

General Comments:

This study describes the ability of MODIS GPP to observe SOS and EOS of six species of trees in mixed forests in Slovenia. The paper provides a straightforward introduction, clear methodology, comprehensive results, useful discussion, and concise conclusion.

The paper is easy to follow and understand, and the study is sound. The figures included are well made and contribute to the reader's understanding of the study design and results. The introduction provides adequate information on the need for and objectives of this study, important terms and remote sensing sources that will be utilized, and related studies, and is structured in a way that makes it easy to read, with concepts building upon one another. The materials and methods section clearly states how the study was conducted and why, and included useful maps and charts. The results section lays out the study findings in well-defined subsections relevant to the project goals and different areas the authors investigated, which also makes it clear to follow and comprehend. The discussion section touches on challenges and areas of difficulty when observing vegetation phenology in mixed forests using remote sensing, and explains their results in this context. Overall, this is a great paper with useful findings.

In summary, this paper should be accepted with minor grammatical revisions, listed below.

Specific Comments:

Line 15: Remote sensing has **often been** applied to

Line 16: but **focuses** mostly

Line 43/44: Leaf phenology **is** a major determinant of water and CO₂ fluxes, **and** several studies

Line 83: methods chosen would **greatly affect** the

Line 84: thresh-hold based methods **make** them

Line 91: Missing a space after the “.” before “In fact”

Line 98: Replace **(start and end of season)** with **(SOS and EOS)**

Line 125: was approximately **four**

Line 127: became visible in **three to four** places

Line 132: Write out was “a.s.l.” is

Line 138: information that reflects ground observations **to some extent**

Line 151: information from **Google Earth Engine** for

Line 170: sums. Then, each year

Line 171: Repeat “double logistic function after” twice. Change wording so it is clear you use two double logistic functions and that this is not a mistake.

Line 187: line, a is the amplitude (comma after line instead of period)

Line 208: Explain that Mann-Whitney test or cite a source that does so.

Line 227: There is an odd red mark after “broadleaved species” in my copy. Should be a comma.

Line 248/Figure 6: Make Y-axis the same scale and same labels on all so we can see relative box lengths between species.

Line 280: sensing requires reliable, dense, and frequent

Line 290: date of **EOS** more uncertain

Line 292: date of **SOS** for individual

Line 296: is usually **resolved** by finding

Line 321: data would **greatly affect** the seasonal

Line 322: Remove comma after “[10,34]”

Line 324: proved to describe **the vegetation indices well** over the

Line 326: of missing data, for instance,

Line 336: of that year, ~~hence~~ introducing

Line 347: out study, ~~hence~~ offering

Line 368: have been **studied less**

Line 383: is ~~obviously~~ more problematic

Line 399: Remove comma after “GPP data”

Line 400: (EOS) for **six** tree species