UNIA

FENIX G

GRASS RESEEDING SEED DRILL

uniamachines.com

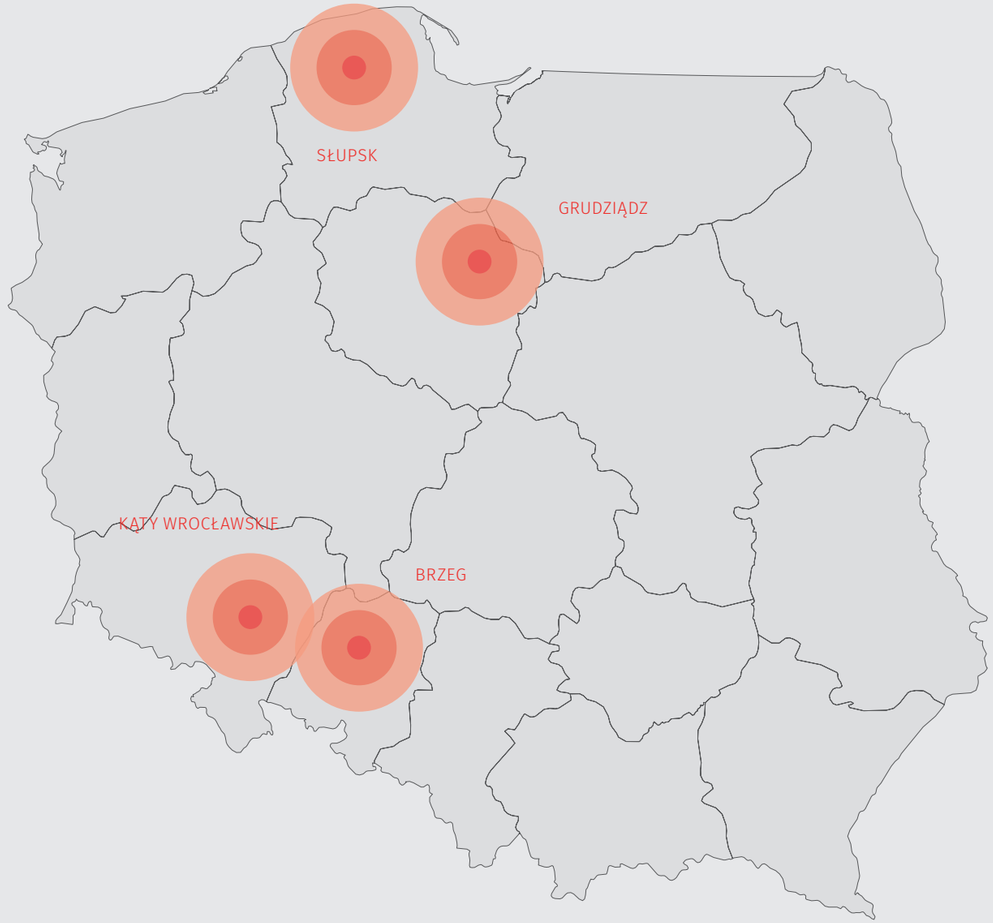
UNIA

UNIA is the largest Polish manufacturer of agricultural machines. We produce nearly 25 000 machines per year, out of which over 10 000 are exported to 60 countries around the world. In order to build them, we use 100 000 tonnes of high quality steel annually.

FOUR FACTORIES

UNIA produces its machines and agricultural equipment in four factories (Grudziądz, Brzeg, Słupsk, Kąty Wrocławskie)..

Nearly 1,000 people work in four factories with a total production area of 11.5 ha. They have got to their disposal modern design offices, processing centres and lasers that allow to maintain excellent repeatability of elements. The sign of an apple is perfectly recognisable in many European and world markets, and the Polish farmers no longer associate it only with ploughs of the former Unia Grudziądz brand.



UNIA

BEAUTIFUL MEADOW

Meadows do not always look like that in real life...

Grassland degradation can result from many factors. Most often it is caused by unfavourable site or weather conditions or inadequate use. Mild winters create excellent conditions for pests. The degradation effect, which contributes to a significant reduction in the share of valuable species of grass and/or papilionaceous plants affects the quantity and quality of the obtained feed, and that is why it often seems necessary to replenish the plant species growing in a meadow or pasture.

WHEN TO RESEED?

Meadow renovation is meant to increase the share of valuable fodder crops. Reseeding is justified when the share of valuable plant species is low and low feed value plant species prevail. The procedure is recommended when the sod was damaged following poor overwintering as a result of intensive feeding of pests or long lasting water accumulation, and also when we want to improve the effectiveness of meadows by introducing valuable grass species in their environment.

The second halves of April or August are the recommended reseeding periods for organic soils, while in mineral soils the procedure should be performed no later than by mid-September. One should remember that the success will greatly depend on the climate conditions, including but not limited to precipitation, especially during emergence. It is hard to indicate the proper dates of treatments, but it seems reasonable to carry out the spring procedure earlier to improve the probability of the plants' optimum access to water.

UNIA

HOW TO RESEED?

The most reasonable solution to improve the value of grassland is to reseed directly in the sod. If there are only some losses of valuable grass species in the degraded green growth, it suffices to mow the first regrowth and reseed directly into old sod. Typically weed appears in the free space left after the missing grass; use selective herbicides to eliminate the weeds.

INTO OLD SOD

Before grassland renovation, diagnose the condition of the green growth and then select the right reseeding method. Old green growth in grassland eligible for direct reseeding should be mown to the height of 2-3 cm, the soilage shall be raked and removed. Reseeding directly into old sod is less time- and energy-consuming, more economical and seed saving.

It is recommended to use species and varieties suitable for local site conditions to renew degraded grassland. In order to facilitate the selection, it is recommended to use grass and papilionaceous plants mixtures for meadows and pastures suitable for mineral and organic soils with different moisture content levels.

HOW TO RESEED?

INTO THE SOD AFTER WEEDING

This direct reseeding method is used when in the green growth of moderately weed-grown grassland there are numerous (30–50%) herbs and meadow and pasture weeds (common dandelion, creeping buttercup and meadow buttercup, yarrow, common sorrel, curly dock and broad-leaved dock, chickweed, sand-rock cress, common nettle, creeping thistle, soft rush and compact rush) and the share of valuable high or low grasses exceeds 10% of the green growth, and papilionaceous plants are missing in the green growth.

In this type of grassland, we start preparation for direct sowing by tidying the area and removing the uncollected swath, weighback etc. Then we spray selective herbicides onto the old green growth. If the reseeding is performed in early spring, it is best to perform spraying in autumn the previous year. For spring reseeding, perform the spraying once vegetation has started.

UNIA

WHAT TO RESEED WITH?

UNIA RECOMMENDS - FENIX G SEED DRILL

- Modern and compact design of the pneumatic seed drill for grass reseeding has 32 single-disc coulters spanned every 90 mm.
- The suspended (mounted) version guarantees high steerability of the seed drill.
- A large seed hopper (1000 l volume) is equipped with a universal FX metering unit offering quick calibration and high accuracy of seeding.
- Mechanical (from the ground-following wheel) or electric drive (optionally)
- The fan is driven by a hydraulic motor fed from the hydraulic system of the tractor.
- 405x6 mm disc coulters with 90 kG pressure ensure perfect contact of the seeds with the soil
- Maintenance-free sealed bearings guarantee a long period of operation
- Rubber shock absorbers protect the coulters from mechanical damage
- Folded rear loading step with a security hand-rail
- LED road lights
- 450/500 prismatic roller guarantees: proper ground-following and compacting, no material sticks to the roller

UNIA

SOWING SYSTEM

FX PRECISE METERING UNIT

Modern, universal FX metering unit guarantees a repeatable metering dose ranging from 1.8 to 400 kg/ha. The metering unit is suitable for fine and coarse grains, with no need to replace the metering rollers. Easy adjustment and accurate setting ensure seamless seed dosing. The metering unit is featured with a quick system removing seed residues.

SOWING SYSTEM

SEED HOPPER

FENIX G 1000/3 is a set equipped with a uniform seed hopper with a 1000 dm3 volume. A corrugated tube and grain distributor are placed inside the hopper. The distributor is located directly above the coulter, which facilitates gravitational feeding of the seeds to the seeding coulters (line clogging is unlikely).

UNIFORM SEEDING

A single dose of seeds metered by the metering unit is transported pneumatically with a vertical corrugated tube to the distributor, which uniformly distributes the seeds to the coulters.

EFFICIENT FAN

The fan is driven by a hydraulic motor powered from the tractor hydraulic system. The oil flow rate in the hydraulic motor amounts to 24 l/min. The minimum required capacity of the tractor hydraulic system is 70 l/min. The pair of hydraulic lines feeding the hydraulic motor is featured with a special connector to allow a slow oil flow.

PRECISE OIL FLOW ADJUSTMENT

Standard FENIX sets are equipped with an oil flow controller, which enables smooth adjustment of the oil quantity fed to the hydraulic motor, and consequently allows for the adjustment of the overpressure which determines the pressure under which the seeds are transported to the distributor. It is particularly important when fine, lightweight seeds are sown at shallow depths.

SEEDING COULTERS

COULTER OPERATION DEPTH ADJUSTMENT

Vertical mechanical adjustment of the coulters area is a simple and durable solution which guarantees sowing the seeds to the right depth.

ROBUST BORON STEEL COULTERS

A simple 405x6 mm disc, made of hardened boron steel, cuts the grass under 90 kG pressure, leaving room for the cultivator point which introduces the seeds to the desired depth. The discs are fixed to individual holders and secured with rubber shock absorbers. The distance between the first and the second coulters row is 60 cm. Maintenance-free conical bearings ensure long-lasting and failure-free operation.

ROBUST STANDARD

ROAD LIGHTS

Standard FENIX G machines are equipped with advanced road lights mounted on special holders, which ensures safer driving on public roads. Reflective warning plates are fixed to the machine..

METERING UNIT DRIVE

A ground following wheel comes with a metering unit as a standard. An electric drive is an alternative solution. The ground following wheel is slid into the machine for transport; the transport width is then 3.0 m.

BASIC SEED controller records:

- Driving speed in [km/h]
- Area covered [ha]
- Total number of [ha] covered
- Error indication

450/500 PRISMATIC ROLLER

FENIX G is equipped with a specialised prismatic roller. The roller consists of cast iron rings with two diameters. The smaller ring (450 mm diameter) adheres tightly to the roller axis, while the bigger ring (500 mm) moves on the inner side of the smaller ring, ensuring very good cleaning of the outer surface. Owing to such design, the material does not stick to the roller, even if the ground is wet, ensuring very good ground following. The cast iron rings crush lumpy material very well and close the furrows made by the coulters.

ADDITIONAL OPTIONS

ADDITIONAL WEIGHTS

In the case of severely adverse humidity conditions, greater loading of the seed drill with extra weights is recommended. FENIX G can be provided with 300 kg of additional load (2 x 150 kg).

RUN MARKERS

FENIX sets are featured with hydraulic markers composed of three parts, which enables setting the marker „on the wheel" as well as in the middle of the tractor. Each marker is featured with an individual actuator, owing to which the marker is folded vertically after work; it facilitates running near trees or posts.

STANDARD EQUIPMENT

STANDARD EQUIPMENT :

- suspension axis ø60-825/ø36 mm
- seed hopper - 1000 dm3 volume
- seed hopper tarpaulin
- pneumatic seed sowing system (FX system) - one metering unit
- BASIC SEED controller (hectare counter, roller revolutions)
- single-disc coulters ø405 mm, pressure: P = 90 kG/coulter
- number of coulters - 32 pcs (coulter span 90 mm, inter-row span 600 mm)
- seed distributor 1x32 holes
- hydraulic actuator powered fan, 24 l/min flow rate (standard tractor drive)
- pressure gauge - for controlling fixed air pressure
- mechanical drive for the metering unit (star wheel)
- standard weights 420 kg (2x210 kg)
- loading platform
- prismatic roller 450/500 mm
- road lights

AUXILIARY EQUIPMENT:

- hydraulically controlled run markers
- metering unit electric drive + DRILL CONTROL
- 300 kg weights (2x150kg)

TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS	FENIX G 1000/3
Working width [M]	3
Hopper capacity [dm3]	1000
Coulter type	SINGLE-DISC 405 mm
Number of coulters [pcs]	32
Coulter pressure	90 kG/COULTER
Standard load	420kg
Additional load	300kg
Type of roller	PRISMATIC 450/500 mm
Weight [kg] (standard load)	2950
Power consumption [HP]	140
Fan drive	HYDRAULIC FROM THE TRACTOR

TRADITION TECHNOLOGY TEAM

TRADITION AND MODERNITY

UNIA has a long tradition of manufacturing seed drills and combination seed drills. Our wide product range includes lightweight and heavy mechanical seed drills, mounted and pulled pneumatic seed drills, as well as mechanical and pneumatic combination seed drills.

MATERIALS AND SUBUNITS

UNIA designs are based on the highest quality materials, which contributes to a long period of failure-free operation. The subunits from renowned companies making electronic components and hydraulic actuators, used in UNIA machines, determine the quality of our products.

Technology

Many years of experience in agricultural machinery production helped UNIA specialists develop advanced production technologies which guarantee top quality of the machines intended for operation in harsh conditions.

A group of construction designers and process engineers monitors the quality of seed drills and seeder units from the stage of designing to the machine production.

Varnish coat

A modern powder paint shop was established to ensure the highest quality paint coat. Owing to special method of the surface preparation for painting, powder coating provides a durable paint coat, which is resistant to weather conditions and lasts for many years.

UNIA

UNIA Sp. z o.o.
ul. Szosa Toruńska 32/38, 86-300 GRUDZIĄDZ
export@uniamachines.com

September 2021