

EVENT

AGCO: pondering the present, looking ahead

For the first time in Russia, AGCO Machinery held an international presentation of its Challenger farming machines. Over 500 guests were invited to the Tula region for the celebrations. Among them were Challenger dealers and key customers, including AgroCentre.



AGCO has been operating actively in Russia since 2006. During this time, a large dealer network has been created, supplying farmers with a complete range of agricultural equipment.

"Russia has huge land reserves which can be used for successful farming," says Aleksandr Belov, Director General of AGCO Machinery in Russia. "As the leading global manufacturer of farming equipment, we must establish ourselves here. Today, ever more farmers are using new technologies and updating their operational inventory. That is why there is a growing need for virtually every one of our products. The AGCO list contains equipment to fill all possible needs. However, we are enlarging our product range and offering new models of agricultural machines."

The Challenger lineup offered to the guests was quite impressive. This included tracked and wheeled tractors, grain combine harvesters, self-propelled sprinklers, seeding systems, fodder preparation equipment and soil treatment units. In all, 40 samples of machinery were presented. The RoGator 1194 sprinkler and the upgraded MT600D wheeled tractor made their debut of the season here.

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INTERESTING

Light does the job



The GEA Farm Technologies Company presents in Russia a new technology for suckling calves by the innovative UVPure system. The latter kills 99% of bacteria in milk, saving essential nutrients for the calves' health. UVPure is a fully automated and convenient system which consumes less power than the conventional pasteurizer.

Kindred souls

As it happens, the Challenger is not just a legendary tractor, but also ... a combat tank. In 1983, the UK launched mass production of Challenger tanks. The King's Royal Hussars of the British Army were the first to receive the combat machines. By 1988 a total of 420 Challenger tanks had been built. They went into service with the British Army.



(Beginning on page 1)

AGCO: pondering the present, looking ahead

"For the first time, farmers were introduced to the improved Challenger MT685D 370 hp tractor built specifically for Russian farmers to meet their wishes and recommendations," says Aleksey Gushchin, Regional Manager of AGCO Machinery LLC. "The changes have increased the machine's efficiency, improved its operational control in the field and enhanced operator comfort."

The new MT685D model is fitted with a reinforced front axle for heavy duty tasks. The 3rd generation Common Rail fuel system includes a new pump, nozzles and a fuel rail which delivers pressure of up to 1800 bar. Changes were also made in the cabin "filling." For the operator's convenience, fitted on the right side are an updated dashboard and an improved control joystick.

The new RoGator 1194 self-propelled sprinkler is equipped with a powerful Caterpillar C-7 (275 hp) engine, 4,240-litre fuel tank, and a 36.5-metre bar fitted with the AutoBoom automatic height adjustment system. This brings into play bar balance control in work on uneven fields.

Combined with a pneumatic suspension and a flexible frame, the improved drive system ensures quick acquisition of the optimal operating speed.

AGCO Machinery is the world's third largest manufacturer and seller of agricultural equipment. The company has 56 representative offices across the world and supplies equipment to more than 140 countries. This year, its turnover is forecast to be US\$ 7 billion.

At the exhibition, AGCO also displayed for the first time its fodder making equipment and pneumatic wide-row seeders.

Over 50 Company specialists from across the world gave consultations to Russian colleagues on each machine, showing it in operation and sharing their expertise and new knowledge. All of the guests could participate in test drives. To the stormy applause of the spectators, the operators of wheeled and tracked tractors

took turns demonstrating the capabilities of the Challenger trailed implements, combine harvesters and sprinklers.

AGCO is making great plans. Work is underway to improve the fodder combine harvester. Next year, an agricultural equipment manufacturing facility is due to be opened in the Moscow region.

"Investments in Russian agricultural production are a guarantee of our enduring long-term relations," notes Aleksandr Belov. "Geographical proximity to the buyer is essential for

strengthening positions on the Russian market. It is really important for the farmers that Russian-assembled equipment will be subsidized."

Aleksandr Belov believes that the progress of AGCO on the Russian market largely depends on its powerful dealer network that spreads from the South to Eastern Siberia.

"We supply Challenger equipment to farmers operating in eleven regions of Russia," says Nikolay Ivanishchev, AgroCentre Holding LLC Director General. "Having our own maintenance centres enable us to promptly service agricultural machines and to supply our customers with spare parts in a timely manner."

Summing up the Field Day, Nikolay Ivanishchev pointed out that AGCO has given farmers a unique opportunity to learn about



Aleksandr Belov,
Director General of AGCO Machinery in Russia

the entire Challenger product range. The farmers assured themselves in practice that the machines fully meet the demands of the day, enhance efficiency and minimize spending.

By Anna BORDUNOVA

AgroCentre



struck root in Traktograd

AgroCentre has established a new dealer centre in Traktograd, Tyumen Region.

Located in the village of Vinzili, Traktograd is well known to the region's farmers. They buy here not only machines and spare parts, but also get advice on advanced technologies and servicing of every complexity. The creation of such a town of technical servicing and dealer

services is one of the government's ideas materialized in the field of technological re-equipment of the region's farms. Traktograd unites four major dealer centres. One of them is AgroCentre. Today, the entire product range of

farming machines supplied by the Company is closer and more easily available to Siberian farmers.

"The dealer centre in Western Siberia is not just promising sales

of farming equipment, but also a proof of our company's outstanding reputation," says Nikolay Ivanishchev, Director

General of the AgroCentre-Holding LLC. "Once it was established, we started working with the Siberian farmers in a new way, offering a greater variety of farming machines and promptly providing service and equipment repair of any complexity."

By Yulia SALKOVA

Dealer centre:

- dealer centre floor area – **20,000 m²**
- spare parts depot – **400 m²**
- servicing workshops – **400 m²**
- showroom – **300 m²**
- office space – **200 m²**

EVENTS

Vaderstad equipment, always the right choice

AgroCentre customers' trips to the Vaderstad facilities in Sweden have become a tradition. This year, two groups had to be organized in order to satisfy the Russian farmers' interest in the Swedish equipment.

It's difficult to imagine that a mere fifty years ago it all started in a small workshop on a 30 hectare farm. Hard times raised a dilemma before the farmer Rune Stark – either to quit farming or to invent the means of survival. Eventually, he invented a harrow which caught the neighbours' fancy. It was the first order that triggered the process.



The Stark family (left to right): Christina, Crister, Siv, Bo, Andreas, Rune

Today, Vaderstad is a global concern employing 650 people.

A further 150 work in affiliated trade organizations abroad. The concern owns 49% of the shares of Canada's Seed Hawk company, a dedicated manufacturer of direct seeding equipment. The company also has a plant in Russia. In 2008, the company's turnover reached 200 million euros. This was followed by a slight slump in the wake of the global crisis. However, the company overcame it and is now picking up again. According to Crister Stark, the company will keep growing for at least another 39 years. This is precisely the time needed for settling the issues of food supply deficit (today, more than half a billion people starve) and biological energy production.

The dramatic changes at Vaderstad did not affect the company's basic principles, i.e., product quality and inherited leadership. The business is still led by the worthy successors to the parents' cause, the children Crister, Andreas, Bo and Christina.

According to Crister Stark, the core of the business concept is to supply farmers with highly efficient machines and technologies. The concept is successfully expressed in machines that can do many jobs at a time. For instance, the special feature of the Vaderstad equipment is the capability to perform several functions in a single pass. The TopDown machine, for example, treats the soil at a depth of 25 cm, mixes its layers, smoothes it out and compacts. The

pride of the company, the Rapid seeding system, pre-treats the soil for sowing, smoothes it out, seeds, introduces fertilisers, compacts and loosens the surface layer. The participants of the trip saw all this in



Tested by granite

real life. A complete product range was displayed on the demonstration field. Special attention was given to the Seed Hawk wide-row seeder. This demonstrated excellent performance in seeding precision and fertiliser introduction on all types of soil. The direct seeding saves soil moisture, which is particularly important in arid areas.

At the plant, the guests could appraise the quality of the machines' assembly. They were favourably impressed by the number of robots and fully automatic assembly lines. However, the strongest impression was probably that of the machines' tests. They were carried out close to a quarry where granite is extracted. The machine moves non-stop over

granite derbies, crushing them to dust. Of course, in a real field the machine sustains no such load, but this test quickly shows the system's weak points after which they can be promptly eliminated.

It's not surprising that the enthusiastic participants of the trip put this equipment on their wish list.

"After the trip, I realised that in addition to the Rapid seeders it's worthwhile to consider other machines," says Yury Sandin, Chairman of the Board of Directors in the Dairy Product Agricultural Group. "An interest arose in Seed Hawk equipment,

which cuts spending and saves soil moisture. At the moment, the company plans a thorough overhaul which involves discussions with experts. Probably, we'll have to switch over to the so-called zero technology."

The Zapadnoye LLC (Altai territory) has already introduced NO-TILL technology. This year, two Seed Hawk machines have done their first seeding job.

"Once we used them, we saw a different picture altogether," says Aleksey Sirotn, Deputy Director of the enterprise. "The sight of regular sprouting on the smooth field pleases the eye. Our expectations came true."

By Svetlana WEBER

Rally to rouse Russia

Aces of the field ready for a game in the Volga region



At the Field Day in the Mari El Republic, the farmers' fancy was caught by well known veterans of the Russian fields, the Rapid 600C seeding system and TopDown 500 stubble cultivator from Vaderstad.

"The yellows" aspire to succeed

AgroCentreKursk organized a real holiday for "the yellows." The guests assessed as excellent the Challenger MT 665C, MT 685C and MT 865C tractors fitted with soil treatment and seeding equipment from Vaderstad and Kverneland.

The summer for AgroCentre proved pretty hot not only in terms of temperature but also in the number of exhibitions held. The company made a tour across the regions of Russia, taking part in a series of Field Days.



The focus was on the Challenger 647 grain combine harvester. The farmers took part in a raffle

for discount purchases of the Challenger machines. One of the lucky lots was drawn by the Chernozem farm from the Bobrovsky district, Voronezh region.

AgroCentreLiski

continued the Challenger's "yellow line" in the Lipetsk region. The hits of the show were the Challenger MT 875 tractor and Rapid 800C stubble seeder. The guests also took interest in the NivaControl precise tilling system developed by AgroCentre.

"We introduced it last year," says Sergey Dyachenko, head of Lebedyansky LLC. "The costs were paid off literally in one

spring. This year we've already saved 30 thousand litres of diesel fuel."

Heading for high harvest

On the AgroCentre-

Liski site, the farmers exchanged expertise.

"We've been using the Rapid for two years now," says the head of the Liskinsky Farming Cooperative, Aleksandr Anosov. "We've used it for traditional seeding, since we liked the regular sprouting it produces. Though we've sown a minimum of seeds, the sprouts were even. The company also gladdened the stock breeders with a new product, the Degelman BK 2881 crusher. The machine quickly treats a huge straw bale, turning it into excellent litter."

By Yulia SALKOVA





JCB makes a real BOOM

For the first time in Russia, at the KONEXPO Russia 2011 Exhibition the JCB Company came up with the safest wheeled mini-loaders featuring a skid steering unit and compact tracked mini-loaders.

When developing its new products, JCB pays a lot of attention to innovative decisions and technologies. The unique PowerBoom subsystem has been developed for new loaders. This uses a single boom jib instead of a traditional twin-boom arrangement. The single-boom system is more convenient for the operator in terms of all-round surveillance, thereby increasing efficiency and enhancing safety on the work site. For better surveillance, the developers of new models removed the mesh in the operator cabin and replaced it with multi-layered glass.

The new wheeled mini-loaders with skid steering unit (model 260) and compact tracked loaders (model 260 T) are vertical lift systems which increase their lifting capacity.

The machines have a side door, which is safe and convenient for the operator. The door size has been increased by 40% to ease access to the workstation. The new generation loaders afford operators a convenient all-round surveillance of 270 degrees. This is 60% greater than the counterparts. The loaders have a wide platform and load-lifting capacity of 1,200 kg. "The heart" of the machine is its DieselMax turbo-



NOVELTY OF THE SEASON

supercharging engine with a 4.4 litre volume. This ensures excellent power at low rpm's and reduces the amount of exhaust.

JCB specialists believe the new products will find a ready market both in Russia and the CIS.

By Anna BORDUNOVA

The special features of the new generation loaders include:

- Cabin lift with improved access for maintenance
- Multi-functional control joysticks with a trailed equipment control system
- Hydraulic automatic coupling
- Insulated hermetically sealed and pressure-tight cabin with reduced noise penetration
- On-edge sealing ring for all hydraulic couplings
- New assortment of more than 30 types of trailed equipment developed by JCB
- Heated operator seat with pneumatic suspension and adjustable armrests

Wheeled loaders with skid steering unit						
Model	Operating weight, kg	Power, kW (hp)	Max. torque, Nm	Surveillance	Rated lifting capacity, kg	Lifting power, kg
260	3,615	63 (84.5)	362	270°	1,179	2,669
280	3,655	63 (84.5)	362	270°	1,270	2,669
300	3,832	68.6 (92)	408	270°	1,361	2,634
330	3,959	68.6 (92)	408	270°	1,495	2,634
Tracked loaders						
260 T	4,628	63 (84.5)	362	270°	1,179 (35%) 1,812 (50%)	2,634
300 T	4,836	68.6 (92)	408	270°	1,361 (35%) 1,957 (50%)	2,634
320 T	4,961	68.6 (92)	408	270°	1,452 (35%) 2,074 (50%)	2,634

New products for Russia from Eastern Germany

AgroCentre presents a new supplier, the Gustrower Company of Germany.

Modern farming can be almost fully automated, leaving to the farmer only observation of the farming schedule and soil treatment procedures. Today, with fertiliser introduction adjusted to a gram and to a millimetre, soil fertilisation, too, can be fully automated. Precise tilling cuts financial outlays, reduces time and effort and increases labour efficiency. The important thing here is to choose the right fertiliser distributor. And that's where the stressful moment of choice edges in. First off, on today's farming market there are many fertiliser distribution machines, but not all of them are suited for the precise tilling technology. Secondly, a farm with 2 to 3 thousand hectares of tillable land, which is a big enterprise by European standards, is considered a small business in Russia. Most of the best known machine models are intended for operation on European farms and do not meet requirements of Russia's vast tracts of arable land.

Gustrower multi-purpose

distributors, with the maximum operating width of an implement reaching 40 m, are compatible with all precise tilling software. This is the best choice for medium and large Russian farms in terms of both size and "electronic intelligence."

The German company Gustrower has given its machines some special features, such as a chain conveyor, which introduces all types of mineral fertilisers, lime (dry and wet), dry chicken manure, bone meal fertiliser, and wet manure. Unlike the conventional band type, this conveyor does not need an ideal fertiliser condition. The Gustrower distributors are fitted with an independent hydraulic system, i.e. they operate independently of the tractor hydraulics. Therefore the seeding rate is always steady. The large wheel diameter, strong axles and a low centre of gravity enable the sizable machine to work gracefully on the fields without heavy stress on the ground.

Ever more Russian farmers treat the soil with care. Possibly,



for feeding the matter on slopes and elevated roads.

Along with grain handling, the trailed transloading system can be used for carrying loose mineral fertilisers, rapeseeds, maize and seeds.

the KAMAZ truck that follows the combine harvester on the field will become a remembrance of the past. Trailed transloading units have come to replace it.

The **Gustrower Transloading Unit (GTU)** can replace almost three normal KAMAZ trucks. The maximum capacity of these machines is 32 m³, the transloading rate of such amount being 9 m³/min. The large tyres reduce earth pressure, thereby saving the earth structure and economising on fuel consumption. These machines offer high operating efficiency and ensure efficient earth protection.

Reaching 4.67 m, the transloading height is optimal

Some background information about Gustrower:

- **1900** – The Company was founded;
- **1980** – Manufacture of the first fertiliser distributor for large areas;
- **1987** – A Gold Medal at the Leipzig Fair for its fertiliser distributor;
- **1997** – Sale of the first electronically controlled distributors for precise fertiliser application on large areas;
- **2006** – Introduction to the market of a new series of fertiliser distributors with electronic control DGPS-sensor for extra-precise nitrogen fertiliser application.

By Yulia SALKOVA

PRESENTATION

Challenger: we are here to stay



For the first time at the Korenskaya Fair in Kursk, AgroCentre presented a new brand of farming equipment, the Challenger.

we offer farmers high quality and prompt servicing."

This year, AgroCentre has become an official dealer of Challenger, one of the leaders in the manufacture of self-propelled farming machines and soil tilling equipment.

"We offer a complete product range of self-propelled equipment from wheeled and tracked tractors to grain combine harvesters. Also on offer are self-propelled sprinklers and soil tilling machines," said Aleksandr Logvinov, Executive Director of AgroCentreKursk LLC. "In addition,

fitted with 300 to 370hp engines demonstrated their performance in the field. The strong point of these machines is a modern TechStar CVT gearbox with the Power Management adjusting system which reduces fuel consumption. All of the Challenger tractors are powered by strong Agco Sisu Power engines that emit no harmful exhausts.

"High quality, efficiency and affordability are the three pillars on which AGCO specialists rely

in developing new machines," says Aleksey Gushchin, Regional Sales Manager of the AGCO Machinery Company. "Simple and reliable, they are manufactured at facilities in the USA, France, the Netherlands, and Italy. There are plans to start manufacturing them in the Odintsovsky district of the Moscow region."

The exhibition also featured Vaderstad and JCB equipment, which are the long-standing preference of Russian farmers. The Rapid stubble-seeder and Vaderstad Top Down 500 stubble cultivator are in operational service at all times.

Visitors to the exhibition say the JCB 531-Agri is like a magic wand for farmers working in storehouses and in the field.

"There is no future for farms without efficient farming

machines," says Vyacheslav Loshkarev, head of a farming enterprise (Khomutovsky district, Kursk region). "Our farm is gradually introducing new technologies. AgroCentreKursk is helping us to do this. We also plan to acquire the Rapid stubble-seeder."



Governor of the Kursk Region Aleksandr Mikhailov awarded a certificate of appreciation to AgroCentreKursk for its active participation in the exhibition.

By Anna BORDUNOVA

AGROCENTRE ADVISES

An optimal solution for high technologies

AgroCentre presents the 1000 Series of Challenger Sunflower disc harrows, the best selling agricultural tools in the US and CIS.

The best possible smoothing of the soil, preservation of its moisture content, destruction of weeds and creation of favourable conditions for plant growth: these are all easy jobs for the Sunflower disc harrow.

The machine treats the soil smoothly at a depth of up to 15 cm, embedding the stubble remains and creating a smooth field surface for seeding. When treated by the Sunflower harrow, the soil becomes loose, the ground starts "breathing" and the root system develops better. A smooth field surface is obtained after disc treatment due to the fact that

front disc batteries precisely cut the ground while the rear disc batteries push them back into the overlapping area. Such a combination prevents the formation of ridges and furrows.

"The Sunflower disc harrow is an optimal solution for really ambitious farmers," says Sergey Dorofeyev, AgroCentreKursk sales manager. "The machine is well suited for farms using the minimal soil treatment technology."

The slightly concave discs foul less, ensuring excellent harrow landing and enabling a



the disc batteries are arranged in a staggered fashion, overlapping one another. The overlapping

higher speed operation. The depth setting and adjustment system is fitted in one place in



front of the harrow. This is very convenient, making it possible to set quickly and safely the machine's operating depth. The depth is adjusted hydraulically from the tractor cabin. The harrow side section support wheels maintain the treatment depth even on an uneven field.

The special C-FlexTM bars of the harrow securely protect the disc blades against breakage.

Lion power

Model 1435 Sunflower disc harrows feature an increased weight which enables them to treat soil deeper. An improved chassis arrangement provides greater stability. The Model 1435 machines feature an extended distance between the support wheels of the central section, thus providing higher stability in field work.

Feline agility

For big modern farms, AgroCentre recommends the Sunflower 1544 disc harrows. Their grip width is 13.8 m. Six pairs of tandem wheels ensure optimal weight distribution and excellent passing ability over all types of soil. The Sunflower 1544 is a highly efficient harrow comparable, in terms of flexibility, to smaller counterparts with a disc. These models use reinforced springs fitted on either side of the wheel spindle to absorb shocks sustained by front and rear disc batteries while negotiating pits and encountering hillocks. Each section of the disc batteries can be inclined vertically and horizontally, thereby providing excellent ground hugging capability on uneven and stony fields.

By Anna BORDUNOVA

Jubus grain cleaner,



a factory of ideal grain

The quality of the grain largely depends on how well you pre-treat it. Cleaning is one of the important stages of post-harvest grain treatment. This is particularly important in seed production. Grain cleaners are costly machines. So, how do you choose a machine with the best cost-to-grain quality ratio?

(grains of different size and small stones). The lower sieves separate small admixtures (crushed grains, seeds, weeds).

The company's grain grading units

Jubus grain grading units ideally clean the

Short grain separation

Short admixtures of the main crop are delivered to the cylinder cells. As the cylinder rotates, they fall out of the cells into a groove and are subsequently removed from the machine by the screw.

Long grain separation

The main crop grains are delivered to the cylinder cells. As the cylinder rotates, they fall out all along the cylinder length into a groove and are subsequently removed from the machine by the screw. Being larger, the long admixtures cannot be placed in the cells and, hence, move through the cylinder till they are discharged from it.

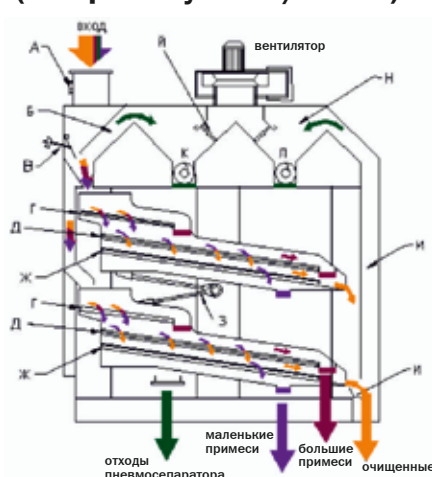
Pneumatic tables

Grain cleaned by the multi-purpose seed cleaners and grain grading units is 99.5% clean. However, admixtures with the same grain size as the main matter are hard to separate and cannot be removed by the sieves. The Jubus pneumatic separation tables remove admixtures differing from the main crop by specific gravity, shape and surface properties (wild oats;

AgroCentre Company recommends the Jubus multi-purpose grain cleaners (made in Spain) with air-sieve cleaning system. This one machine separates the grain into fractions as per its size, provides pre- and initial treatment of grain, as well as seed bed preparation. Grain grading units are used for these jobs. In seed cleaning, the grain on pneumatic tables is separated by density; in this process the weak grains are removed from the main mass.

The aspiration system cleans the grain matter from light admixtures differing from the grain by weight (dust, awns). The upper short sieves separate the crudest of admixtures (straw, stones, and grass). The upper long sieves separate smaller admixtures

Operating principle (exemplified by L-JS-16/2 model)



- A – entry/feeding device
Б – pneumatic separator
В – automatic feed lid
Г – receiving sieve
Д – upper sieves
Ж – lower sieves
З – drive unit
И – automatic valve
К/Л – discharge screws
М – main pneumatic separator
Н – deposit bin

JUBUS grain grading unit models

Model	Output; t/h			Cylinder; mm		Operating area, m ²	Engine, kW	Weight, kg
	Wheat	Barley	Beans	Diameter	Length			
T-JS-7/1	8	6	2	750	3,000	7	1x1.5	850
T-JS-7/2	8	6	–	750	3,000	14	2x1.5	1,600
T-JS-7/3	10	8	–	750	3,000	21	3x1.5	2,450
T-JS-9/1	12	10	3.5	900	3,000	8.5	1x2.2	1,100
T-JS-9/2	12	10	–	900	3,000	17	2x2.2	2,100
T-JS-9/3	15	12	–	900	3,000	25.5	3x2.2	3,150

grain from admixtures having different length from the main crop. The grain grading units' cylinders consist of segments that can be easily replaced to treat the right crop. There are windows for monitoring and taking samples. The grain grading unit is simple to use and efficient.

weak or injured seeds, germinating grains and other crops' seeds). The pneumatic tables are used for cleaning and calibration of seeds of grains, beans, grasses and other crops, as well as for commercial conditioning.

Calibration by specific weight produces ideally smooth, high class seeds with the highest specific weight.

Vyacheslav Oleinikov, Deputy Director for Production, Ulyanovets LLC (Yegoryevsky district, Stavropol territory):

“AgroCentre specialists of the grain technologies department recommended the Jubus grain cleaner to us. We bought a model with an output of 100 t/h. I would define it as “a factory of ideal grain.” After cleaning, we get commercial wheat of nearly 100% purity, without admixtures, crushed grains or seeds of other crops. Furthermore, we use the machine for seed production. Its output is 6 tons per hour. The final grain is superb.”

By Yulia SALKOVA

Sieve machine models

Model	Sieve area, m ²	Output			Consumed air amount, m ³	Number of sieve shoes/cylinders, pcs	Sieve/fan drive power, kW	LxWxH, mm
		Pre-cleaning, t/h	Broad grain cleaning, t/h	Seed cleaning, t/h				
L-JS-4	3	40	15	4	4,000	2	1.5/4	2,100x1,220x2,020
L-JS-8/2	8.4	80	30	10	7,000	3	1.5/5.5	3,290x1,760x2,600
L-JS-16/2	16.8	100	40	15	9,000	4	2.2/7.5	3,390x1,910x3,210
P-JS-100	16.8	120	60	40	1,300	4	2.2/11	3,390x1,910x3,210

Soil treatment Top,

expenses Down

This machine is ideally suited for cultivating soil at a various depths of 3 to 35 cm. Unlike in ploughing, during cultivation the machine leaves straw on the soil, and this largely hampers evaporation. The TopDown machine crushes the stubble remainder, cuts the weed roots, and loosens, compacts and levels out the soil in a single pass, thus replacing several traditional soil treatment systems. After its job is done, the field is ideally level and ready for seeding. Compared to the plough, the cultivator needs a somewhat harder draft for moving the same amount of soil, but this is not required frequently. The usual job is just loosening the soil to a certain depth. In this function the TopDown is much more economical and efficient, because no soil layer needs to be turned over. Also, the traditional rate of the plough-aided treatment does not exceed 5 to 7 km/h whereas that of the TopDown is 10-12 km/h.

In the end, the soil is duly treated, the number of passes reduced and time and money saved.

TopDown cultivator work zones

Zone 1 – two rows of cut-out discs arranged at an angle to each other. They crush the stubble remainder and hamper the development of the weed root system. The rubber cushions securely protect the discs against breakage.



Zone 2 – three rows of strong chisel-shaped bars for loosening lower soil layers, shifting vegetation remainders and crushing big clods of earth. Each bar is protected from



overload by a hydraulic cushion (shock absorber), the pressure of which is controlled from the tractor cabin.

Zone 3 – a row of cut-out discs arranged in pairs at an angle to each other. These are used for pre-leveling the soil, for crushing clods and extra mixing



of the vegetation remainders. Each disc is protected by a rubber cushion (shock absorber).

Zone 4 – a row of roll-on



rollers with cleansers. These are used for compacting the soil surface and extra crushing of the stubble remainder. The crushed and compacted soil surface provides sufficient

contact with the vegetation remainders, thereby easing its decomposition.

TopDown cultivation versions

The TopDown machine is designed for basic treatment of medium and difficult soils. Given below are several "field versions" of the multi-purpose cultivator fitted with Vaderstad accessories.

No.1. Smooth fields with low soil weediness. The efficiency rises due to a single pass of the TopDown machine. The last cultivation before seeding is carried out by the Rapid sowing system.

No.2. Smooth fields with over-compacted surface. The first pass of the Carrier cultivator "makes" the weeds and self-sown plants sprout. The second pass of the TopDown restores the soil surface and destroys the weeds. The last cultivation is performed using the Rapid seeding system.

No.3. Irregular rolled down fields with compacted soil. Good for restoring the surface layer and levelling the field before seeding. After the first pass of the TopDown machine, the seeds and self-sown plants will sprout. In the second pass of the same machine, they are destroyed. The last cultivation is carried out using the Rapid system.



Andrey Galkin, Executive Director of the Yermolovskoye LLC, Liskinsky district, Voronezh region:

"We've been using the seven-metre TopDown for around two years. We employ it in the No-till function. It copes with our small area of 2,740 hectares perfectly well. It's so powerful, it could easily do 4,000 hectares of our black earth soil, which is not the easiest of jobs. Previously, we used indigenously produced cultivators. We drove them several times across the field, virtually to no avail, burning fuel - all for nothing. The TopDown is a different thing. In a single pass, it levels out the field, prepares the soil for seeding and destroys weeds. For me, it's still a mystery how this Swedish cultivator found a 'common language' with Russia's difficult fields."

By Yulia SALKOVA

JCB, the farmers' best friend

For over 30 years, JCB has been specialising in the production of telescopic loaders. During this time, it has turned out more than 100,000 machines, which are indisputable favourites with the farmers. Fast and manoeuvrable, the "telescopes" do quickly and easily any job on the farm.



Efficiency, reliability, safety and construction strength – these are the JCB loaders' assets. On offer is a large product range of multi-purpose machines fit for any task, even in a constrained environment.

The JCB 531-70 telescopic loaders are special in that they have a reinforced boom. The machine is designed in such a way that the load is spread all over the length of the boom, thereby reducing stress. The boom's internal and external connection measures around one metre,

which prevents its damage. The cabin design ensures maximum cabin space and operator comfort. Due to the low position of the dashboard and the large window, the operator enjoys excellent visibility and can rigorously control the operation. The lower position of the transmission system is ideal for access during repair. The machine's basic elements, such as the shafts, gearbox, hydraulic pumps and engine are simple to use. Thanks to sound and visibility sensors, the

operator immediately receives information on the state and condition of the engine and the transmission.

The JCB telescopic loaders superbly transport fodder, clear manure, and load grain and organic fertilisers. They are irreplaceable for moving silo clamps or putting rolls in boxes.

Anatoly Pukhov, Chief Engineer of Mayak JSC, Liskinsky district, Voronezh region. The farming enterprise is engaged in crop production and stock breeding.

"The JCB telescopic loaders are a farmer's real friend. They are reliable and time proven machines. On our farm, we use two loaders. One has been in service for over three years. Another one was purchased this year. Over this time, they never once failed us. Of course, these are expensive machines, but they are worth every ruble we paid for them. Their indisputable merit is their multi-role capability. The loaders are ideally suited for work in warehouses, depots, and stock breeding facilities as well

as in the field. They can deliver fodder, transport bales, and load grain. The loader design allows for installation of an engine on the side, which is convenient for maintenance. In addition, this increases the load lifting capacity due to the boom's placement in the rear. Using such equipment is a real pleasure."

Roman Pekhterev, Associate Director of the Pogarskaya Potato Factory JSC, Pogarsky district, Bryansk region. The company is engaged in production and processing of seeding and commercial potatoes.

"A year ago, we purchased the JCB loader from AgroCentre. This is a superb machine, without any servicing problems. The loader runs at full power, replacing several machines. This is a highly efficient piece of equipment. It's second to none as loading and unloading goes."

By Anna BORDUNOVA



AGROCENTRE LEARNS

Each drop monitored



The Spra-Coupe 4000 and Spra-Coupe 7000 Series of self-propelled sprinklers were the subject of a training for specialists conducted by the AgroCentre Group of Companies at the AgroCentreKursk base.

The forte of the Spra-Coupe machines is the sprinkling control system which is fitted with the Raven 460 controller in the case of the 4000 Series and with the Raven 5000 for the 7000 Series. These control the introduction rate of chemicals, sprinkling pressure, sprinkling area and the operating speed.

"The Series 4000 and 7000 Spra-Coupe sprinklers control

each and every drop," says Aleksandr Usov, Senior Manager of AgroCentreKursk's Sales Department. "The machines operate at high speeds of up to 25 km/h with low consumption of the treatment solution. The machines smoothly sprinkle the protection compound on the plants at a certain angle. As a result, most of the chemicals remain on the plant surface, thereby assuring high quality treatment."

AgroCentre experts unanimously believe that for the farmers this is the optimal price/quality ratio.

By Anna BORDUNOVA

IN BRIEF

At the AGRO 2011 Exhibition in Chelyabinsk, "AgroCentreZakharovo presented the Challenger MT 685C tractor and JCB telescopic loader. As Dmitry Ivanov, Director of the Sales Department, said, farmers have shifted their focus to more modern and efficient equipment. The first agreement to supply the Challenger MT 685C wheeled tractor to the Chelyabinsk Region was sealed with the Beryozka collective farm.



At the Svenskaya Fair in Bryansk, AgroCentre displayed the Rapid 400 C Vaderstad seeder, Challenger MT 665C wheeled tractor and JCB 531-70 loader.

"We offer farmers only modern and reliable equipment that will increase their sales and improve farming technology," says Aleksandr Logvinov, Executive Director of AgroCentreKursk LLC.

AGROЦЕНТР

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