seeders with an operating width of 12 m. The new model will feature fully integrated fertiliser introduction equipment, improved high-tech frame, and lower fuel consumption due to lower draft requirement.

Seeding centre, an accurate seed distribution by calibre

By Yekaterina GALUSHKINA

The Einbock weeder means clean seedings and well-cared for fields

Efficient farming today is unthinkable without high quality soil treatment. To this end, many farmers prefer tools from Einbock, the best known of which are Aerostar and Pneumaticstar wide-cut weeder.



Life without weeds

The Aerostar weeder is used to grow grains, maize, beetroots, rapes, potatoes, beans, soya, vegetables and forage crops. The machine creates excellent conditions for seeding: it loosens and levels the soil, crushes the crust and destroys the weeds. Its use eliminates up to 70% of unwanted plants. This improves air exchange, preserves soil moisture and increases the seeding density. The Aerostar can additionally be fitted with grass heating appliances.

- Stable round cross-section framework
- Support wheels for optimum terrain following
- Central lever for adjusting the teeth inclination
- Tooth pitch of 2.5 cm
- Spring-loaded adjusting flaps
- Suitable for all crops

Care and seeding in one

The use of the Pneumaticstar weeder is particularly effective in intense tilling for extra seeding of problem areas with poor sprouting prospects.

Today, along with soil treatment, it is possible to simultaneously seed fine grain crops. The system is a spring-tined harrow on support wheels with a mechanical treatment depth capability.

In addition to complimentary seeding, the combined harrow and pneumatic seeder can be used for other operations, for instance inter-planting in wheat and maize crops. Teeth of special shape with a pitch of 2.5 cm loosen the vegetable layer, thus creating ideal conditions for sprouting. Such an integrated approach has a favourable effect both on the crop and the soil fertility.

- Hydraulic harrow pressure adjustment
- Use of virtually all fine seed types
- Ideal vegetable layer loosening
- Suitable for difficult soils (10 mm teeth available)
- Width during transportation not exceeding 3 m
- Central adjustment of teeth inclination in the section

Vladimir Zhaboyedov, *chief engineer of Agropromkomplektatsiya LLC, branch of the APK-Kursk, Konyshevsky district, Kursk Oblast (the company specialises in crop production, the total arable land area is 28,000 hectares):*

"We've been using the Einbock machines for the fourth year. Today our inventory includes 12 and 24 metre Aerostar weeders. We use them for harrowing winter crops only in spring. After a pass, the soil looks superb, since the device removes the soil crust and dead vegetation residues. Last season, we treated 6,000 hectares. In addition, the machine is easy to transport over the roads since during transportation its width is a mere 3 metres or so. Despite a repair every other year and replacement of a spring-loaded tooth, the weeders fully pay for themselves due to their high efficiency. Given this year's increase of arable land, we've bought another 24 metre weeder from AgroCentre".

Aleksandr Kirichenko, *director-general of Agroholding AST LLC, Usmansky district, Lipetsk Oblast:*

"On our fields, we harrow sunflower crops after introduction of herbicides. At various times, the fields sown with this crop reached 7,000 hectares. Given that we have three 12 m machines, they, on average, treat 1,500 to 2,000 hectares each. The advantage is that the harrow of the Aerostar weeder features a wide grip, which helps to maintain regular depth. Expressly this ability prompted us to buy it. As head of the company, I am pleased with its ruggedness and wear resistance. In two years of operation, it never once broke down, which means no extra spending on remedies for us".

By Yekaterina GALUSHKINA

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