



Table S1. Calibration equations for each date of sample collection in 2019 and band for digital number conversion to ln reflectance.

Day after Planting (DAP)	Band 1 ª	Band 2 ª	Band 3 a
06-07 (22)	y = -0.0163x + 4.9117	y = -0.0166x + 5.0490	y = -0.0172x + 5.2591
06-14 (29)	y = -0.0169x + 4.1094	y = -0.0165x + 4.2062	y = -0.0163x + 4.3436
06-25 (40)	y = -0.0169x + 4.7826	y = -0.0173x + 5.0625	y = -0.0181x + 5.3184
07-02 (47)	y = -0.0151x + 4.4368	y = -0.0152x + 4.6308	y = -0.0156x + 4.7909
07-11 (56)	y = -0.0161x + 4.7722	y = -0.0162x + 4.8563	y = -0.0167x + 5.0842
07-18 (63)	y = -0.0188x + 5.8016	y = -0.0187x + 5.7713	y = -0.0191x + 5.9523
07-25 (70)	y = -0.0180x + 5.4610	y = -0.0181x + 5.5604	y = -0.0183x + 5.6615
07-31 (75)	y = -0.0179x + 5.4756	y = -0.0178x + 5.4708	y = -0.0180x + 5.5429
08-06 (82)	y = -0.0205x + 6.2682	y = -0.0200x + 6.1831	y = -0.0204x + 6.3366
08-14 (90)	y = -0.0196x + 5.9732	y = -0.0196x + 6.0580	y = -0.0192x + 6.0268
08-22 (98)	y = -0.0200x + 6.1518	y = -0.0197x + 6.0740	y = -0.0197x + 6.1333
09-02 (108)	y = -0.0194x + 5.9197	y = -0.0192x + 5.9224	y = -0.0195x + 6.0587
09-13 (120)	y = -0.0158x + 4.1944	y = -0.0158x + 4.2840	y = -0.0160x + 4.4268
09-23 (130)	y = -0.0161x + 4.9565	y = -0.0163x + 5.0610	y = -0.0170x + 5.3023

^a Calibration equation derived from the linear line of best fit of the negative natural log transformed measured reflectance values and collected average digital number of the calibration targets for the specific band of the collected imagery.

Table S2. ANOVA results of all collected variables and the effect of day after planting (DAP), treatment, and their combination from the field experiment in 2019 in Iowa.

Variable ^a	DAP	Treatment	DAP * Treatment
FLS	< 0.001	NS	0.045
DM	< 0.001	NS	NS
TLAI	< 0.001	NS	NS
$GLAI_{Dx}$	< 0.001	NS	NS
Canopy cover	< 0.001	0.110	0.025
NDVI	< 0.001	NS	NS
Yield		< 0.001	

 $[^]a$ FLS = frogeye leaf spot, DM = dry matter, TLAI = total leaf area index, GLAI_{Dx} = green leaf area index with frogeye leaf spot severity removed, NDVI = Normalized Difference Vegetation Index.