

CIR, or Infrared, detects red light outside the visible spectrum and correlates to plant health, as the cell structure of plant leaves reflect NIR light, while chlorophyll absorbs visible light. The healthier the plants, the darker red they appear, while dead or dying plants or soil will be grey.

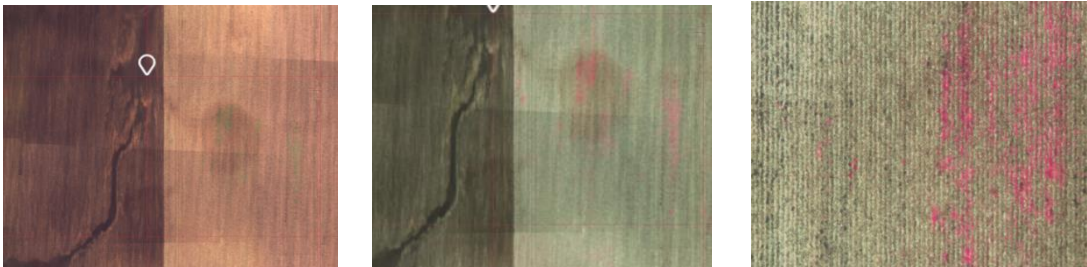
Infrared is especially useful for identifying vegetation in early growth stages because it captures light primarily from vegetation which causes that vegetation to stand out against soil even when it may not be visible via RGB.

CIR vs. NDVI

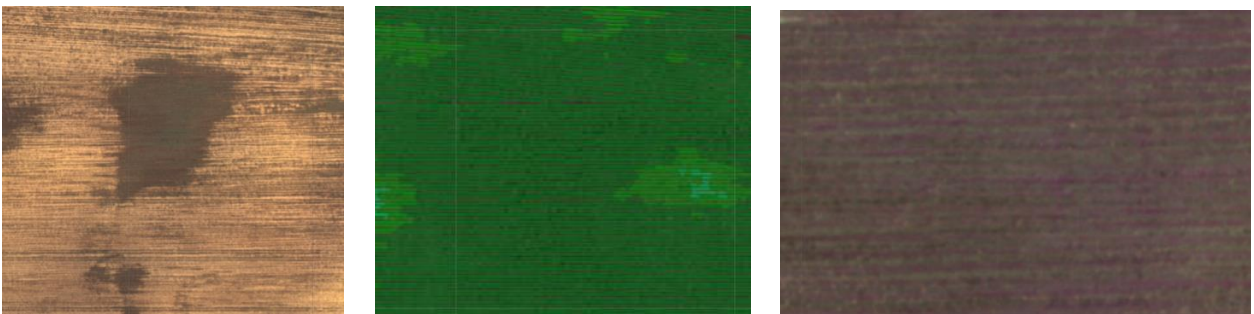
While CIR is a component of NDVI, CIR is often more valuable in the early season because plants show better against the soil due to the high contrast. CIR also allows you to visualize the fields whereas plants and soil become "blurred" in NDVI.

CIR PRO-TIPS

- **Dig deeper into weed alerts.** Weeds appear as a darker red and form clusters versus following rows. CIR helps visualize weeds from bare soil to V4 (corn).



- **Confirm crop establishment.** Zooming into areas where Row Tracer identifies lower emergence can help visually confirm rows and rule out other factors, like wet spots, which can have high light reflectance when saturated, falsely showing emergence under NDVI.



Row Tracer flagging a wet spot as emerged, while CIR shows actual emergence.