



Dynescan is the only technology capable of measuring the semen motility lifetime, bringing new data insights into bull fertility and herd reproductive success.



*Dynescan measurements ensure that vets can provide speedy and reliable advice to farmers. This proactive service can help to improve profitability through enhanced fertility performance.*

**Tom Oxtoby**  
UK Vet



**MULTI-AWARD WINNING SEMEN QUALITY ANALYSER**



**Absolute**

Dyneval technology relies on advanced physics to obtain an absolute value without the need of artificial intelligence.



**Validated**

Dynescan has shown excellent agreement (4.2% standard deviation) when independently validated against the laboratory-based Computer-Aided Semen Analysis (CASA) system, IVOS II.

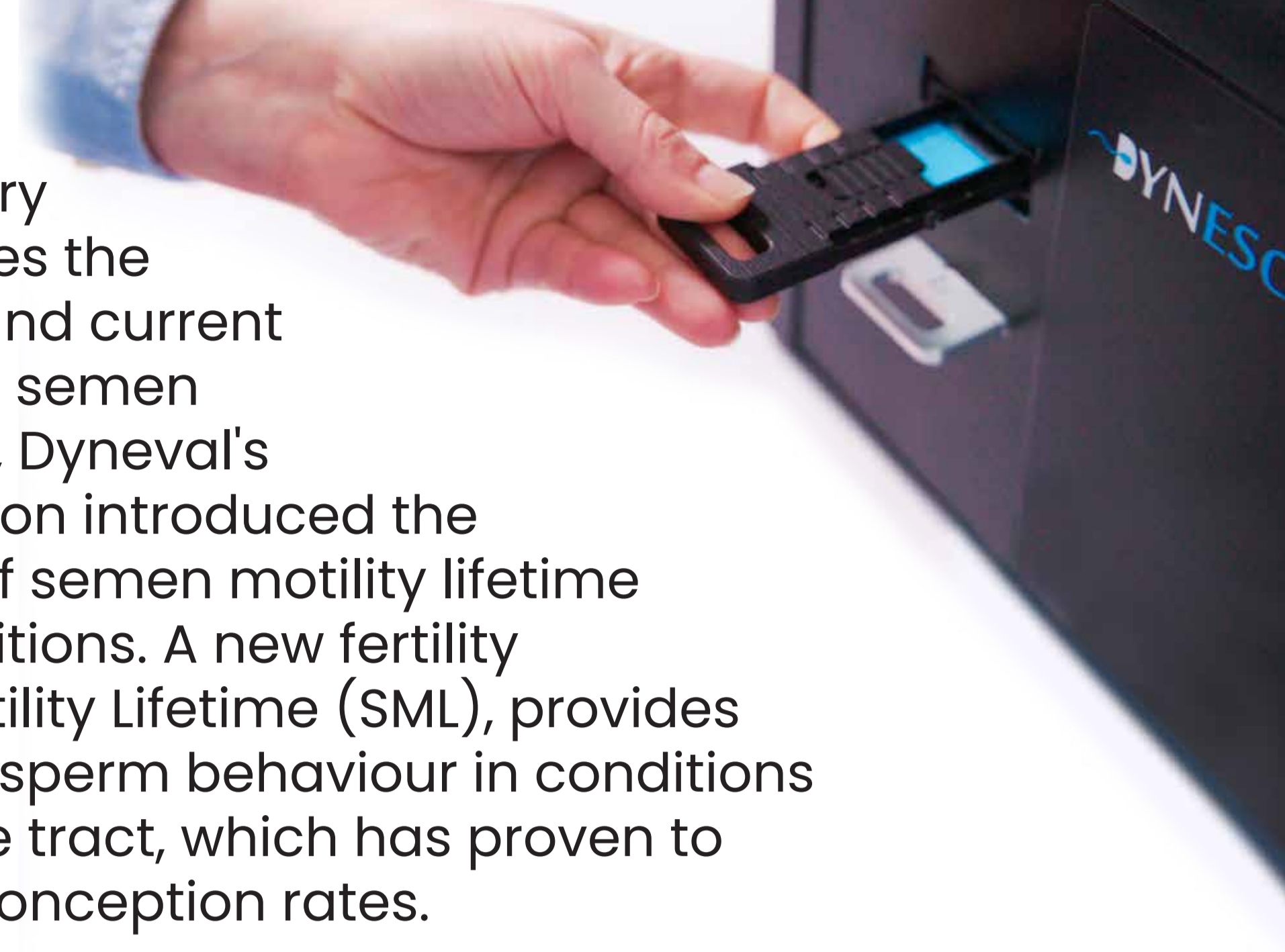


**Reproducible**

With Dynescan, trained, Dynescan-certified users achieve highly reproducible results (+/- 3%) regardless of the their level of experience.

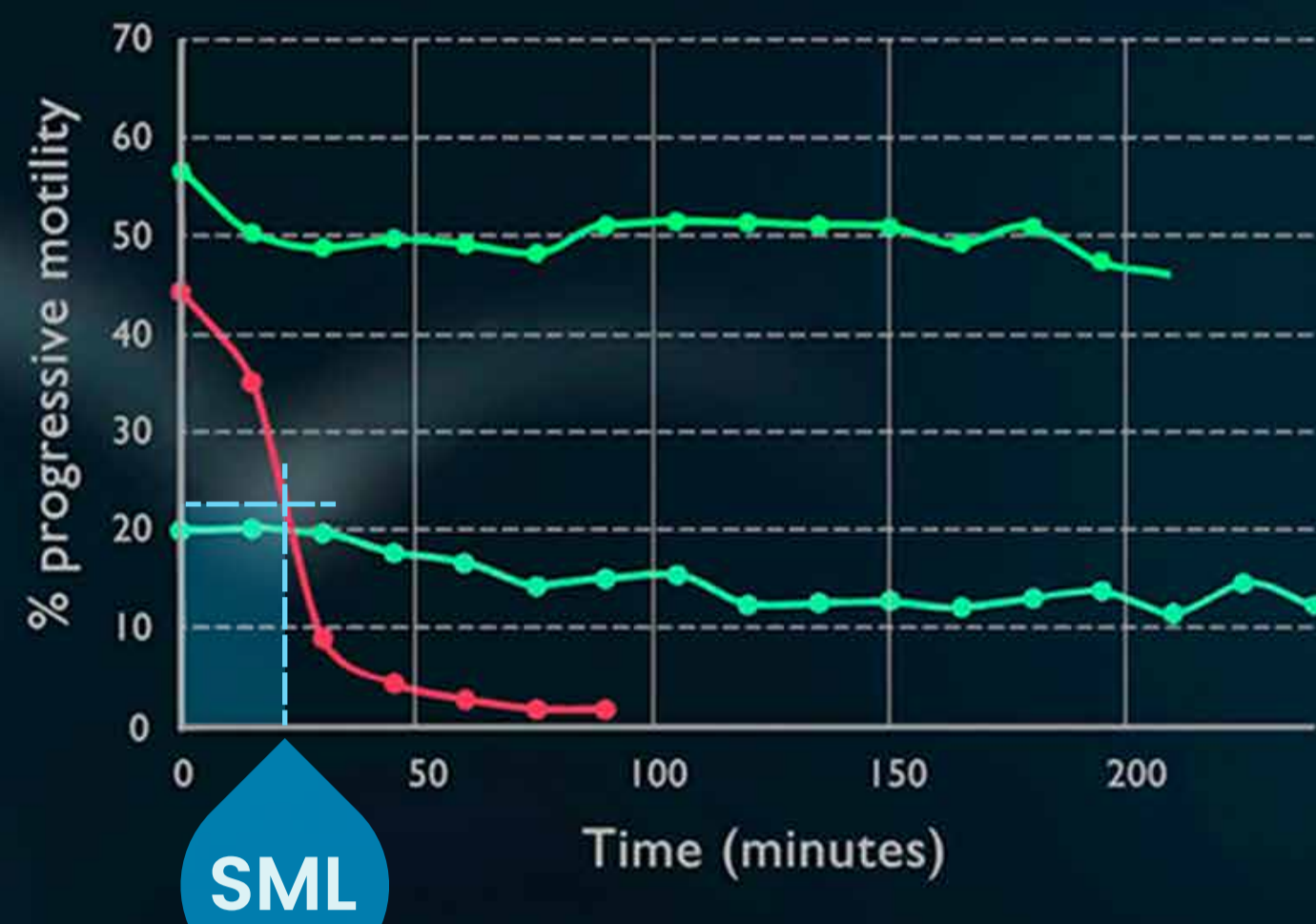
**Why is Dynescan unique?**

Dynescan is a revolutionary technology that overcomes the limitations of lab-based and current portable computer-aided semen analysers. With Dynescan, Dyneval's ground-breaking innovation introduced the first-ever measurement of semen motility lifetime under quasi-in-vivo conditions. A new fertility marker, the Sustained Motility Lifetime (SML), provides unparalleled insights into sperm behaviour in conditions similar to the reproductive tract, which has proven to correlate with improved conception rates.



**Sustained Motility Lifetime. A new fertility marker**

The Sustained Motility Lifetime (SML) is the time at which the % progressive motility falls by one-half. Semen quality can be highly variable due to genetic factors, errors during production, transport, storage, or poor handling, causing undesired results. Data shows that samples with an SML longer than 2 hours have an average conception rate of around 8% higher than samples below this threshold.



**Advantages**



Precise <5% standard deviation	✓	✗	✓
MCC - Motile Cell Count	✓	✗	✗
SML - Sustained Motility Lifetime	✓	✗	✗
Automated	✓	✗	✓
Wide range of concentrations	✓	✓	✗
User independent	✓	✗	✗
Reproducible between users	✓	✗	✗
Large (>1mm^2) field of view	✓	✗	✗
Integrated sample warmer	✓	✗	✓
All cells measured	✓	✗	✗
Unaffected by static particles e.g. dust	✓	✗	✗
Portable	✓	✓	✗
Robust	✓	✗	✗

**Key Parameters**

Motility describes the ability of the sperm to propel itself. To reach and fertilise the egg, sperm needs high levels of motility, which is quantified by:

- Percentage (%) of progressive motility**  
Proportion of cells moving in a fairly straight line
- Mean swimming speed**  
Mean swimming speed of progressively motile cells
- SML - Sustained motility lifetime**  
The time at which % progressive motility halves. Robust cells maintain motility for longer.
- TCC - Total cell concentration**  
Total number of cells in a sample, measurable from 0.5-100 M/mL.
- MCC - Motile cell count**  
Total Motile Count (TMC) and Progressive Motile Count (PMC) for all types of sex-sorted samples, regardless of the sexing technology used.

**Ease of use**

Dynescan measures motility across a wide concentration range—from 1 to 550 million cells/ml—making it easy to use and reducing the need for precise dilution.

**Sample type**

Sexed	✓	CHILLED THAWED		<b>No dilution required</b>
Conventional	✓			
Ejaculate	✓	FRESH		<b>Approx. 1:9 dilution</b>

**Precise, Practical and Portable**



Until now, producers had to rely on semen providers' guarantee on the motile cell concentration as measured at production and could not determine if performance characteristics were maintained while in storage. With Dynescan semen analyser, Dyneval offers a reliable tool to measure key parameters affecting sperm performance on farm or at a clinic, which gives farmers a clearer and timelier picture of the quality of semen being used.

- Secure cloud-based storage
- Video evidence
- Semen PDF certificate

**3-step analysis**

- 1 Prepare a sample
- 2 Perform analysis
- 3 Evaluate results

**<3 min to results**

**QC from semen production to insemination**

Dynescan is not just a versatile QC tool; it's a game-changer. From semen production to insemination, it's applicable in a wide range of scenarios. Whether for advanced research, semen production, pre-breeding and fertility testing, after transport, import and export certification, training to improve straw handling, or routine tank audits and AI straw testing before insemination, Dynescan is your all-in-one solution.



**Towards Net Zero**



At Dyneval, we understand the importance of sustainability in livestock production. That's why our technology, Dynescan, helps to accurately inform breeding plans, ensuring quality at every stage of the supply chain to support producers' sustainability goals. By optimising production, enhancing food security, and lowering methane emissions, Dynescan is a tool helping to deliver a more sustainable future.

