



FarmaX

Number 1 • English

THE RIGHT SPADER FOR EVERY TRACTOR

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Customer portrait

Jimmink-Kolhorn,
Barsingerhorn (NL)

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Spaders in **Australia**



Deep spading sometimes unavoidable

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➤ FOREWORD

I am proud to bring you the first Farmax magazine. It has turned out to be a fantastic magazine, containing a lot of information about spading and our collaboration with various suppliers.

In this magazine, we will explain the spading method of soil preparation and state its advantages in comparison with ploughing. There will also be a brief explanation of all types of spaders, with the new, 19.69 feet (6 metre) span spader as the highlight of the product range. This machine is a triumph for our engineering department. With its format and technology, it is sure to draw a lot of attention.

We also devote a lot of attention to users of Farmax spaders and their experiences in practice.

Wasse Hijken, our point of sales will be discussed in detail and we will talk about their new building. There will also be a word from Roger Grocock, our salesman in Australia. Farmax

has been active in Australia since 2008. Australia has a lot of arid country. Applying a layer of clay to this land and then spading it helps to retain water for a longer period of time. This preparation brings about a doubling in crop yield.

Spading is mainly a Dutch affair, but Farmax gets an increasing amount of attention from the rest of the world. We are selling many machines in Europe, and we have already delivered machines to countries outside Europe such as Japan, Colombia, Brazil, New Zealand, and Canada.

We are always looking for importers and/or dealers abroad. Like us, they have to be prepared to take risks and invest time and energy in order to sell our products.

Alfons Sleiderink
CEO Farmax



➤ WHAT IS SPADING?

Spading replaces ploughing. On any land where a plough is used, you can also prepare the soil with a spader. In the past, spaders were used when ploughing became impracticable, or only for headlands.

Vegetable growers have been familiar with spading for some time. Thanks to continued development of the spader and the availability of ever larger tractors (i.e. power) to agricultural companies, spading is a good replacement for ploughing in the Netherlands.

The user couples a standard rotary spader to the tractor's 3-point lift boom. The machine is driven by the tractor's power take-off transmission. To power the spader, you usually need the power take-off running at 1,000 revolutions per minute (rpm).

Via a power take-off with a capacity limiter and a gear unit with differential gearing, the propulsion is transmitted to the outside of the spader. The rotor is driven by sprocket wheels on each side of the machine. The power take-off's speed of 1,000 rpm is geared down to about 70 rpm. The rotary harrow is driven from one side via a separate chain unit. The rotation speed of this is slightly higher than the spading speed, which causes slipping.

This rotary harrow is fitted with flat, spring-steel teeth in a spiral pattern to create a perfect sowing bed.

The photo below shows the construction of the rotor disc. Depending on the machine's width, 4 to 12 rotor discs are mounted on the main shaft at intervals of about 13.7 inches (35 cm).



Cross section LRP Profi

Three spades are attached to each rotor disc with two shearing bolts. The rotor turns in the direction of the tractor, so the spader requires no traction power.

The spader can be used in a way that allows a sowing machine to be added. This makes it possible to spade and sow in a single operation.

The Netherlands, cradle of spading

The Netherlands is the cradle of spading. Dutch farmers are well known for being progressive. Together with spader suppliers, they have come up with a mechanical spader that will also perform excellently in other countries. The Dutch farmers clearly saw the advantages of spading.

THE ADVANTAGES:

- Spaders require hardly any traction power because the transmission runs via the power take-off. In general, a machine driven by a power take-off gives a better yield because the loss in the drive line is negligible. Also, no power transmission across the tractor wheels is required (no wheel slip).
- This means there are no wheel tracks from the tractor, and hence no soil compaction.
- No damage to the soil structure.
- Very good mixing of fertilisers/green manure.
- Increased yield: various studies show that a 10-20% increase in yield is possible.
- The ability to perform multiple operations at once saves up to 40% on diesel.
- Wide variety of spader types, with working widths from 2.95 feet (0,90 m) to 14.76 feet (4,5 m) and working depths from 9.84 inches (25 cm) to 47.24 inches (120 cm).

These advantages and the continued development of the spader (the capacity is now a match for ploughing) have led to the ever-increasing popularity of spading in the Netherlands. Farmers outside the Netherlands have yet to discover this method of soil preparation.

DIESEL CONSUMPTION SPADING VERSUS PLOUGHING

option 1 plough	operation	diesel consumption	total diesel consumption
operation 1	ploughing	7,3 – 8,9 Litres per acre (18-22 litres per Ha.)	11,3 – 13,8 Litres per acre (28-34 litres per Ha.)
operation 2	harrowing	2,0 – 2,4 Litres per acre (5-6 litres per Ha.)	
operation 3	sowing	2,0 – 2,4 Litres per acre (5-6 litres per Ha.)	

option 2 plough	operation	diesel consumption	total diesel consumption
operation 1	ploughing/ harrowing	8,1 – 10,1 Litres per acre (20-25 litres per Ha.)	10,1 – 12,6 Litres per acre (25-31 litres per Ha.)
operation 2	sowing	2,0 – 2,4 Litres per acre (5-6 litres per Ha.)	

spading	operation	diesel consumption	total diesel consumption
4 operations in 1 go	burrow, spading, harrowing and sowing	6,1 – 8,1 Litres per acre (15-20 litres per Ha.)	6,1 – 8,1 Litres per acre (15-20 litres per Ha.)

Conclusion: spading saves up to 40% on diesel.

**TIPS
FOR SAVING
DIESEL**

HOW TO SAVE DIESEL

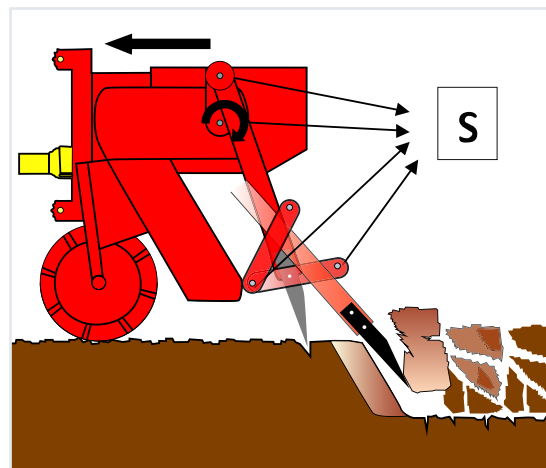
1. Adjust the spader for optimal performance.
“Do not try to spade more soil than the rotary harrow can handle.”
2. Keep the spader in good condition.
“Do not postpone replacing the spades for too long.”
3. A small spader calls for a small tractor.
“Big tractors consume more diesel.”
4. Do not drive with too much front weight.
“Extra weight costs extra diesel.”
5. Adjust tyre pressure to suit the working situation.
“Keep pressure as low as possible on the fields, and high when on the road.”
6. Choose the right driving strategy.
“Avoid unnecessary turning at the headland, use a GPS if necessary.”
7. Before starting, think carefully about how deep you want to spade.
“Make sure you don’t spade deeper than necessary.”
8. Combine the spader with a sowing/planting machine.
“More operations at one time”

➤ ADVANTAGES OF ROTARY SPADERS VERSUS CRANKSHAFT SPADERS

There are two types of spaders on the market - rotary spaders and crankshaft spaders. The crankshaft spaders incorporate a crankshaft to which the spades are attached. This type of machine makes a scooping motion. Farmax machines, on the other hand, are all rotary spaders. This means they use a rotating shaft with fixed spades. This has numerous advantages.

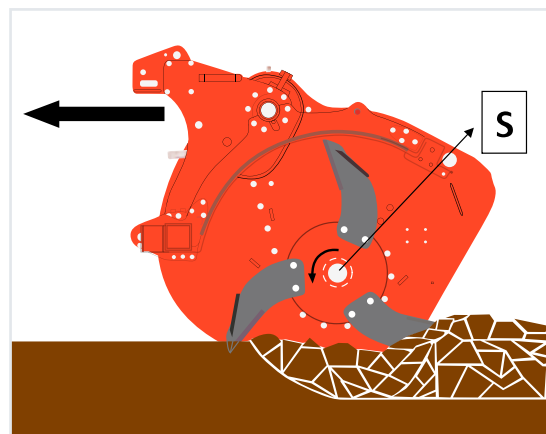
Rotary spaders require much less maintenance than crankshaft spaders. This is because they have fewer moving parts and therefore less wear and tear. Not only that, the operating speed of a rotary spader is higher. A rotary spader has a working speed of almost 4.35 mph (7 km/h). A crankshaft spader will not go any faster than 1.24 mph (2 km/h). Thanks to the greater working speed, the rotary spader has a considerably higher capacity.

Furthermore, a rotary spader requires less power than a comparable crankshaft spader. This helps to keep fuel costs lower than with a crankshaft spader. Finally, the rotary spader can spade deeper and produces an even tilth that promotes crop growth.



Crankshaft spading

Source: <http://gramegna.com/?p=78>



Rotary spading

S = moving parts

TO SUM UP

- fewer moving parts means less wear and thus less maintenance
- higher working speed means greater capacity
- lower power requirement means lower fuel costs
- rotary spaders can spade deeper
- rotary spaders produce an even tilth

Wasse Mechanisatie B.V. is a multi-faceted agricultural machinery dealership based in Hijken (NL)



Wasse supplies a full range of new and used machines and is a leader in the field of agricultural machinery. Wasse has known Farmax since 1984 and has become an indispensable partner over the years.

It started as a contracting firm

Wasse started 45 years ago as an agricultural contractor. It was run by the father and his 4 sons (Jan, Henk, Frans, and Lambertus). The company slowly grew. In 1982, they started the machinery dealership. In 1996, they sold the contracting business and continued with just the machinery dealership. The third generation of the family has now entered the firm. The business is a classic example of a modern family firm and is now run by Jan, Lambertus, Gerry, and Peter.

Wasse bought its first Farmax spader in 1984. Thanks to its earlier contracting work, the firm had gained a lot of experience with spaders. Wasse had been spading for numerous farmers and was highly successful in soil disinfection. Later, with this knowledge and experience, the company also started selling Farmax spaders.

More and more farmers are investing in a Farmax spader

Wasse notices that more and more agricultural farmers are investing in a Farmax spader. This is because farmers want to constantly increase their speed and efficiency. Improvement of soil quality and the desire to increase crop yield also play a role. With Farmax spaders, Wasse can supply a suitable machine that meets these requirements.

Also in other countries

It is not only in the Netherlands that the demand for Farmax machines is increasing. In other countries, too, farmers are increasingly opting for Farmax spaders. Dealers and importers have been appointed in many countries throughout the world. According to Jan Wasse, more and more farmers are becoming interested in spading, partly because of the good results. The number of users is increasing rapidly, mainly due to mouth-to-mouth advertising.

Wasse is ready for the future

Service to customers is a key consideration for Wasse. With every spader that Wasse sells, some one from the company comes along to get the machine operating. They have also experienced staff for on-site repairs at farms. Wasse has well-equipped service vehicles, enabling staff to resolve problems on the spot. Finally, the company is currently building new premises. These will enable Wasse to serve its customers even better and be ready to meet the future.

Wasse and Farmax are a strong, closely-knit team

Wasse is in contact with Farmax on a daily basis. Gerry Wasse: "I talk to Alfons Sleiderink every day because our customers have many specific wishes. We want to give the best possible service to all purchasers of spaders. Thanks to this intensive contact, we also discuss ways to improve things. We are a very strong, close-knit team. Our sound partnership results in many satisfied users of Farmax spaders. We are always ready to help our customers; now and in the future."

Wasse B.V.

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Through years of experience, Farmax has learned that chain has to be selected carefully in order for its machines to reach optimum performance and reliability

Therefore Farmax has chosen Tsubaki as its premium chain supplier. Tsubaki chains have proven - over and over again - to have an extreme high resistance to shock load and a much longer wear life than the chains of other chain manufacturers. Besides that, Tsubaki is also a reliable partner for Farmax when it comes to Just-in-Time management. Tsubaki is keeping products in stock for Farmax which allows Farmax to reduce its lead times as well as its storage costs.

Tsubaki knows that customers want the best and that each and every customer has unique requirements.

The Agricultural Industry requires products to withstand sand, dust, heavy shock loads, larger tractors with more powerful P.T.O.'s etc. and Tsubaki takes pride in its ability to deliver an extensive product line-up that satisfies these high expectations.

Tsubaki's main products, along with automotive timing-drive systems, are industrial drive chains, attachment chains and large size conveyor chains. Related products such as cam clutches, sprockets, shaft couplings, safety devices, toothed belts & pulleys compliment the program. In a modern workshop in Dordrecht,

standard attachment chains can be assembled as ready-to-use items, thus saving customers like Farmax and other leading European agriculture equipment manufacturers time and helping them achieve the highest possible quality. In case of special needs Tsubaki can manufacture chains completely to order.

Tsubakimoto Europe B.V. serves the Pan-European market, Africa and the Middle East. The headquarters are located in Dordrecht, the Netherlands.

www.tsubaki.eu



A company that started 70 years ago with one threshing machine has grown into a versatile business that has trusted in the quality of Farmax spaders for nearly 20 years.

A Family Business

Jimmink is a contracting and earthmoving company based in Barsingerhorn (Netherlands). Gerard Jimmink has played an active role in the company since 1990. After his father retired in 1997, followed 3 years later by his brother, Gerard carried on running the company on his own. It is a family business, and Gerard's son will carry on with it in the future. The company operated from Kolhorn, Netherlands, for 60 years until it was able to build new premises in Barsingerhorn 10 years ago. However, it still retains the name 'Jimmink Kolhorn'.

Jimmink takes on everything

Jimmink is a company that distinguishes itself by its continuity. With 20 employees, they have had plenty of business over the past 10 years. The company will take on anything, and can therefore offer a very wide range of services, from drainage to the hay harvest. The company also has its own beet harvesters and bulldozers, and owns 15 tractors and 12 cranes. Its equipment even includes combined harvesters and tracked dumpers. 60 percent of its work consists of earthmoving, road construction and water management. The other 40 percent consists of contract work for arable and dairy farms.

The switch from crankshaft to rotary spaders

About 20 years ago, Jimmink found out about Farmax spaders. Prior to that, it had done its spading with a crankshaft spader. However, this machine had a lot of downtime. According to Jimmink, crankshaft spaders need too much maintenance and you can't make any profit from them. Aside from the maintenance disadvantage, a crankshaft spader has limited

capacity. On the other hand, Jimmink says, rotary spaders also required a lot of maintenance in the past. In contrast to the crankshaft spader, this has improved a lot in recent years. They are now the kind of machine that you can give a quick check before the spading season and then get straight on with the work. They hardly require any maintenance these days.



Farmax not only offers quality, it also saves you fuel and labour

Jimmink is highly satisfied with the Farmax Rapide, which has a 13.12 feet (4 m) working width. On average, it cultivates 1235.5 acres (500 hectares) per year with about 80 customers. Gerard gets many positive reactions on the quality of the spading. He is personally very impressed by the machine's quality too." Jimmink also considers it important that he can save on fuel and working hours, thanks to the high capacity. He is not so bothered whether a machine is more expensive, as long as it does a good job and requires little maintenance. This means that Jimmink has found a good partner in Farmax. In his opinion, Farmax spaders are of better quality than those of other manufacturers.

THE CHALLENGES ARE ENORMOUS

Walterscheid drives agriculture forward!



Farming worldwide faces enormous challenges. Supplying a growing world population with high-quality foodstuffs, converting renewable raw materials into environmentally-friendly energy, and preserving our environment on a sustainable basis – these, more than ever, have become key responsibilities for agriculture.

To meet these challenges, farmers throughout the world need efficient agro-technical processes.

- As a world market leader, the name of GKN Walterscheid stands for the highest quality and innovation in the development and production of top-quality drive and mounting systems for tractors and agricultural machines.
- Our drive systems enhance the productivity of agricultural machinery. We work together with all well-known manufacturers of agricultural machines and tractors worldwide.
- Long-standing experience, modern engineering and manufacturing are our specialities; customer focus and customer service are our strengths.

Further information can be found at www.gkn-walterscheid.de



In the German town of Meppen (Niedersachsen) - close to the Dutch border - Laurenz Schepergerdes and his two sons run a large-scale arable farm. They are enthusiastic about spading as a method of soil cultivation and are happy to talk about their practical experiences with the Farmax spader.

Three business activities

With about 1235.5 acres (500 hectares), arable farming is the most important business activity. The loamy, sandy soil is used to grow maize, grain crops, and potatoes for starch. Schepergerdes also shares a bio-gas installation with his neighbour. In addition to arable farming, they also keep livestock, rearing chickens for meat. There is a clear, complementary connection: the broiler manure and the maize are used to produce bio-gas. With two sons to carry on after him, business continuity is assured.

A perfect sowing bed in a single operation

A perfect sowing bed in a single operation. This is the most characteristic response when we ask Laurenz Schepergerdes about the biggest advantage of the Farmax spader. About half of his acreage is spaded each year and the other half is ploughed, so each plot is spaded once every two years. This method of spading was a well-considered choice. Ploughing - to a depth of about 11.81 inches (30 cm) - causes soil compaction from the plough pan (a compacted layer just below the ploughed soil). Spading - to a depth of about 15.75 inches (40 cm) - is just the right treatment to resolve this soil compaction. In fact, spading works as a single operation for cultivation and sowing bed preparation. According to Schepergerdes, spading results in better rooting by his crops. He finds it difficult to estimate how much this benefits crop yields, because there are other factors that play a role.

Purchase of Farmax Rapide 300

In 2009, Schepergerdes bought the Farmax Rapide 300. He is satisfied with its three-metre working width. He opted for Farmax for two reasons. Schepergerdes tells us about these: "I was looking for a spader that made it easy to break up the plough pan. This mainly involves the depth setting. Also, I didn't want any milling effect with spading. That is bad for the soil structure, especially on loamy, sandy soil. With the Farmax spader, I can work at lower revs to avoid this milling effect.



CUSTOMER PORTRAIT

SCHEPERGERDES, MEPPEN (DE)

Practical Experiences

According to Schepergerdes, spading is a good method of spading in and mixing fertilisers. With ploughing, the degree of mixing into the soil is noticeably less. Schepergerdes also notices there is less fine soil on the plots that have been spaded. A major advantage of spading is the aforementioned sowing bed preparation. Planting or sowing can take place immediately after spading. This represents a considerable saving in labour and fuel costs.

The Farmax spader requires little maintenance, and Schepergerdes does this himself. However, there is a qualified dealer - Agravis - in the area if any servicing or parts are needed.

Schepergerdes can recommend the Farmax spader without reservation to his colleagues. He states the arguments for getting one: "With this spader, you can do good spading on any type of soil. And as I said, you can produce a good sowing bed in one operation. Furthermore, spading limits soil erosion. The surface layer is much less vulnerable to dust blow-off after spading." The farmer has a good relationship with Alfons Sleiderink, the director of Farmax.





Type: ERP

The Farmax ERP is a spader for light tractors. The great manoeuvrability and low integral weight of the ERP make it highly suitable for use in greenhouse horticulture, flower cultivation and tilling small plots. Apart from giving perfect rotavation, the popularity of the Farmax ERP is mainly attributable to its ease of operation and sturdy design.

type	operating width	max. operating depth	standard weight	required power kW/HP	number of spades
ERP 90	35.43" - 90 cm	17.72" - 45 cm	573 Lbs - 260 kg	13/18	12
ERP 105	41.34" - 105 cm	17.72" - 45 cm	650 Lbs - 295 kg	15/20	12
ERP 125	49.21" - 125 cm	17.72" - 45 cm	760 Lbs - 345 kg	16/21	12
ERP 140	55.12" - 140 cm	17.72" - 45 cm	870 Lbs - 395 kg	21/28	12
ERP 155	61.02" - 155 cm	17.72" - 45 cm	992 Lbs - 450 kg	22/30	12



Type: SRP

Perfect planting beds with the Farmax SRP spader. The Farmax SRP spader is specially designed for use in growing trees, fruit and vegetables. The narrower models are suitable for use in greenhouses and vineyards. Thanks to its robust design, the SRP requires little maintenance.

type	operating width	max. operating depth	standard weight	required power kW/HP	number of spades
SRP 105	41.34" - 105 cm	17.72" - 45 cm	1,036 Lbs - 470 kg	22/30	12
SRP 125	49.21" - 125 cm	17.72" - 45 cm	1,080 Lbs - 490 kg	26/35	12
SRP 155	61.02" - 155 cm	17.72" - 45 cm	1,245 Lbs - 565 kg	30/40	12
SRP 185	72.83" - 185 cm	17.72" - 45 cm	1,399 Lbs - 635 kg	33/45	15
SRP 210	82.68" - 210 cm	17.72" - 45 cm	1,576 Lbs - 715 kg	37/50	18



Type: DRP Perfect

The Farmax DRP Perfect is a medium-class spader, perfectly suited for horticulture, tree nurseries and agriculture on lighter soils. This spader comes in various working widths and can easily be fitted with a hydraulically adjustable rotary harrow, rotary cultivator, ring roller, tube roller or packer roller. Regardless of the soil type, the DRP Perfect guarantees you the best bed for sowing or planting!

type	operating width	max. operating depth	standard weight	required power kW/HP	number of spades
DRP 185	72.83" - 185 cm	17.72" - 45 cm	2,204 Lbs - 1.000 kg	41/55	15
DRP 215	84.65" - 215 cm	17.72" - 45 cm	2,480 Lbs - 1.125 kg	45/60	18
DRP 245	96.46" - 245 cm	17.72" - 45 cm	2,866 Lbs - 1.300 kg	50/68	18
DRP 275	108.27" - 275 cm	17.72" - 45 cm	3,141 Lbs - 1.425 kg	55/75	21
DRP 300	118.11" - 300 cm	17.72" - 45 cm	3,968 Lbs - 1.800 kg	60/80	24



Type: LRP Profi

LRP Profi is a spader for medium-size farms and agricultural contractors. The LRP Profi is easy to maintain, very user-friendly and virtually fully equipped as standard. This means you can combine several operations at one go, giving the LRP-Profi an even higher capacity. Drive to main axle (rotor) goes via the central transmission with differential. Power take-off runs at 1,000 r.p.m.

type	operating width	max. operating depth	standard weight	required power kW/HP	number of spades
LRP 250	98.43" - 250 cm	16.69" - 50 cm	5,158 Lbs - 2.340 kg	74/100	18
LRP 275	108.27" - 275 cm	16.69" - 50 cm	5,511 Lbs - 2.500 kg	85/110	24
LRP 300	118.11" - 300 cm	16.69" - 50 cm	5,952 Lbs - 2.700 kg	92/120	24



Type: LRP Econ

The LRP Econ is a simplified version of the LRP Profi. On the LRP Econ, the main axle and the rotary harrow are incorporated in a single, fixed side plate. This reduces the number of adjustable parts that require maintenance, making this machine extra robust. The LRP Econ is equipped as standard with a rotary harrow, but it can also be equipped with a packer roller or ring roller.

type	operating width	max. operating depth	standard weight	required power kW/HP	number of spades
LRP ECON 250	98.43" - 250 cm	16.69" - 50 cm	5,346 Lbs - 2.425 kg	74/100	18
LRP ECON 275	108.27" - 275 cm	16.69" - 50 cm	5,701 Lbs - 2.586 kg	85/110	24
LRP ECON 300	118.11" - 300 cm	16.69" - 50 cm	6,139 Lbs - 2.785 kg	92/120	24



Type: Rapide

The Rapide is a really fast spader with a very heavyweight design. The specially designed driveline is protected up to a power of 240 HP. The FarmaX Rapide tills heavy sand, clay and even stony soils quickly and without problems. With an operating span of 9.84 feet to 13.12 feet, the Rapide gives fantastic results, even at high speeds.

type	operating width	max. operating depth	standard weight	required power kW/HP	number of spades
Rapide 300	118.11" - 300 cm	16.69" - 50 cm	6,503 Lbs - 2.950 kg	115/150	24
Rapide 350	137.8" - 350 cm	16.69" - 50 cm	7,220 Lbs - 3.275 kg	130/170	30
Rapide 400	157.48" - 400 cm	16.69" - 50 cm	8,046 Lbs - 3.650 kg	148/200	30

Want to know more about our spaders?
Visit www.farmaX.info



Close to the runways of Schiphol Airport, father and son Gerrit and Chris Klaasse Bos run an arable farming and contracting business together. They have been fans of spading for years. They helped Farmax to develop the Farmax Rapide.

Just outside of Amsterdam

Klaasse Bos is an arable farming business that has established itself in the small town of Lijnden, just outside of Amsterdam. The firm mainly focuses on arable farming, but also does transport and contract work. Gerrit and Chris usually take care of all the work on their own, but take on extra staff in busy periods. The business is quite a few years old and has been growing strongly recently. "We have expanded from 148.3 acres (60 hectares) to 593 acres (240 hectares) and we think we still have some way to go", says Gerrit. Three years ago, the firm was able to build completely new premises. Whatever they do, Klaasse Bos like to do it well. They also offer a wide range of services.



CUSTOMER PORTRAIT

KLAASSE BOS, LIJNDEN (NL)

Always fans of spading

For Klaasse Bos, spading and sowing are recurring annual activities. Every year they spade 247.1 acres (100 hectares) of their own land and another 1235.5 acres (500 hectares) for customers. This forms a big part of their contract work. From the firm's early days, they have been fans of spading and sowing in a single operation. This helps to keep costs down. Gerrit and Chris have always been advocates of the rotary spaders. In their opinion, crankshaft spaders require too much maintenance. The result you get from a rotary spader is also much better. Firstly, the soil is mixed better. Secondly, it loosens the soil well and, thirdly, it creates a furrow that preserves the groundwater management.

'Farmax listens to our ideas'

Gerrit: "With the old machine, we were restricted by the limited capacity and the spader's tendency to clog. But we also had some other ideas on how to improve the machine. When we contacted Alfons Sleiderink about this, we never expected that he would be so receptive to our ideas. He involved us in the development of the machine and so was able to introduce the machine to the market quickly. The result was the Farmax Rapide." Klaasse Bos therefore express their appreciation of Farmax. "We are very satisfied with the current Farmax machines and would recommend them to other arable farmers and contractors. That's because the machines produce a good result and are technically first-rate. What's more, we find the machine reliable and low-maintenance compared to other spaders in our area", says Chris.

'Farmax spaders are the best for working clay'

According to Klaasse Bos, Farmax machines get the best results on clay soils. "While other machines quickly get clogged under heavy conditions, Farmax's spaders keep going. We also save a lot of diesel in comparison with ploughing and sowing. Whether it increases the yield is hard to determine, because this also depends on other factors. On the other hand, the yield certainly is not any the less for it. Finally, with spading we are much less dependent on the weather. That is a big advantage, "especially when it comes to working the fields", says Gerrit.

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Farmax's easy-to-use spaders improve the soil structure on any type of land.

Farmax spaders require little maintenance and combine multiple operations in a single passage. An overview of the various options.



The LRP Profi in combination with a sowing machine.



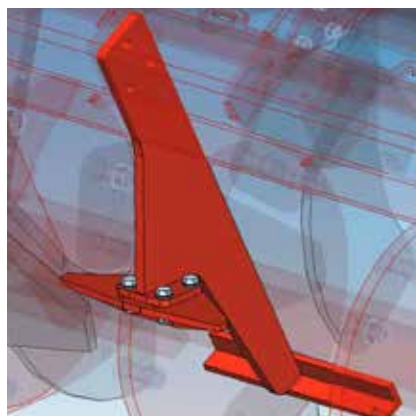
Additional roller for a sowing bed that holds moisture better.



A top-mounted lift to combine with a sowing machine.



LRP Profi fitted with a tube roller.



The specially designed combi-scrapers ensure that soil adhesion (which mainly occurs with clay soils) is prevented.



Version with a rotary cultivator for clay soils.

THE FARMAX RAPIDE TRAILED IS A TRAILED SPADER WITH AN OPERATING WIDTH OF NO LESS THAN 14.76 FEET (4,5 M)

This spader was specially developed for the Australian market. The Rapide Trailed can hold its own in all conditions, with an excellent tilling result and exceptional capacity. With a maximum tilling depth of 15.75 inches (40 cm) the Rapide Trailed tills heavy sand and clay soils quickly and without problems.



Consistent rotavation depth, optimum groundwater management

The Rapide Trailed is equipped as standard with a tyre roller consisting of two arrays of 8 tyres. This tyre roller guarantees a consistent rotavation depth and ensures that the ground is properly rolled after tilling. Furthermore, it ensures perfect restoration of groundwater management.

Super fast and extra manoeuvrable

Thanks to a relatively high spading speed and the width of the spader there is a feasible capacity of 6.9 acres (2.8 hectares) per hour. The drive line is designed in such a way that the rotor can easily continue to turn, even when the machine is at an oblique angle behind the tractor. The implementation of the drive line is extra heavy, as usual by the Farmax Rapide series.

Total weight: 16,534 Lbs (7.500 kg)

Drive: transmission case fitted with differential, extra heavy-duty drive line

Capacity: up to 6.9 acres (2.8 hectares) per hour

Power take-off revs: 1,000 r.p.m.

Tractor power: 200 to 300 HP

Advantages

- extra high capacity, thanks to very wide span
- low maintenance and very user-friendly
- tills heavy sand and clay soils without any problem
- specially designed tyre roller restores the groundwater management and guarantees consistent rotavation depth



The spader blades are attached with shearing bolts



Spader blades



Sturdy construction



Fitted with 16 roller tyres

Technical Data

type	operating width	max. operating depth	standard weight	required power kW/HP	number of spades	roller tyres
Rapide Trailed	177.17" - 450 cm	15.75" - 40 cm	16,534 Lbs - 7.500 kg	149/200 224/300	36	type: 750x16

Roger and Sue Groockock, Farmax spaders in Australia

In Bordertown, a small town in southern Australia, the Groockock family has its agricultural business. Some years ago, Roger and Sue Groockock got to know Farmax spaders in a rather remarkable way. They now import Farmax spaders to Australia.

‘Dutch employee who told us about Farmax’

Roger and Sue learned about Farmax spaders through a Dutch backpacker named Hans. In 2005, this young tourist worked for a few weeks on the farm belonging to Roger and Sue. In this time, he worked with a modified chisel plough. Roger: “I had developed special shares for this plough and fitted them to the machine. These shares produced furrows 7.9 inches (20 cm) to 9.84 inches (25 cm) deep, into which we could spray trace elements. Behind the machine, the soil was levelled using a piece of iron from an old railway. This combination enabled us to create a good sowing bed for the crops.”

He continues: “When Hans had prepared the land, he noticed that there was a machine in the Netherlands that was much more suitable for this work. He was referring to the Farmax spaders.” Or as Roger calls them, “magical tilling machines”. Groockock was not familiar with Farmax machines. Once he had studied the spaders in detail, he was very impressed. In 2008, he imported the first Farmax spader.

Doubling of the yield

Groockock was immediately persuaded. In his opinion, spaders have a bright future in Australia. This is because the Australian soils have a very sandy surface layer with poor water retention. With an application of clay, mixed to a depth of 11.81 inches (30 cm), the soil can retain water much better. Almost all farmers in Australia use this technique because it doubles their crop yield. In this sphere, Farmax spaders have proven their worth.

In 2009, Sue and Roger started their company ‘Groockock Soil Improvement’. Sue: “We mainly import Farmax spaders into Australia so that other farmers can also benefit from these fantastic machines.” The machines are already being put to work in Victoria, South Australia and Western Australia.

‘We wish we had heard about Farmax earlier’

Farmax always pays close attention to the needs and wishes of the Australian market. This resulted in the development of the Rapide Trailed,



Roger en Sue Groockock

a new type of Rapide with extra-large capacity. This spader is 14.76 feet (4,5 m) wide and is trailed rather than carried on the lift boom. The Rapide Trailed is equipped with a tyre roller that presses the soil down well. Wind erosion can be a big problem in South Australia during the dry autumn. Thanks to the pressure from the tyre roller, this problem lies in the past.

Roger: “We appreciate the development that has been made in Farmax spaders over the past 50 years, so we wish we had heard about them earlier instead of just a few years ago. We are great fans of Farmax and its machines. That’s partly because the company listens to its customers’ wishes and adapts the machine to Australian farming conditions. We are looking forward to new and exciting developments in the future.”

Roger en Sue Groockock,
Bordertown, South Australia.

DEEP SPADERS



➤ DEEP SPADING SOMETIMES UNAVOIDABLE

On certain soil types and with certain crops (such as asparagus), it is necessary to spade the ground deeply. The aim is to penetrate the hard, impervious layers to produce a better soil structure. This makes it easy for rainwater to sink into the ground and increases moisture permeability considerably.

Crops develop better root systems in deeply spaded soil, and more oxygen also gets into the soil. In the

flat, polder areas of the Netherlands, deep spading is often employed to make the soil lighter and more easily workable. The 40% ratio of elutriable soil mixed with the underlying sand layer ensures that the elutriation increases by 20 to 25%.

Deep spading is very important for crops that root deeply and often grow from the same root for several years, such as asparagus and grapevines.

The Farmax range includes a number of machines for deep spading, depending on the depth to be spaded. The flagship is the KRG, a trailed deep spader with a working depth of up to 47.24 inches (120 cm).



➤ TYPE: LRG-D

type	operating width	max. operating depth	standard weight	required power kW/HP	number of spades
DRP-D 160	62.99" - 160 cm	25.59" - 65 cm	2,094 Lbs - 950 kg	45/60	12
DRP-D 180	70.87" - 180 cm	25.59" - 65 cm	2,182 Lbs - 990 kg	48/65	15
LRP-D 250	98.43" - 250 cm	33.46" - 85 cm	4,420 Lbs - 2.005 kg	82/110	18
LRP-D 280	110.24" - 280 cm	33.46" - 85 cm	4,662 Lbs - 2.115 kg	103/140	18
LRG-D 250	98.43" - 250 cm	33.46" - 85 cm	6,503 Lbs - 2.950 kg	103/140	18
LRG-D 280	110.24" - 280 cm	33.46" - 85 cm	6,944 Lbs - 3.150 kg	110/150	24
LRG-DD 250	98.43" - 250 cm	43.31" - 110 cm	6,944 Lbs - 3.150 kg	118/160	18
LRG-DD 280	110.24" - 280 cm	43.31" - 110 cm	7,605 Lbs - 3.450 kg	130/180	24



➤ TYPE: KRG

type	operating width	max. operating depth	standard weight	required power kW/HP	number of spades
KRG 250	98.43" - 250 cm	47.24" - 120 cm	11,243 Lbs - 5.100 kg	140/190	24
KRG 280	110.24" - 280 cm	47.24" - 120 cm	11,541 Lbs - 5.235 kg	177/240	24

In Waghäusel, Germany, situated between Heidelberg and Karlsruhe, the Heiler family runs an agricultural contracting company. For them, growing asparagus is an important specialisation. There is only one method of soil preparation that will work for asparagus growers, and that is spading. Walter Heiler is glad to illustrate his preference for spading and Farmax spaders."



25 years of experience with Farmax spaders

Heiler Agrarservice was founded in 1979 by Walter Heiler. Since 2001, Walter and his son Raphael have been running the contracting company together with six co-workers. It is a typical family business, with all the family members taking an active part. Their machinery consists of about ten tractors and four combine harvesters. A lot of asparagus are grown in this part of Germany. Specifically for this crop, Heiler has several combined cultivator/planters (2 and 3-row). To prepare the soil, the company uses four Farmax spaders.

number	type	operating width	depth
1	KRG 250D (trailed version)	98.43" - 250 cm	47.24" - 120 cm
1	LRGD 250	98.43" - 250 cm	39.37" - 100 cm
2	LRGD 280	110.24" - 280 cm	39.37" - 100 cm

Heiler also uses these spaders for other crops and in other areas. This is because the company is active in other areas such as Baden-Württemberg, Hessen, Rheinland-Pfalz, Saarland, Brandenburg, Sachsen, Thüringen, Sachsen-Anhalt and Bavaria. Heiler spades about 741,3 acres (300 hectares) per year, varying from light, sandy soils to heavy, loamy soils. The soil preparation is completed in a single pass. There is no simultaneous sowing. A salient detail: Heiler still has its first Farmax spader, which it bought in 1988.

Satisfied customers

Heiler's customers are very satisfied with the use of Farmax spaders, because spading causes the contractor to create a good soil structure on all

types of soil. Spading creates a loose surface layer and a good mix of soil and any fertilisers that are used. For the farmer, this means optimal conditions for (immediate) sowing or planting. This is distinctly different from ploughing: the soil is 'turned over' in layers and not mixed.

Service, maintenance and capacity

Heiler is also satisfied with the operation of the Farmax spaders. He can easily and cheaply carry out whatever maintenance is necessary himself. This is because these machines are constructed so as to require little service or maintenance. If necessary, he is in direct contact with the factory in Denekamp, the Netherlands. He also

considers the machines' capacity an important factor, so he was pleased to hear that Farmax is working on a new generation of spaders with a bigger working width.

To be recommended to fellow contractors

Heiler has years of experience with Farmax spaders. He concludes: "I can thoroughly recommend these machines to my fellow contractors. I have already given the most important arguments in their favour. For the farmer, they mean a good soil structure and an ideal sowing bed preparation. For the contractor, the easy maintenance and reliability are important."

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THE RIGHT SPADER FOR EVERY TRACTOR



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