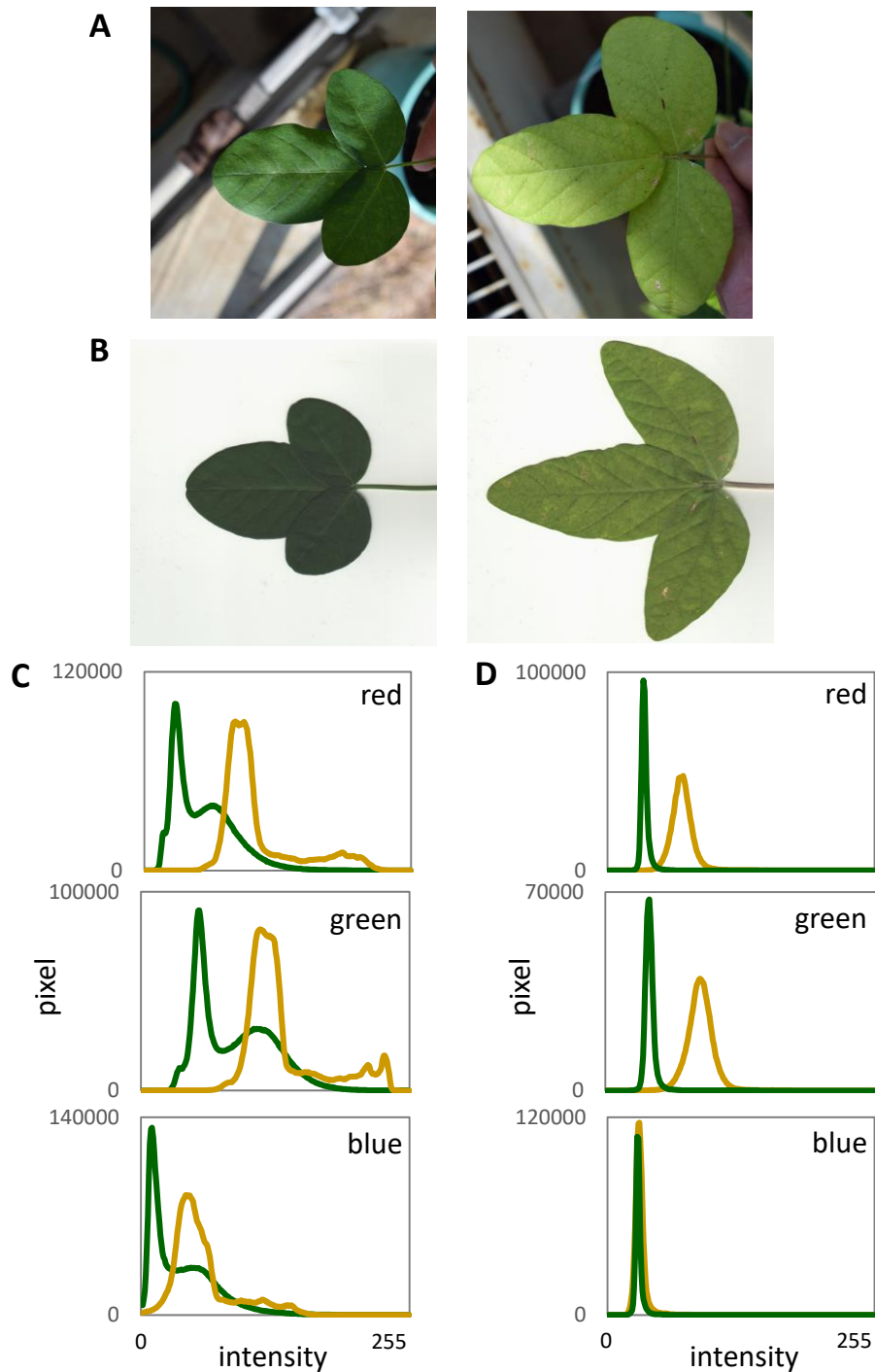


Supplemental Fig. 1. Image processing of disease symptoms.

(A) An original image of *JSX1* leaves showing a disease symptom. (B) A processed image in which the color panel, petioles, and the background were erased. (C) to (E) The whole leaf area, brown lesions, and yellow halos were selected by Color Threshold command, respectively. (F) to (H) Enlarged images of a part of pane B, D, and E, respectively.



Supplemental Fig. 2. Quantification of leaf color on photos taken by a digital camera or a flatbed scanner. Images of wild-type soybean (Jack) leaves were obtained by a digital camera (D5300, Nikon, Japan) or a flatbed scanner (CanoScan LiDE 500FV, Canon, Japan) and intensities of red, green, and blue colors were quantified as described in the main text. (A) Images of young (left) and senescent (right) leaves taken by the digital camera in a greenhouse. Leaves were partially shaded by surrounding obstacles. (B) Images of the same leaves shown in panel A taken by the flatbed scanner. Note that senescent leaves exhibit different shapes between photos taken by the digital camera and the flatbed scanner due to drooping of leaves. (C) and (D) Quantification of RGB color intensities of the leaf images taken by the digital camera and the flatbed scanner, respectively. Green lines, color intensities of young leaves; yellow line, color intensities of senescent leaves.