Landsat 8 Band Combinations

As with any image bands, you can arrange them in such a way as to extract unique and new information. This is definitely the case by extracting spectral signatures of objects in an image.

In the case of Landsat-8, some of the popular band combinations include natural color, color infrared, and various vegetation indexes.

If you want to view the Landsat-8 band combinations in an interactive web map, then I suggest to you the Landsat Explorer. All you have to do is just switch the rendering of data.

Otherwise, read below for the most common band combinations and what they specialize in.

Natural Color (4, 3, 2)

The natural color composite uses a band combination of red (4), green (3), and blue (2). It replicates close to what our human eyes can see. While healthy vegetation is green, unhealthy flora is brown. Urban features appear white and grey and water is dark blue or black.

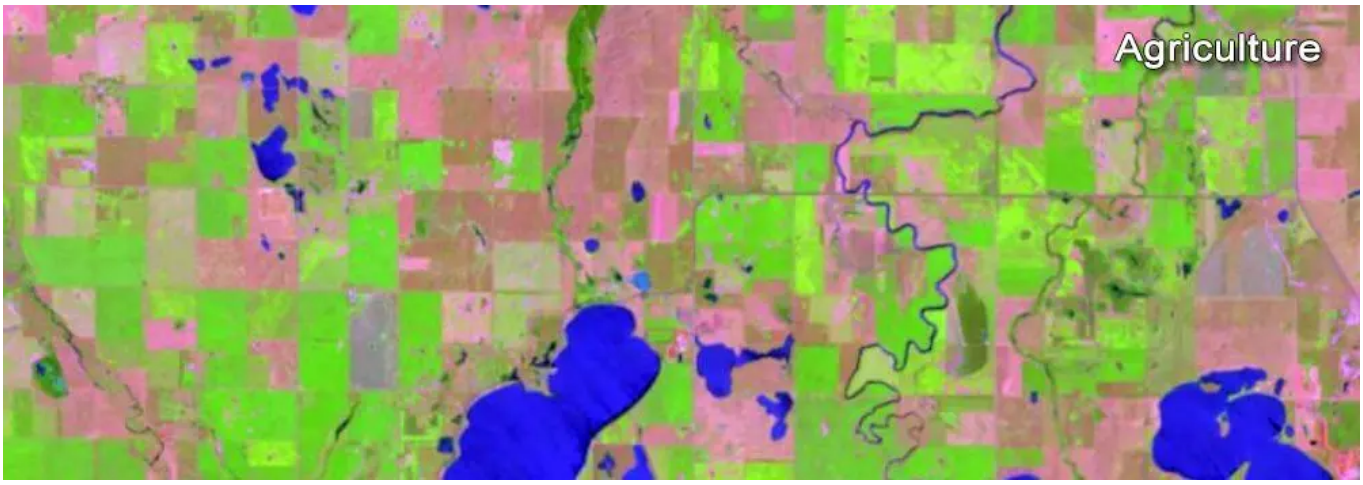
Color Infrared (5, 4, 3)

This band combination is also called the near-infrared (NIR) composite. It uses near-infrared (5), red (4), and green (3). Because chlorophyll reflects near-infrared light, this band composition is useful for analyzing vegetation. In particular, areas in red have better vegetation health. Dark areas are water and urban areas are white.

Short-Wave Infrared (7, 6 4)

The short-wave infrared band combination uses SWIR-2 (7), SWIR-1 (6), and red (4). This composite displays vegetation in shades of green. While darker shades of green indicate denser vegetation, sparse vegetation has lighter shades. Urban areas are blue and soils have various shades of brown.

Agriculture (6, 5, 2)



This band combination uses SWIR-1 (6), near-infrared (5), and blue (2). It's commonly used for crop monitoring because of the use of short-wave and near-infrared. Healthy vegetation appears dark green. But bare earth has a magenta hue.

Geology (7, 6, 2)

The geology band combination uses SWIR-2 (7), SWIR-1 (6), and blue (2). This band combination is particularly useful for identifying geological formations, lithology features, and faults.