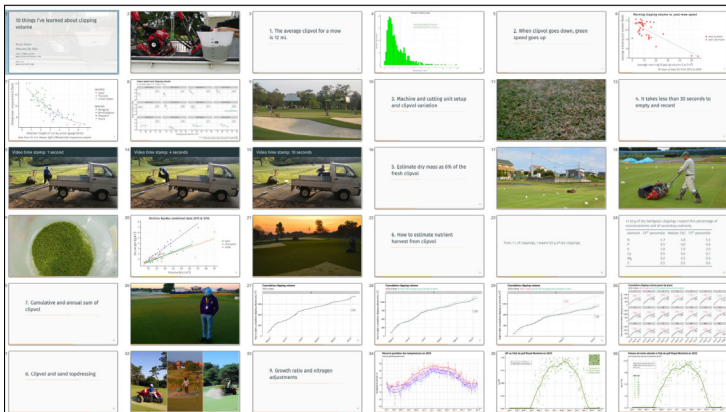
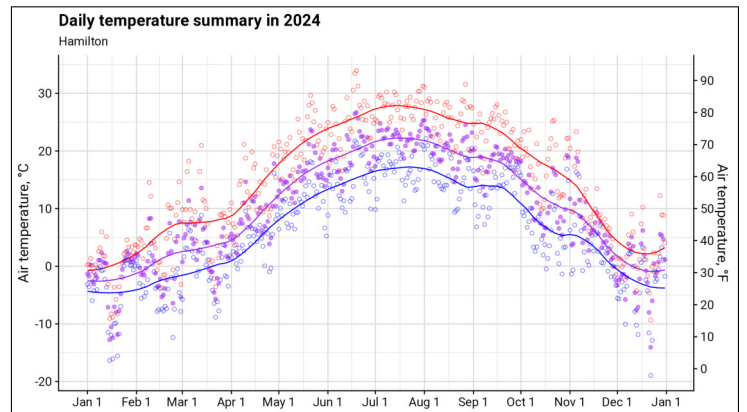


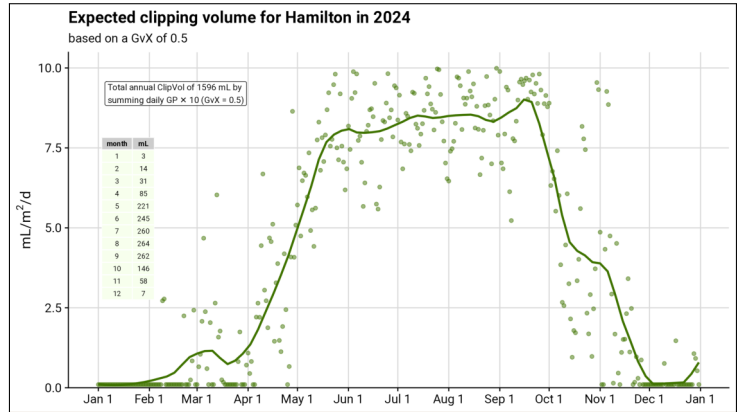
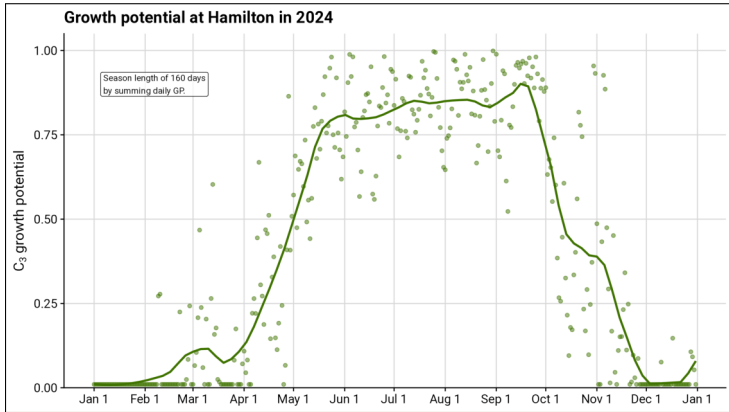
Predicting, checking, and adjusting growth rate with clipping volume and growth potential

Micah Woods, Ph.D.
 February 25, 2025
 Asian Turfgrass Center
www.asianturfgrass.com
 PACE Turf
www.paceturf.org



Predicting





The **Turf GvX** is the actual growth of the grass compared to the expected growth of the grass.

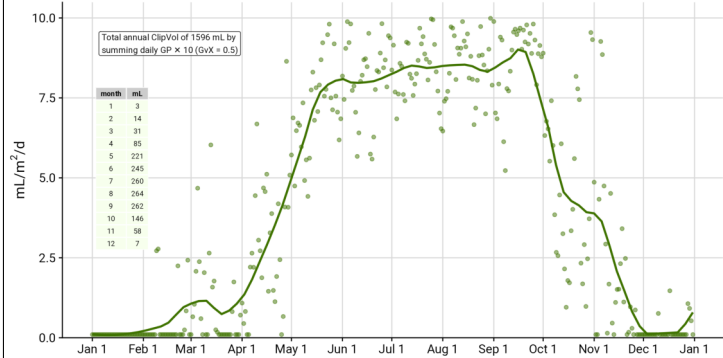


$$GvX = \frac{ClipVol_{14}}{20 \times GP_{14}} \times 100$$

where $ClipVol_{14}$ is the 14 day average of clipping volume and GP_{14} is the 14 day growth potential average.

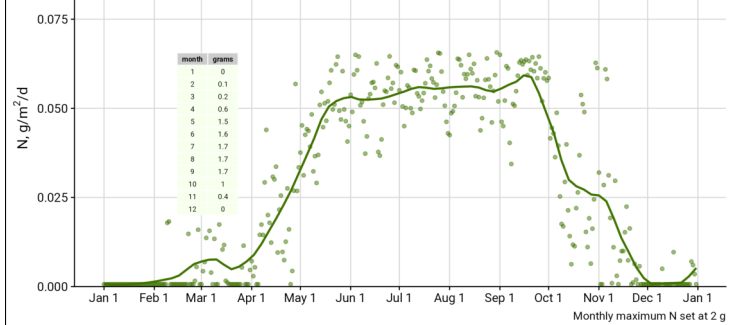
Expected clipping volume for Hamilton in 2024

based on a GvX of 0.5



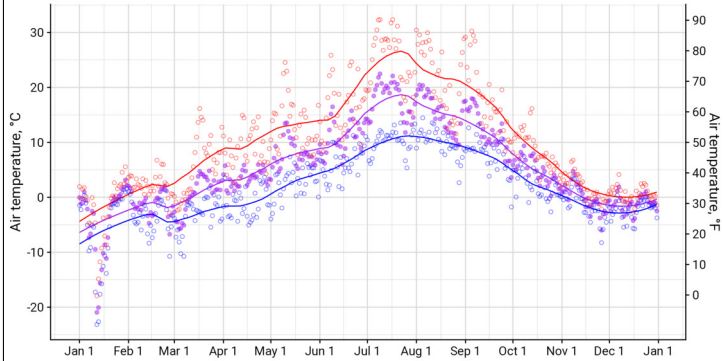
Predicted daily N by GP at Hamilton in 2024

Total annual N of 10 g by summing daily GP x max daily N



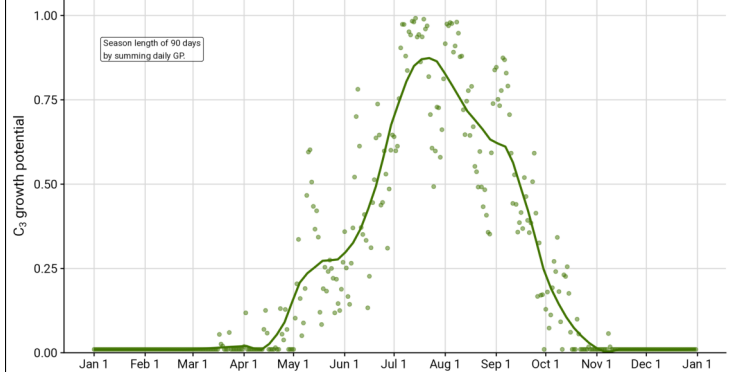
Daily temperature summary in 2024

Nicklaus North



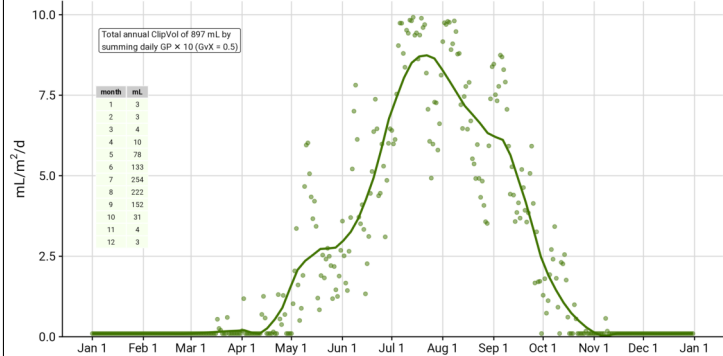
Growth potential at Nicklaus North in 2024

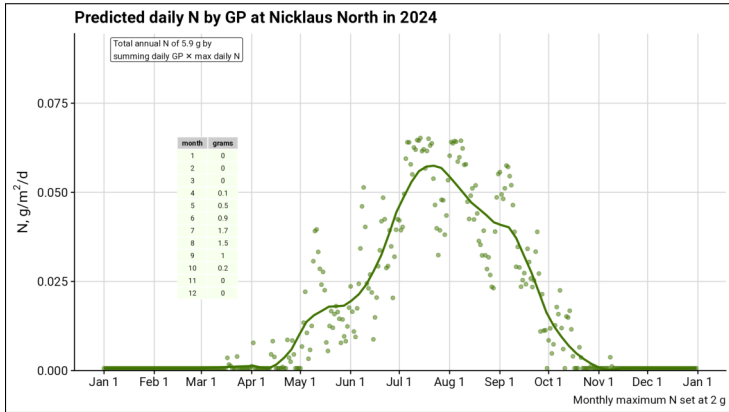
Season length of 90 days by summing daily GP



Expected clipping volume for Nicklaus North in 2024

based on a GvX of 0.5





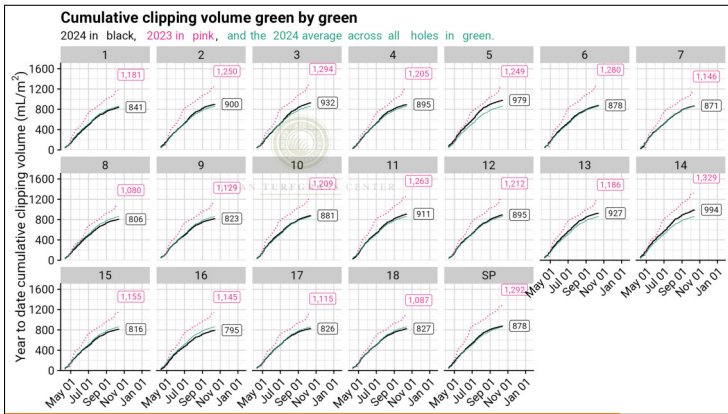
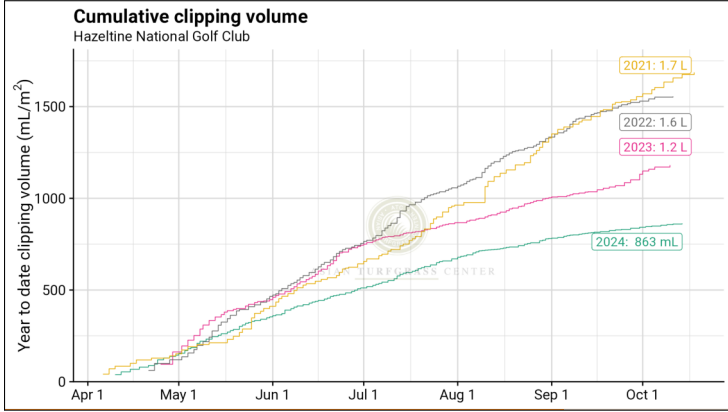
For every 5 kg N added per ha (0.1 lb/1000 ft²), maximum expected clipping volume is **165 mL/m²**.

Checking

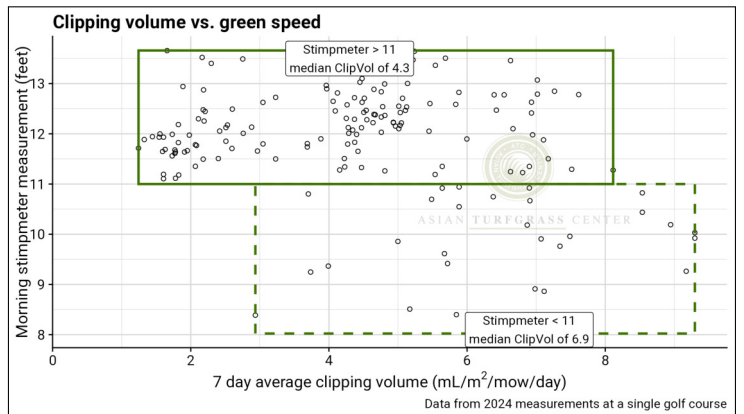


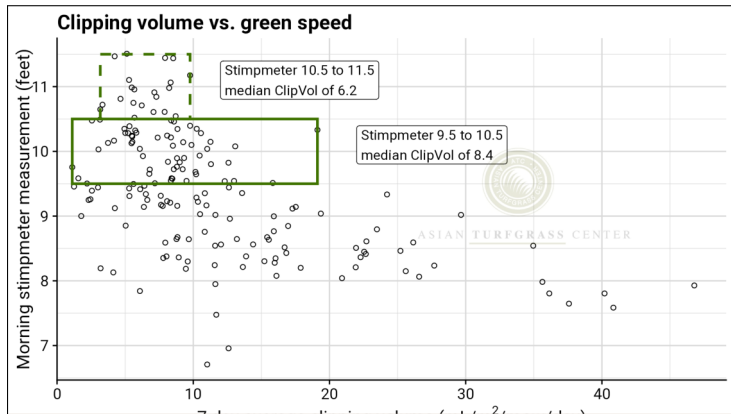
Table 1: Annual clipping volume at that location from 2013 to 2016

Year	Volume L/m ²	Estimated dry weight g/m ²	N applied g/m ²
2013	4.4	266	NA
2014	3.4	201	13
2015	2.9	172	10
2016	2.4	142	8.5

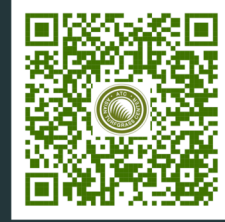


Adjusting





Online handout with slides & more info



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