Spend your time wisely 02

Automating repetitive work leaves you more time for areas where you see opportunities.

Healthy milk production 04

Increasing the feed pushing frequency has multiple benefits for both you and your cows.

Works in any barn 08

The Lely Juno pushes feed in all types of barn, and can even move from one barn to another.

Lely Juno

Automatic feed pushing

Increasing feed intake has never been easier

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“The cows eat better now we doubled the feed pushing frequency and also push the feed during the night.”

Maxime Auffrais
Châteaubriant, France
“Two years ago we used a tractor with a blade to push the feed every morning, noon and evening. With the arrival of the Juno automatic feed pusher, we doubled the feed pushing frequency and had more time to take care of the cows.
The cows eat better because it also pushes the feed during the night. I think the sound of the Juno lures the cows to come to the feed fence more often. We have less rest feed and even the visiting behaviour to the milking robot has increased.”

Your feeding strategy has a significant impact on your results

Increasing feed pushing frequency really pays off – it stimulates frequent consumption of feed throughout the day and night, resulting in a higher overall feed intake of the herd. This has a positive effect on animal health, fertility and production – and also on your finances.

The intake of a large quantity of rapidly fermentable feed causes an extreme drop in pH levels, which can result in subclinical rumen acidosis and ultimately damage to the rumen wall. Feed passes through the rumen too quickly, and bacteria that ferment the crude fibre are ineffective at low pH.

This causes poor utilisation of the feed. Cows should eat 10 to 14 meals every 24 hours to ensure a good, stable pH level and thus a more efficient use of the feed.
Increasing the feed pushing frequency stimulates cows to come to the feed fence more often and fill up their rumen again. By automating this task, you can increase the feed pushing frequency while significantly reducing your labour requirements and fuel costs.

The Lely Juno automatic feed pusher makes your days more flexible, your feeding process more efficient and your business more successful.

Smart feeding works

"The cows come at the beep when the Juno starts running."

Jérôme Auffrais, France
120 dairy cows and 400 rearing calves

Increasing feed pushing frequency has multiple benefits for both you and your cows

The benefits of automatic feed pushing

24/7 constant availability of rations

Every cow, even a lower ranked one, is able to eat the ration she needs for optimal rumen health, growth and production. By pushing feed regularly, it is always within the cows' reach. Feeding and feed pushing stimulates cows to walk to the feed fence and fill up their rumen again.

Optimal feed intake

Feeding is the best motivator for cows to come to the feed fence. When feeding with a feed wagon, 2 to 3 times a day achieves the optimal balance between the amount of work needed and an optimal feed intake. This equates to pushing the feed 6 to 8 times per day.

Labour-saving

Quite often, labour is a limiting factor in keeping the feed within the cows' reach all day and night. Based on 3 feed pushing rounds of 10 minutes each day, an automatic feed pusher will save you at least 180 hours a year. This is more than a monthly wage of an FTE per year. If you switch to 6 feed pushes per day, this amount doubles!

Greater flexibility

Automating the repetitive work of feed pushing means you do not have to interrupt your activities multiple times a day. Use your farming skills where you see opportunities to improve grassland management, the breeding side of herd management or adjusting cow rations and optimising the feed conversion efficiency, for example. This is all more valuable than pushing the feed yourself.

More benefits of automatic feed pushing

More frequent use of the milking robot

When combined with a milking robot, the Lely Juno has been shown to increase the visiting rate of the robot. More frequent visits result in higher milk production, especially for lower-ranking cows. In addition, the milking robot is used more efficiently and fewer cows need to be collected for milking.

Sorting and rest feed

Pushing the feed more frequently stimulates feed intake and reduces the amount of rest feed. The cows have less opportunity for sorting, making the eaten ration almost equal to the fed ration. Aim for 3-5% leftovers before you provide new feed. If the cows are waiting to eat at 5-10% leftovers, there could be something wrong with the mixing quality or palatability of the feed. Bad leftovers are waste and should be discarded.

Improved animal health

50-70% of a dairy cow's energy requirements come from volatile fatty acids which are left over from the fermentation of carbohydrates. The microorganisms that ferment the crude fibres are ineffective at low pH. Many small meals result in a higher, more stable pH which enables cows to make better use of the feed they eat. Frequent feed pushing stimulates cows to eat more frequently and helps them get the most out of the feed.

Less stress

Cows eat, lie and walk in groups. Stress and aggression at the feed fence occur when feed is limited or difficult to access. The cows lower in rank will wait until the main group rests. They eat more quickly, and also often eat less – this results in more animal health problems. By ensuring sufficient palatable feed is readily available, you will limit the effects of having too few eating places.

"We received very clear explanations from the service engineers."

Wim Wijnhout, Netherlands – 200 dairy cows

The milking and feeding experts in your region

The Lely Center in your area is a partner in dairy automation you can rely on. Over the years, Lely has built a comprehensive network of specialists who combine experience in dairy automation with local knowledge. Their main aim is to help you get all the benefits from your Lely equipment.

Peace of mind

Peace of mind is most important in your day-to-day activities. This means being able to rely on employees and machinery, and having a steady partner in service and support. It's good to know that behind your Lely Juno is an organisation you can trust.

Certified technicians

Through your local Lely Center, you'll have full access to Lely's certified technicians. They will ensure perfect installation, set the desired routes and provide the right service for a long and trouble-free life span.

Regional knowledge & experience

You can also rely on the knowledge, help and support of the Farm Management advisors at your local Lely Center. They ensure that your Juno plays its role in optimising productivity and profitability on your farm.

Dairy farming is in our blood

Many of Lely's staff members come from a farming background themselves. They understand how farms work and are trained and tested on their knowledge. Reliability and expertise to assist both new and existing customers is on hand. Because local technicians and advisers have lots of experience with other systems that are installed in your area, they are always up-to-speed.

Most experienced in dairy automation

Lely is the market leader in dairy automation. In automatic feeding pushing, the Juno is already used by more than 13,000 customers worldwide.

Lely Juno

Increasing feed intake has never been easier

Pushing feed yourself is now a thing of the past. With the help of the Lely Juno, you can increase the feed pushing frequency and reduce your labour and energy costs.

Designed for all barn types

As the Lely Juno is a standalone machine, barn modifications are seldom required and the Juno can be used in almost any type of barn. The Lely Juno handles all types of feed fences with ease, making it suitable for any type of barn – even barns with a small feeding alley.

How it works

The Lely Juno moves along the feeding alley automatically, following the feed fence. The ground-driven, rotating surface on the lower part of the machine pushes the roughage towards the feed fence. A heavy steel block forms the ‘body’ of the feed pusher, ensuring that the machine has sufficient mass to push the fodder.

Low energy consumption

The charging station, which can be mounted on the wall or floor in the feeding alley, serves as the start and end point for each feeding route. The Juno charges quickly and easily, and thanks to the energy-efficient motors, the power consumption is around 1 kWh a day. This results in considerable fuel cost savings when compared to a tractor, reduced manual labour costs and has a positive effect on CO_2 emissions in the barn.

Safety

The Lely Juno operates in the feeding alley, which is an easily accessible part of the barn. As a result, safety is of paramount importance so the feed pusher features a collision detector. This ensures that the feed pusher comes to a stop as soon as it encounters an obstacle.

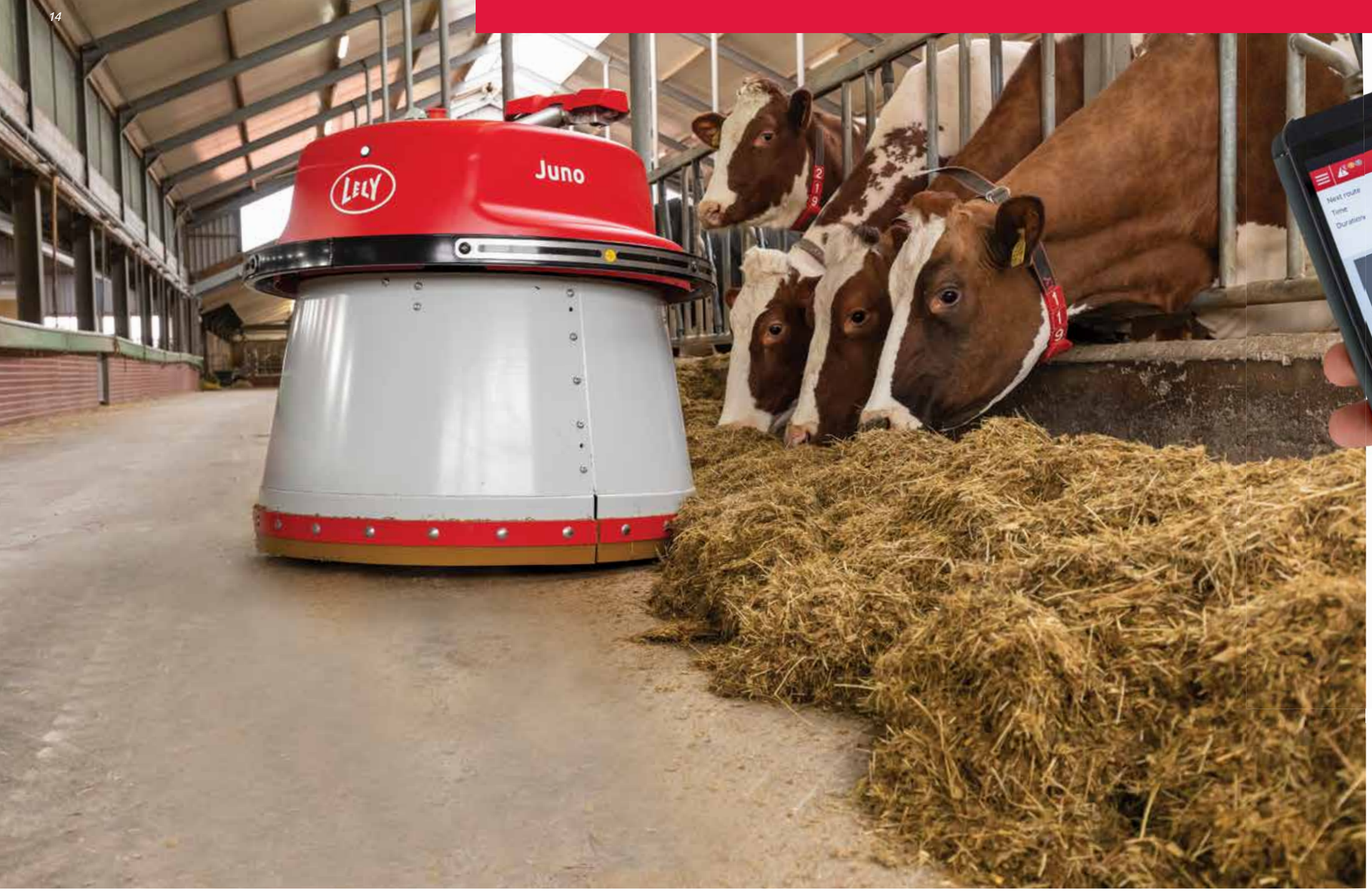
Working night and day

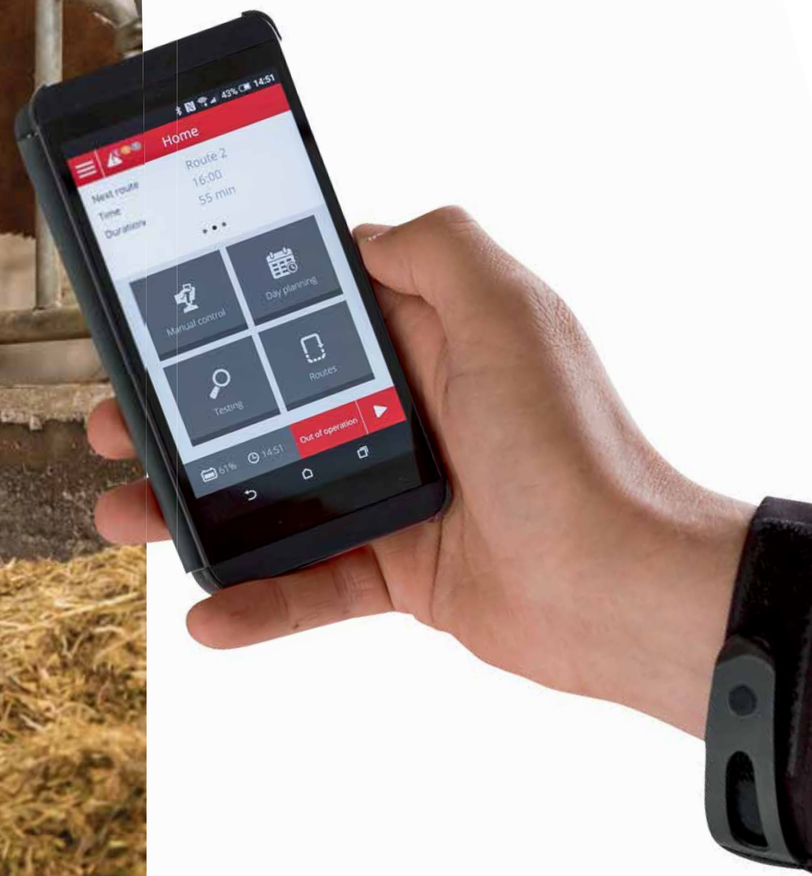
Drive various routes at any desired distance to the feed fence 24/7

Metal guiding strips
The Lely Juno uses an induction sensor to follow metal guiding strips when driving towards the charging station and, if needed, to other barns.

Ultrasound sensors
The Lely Juno uses ultrasound sensors to follow walls and feed fences at the desired distance without having to alter its route.

Cleaning route
The Juno is also able to clean the feeding alley, for example one hour before feeding time. A cleaning route starts on the outside of the feed alley and pushes everything towards the feed fence.





Lely Control Plus

The Lely Juno can be controlled using the ‘Lely Control Plus’ app via a Bluetooth connection. With the app, you can easily manage your daily settings.

Dynamic pushing

Feed is never divided evenly over the entire feeding alley. Thanks to our smart software, this does not matter. For each route, you can set the minimum distance to the feed fence, the pushing frequency and the feed type per group. Based on this data, the software determines the right resistance level and pushing force. The Juno is also able to automatically correct the optimal distance to the feed fence as it detects the amount of feed at each spot. This ensures that the Juno distributes the feed correctly over the entire length of the alley in every situation.

Cloud Connect

With Cloud Connect, you can check the status of the Juno without needing to be in the barn yourself. If the Juno is connected to the Wi-Fi in the barn, it can send its operational status to the cloud. If you use Lely Horizon on a smartphone, you can set it up so that the Juno sends a push notification to your mobile device in case of a critical alarm.

Build your own Juno

Many farms have grown over time and house their animal groups in different barns. It is good to know that the Juno will work with all kinds of barn layouts and feed fences. If your Juno will need to push the feed in multiple barns, it can be customised with the following options:

Flex package

The Flex package includes all these options (except barn door control for opening and closing electric doors). You can also order the options individually, or add them after installation.

To have the complete set of options integrated during the manufacturing process, order your Lely Juno with the Flex package. If you wish to choose selectively from our wide range of options, these will be integrated by your local Lely Center during the installation of your Lely Juno.

Skirt lifting

Thanks to skirt lifting, the Juno can pass small obstacles such as floor railings. It also provides sufficient ground clearance when driving on slopes with an incline up to 15%. The ground clearance also keeps the skirt free from mud and manure so that it does not pollute the feed.

Left and right pushing of roughage

The bi-directional feed pushing feature of the Juno greatly increases its capacity. With bi-directional wall tracking, the Juno is able to follow walls on both the left and right-hand side of the alley or feed passage.

Barn door control

In combination with the barn door control, the Juno is able to open and close electric doors automatically when driving from one barn to another.

LED light

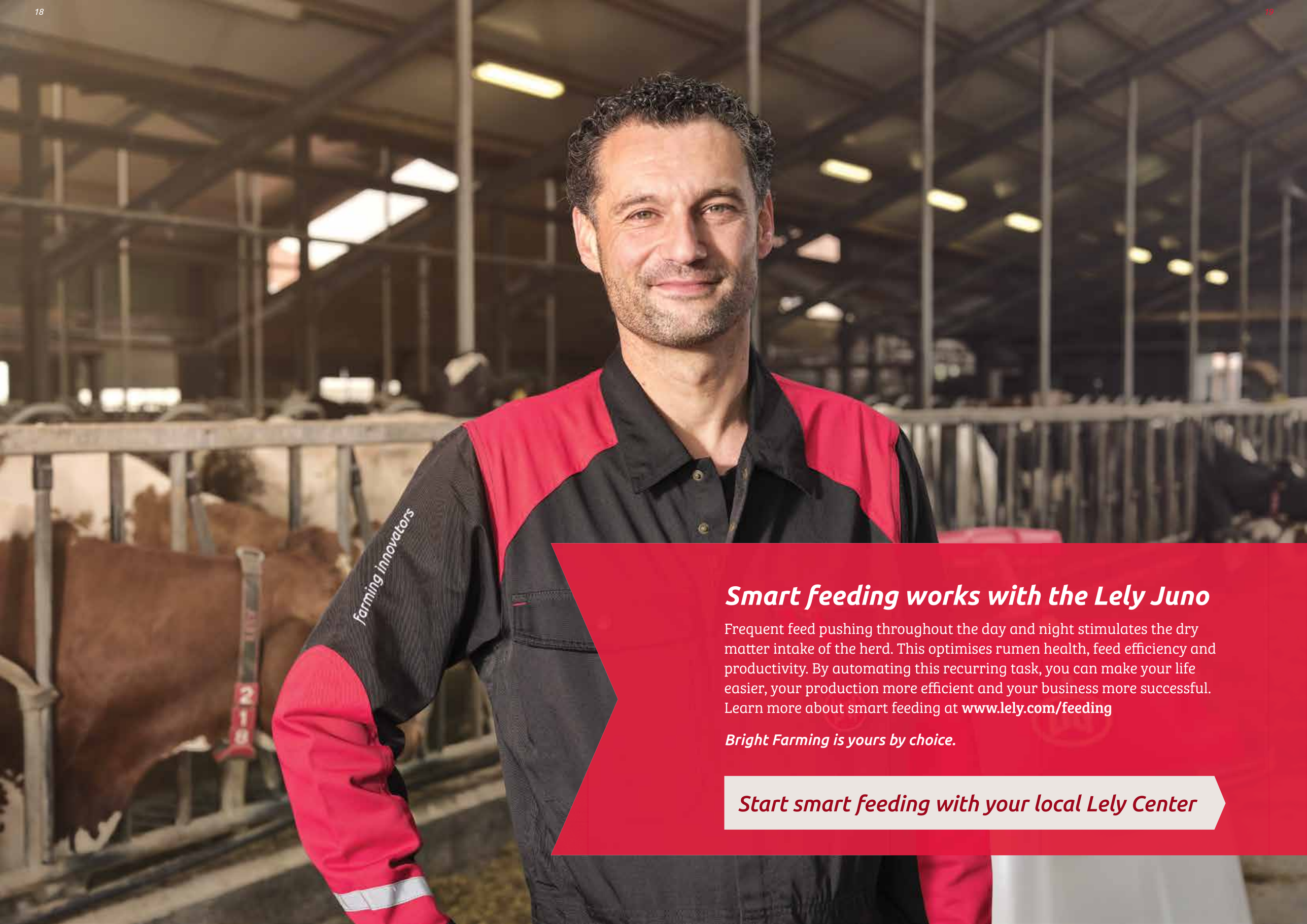
An integrated LED light makes the Juno more visible in the dark. This increases yard safety when driving from one barn to another in the dark.

Electric bumper protection

The electric bumper protection is a metal strip with an electric pulse that is mounted on the bumper. The pulse does not harm cows or humans, but prevents cows from stopping the machine by touching the bumper.

Technical specifications	Juno
Diameter (cm)	110
Height (cm)	110 - 155
Weight (kg)	620
Height (cm) of the push blade	63 - 67
Drive	Electric motor
Speed	12 m/min
Batteries	12 V/55 Ah
Determination of direction of movement	Gyroscope and ultrasound
Maximum slope*	15% (8.5°)
Minimum width – feed alley	1.25 m + width of feed
Driving time without charging	1 hour
Max. driving distance	1 km
Permitted working temp.	-20 to +50°C
Dynamic pushing	Standard
Left and right pushing	Optional
Electric bumper protection	Optional
LED light	Optional
Door control	Optional
Skirt lifting	Optional
Skirt tilting	Optional

*with Flex package and when moving outside



Smart feeding works with the Lely Juno

Frequent feed pushing throughout the day and night stimulates the dry matter intake of the herd. This optimises rumen health, feed efficiency and productivity. By automating this recurring task, you can make your life easier, your production more efficient and your business more successful. Learn more about smart feeding at **www.lely.com/feeding**

Bright Farming is yours by choice.

Start smart feeding with your local Lely Center

www.lely.com