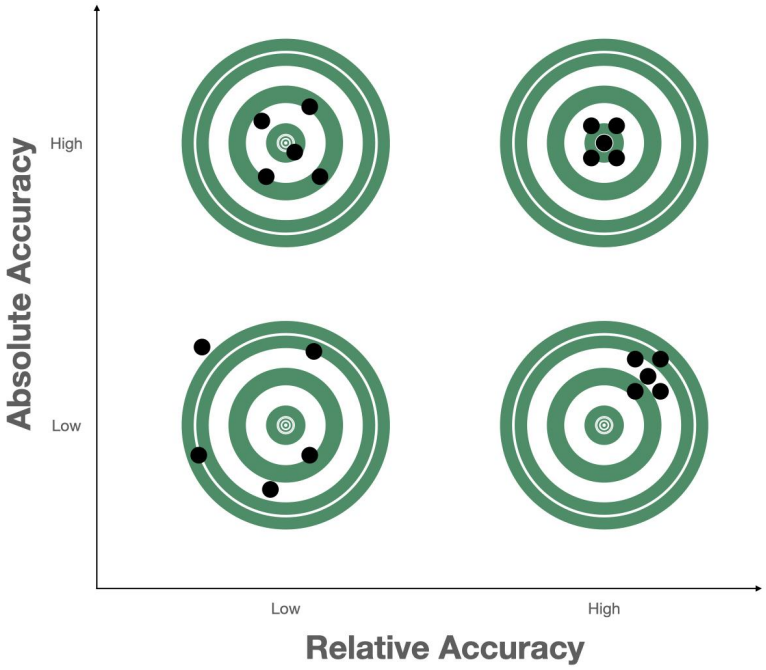
Pasture.io

Accuracy of Automatic

(Satellite)

Pasture Measurements



First, let's be clear that when we talk about "relative accuracy", we may swap this term for "precision" or "consistency". Okay, now that is clear, here is the article.

Accurate pasture measurements are essential when making grazing decisions.

However, accuracy is where many get confused, and we're going to talk about how Pasture.io gets consistent pasture measurements and what that means.

We claim our measurements to be relatively accurate, and this accuracy is essential in measuring pasture, as it indicates consistency.

Relative accuracy defines as the precision or consistency of the measurement. As a rule of thumb, we cannot look at absolute accuracy, as we would need to assess our pasture measurements based on a known absolute measurement.

However, we can determine a relative accuracy with high confidence based on field observations.

It is more important to look at the measurements that our models produce regarding the consistency of the measures in relative terms.

Suppose the measurements are consistently higher than what you believe you see with your eye or a measuring device such as a rising plate meter. In that case, we can be confident that we are achieving a high level of relative accuracy.

Precision in the measurements is critical because even if we had a decent absolute accuracy, the precision or consistency might be low, yielding more significant variability.

No one wants variability in the measurements, and everyone wants a consistent measurement.

A low consistency would yield greater volatility in the measurements you use to make decisions. If we can provide consistent measurements even if the absolute accuracy is not high, then the main thing is that you adapt what you see on the ground with our services.

Adjusting or recalibrating your judgment on what is in the paddock is no different to what needs doing when swapping manual measurement devices. For example, when changing from using a rising plate meter to a CDax trailing pasture meter, you will see that the results are different.

It is similar to swapping from your "trained" eye to a manual method and from a manual approach to a remote pasture measurement. The key here is that practice is not about comparing manual methods with remote pasture measurements. By doing so, we would be

trying to determine absolute accuracy. But unfortunately, we cannot assess absolute accuracy because we do not know the full measure of the method we are comparing, and no one knows.

Instead, when comparing manual methods with remote pasture measurements, we can assess the relative accuracy between the two approaches, and this is what counts.

It is an innate human response to feel warmer to a familiar measure. When we have to recalibrate in the circumstances that the measurement doesn't feel normal, it presents a jarring feeling.

This statement is valid with the remote pasture measurements. However, many are fortunate to have the measures align with their previous understanding of a dry matter kilogram. Therefore, others might find a discrepancy between the measurements and their previous measurements.

The key here is to find comfort in a measurement that is high in relative accuracy, even if that means adjusting your understanding of what a kilogram of dry matter is.

In addition, you might need to make adjustments to your grazing decisions, such as how low the post-grazing residual should now be to protect your plant health and animal performance.

1500 KgDM/ha might now be 1700 KgDM/ha or 1600 KgDM/ha. Similarly, 3200 KgDM/ha might be 2900 KgDM/ha or vice versa. It doesn't matter as long as the relative accuracy is high, meaning that the measurements are consistent.

After all, the measurements you adjust for with the remote pasture measurements might be of higher absolute accuracy than the manual method or from using your eye. The truth is that no one will ever know, and it is the relative accuracy that we set our aim.