

Additional information about the selected Vegetation Indices

| Index | Name | Calculation | Range / Description | Reference |
|---------------------|---|---|--|-------------------------|
| NDVI | <i>Normalized Difference Vegetation Index</i> | $\frac{R_{800} - R_{670}}{R_{800} + R_{670}}$ | -1 to +1 higher values indicate more "greenness" vegetation and photosynthetic activity | ROUSE et al. (1974) |
| TVI | <i>Triangular Vegetation Index</i> | $0.5 * [120 * (R_{750} - R_{550}) - 200 * (R_{670} - R_{550})]$ | total area of the triangle increases with higher chlorophyll absorption | BROGE & LEBLANC (2000) |
| NDNI | <i>Normalized Difference Nitrogen Index</i> | $\frac{\log\left(\frac{1}{R_{1510}}\right) - \log\left(\frac{1}{R_{1680}}\right)}{\log\left(\frac{1}{R_{1510}}\right) + \log\left(\frac{1}{R_{1680}}\right)}$ | higher values indicate more nitrogen in vegetation | SERRANO et al. (2002) |
| MSI | <i>Moisture Stress Index</i> | $\frac{R_{1599}}{R_{819}}$ | higher values indicate greater water stress and less water content | HUNT & BOCK (1989) |
| MTVI / MCARI | <i>Modified Triangle Vegetation Index / Modified Chlorophyll Absorption Ratio Index</i> | $1.5 * [1.2 * (R_{712} - R_{550}) - 2.1 * (R_{670} - R_{550})] / [(R_{700} - R_{670}) - 0.2 * \left(\frac{R_{700}}{R_{670}}\right)]$ | lower values indicate higher chlorophyll content | LIU et al. (2010) |
| AUC Green | <i>Area Under Reflectance Curve for the Green Wavelength Range</i> | specific area under the vegetation spectra between 500 nm and 600 nm | higher values indicate greater "green peak" and a higher chlorophyll content | KOOISTRA et al. (2003) |
| REPI (slope) | <i>Red Edge Position Index</i> | maximum slope of reflectance in the vegetation red edge region between 690 nm and 740 nm | higher slope values indicate more vital vegetation | HABOUDANE et al. (2004) |
| REPI (nm) | <i>Red Edge Position Index</i> | wavelength with the maximum slope of reflectance in the vegetation red edge region between 690 nm and 740 nm | increased chlorophyll concentration moves the red edge to longer wavelengths | HABOUDANE et al. (2004) |

* R = Reflectance at specific Wavelength (in nm)

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