

Ontario Ministry of Agriculture, Food and Rural Affairs

Knowing the Numbers

How data will define the forage sector

Canadian Forage and Grassland Association conference

Moncton, NB

November 14, 2019

Key Metrics:

- Yield

Why is yield important?

On the farm:

- Manage feed inventory
- Calculate cost of production
- Prioritize fields for renovation/termination
- Assess how management changes impact production
- Determine carrying capacity

Why is yield important?

Across the province/country:

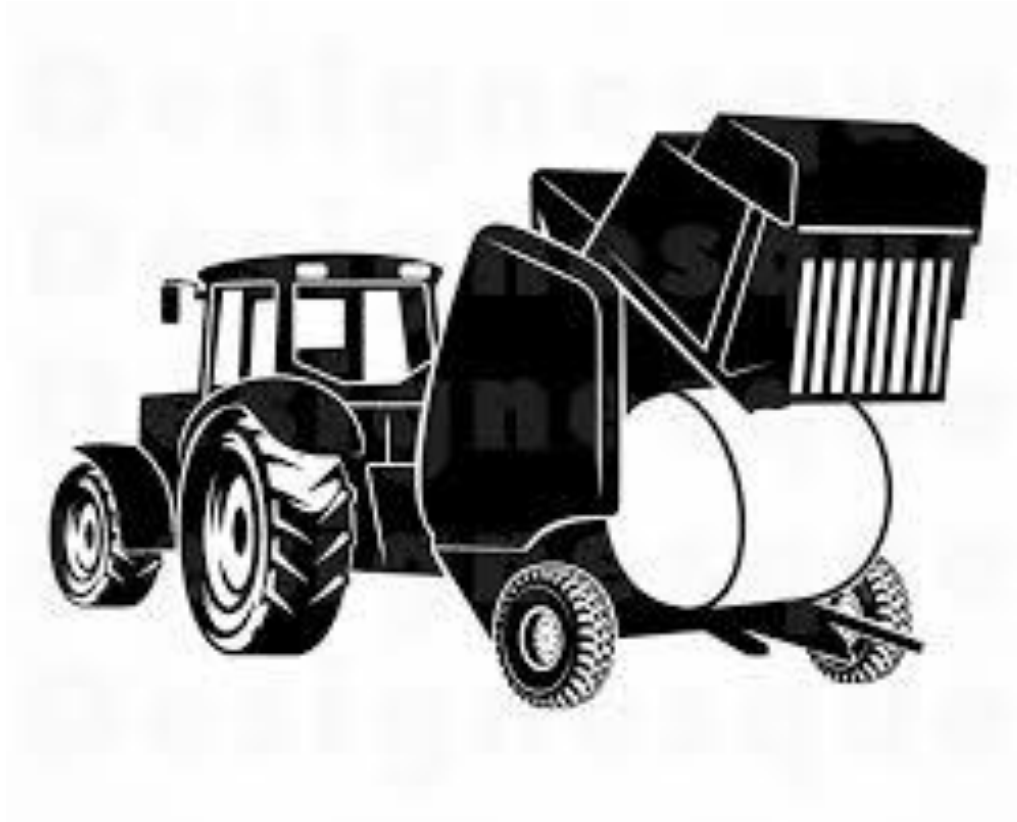
- Assess impacts of adverse weather
- Use trends to target extension efforts
- Create insurance products based on individual farm data
- Evaluate programs using yield as a benchmark KPI

Yield monitors in grain production

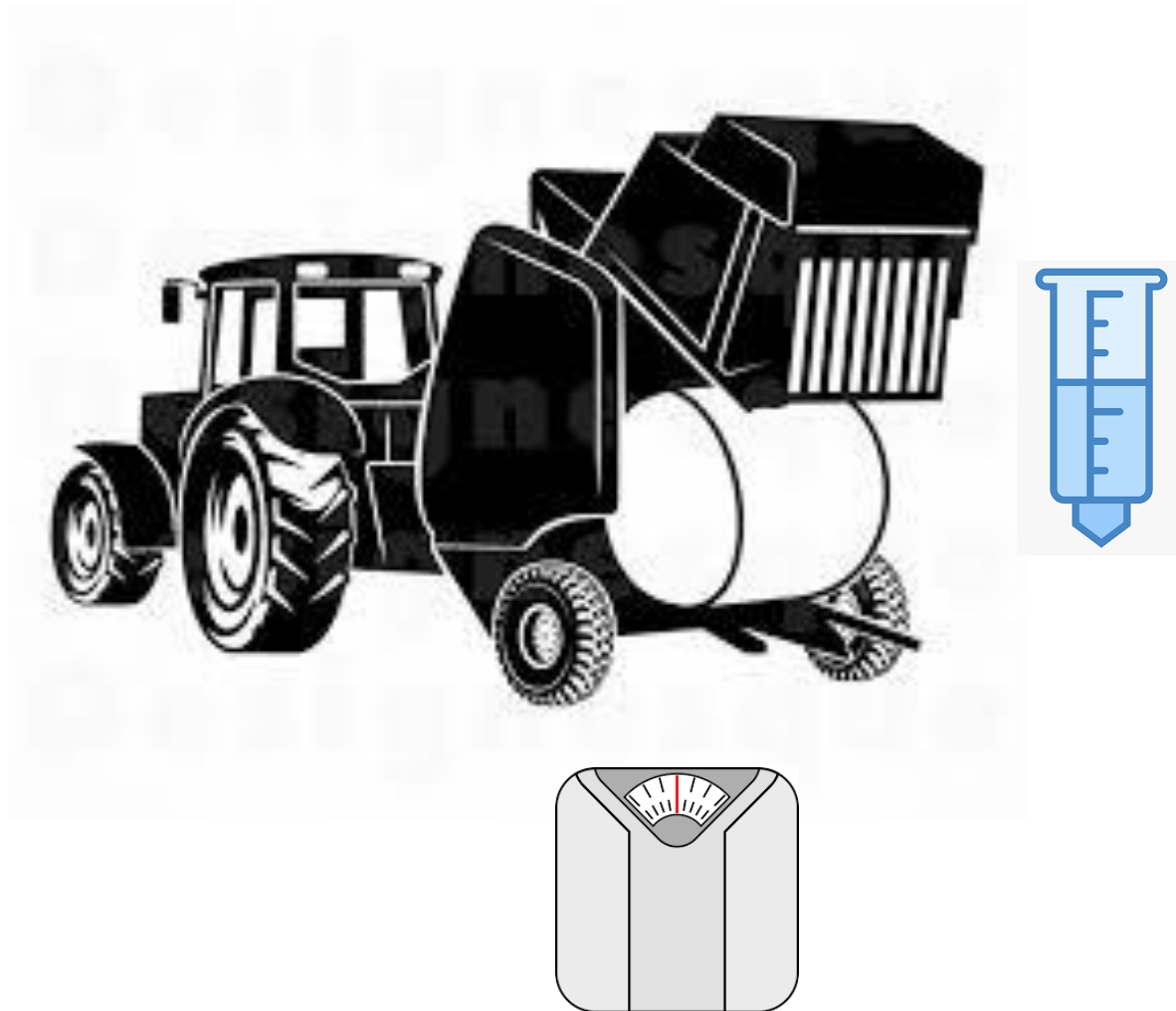


<https://www.precisionag.com/digital-farming/data-management/yield-monitor-tips-new-technologies/>

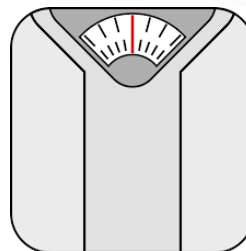
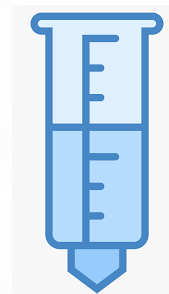
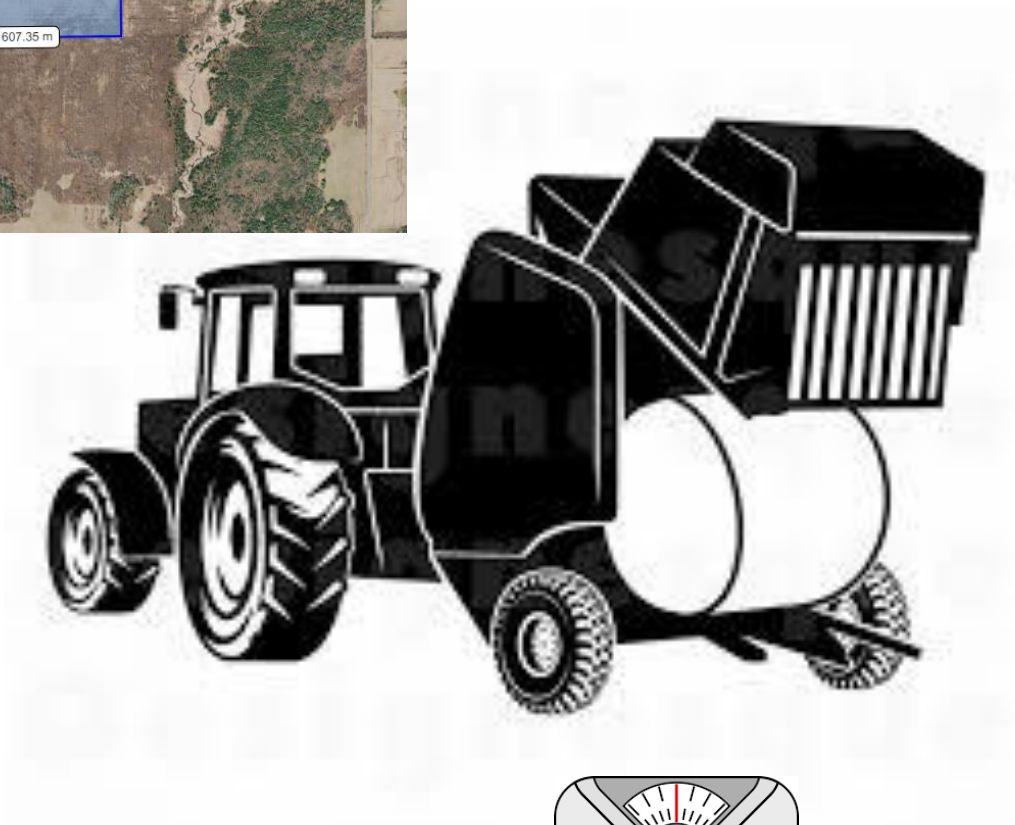
Yield monitor in hay production



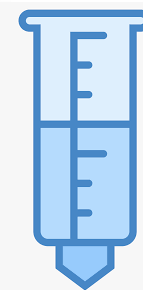
Yield monitor in hay production



Yield in hay production

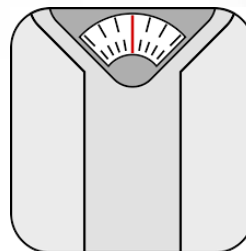


Yield in hay production



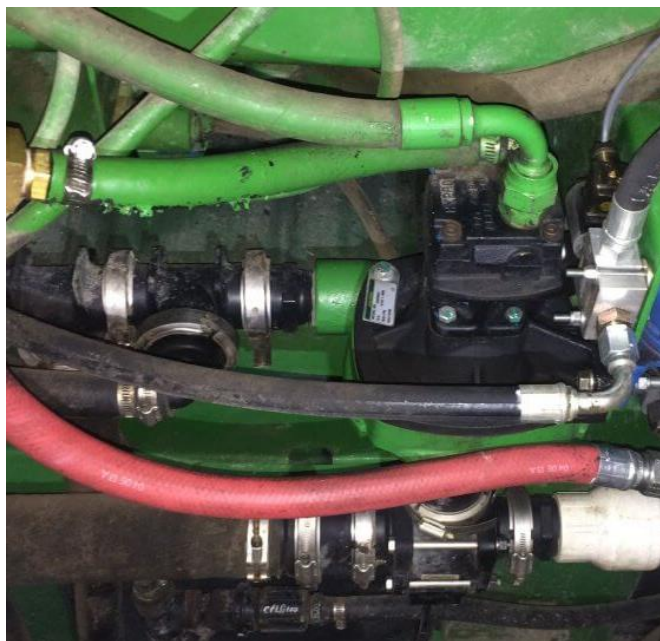
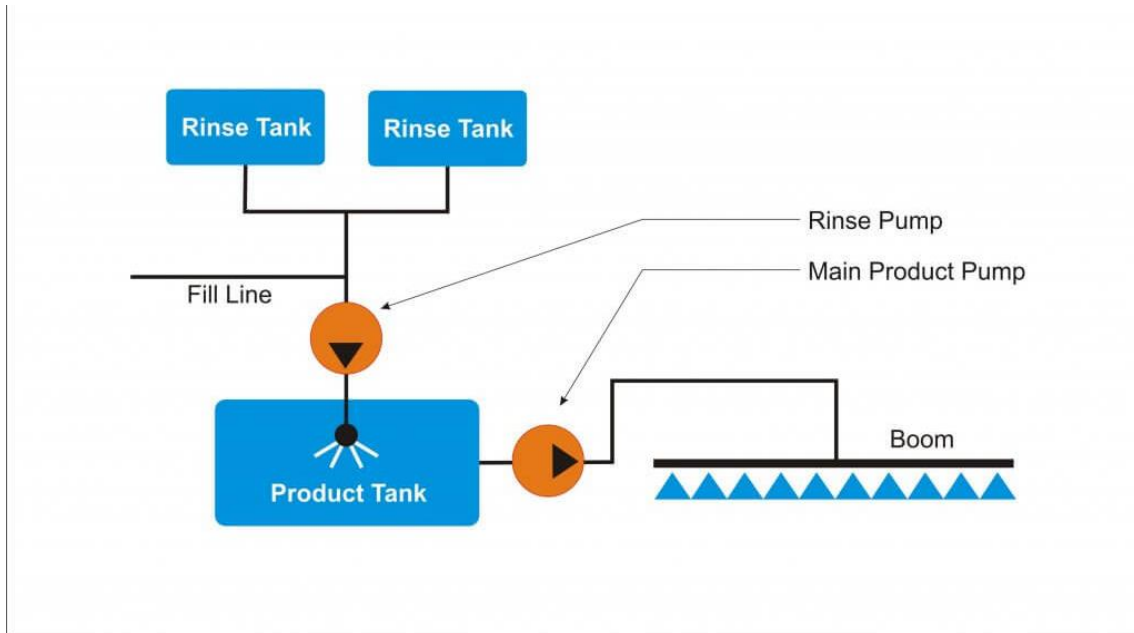
AEF Certified

ISO BUS



Barriers to adoption

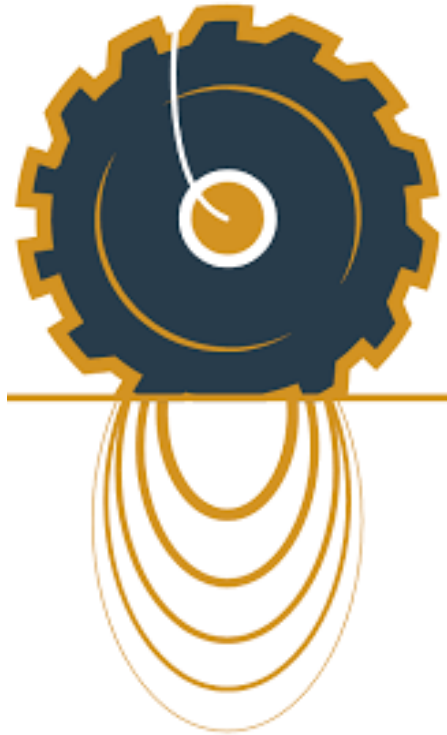
- Must be passive data collection
- Farmers aren't demanding this technology from their equipment dealer!



Continuous Rinse Systems

<https://sprayers101.com/installing-a-continuous-rinse-system/>

Central Tire Inflation Systems



- >15 psi increases risk of soil compaction
- Road travel demands higher pressures for safety

Yield monitor in pasture production

- Doesn't need to be scary or difficult!
- Understand difference between cover and yield

Grass Cover

A “snapshot” of the amount of grazeable pasture at a single point in time.

Feed inventory, always changing

Example: I measured my paddocks on Monday, and the grass cover in the front paddock was 900 kg DM/ha.

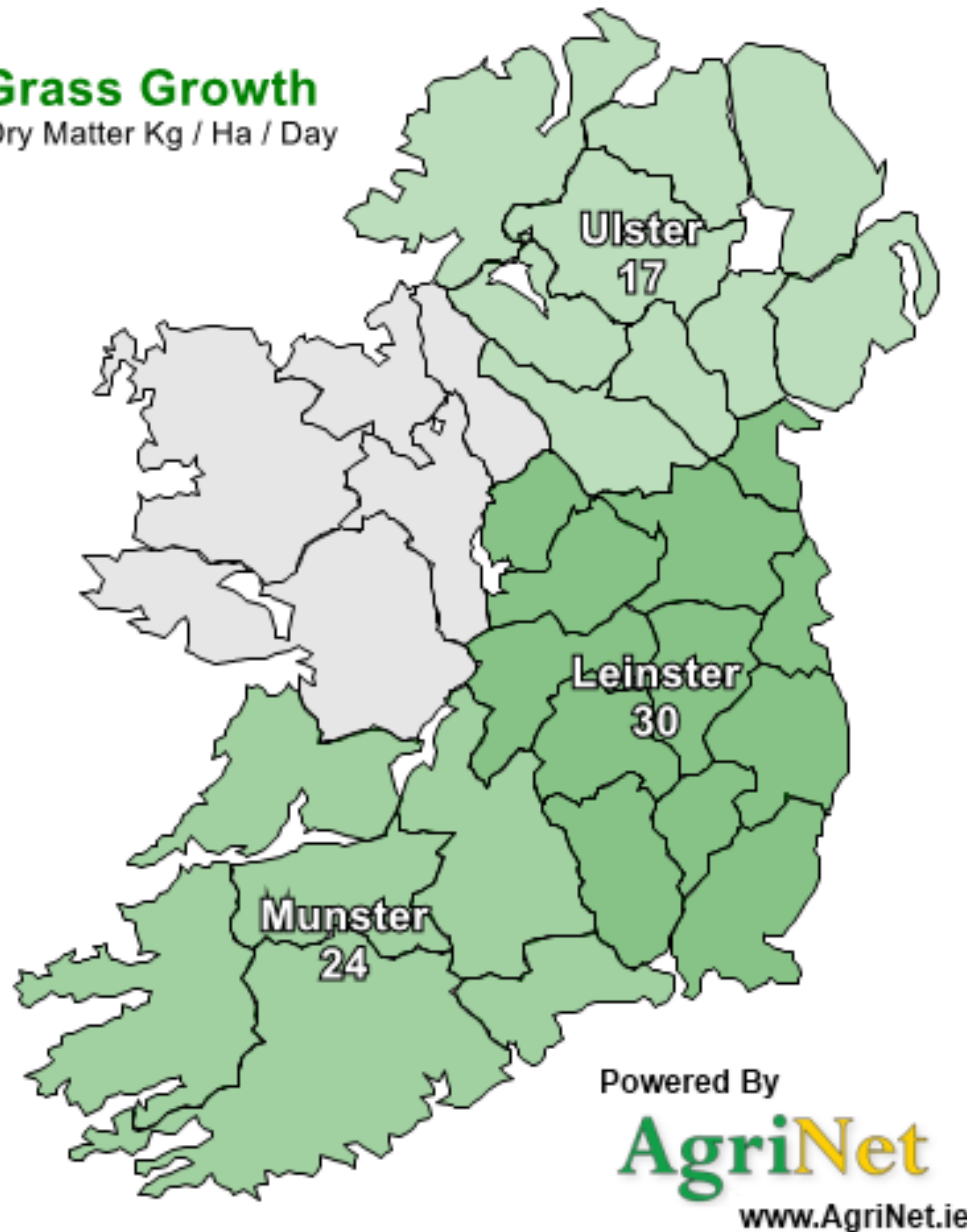
Yield

A summary of total pasture production over the growing season.

Example: Last year the front paddock yielded 9.8 tonnes DM/ha.

Grass Growth

Dry Matter Kg / Ha / Day



Measuring Tools



<http://rainalgoma.ca/wp-content/uploads/2016/10/FallingPlateMeter-1.jpg>



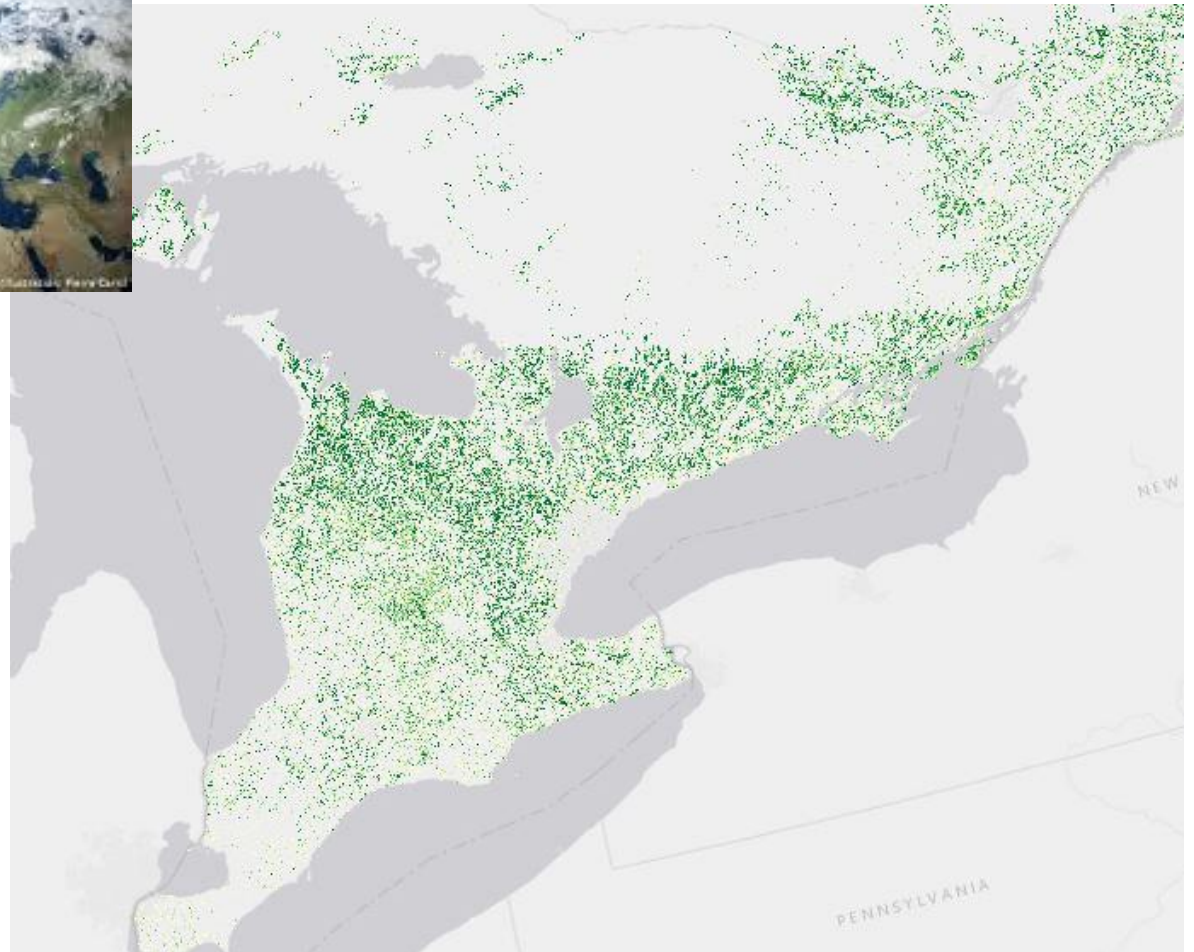
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<http://jenquip.co.nz/products/filips-manual-folding-plate-meter>

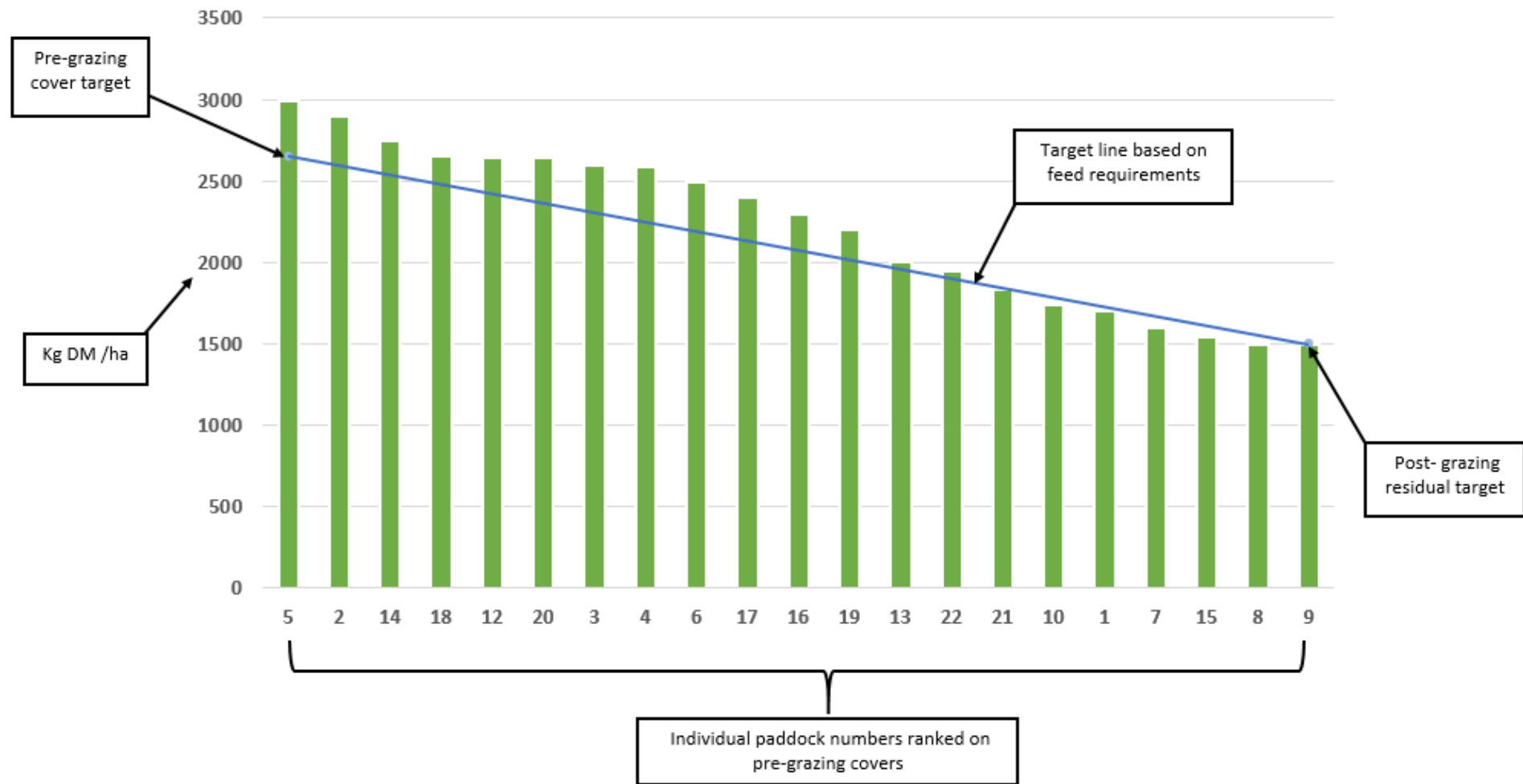
Measuring Tools



Measuring Tools

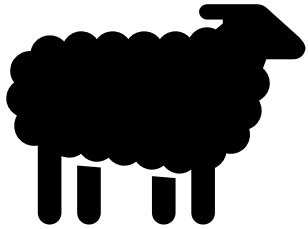


Grazing Wedge

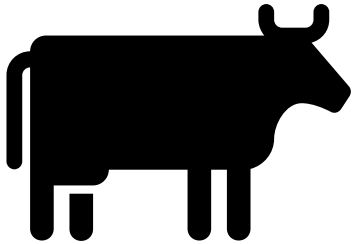


Grass Utilization

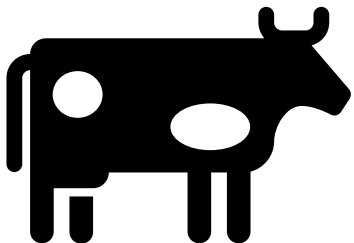
Target depends on type of livestock:



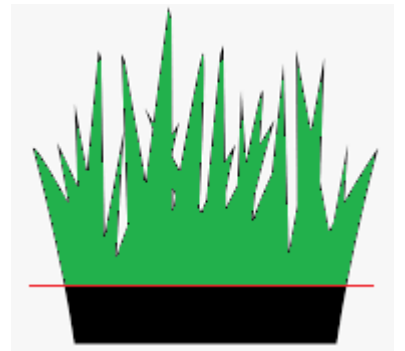
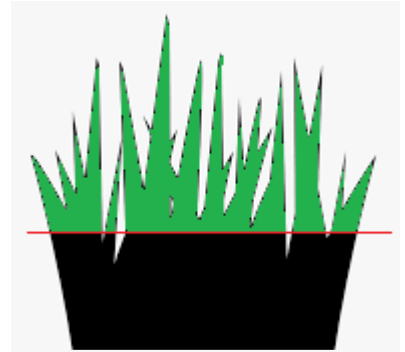
>60%



>60% for cow/calf pairs
>70% for stockers



>70% for replacement heifers
>80% for cows



These targets were developed for the British Isles; no Ontario data exists

Key Metrics:

- Yield

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