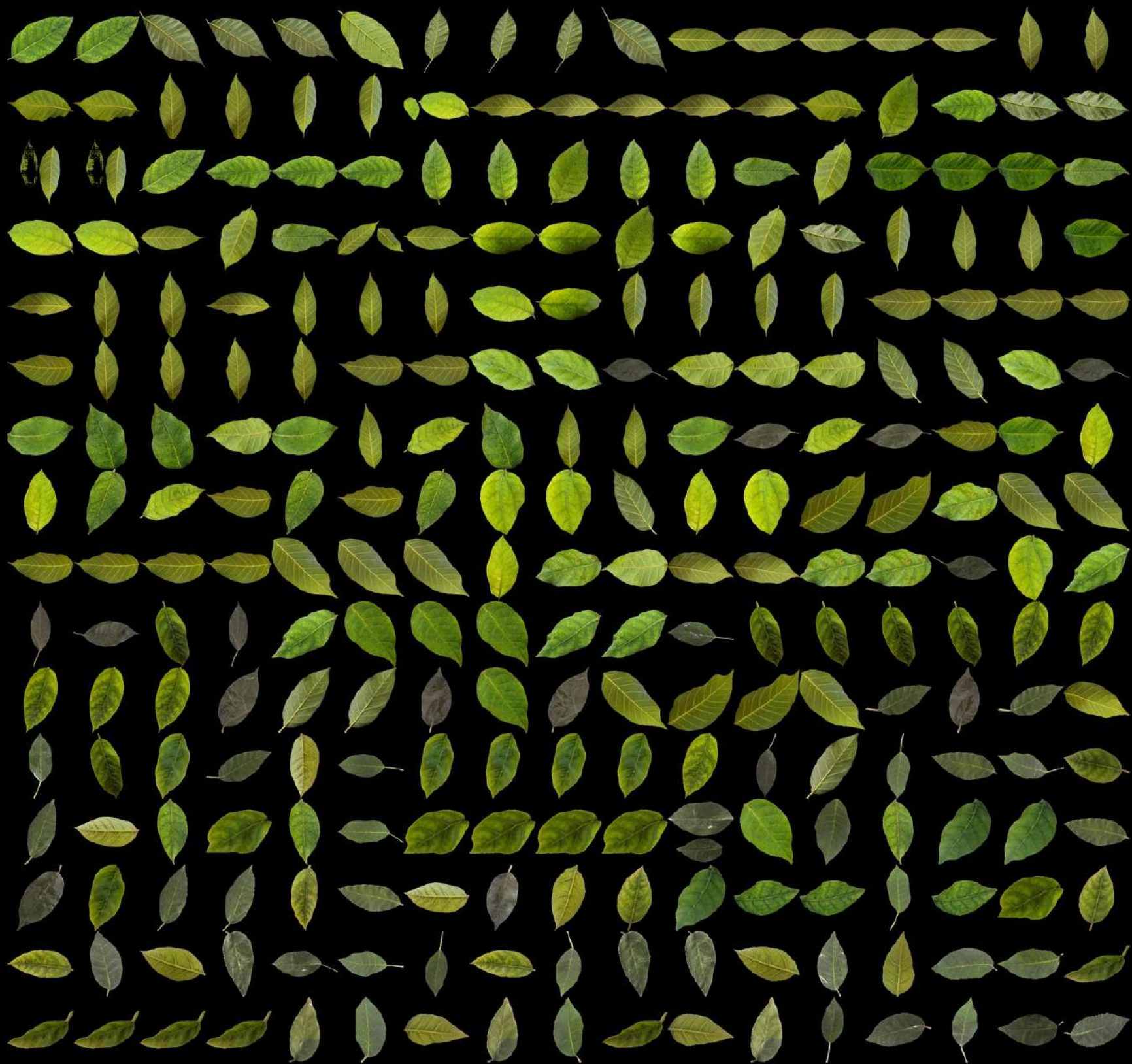


Petiole™ offers a
practical way to
quantify plant
greenness.





Greenness Assessment at Scale

78

Leaves
analysed

63%

proportions of
valid pixels

Greenness Assessment

Summary

The dataset contains 272 detected regions across 78 original images, with **three greenness-related metrics** evaluated for each detection: TGI, DGCI and AGRI.

DGCI

Dark Green Color Index

A colour-based index
derived from the HSB/HSV
colour space and
commonly used to quantify
plant/turf greenness



TGI

Triangular Greenness Index

An RGB-based index
associated with
vegetation/chlorophyll
content.

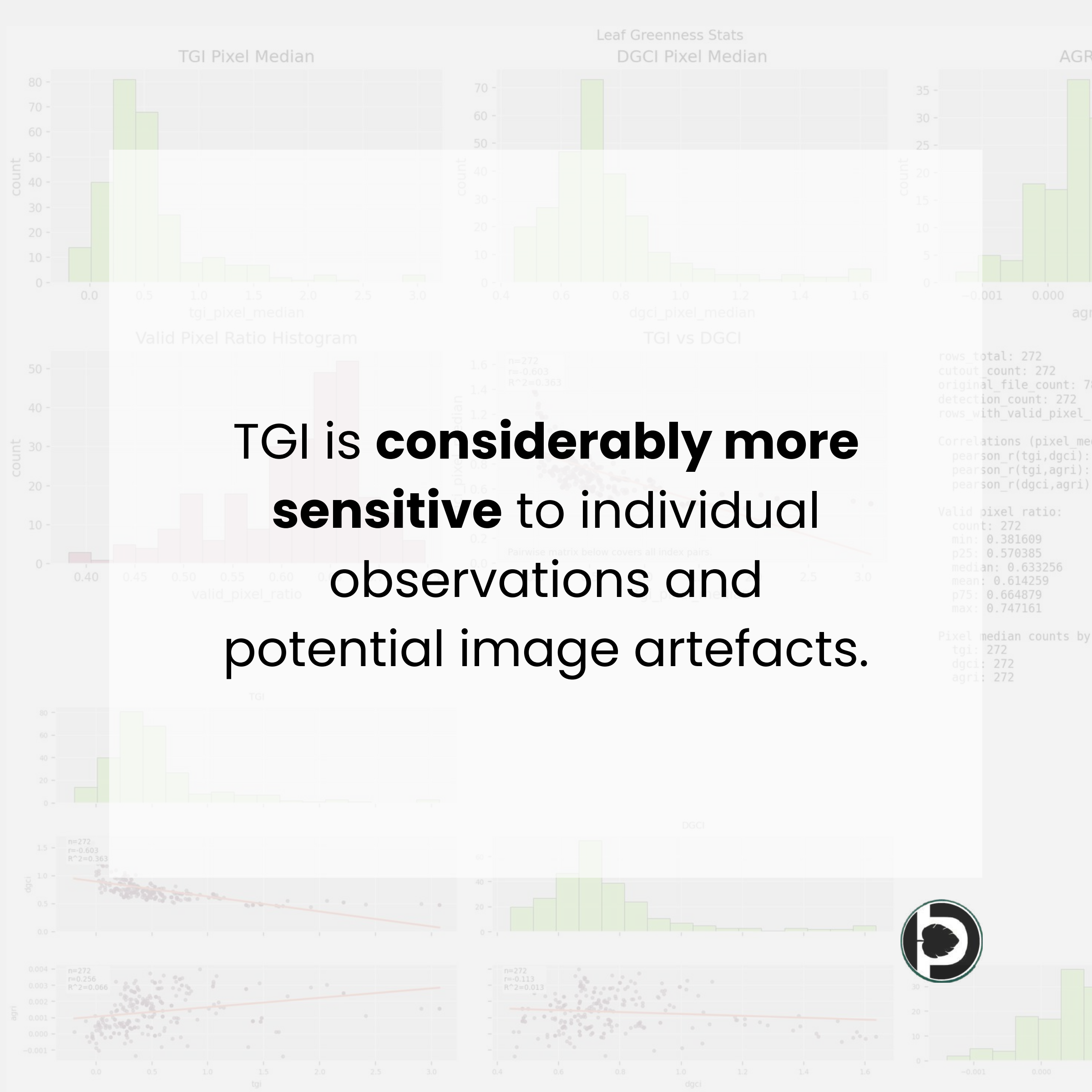


AGRI

Advanced Green Relative Index

A customized RGB
vegetation index used
within Petiole Pro pipeline

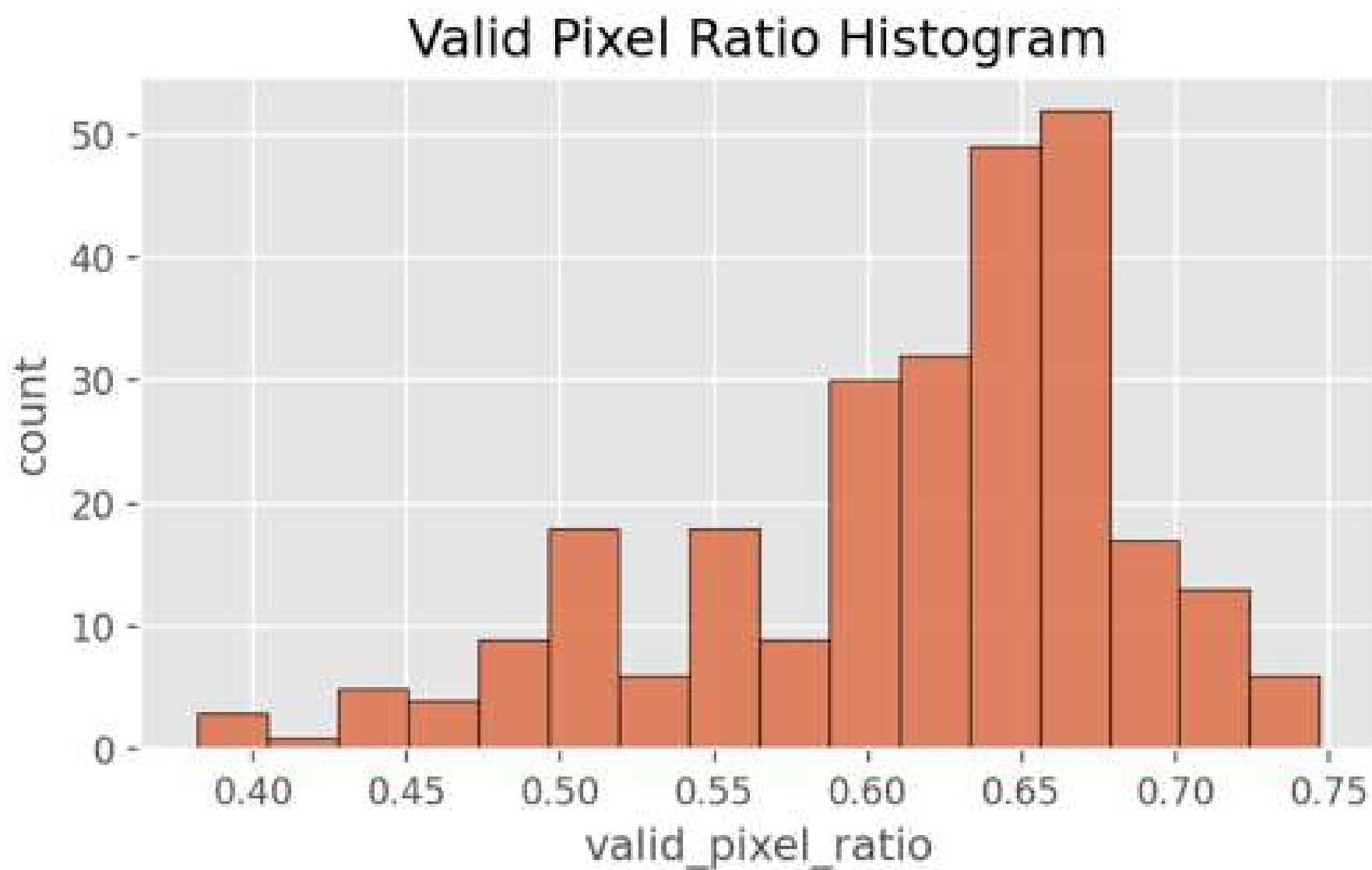


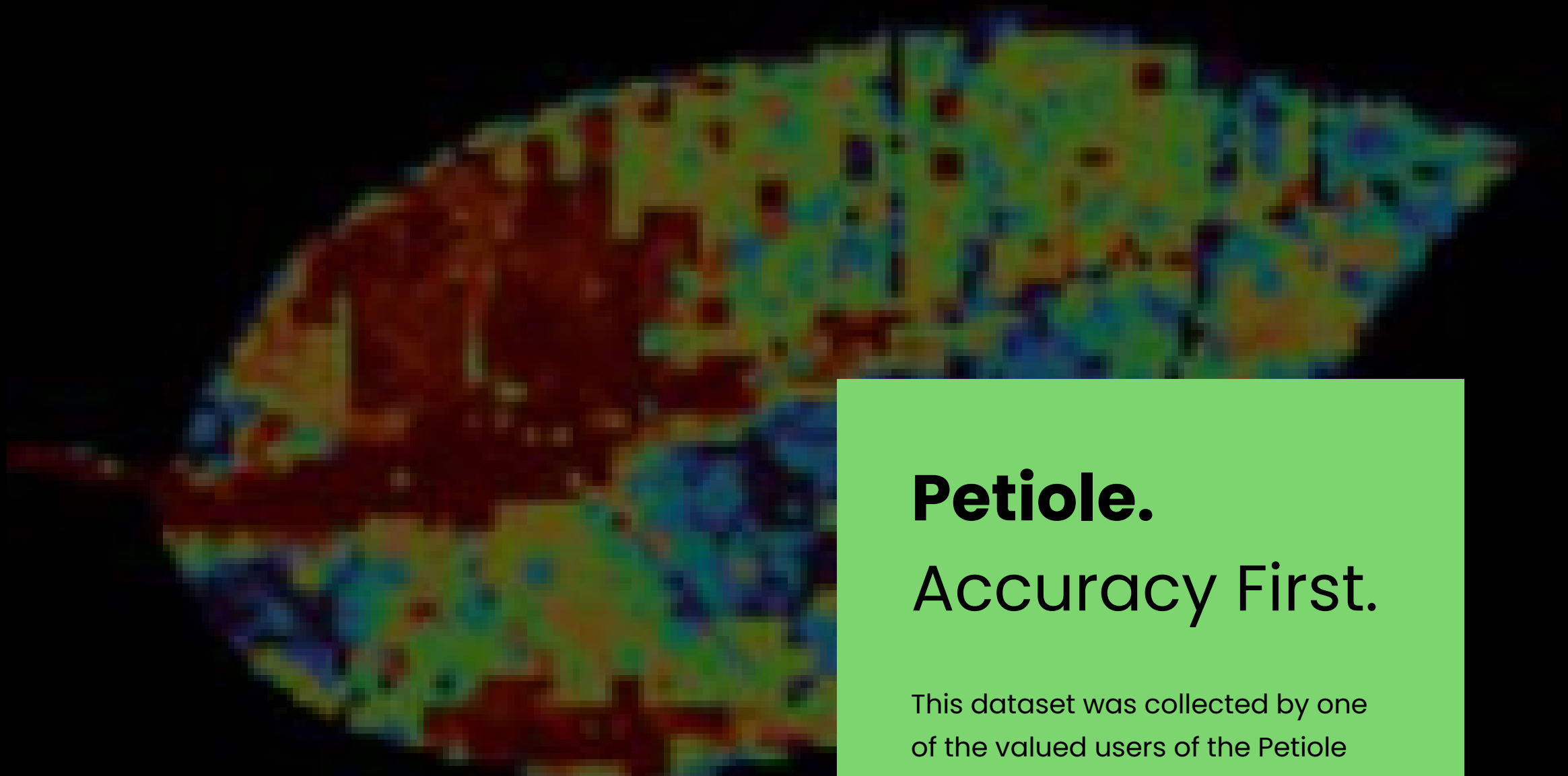


TGI and DGCI show a moderate negative correlation ($r \approx -0.60$), indicating that the **two indices respond differently** to the underlying image characteristics rather than simply providing duplicate measurements.

For a production-quality greenness assessment, the recommended approach is to **combine the greenness index** with a measurement-quality filter based on valid-pixel ratio, flag extreme TGI values for review.

Method / experiment details





Petiole.

Accuracy First.

This dataset was collected by one of the valued users of the Petiole mobile app. Automated processing and analysis were conducted using Petiole Pro Web platform.

Experiment No. 005. 14 August 2026.

Contact us:

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