

KNOW YOUR GRAIN GROW YOUR BUSINESS

GrainSense corporate presentation 2021-26-01



GrainSense



Grain growers, livestock farmers, silos/dryer operators, traders and food industry have to make critical decisions about grain – but without accurate information.

Know your grain, grow your business.

With instant and reliable information about the quality of your grain, you can make the right decisions at the right time for smarter agribusiness.



GrainSense



How does GrainSense[®] work?

Track grain quality instantly, anywhere.

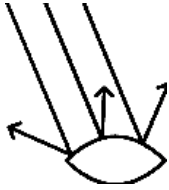
The GrainSense Analyzer is a handheld battery powered by advanced NIR technology.

You get reliable **protein**, **moisture**, **oil** and **carbohydrate** content in seconds from just a few kernels.



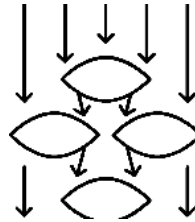
Fast.
Reliable.
Simple.

Optical Method Comparison



Diffuse reflection
Traditional laboratory method

- Long measurement time
- Small fraction of the sample is measured
- Requires expensive infrared detectors



Diffuse transmission
Advanced laboratory method

- Long measurement time
- Requires large sample
- Wet sampling not possible
- Technology complicated for portable and affordable devices

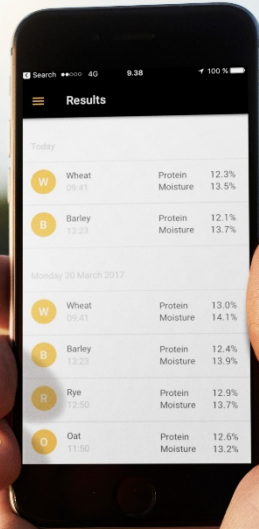


GrainSense

360° light penetration method
(integrating sphere)

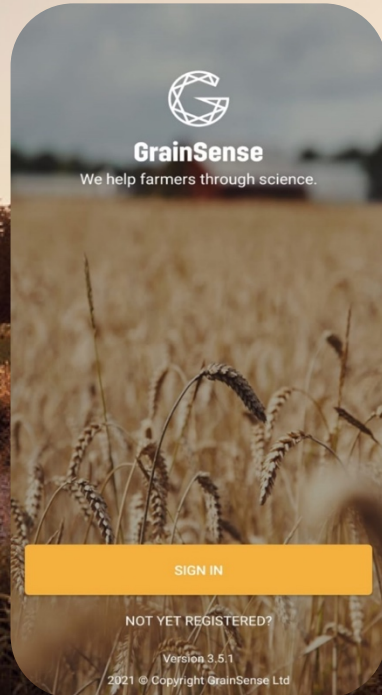
- + Short measurement time
- + Enables small samples
- + Works with simpler and more affordable technology
- + Analyzer size can be small
- + Wider use than grain as other types of samples possible

Results are instantly
uploaded to the cloud
along with GPS location
of the measurements.



| Results | | | |
|----------------------|-----------------|---------------------|----------------|
| Today | | | |
| W | Wheat 09:31 | Protein Moisture | 12.3% 13.5% |
| B | Barley 13:29 | Protein Moisture | 12.1% 13.7% |
| Monday 20 March 2017 | | | |
| W | Wheat 09:41 | Protein Moisture | 13.0% 14.1% |
| B | Barley 13:27 | Protein Moisture | 12.4% 13.9% |
| R | Rye 12:50 | Protein Moisture | 12.9% 13.7% |
| O | Oat 11:50 | Protein Moisture | 12.6% 13.2% |

Precision farming data in hand and in the cloud



GrainSense
Analyzer



GrainSense
Mobile App



GrainSense
Cloud Services



MAIN

Measurements

Account

HELP

Guides

FAQ

Terms of service



Log out >

Measurements

Filters

Actions

1 - 10 of 67 10 25 50 Show all 67

Showing all species * [Clear filters](#)

| <input type="checkbox"/> | Species | Date | Protein | Molsture | Carbohydrate | Oil |
|--------------------------|---------|------------------------|---------|----------|--------------|------|
| <input type="checkbox"/> | Barley | Thu 28.6.2018 15:32:12 | 10.70% | 12.43% | 87.48% | 1.82 |
| <input type="checkbox"/> | Barley | Thu 28.6.2018 15:10:22 | 10.93% | 12.47% | 87.29% | 1.78 |
| <input type="checkbox"/> | Wheat | Thu 28.6.2018 15:09:21 | 10.28% | 10.52% | 87.98% | 1.73 |
| <input type="checkbox"/> | Wheat | Thu 28.6.2018 14:51:50 | 10.17% | 10.58% | 88.12% | 1.71 |
| <input type="checkbox"/> | Wheat | Thu 28.6.2018 14:32:21 | 10.20% | 10.54% | 88.09% | 1.70 |
| <input type="checkbox"/> | Barley | Thu 28.6.2018 14:20:02 | 11.04% | 12.61% | 87.12% | 1.84 |
| <input type="checkbox"/> | Barley | Thu 28.6.2018 13:45:25 | 10.46% | 12.67% | 87.79% | 1.75 |
| <input type="checkbox"/> | Wheat | Thu 28.6.2018 13:26:33 | 10.14% | 10.65% | 88.09% | 1.76 |
| <input type="checkbox"/> | Barley | Thu 28.6.2018 13:06:24 | 10.68% | 12.93% | 87.55% | 1.78 |
| <input type="checkbox"/> | Barley | Thu 28.6.2018 12:44:01 | 10.81% | 12.97% | 87.42% | 1.77 |



Google



GrainSense

Karttatiedot Kävtsiehdot Ilmoita karttavirhe

Fast. Reliable. Simple.

MEASURE 

Get instant grain data with just a few kernels.

View results on the analyzer or mobile app.

ANALYZE 

Filter and compare results and locations.

Analyze in the GrainSense Dashboard on PC or mobile.

ACT 

Make the right decisions at the right time.

Easily share results direct to operators and buyers.

IMPACT 

Make sure every crop is put to proper use.

Get the right price and optimize your resources.



Portfolio & Supported Species

Know your grain, grow your business

Portable Handheld Products for

- Growers
- Livestock farmers
- Researchers
- Grain traders
- Food industries

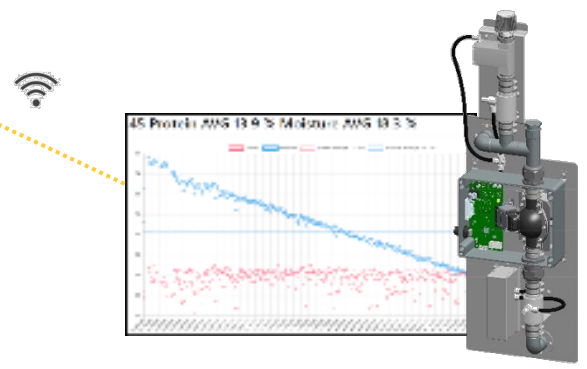


GrainSense Analyzer (GS-ANLZR-A-1)
measuring protein, moisture, oil and carbohydrate
of several species + GrainSense User License required



Stationary Solutions installed in

- Silos
- Dryers
- Combine harvesters



GrainSense Flow Analyzer*
(GS-FLW—ANLZR-PILOT)
measuring protein, moisture, oil and carbohydrate
of wheat (*product launch during 2021)
+ GrainSense User License required

Supported species: **whole kernels**

Kernels directly measured with the GrainSense Analyzer



**Common
Wheat**



Barley



Rye



Rapeseed



Oats



Supported species: **ground kernels**

Kernels ground with **GrainSense Portable Field Grinder** before powder is measured with the GrainSense Analyzer



Soybean



Maize



**GrainSense
Portable Field Grinder
(GS-POFIGR-1)**



GrainSense calibrations and manufacturing



- Skilled laboratory technicians and manufacturing operators/engineers
- Laboratory equipment and reference methods (Dumas, NMR)
- Calibration method based on selectivity
- Worldwide sample collection year to year improving calibrations robustness
- Quality check on every GrainSense Analyzer
- CE Certification
- High quality servicing and technical support



About GrainSense Ltd.

GrainSense time to market

VTT

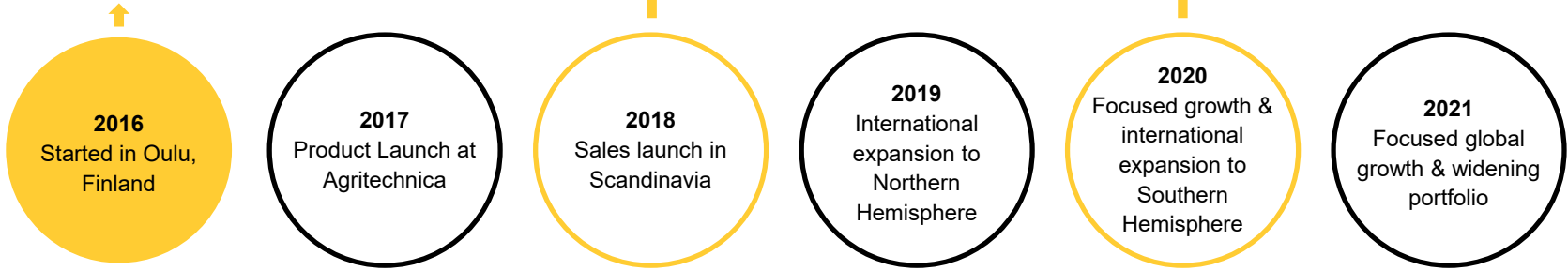
- Company's mission: Measuring grain quality data on the spot
- Optical device spin-off company from VTT (Technical Research Centre of Finland)
- Equity funding to date 6.5MEUR, private investors
- 4 patents, 2 applications



- Distribution in Finland & Sweden
- Agri-INNO Award 2018 winner
- Member of EIT Food



- Accelerated growth by entering the Southern Hemisphere
- Sales exceeded the first 1,000 GrainSense Analyzers
- Member of Smart AgriHubs Scandinavia



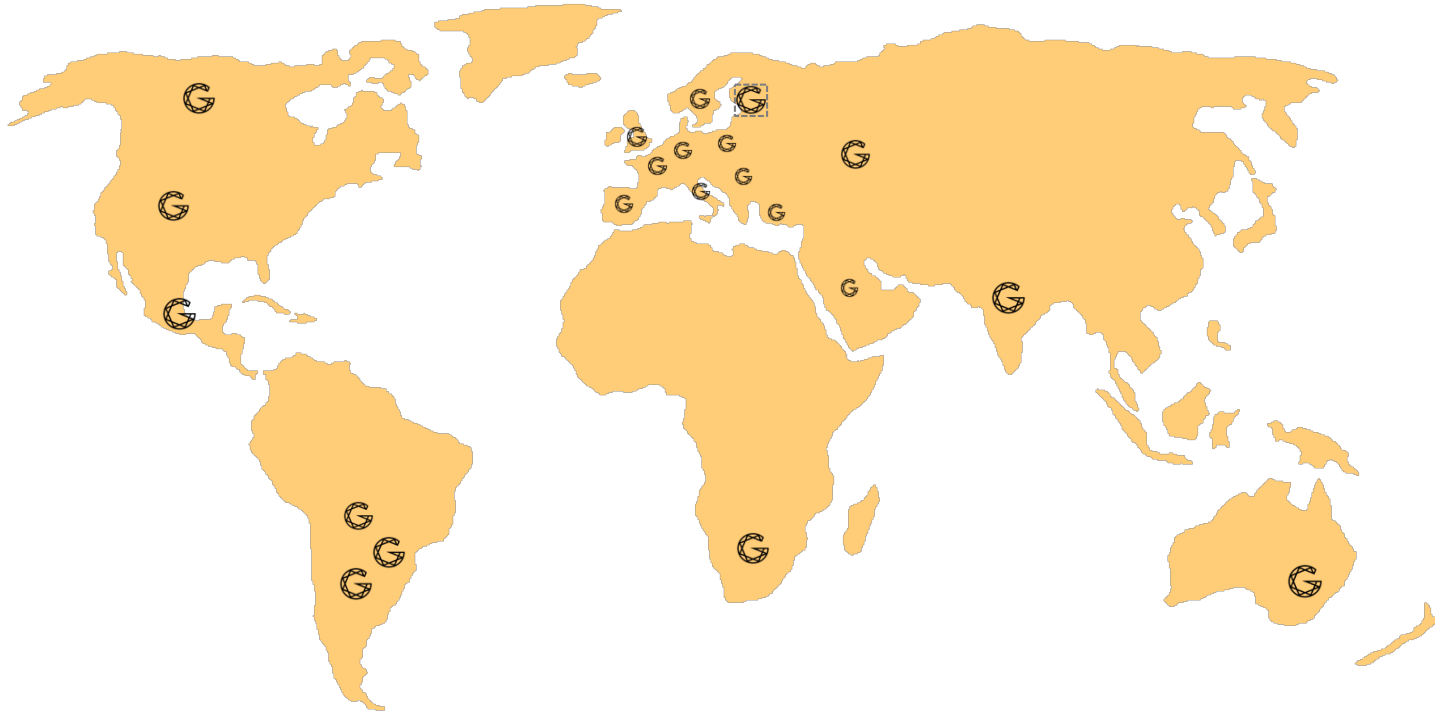
AgriTechnica 2017 Innovation Award nominee



- Value Added Distribution Network extended through Europe and North America
- AgTech 2019 Start Up City Award winner



Where is GrainSense being used today?



<https://www.grainsense.com/contactus>

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www.grainsense.com



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