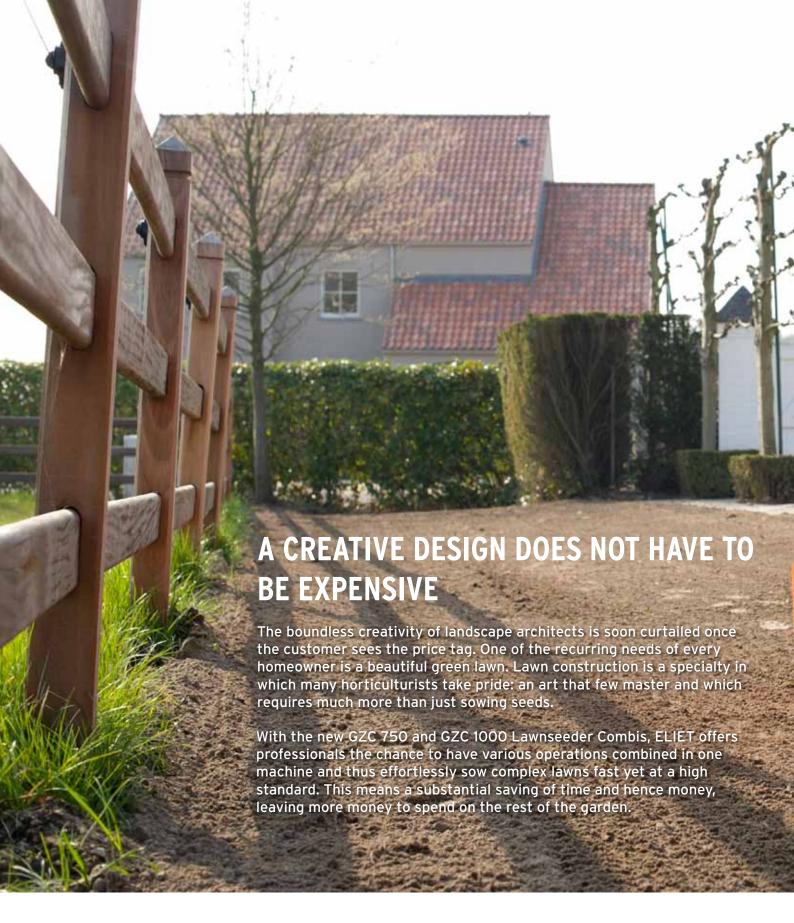


SOWING ON IN A SINGLE MACHINE

THE ART OF LAWN CONSTRUCTION IN A SINGLE MACHINE GZC 750/1000



ALL LAWN CONSTRUCTION OPERATIONS IN ONE MACHINE

ELIET provides two machines that combine almost all landscaping operations in one machine.

With the ELIET GZC 750 or 1000 you choose for a compact, autonomous self-driving machine that is a model of efficiency.

Thanks to optimal manoeuvrability and an eye for user comfort, this is the ideal partner for every garden professional who wishes to excel in the construction of a perfect lawn.



GZC 750/1000 LAWN ADVICE

GOOD PREPARATION IS HALF THE WORK

The lawn is one of the major features of the garden. A customer expects a dense, resilient carpet all year round. However, achieving an optimum result in lawn construction involves much more than simply sowing. For strong grass growth a number of factors play a role such as soil structure, presence of sufficient nutrients, correct pH, ... ELIET is pleased to help you on your way with a brief overview of the necessary preparations.



SOIL STRUCTURE

For a beautiful lawn it is of utmost importance that the underlying structure is in excellent condition. Sufficient air in the soil, good drainage and moisture retention capacity, and sufficient organic fertiliser are essential. Many problems in young lawns can in fact be traced back to poor soil structure.

To prepare the ideal surface it is best to loosen up the deeper, impervious soil layers and ensure that there is sufficient humus in the soil. This may be improved by adding suitable organic material such as, e.g., compost. Fertilizer with a high nitrogen content is ideal. Nitrogen promotes growth and prompts a rapid appearance of the grass.

PREPARING THE SOIL

As previously mentioned, improving the soil prior to seeding is of utmost importance. First, the space for the lawn should be freed of all vegetation, stones and non-degradable material. Ensure that all tree roots are removed and the cavities filled in.

Then the upper soil layer (15 to 20 cm / 5 to 7 inches) should be thoroughly loosened and mixed with organic material such as compost. After the fertilizing, the soil is finely tilled with a cultivator so that the fertiliser is mixed well into the soil and the coarser clods pulverised. After rolling and levelling out, the substrate can be sown at a depth of 5 to 10 mm (0,2 to 0,4 inches) for an optimum germination. Finally, we recommended that the sown surface be lightly rolled.

TYPES OF LAWN & GRASS

The success of a beautiful lawn begins with the construction and selection of the most suitable grass seed. You must first decide on the future use of the grass: sports or playing, an ornamental lawn, a shaded lawn, meadow... The grass seed mix is chosen according to this decision. In every lawn there are actually several types of grass, each with their own specific qualities. Red fescue, English ryegrass and common meadow grass are by far the most used types of lawn seed.

Each of these types has particular characteristics.



English ryegrass

English ryegrass (Lolium perenne) germinates the fastest but also requires the most moisture and nutriments. The flower head is a flat, zigzagging spike. The spikelets are stalk-less, oval and flat and are arranged in groups of eight to ten florets.



Red fescue

Red fescue (Festuca rubra) is extremely fine and therefore more suitable for very fine ornamental lawns. Varieties with strong runners thrive under drier conditions and are suitable for more heavy use.



Common meado grass

Common meadow grass (Poa pratensis) is a good sod-former due to its underground runners, has good winter resistance and is drought tolerant. The characteristics of this grass are underground runners, folded leaves, a pointed tip that splits when flattened (V shaped), no auricles and very short ligules.



THE FINISHING TOUCH WITH ELIET

A beautiful lawn edging is the finishing touch. The finishing standard of the lawn edge reflects upon the entire lawn. So choose the **ELIET Edge Styler** to create a perfectly smooth lawn edge. This machine mechanises the classic cutting action of a spade and, thanks to its maximum manoeuvrability, it is able to achieve straight as well as round and curving lawn edges.

For maintaining these lawn edges, ELIET presents the **Edger KS 300 PRO**. This machine is used for mowing overgrowing grass where the mower cannot reach, for example grass growing over the edge of a terrace or garden paving. KS PRO 300 has the largest blade on the market with the benefits of a greater active work depth, a better cut due to higher cutting speeds and a 20% longer operating time.

Monitoring of the quality and density of the grass remains important after the construction of a new lawn. Aging of the lawn can be prevented by annual or biennial overseeding. The ELIET **overseeder** sows new grass seed amongst the existing grass and restores its resilience.

Visit www.eliet.eu and find out how ELIET can help you maintain a perfect lawn.



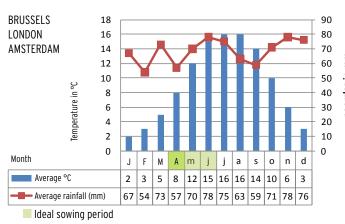




WHEN TO SOW?

The ideal and most natural period of the year to sow grass is autumn (September-October). At this time of year the average precipitation and temperature are optimal for grass growth and seed germinates quickly and evenly due to the longer humid and warm nights. There is also less chance that the grass will become overgrown with weeds. Grass can also be sown between April and May with the advantage that you have faster results. But the young grass may well be stifled because weeds are rampant then.

Whatever the chosen sowing period, it is recommended to closely monitor the weather forecast. When sowing a new lawn, it is advisable to keep the top layer (where the seeds will germinate) moist. Water preferably three times daily until the top 2 cm (0,78 inch) of the soil is sufficiently wet through. Then the water quantity must be raised as the germination and growth continue. Once sprouts appear, apply about 5 litres per m2 (1 gallon per 10 square feet) twice a day. From the third week on after germination, 10 to 15 litres (2 to 3 gallons) of water a day up until the first mowing.



neerslag in mm

ELIET GZC 750



The GZC 750 with its 75 cm (29 inch) working width is a compact, autonomous self-propelled machine that is a trustworthy partner in the construction of private gardens where you are dealing with narrow gates, complex shapes, hedges, curbs and other obstacles

ELIET GZC 750/1000 FEATURES

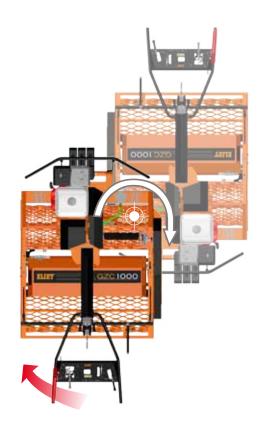
HYDROSTATICALLY DRIVEN ROLLERS

The major innovation of the new generation of the ELIET Lawnseeder Combi when compared to its predecessors is the hydrostatic roller driver. Where previously one had to select speed with a 4-speed manual gearbox, one can now enjoy the incredible comfort of a proportionally adjustable hydrostat. Declutching is unnecessary: the operator can smoothly adjust the speed at any moment. Here ELIET purposefully chose a dual hydrostatic transmission by which the hydraulic motor in each roller enjoys the luxury of having a separate pump. As a result, each hydraulic motor can also be controlled separately and proportionally.

The control of the rollers is coupled to a movable handlebar. When the handlebars are turned to the left, this movement is translated into a difference in traction between the left and right front rollers that turns the machine to the right. The farther the handlebars are turned away, the greater the speed difference between left and right rollers and the sharper the bend. Arising from a natural action, this makes the steering quite intuitive, giving the operator the control to sow even in the smallest corners. This makes the new ELIET Lawnseeder ideal for the construction of private gardens with limited access and complicated shapes.



To set the driving speed there is a gear stick at the centre of the control console that can be moved up (for forward) and down (for reverse). Without crunching or grinding, one changes from forward into reverse with one easy action.





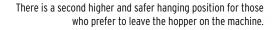
LARGE HOPPER

The hopper has a capacity of 61 litres /13 gallons (GZC 750) or 93 litres / 20 gallons (GZC 1000). The seeding rate can be adjusted from 0 to 100 g/m2 (0 to 4 ounces / square feet). A carousel in the seed tray ensures a continuous and steady flow of grass seed. The seed tray has the same width as the harrow. As the seed funnels on the harrow are positioned at the front, the seed is scattered on the soil across the full width. That way you will not be faced with unsightly seed lines.



WORKING WITHOUT A HOPPER

The hopper is a separate part that is hung onto the machine. This means that when carrying out preparatory levelling work, one can easily remove the hopper from the machine to gain a better view of the harrow. It also avoids damage to the seeding equipment by stones that may be thrown up while levelling.







SEED FLOW RATE CONTROL

For creating a new lawn, the major seed manufacturers for ornamental and sports lawns recommend a seed flow rate between 20 gr and 30 $\rm gr/m^2$ (0,8 ounces and 1,2 ounces /square feet). Most seed mixtures contain the three most common seeds: English rye-grass, common meadow grass and red fescua. Obviously, the size of the seeds differs, and therefore the speed of discharge through the openings of the seed hopper will vary depending on the composition of the mixture. Thanks to the continuous improvement programmes of the varieties, the seeds keep evolving. The recent innovations in terms of growth stimulating coatings on the grass seeds also create a situation where mixtures that are recommended today will be outdated in a few years. Therefore, it is important for a sowing machine to have a seed flow rate control that can easily cope with this fast evolution. That is why ELIET has a fine adjustment control on its sowing machine which allows for 36 settings. The broad scale allows the seed openings to be set with great precision.

ENGINE

For the GZC 750, ELIET opted for an innovative ELIET 6.5 hp Briggs & Stratton Vanguard engine equipped with the Transport Guard™ system. This ensures that the fuel supply closes when the engine shuts off, making fuel leakage or evaporation impossible during transport of the machine to and from work. In addition, the engine features a cylinder with overhead valves (OHV) that provides approximately 15% extra power as well as better cooling.

The larger seeder, GZC 1000, with its work width of 1m, will be equipped with a 9 hp powered Honda engine. The new generation of the GX270 guarantees a low noise performance, low fuel consumption and low emissions.



SLIP COUPLING

Whilst preparing the seedbed, the vibrating harrow frequently digs up stones from the subsoil. A larger stone may accidentally become stuck between the vibrating harrow and the rear roller. To avoid that this jam causes the drive to break, it is protected by means of a slip coupling.

MACHINE-WIDE ROLLING

The new ELIET lawnseeder has two crusher rollers in front and a machinewide one at the rear. This provides a good weight spread and evenly flattened soil overall. As the rollers have an open profile, the soil surface is not compacted as they roll over it. The soil is thus left loose enough for water and nutrients to filter through. Erosion is prevented even after heavy rain.

STURDY CONSTRUCTION

It is essential that the machine's own weight be substantial in order for the machine to function properly. The weight-adding measures taken by ELIET greatly benefit the user as they turn the GZC into an indestructible armour. With plate thicknesses ranging from 5 to 20 mm (0,2 to 0,8 inches), it goes without saying that operational safety is guaranteed. The structure of the machine remains, before anything else, simple and maintenance-friendly.



3X3 ROLLER DRIVE

The machine is not only driven by the two front crumble rollers, but also by the machine-wide roller at the back. This 3x3 roller drive offers several benefits. First and foremost, driven rollers are not really affected by sticking soil. Also, the traction on the rear roller ensures that the GZC can be used in a controlled manner for sowing on slopes.

SIDEWAYS ADJUSTABLE HANDLEBAR

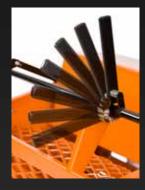
To guarantee a perfect lawn finish when sowing new grass seeds, without leaving any footprints in the sand, ELIET added a simple, smart feature: a sideways adjustable handlebar. The operator can at any time adjust the handlebar sideways and steer it at an angle of 20° to the left or right. The sideways adjustable handlebar allows the operator to walk alongside the machine and still make full use of the Intuitive Steering feature. To remove the seed reservoir, you can even swing the handlebar 90° to the left





VIBRATING HARROW DEPTH SETTING

One of the most important controls of the machine is the lever to set the depth of the harrow action. The operator can continuously adjust the harrow's depth setting to thoroughly till the soil and to lay out a seedbed with the correct granularity. The lever is within easy reach of the operator to enable smooth switching between the 6 depth positions.



LIFTING HOOK

Freight traffic legislation is becoming more and more stringent. For example, some EU Member States require that a machine be fitted with at least 4 anchor points to guarantee safe transport. In accordance with these regulations, the ELIET GZC is fitted with such an attachment point in each of the chassis' corners. In addition, there is an eye at the centre of the machine which allows the machine to be lifted with a crane.



VIBRATING HARROW

The vibrating harrow consists of two rows of teeth that penetrate the ground to a maximum depth of 7 cm (2,7 inch). It is one of the most important parts of the machine as it accounts for three critical operations: fine tillage of the top layer, ground levelling, sowing and covering the seed. The drive of the vibrating harrow can be switched off which is important for safe transport to and from the work-place and for loading and unloading.



INTUITIVE STEERING™

Landscape architecture has boomed in recent years, resulting in the design of lawned areas that place ever higher demands on the machines. Moreover, the supply of large building lots continues to decline and the horticulturist is dealing increasingly with small and medium sized lots. A seeder must be therefore suitable for all terrain types. The approach in the design of the new GZC was to increase the ease of operation in order to extend the limits of automated lawn construction. ELIET's Intuitive Steering™ feature is the result..

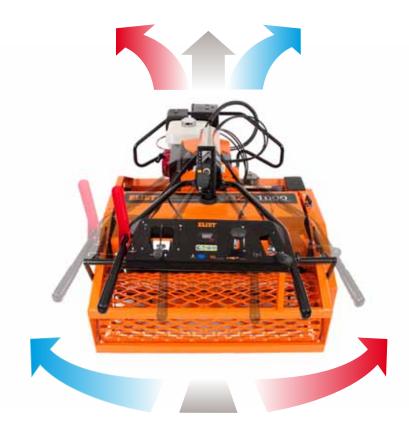
The handlebars of the GZC are laterally movable. By pushing the handlebars sideways, a simple yet ingenious mechanism translates this movement into steering the hydrostatic drive of the front rollers that allows the machine to turn in the direction with the momentum that the operator had envisaged when applying his steering action.

The steering can be operated lightly but does give a certain counterpressure so that it really feels like you are turning a machine with a weight exceeding 400 kg (884 pounds).

Steering a GZC is as easy as pushing a wheelbarrow. To turn a wheelbarrow to the left one unconsciously but intuitively moves to the right while holding the handles straight. The sharper one wants to turn, the further one steps to the right. The GZC operates in the same way: if you want to turn to the left then you step with the handle bars a little to the right and the machine turns as you expect. The function of the Intuitive Steering also applies when reversing.

To further increase user comfort the GZC has multiple height positions so that the operator can hold the most fitting ergonomic posture while working.





DASHBOARD

The dashboard is simple and straightforward. The most essential controls of the machine are within easy reach. The instrument panel has a lever with which the harrow is switched on and the speed selected simultaneously. The harrow has a slow vibrating mode (407 movements/min) which is ideal for working the grass seed in. The fast mode (590 movements/min) intensifies the working, which in turn is suitable for the fine finishing of the seedbed.

The dashboard also has a lever that opens or closes the hopper. Grass seed is one of the major cost factors in the construction of a lawn. Efficient use of this lever can prevent wastage of grass

In addition, a throttle and a maintenance meter with a built-in tachometer and servicing alarm are integrated in the dashboard



ELIET GZC 1000



With the GZC 1000, ELIET strives for guaranteed efficiency with an autonomous, self-propelled machine that combines a variety of operations in one. In addition to this time saving, ELIET has also introduced many innovative modifications that make the work easier and more comfortable for the user.

GZC 750 / 1000 OPERATING PRINCIPLE

The complete construction of a lawn with a GZC involves two separate processes: seedbed preparation and sowing.

PROCESS 1 SEEDBED PREPARATION

1. CRUMBLING

The front crumble rolls carry most of the machine's weight. When preparing the site these rolls are the first to come into contact with the roughly prepared soil. These meshed rolls partly flatten the soil and crumble large clods.



2. FINE TILLAGE OF THE TOP LAYER

The finer the soil structure of the seedbed, the better the habitat of the grass seeds and the faster the germination process is triggered. The teeth till the top layer with intense vibrating movements and break up clods to produce a very fine soil structure. The fast vibration mode (590 strokes per minute) is best for this operation.



As the teeth move quickly through the top layer, they function as a levelling blade that collects and drags soil along. Any small bumps on the surface are scraped off and hollows are filled with part of the moved earth. In this way the structural irregularities are levelled out and smoothed away.





4. ROLLING

The machine-wide rear roller then finishes off the levelling work carried out by the vibrating harrow by firming the loosened soil again. Air cavities in the top layer should be prevented because they cause the soil to dry out too quickly and create a false image of a level surface. Failure to sufficiently firm the top layer results quite quickly in subsidence, rutting and erosion







PROCESS 2 SOWING

1. LEVELLING

In the second process the front rollers enhance the preliminary levelling work. Any traces of the first process are simultaneously smoothed away.

2. SOWING

The hopper is then placed in the machine to scatter the seeds according to the set flow rate.

The guide plate, along which the seeds slide down, comes to about 10 cm (3,9 inch) above the ground providing a low free fall height to minimise the effect of the wind on the seed distribution.

The scatter zone is located between the front roller and the vibrating harrow.

3. COVERING THE GRASS SEED

As no further actual tillage is required during the seeding process, the vibrating harrow does not need to be set deep. The function of the vibrating harrow is now to evenly distribute the scattered seed over the working width so that the sowing lines are broken up.

The most important action here is to ensure that the seeds are covered with a thin layer of soil so that they are protected from the wind and the sight of birds. The ideal sowing depth is between 5 and 10 mm (0,2 and 0,4 inch) for a rapid grass seed emergence. The slow vibration mode is best for this operation.

4. FINISHING

The rear crumble roller presses the soil just enough to safely cover the sown grass seed and to leave the soil airy enough to quickly absorb moisture after rain. Hence the moisture level in this secure habitat below the top layer is ideal for the seed, which will then germinate faster.

LAYING TURF

The GZC is also convenient for preparing sites where a lawn is to be laid with turf. After the turf is laid it can be rolled with the GZC for a faster bonding of roots with soil. Here it is also recommended to switch off the vibrating harrow.



GZC 750/1000 OPTIONS

FOOTBOARD

To seamlessly finish a sowing surface without a mark, two optional footsteps can be ordered. Since the machine carries the operator, there are no more footprints. In addition, your body weight on the machine provides some extra pressure on the rollers that increases the levelling effect.





FRONT WEIGHTS

As the machine is quite heavy, a little help with turning can be useful. To better maintain balance, you can hang extra weights on the front of the machine. Weights of 20 kg (44 pounds) per disc can be ordered.

SEED-COLLECTING GUTTER

Since the grass seed is always a mixture of different grasses that can vary according to supplier and type, it is impossible for seeder manufacturers to draw up a flow rate chart that exactly matches the selected type of seed. The supplied chart is only an average guideline value. Those wanting to know the exact seed flow rate can order an optional seed-collecting gutter that allows the set seed flow rate to be effectively reweighed.





ROLL SCRAPER

The three crumble rollers are powered by drives. Through this traction, earth is constantly pressed off the rolls. The shape of the specially selected mesh profile also ensures that adhered earth is minimized. However, if the soil is too moist from light rain then earth adhesion is unavoidable. Also, a sticky clay soil presents an increased risk of adhesion. In order to be able to operate under these conditions, optional roll scrapers can be mounted that constantly wipe off adhered earth.

SMOOTH ROLLER

Although ELIET strongly recommends the crumble rollers and also provides them as standard on the machine, some horticulturists swear by smooth rollers. ELIET responds to these customers by offering an optional smooth rear roller.



SPECIFICATIONS

GREEN LAWN GUARANTEE™



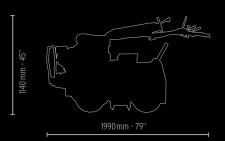
The poor state of many private lawns can be ascribed to little and limited maintenance. High-quality care is essential to create and maintain a healthy and dense lawn. Such care requires know-how and specialist machinery to enable application of the right techniques under the right circumstances.

ELIET believes that expert landscape contractors play an important role in this process. After making an adequate lawn analysis, the expert can proactively advise the lawn owner about a specific maintenance plan. ELIET is convinced that by following this work method, the contractor can even offer his customer a paid Green Lawn Guarantee™ that ensures a healthy and dense lawn throughout the year.

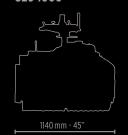
PERFORMANCE	GZC 750	GZC 1000
Drive	B&S Vanguard	Honda GX270
Power	6,5 HP	9 HP
Hydraulic pump	2 x 10cc	2 x 10cc
Hydraulic motor	2 x 400cc	2 x 400cc
Max. motor speed	3200 rpm.	3200 rpm.
Acceleration (kph) forward	4	4
reverse	-2	-2
Vibrating harrow oscillation slow	407	407
Vibrating harrow oscillation fast	590	590
Rear roller width	710 mm / 28"	1030 mm / 41"
Hopper width	600 mm / 24"	9020 mm / 360"
Hopper volume	61 L / 13 gallons	93 L / 20 gallons
Handlebar height adjustment	3 x 600 mm / 3 x 24"	3 x 600 mm / 3 x 24"
Vibrating harrow height adjustment	6 x 10 mm / 6 x 0,4"	6 x 10 mm / 6 x 0,4"
DESIGN		
Dimensions (LxWxH)	1990 x 820 x 1140 mm	1990 x 1140 x 1140 mm
	79 x 32 x 45"	79 x 45 x 45"
Weight	385 kg / 850 pounds	415 kg / 917 pounds
OPTIONS		
Front weight	4 x 20 kg	4 x 20 kg
	4 x 44 pounds	4 x 44 pounds
Seed-collecting gutter	√	✓
Roll scraper	✓	✓
Smooth roller	√	✓
Footboard	√	√

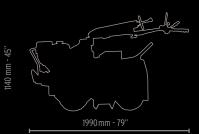
GZC 750





GZC 1000





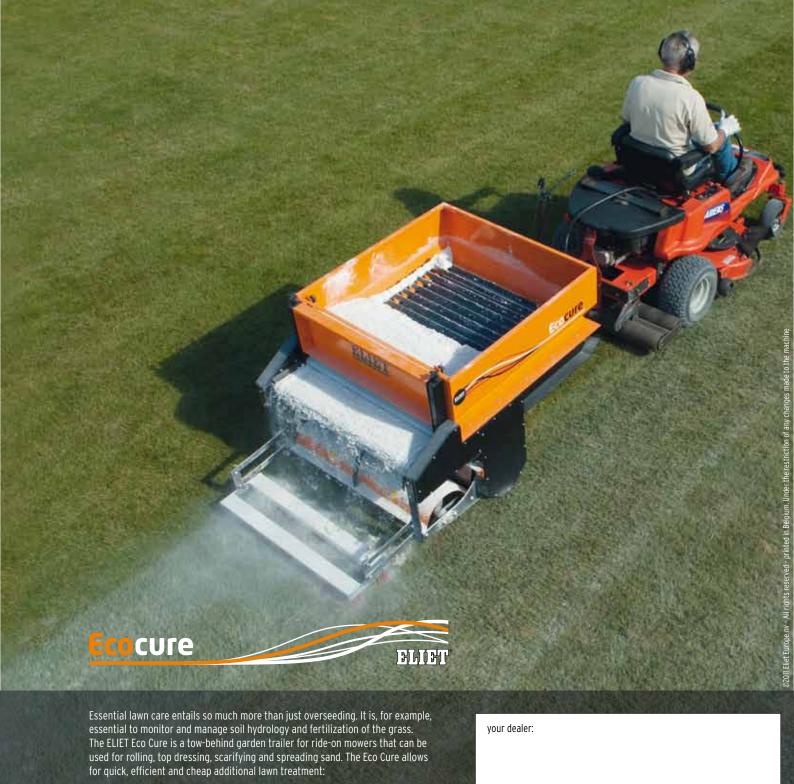












- · Rolling to flatten out irregularities
- · Deep aeration for improved drainage
- · Spreading sand as a filler
- · Distributing compost as organic fertilizer
- · Spraying powdered lime (ph stabilizer)

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For more information, visit www.eliet.eu



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