

LEAF VEIN ANALYSIS

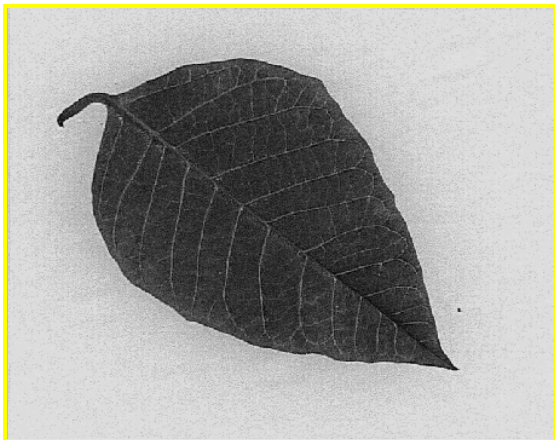


Figure 1: Original image. Leaf and vein will be binarized in red (Thresholding).

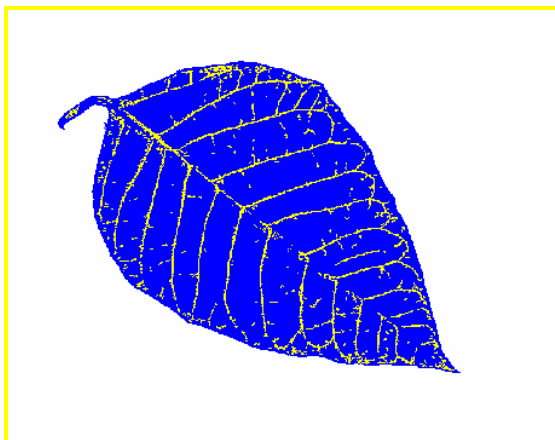


Figure 3: The vein network was binarized in yellow. Artifacts were removed from the yellow bitplane and the red bitplane was combined (XOR Boolean instruction) with the yellow bitplane to isolate the leaf in blue.

Sample Description

One domestic fern leaf.

Purpose of Analysis

Demonstrate the ability of the image analyzer to compare the vein area to the leaf area.

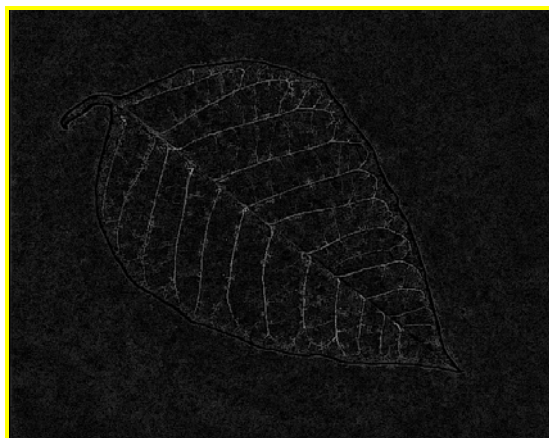


Figure 2: A Top Hat on White instruction was applied on the original image. This isolated thin white objects that consequently appeared white on a black background.

Results Summary

	Area Percent (%)
Leaf	90.80
Vein	9.20

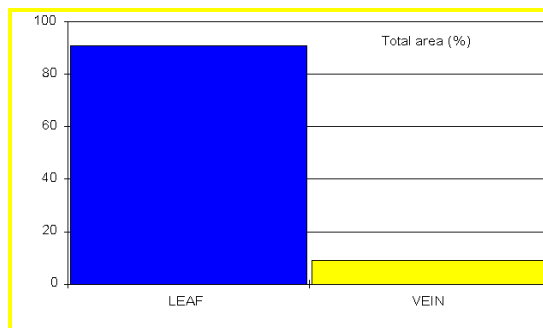


Figure 4: Leaf and vein network area percentage over total area.

Apparatus

Image Analysis

System: Clemex IMPAK Software
 Camera: Sony XC-77CE
 Lens: Computar zoom lens (18-108 / 2.5)
 Illumination: Logan Desk Top Light Box
 Macro Stand: Kaiser (Germany)