SENSOSAFE: Innovative sensor technology for protecting animals
Pöttinger invention protects wildlife and livestock

SENSOSAFE is an automated, sensor-based assistance system developed by PÖTTINGER that detects wildlife during mowing. The intelligent system prevents animals from being caught by mowers and as a result ensures the best quality clean forage. The concept idea was awarded the Silver Innovation Award at Agritechnica back in 2017.

**For the protection of wildlife**

At the start of the grassland season, the focus returns to reducing the risk to wildlife. The fawning season of roe deer and other wild animals coincides with the timing of the first cut in grassland farming. Due to their natural reflex to seek cover, the young animals do not run away as the danger of a mower approaches. This natural instinct makes it particularly difficult to spot fawns, hares and pheasants cowering in a well developed crop. As a result, the animals can be seriously injured or even killed. Depending on the data source, this impacts between 100 thousand and 200 thousand animals in Germany, and 25 thousand in Austria per year.

**For the protection of livestock**

If the carcass of a wild animal ends up in the clamp, it will decompose and contaminate the forage. Silage contaminated in this way can expose cattle, sheep, horses and poultry to life-threatening botulism.

**SENSOSAFE provides the answer. How does it work?**

The unique technology developed by PÖTTINGER differs fundamentally from the numerous methods used to protect fawns and other wildlife. A sensor bar is mounted directly on the front mower or as a standalone system. It scans the area in front of the mower during the mowing process. LED lights are integrated into each sensor so that light is reflected by the crop back to the sensor. The colour of an animal's fur or feathers reflects light at a different intensity than plants. The sensors detect this and send an electrical signal to the control unit in the tractor cab.

SENSOSAFE is operated using the SELECT CONTROL terminal. If it detects an animal, the control terminal signals a visual and acoustic alarm to the driver. This provides plenty of time to stop the tractor or raise the mower. When SENSOSAFE is mounted on the front mower, the mower's hydraulic system automatically raises the mower deck in an instant. The reaction time of the sensors is 0.04 seconds and the mower is raised in 0.3 - 0.5 seconds. Speeds of approx. 10 kph are realistically possible. The sensor bar folds into a compact and safe storage position during transport.

**SENSOSAFE 300** was developed for mowers up to approx. 3 metres wide and can be used on rear mowers as well as front mowers. **SENSOSAFE 1000** is designed for mower combinations between 8 and 10 metres wide. The system can be used on PÖTTINGER mowers and mower combinations as well as other brands of mower.

**Benefits all round**

Farming processes are focused on the welfare of wildlife and livestock. Injuring or killing a wild animal increases the psychological stress on the driver, when this can be avoided. Clean forage promotes the health and yield of livestock, contributing to the economic success of the farm business. This system is unique worldwide and is available for immediate use. It and saves an enormous amount of time and effort compared to searching fields in advance. SENSOSAFE is more effective than a drone with a thermal imaging camera because it is temperature-independent and works at any time of day and in any weather.

**Feedback from the field about this unique system**

"Easy to use and very reliable in detecting animals" is the result of the tests carried out on the INNOVATION FARM pilot farms in Wieselburg (AUT) in spring 2020. The Bavarian Institute for Agriculture (GER) gives the system its approval: "SENOSAFE can be used over 24 hours." During the tests, quite a few other small animals were detected and rescued in addition to fawns.

More SENSOSAFE information, videos and photos are available at:

<https://www.poettinger.at/sensosafe>

**Photo preview:**

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| SENSOSAFE in action rescuing wildlife  | SENSOSAFE in action |
| <https://www.poettinger.at/de_at/Newsroom/Pressebild/4790> | <https://www.poettinger.at/de_at/Newsroom/Pressebild/4789> |

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| SENSOSAFE in action rescuing wildlife  | Visualisation of the sensors while SENSOSAFE is in operation  | The SENSOSAFE sensors |
| <https://www.poettinger.at/de_at/Newsroom/Pressebild/4788> | <https://www.poettinger.at/de_at/Newsroom/Pressebild/4791> | <https://www.poettinger.at/de_at/Newsroom/Pressebild/4747> |

More printer-optimised photos: <http://www.poettinger.at/presse>