

Line numbers referenced below are for the manuscript version with track changes shown.

Reviewer WP:

This paper provides valuable information for parameter quantification and modelling testing for accuracy and broad applicability

No response needed by me.

Reviewer XW:

	Developing crop growth parameters is critical for cropping modelling practices. This is a valuable and technically sound study utilized monitoring data for parameter quantification and further modelling testing for accuracy and broad applicability. I do have one reservation: how does the ALMANAC model simulate soil water? If the hydrology process is not well represented by the model, what would be the impact on biomass predictions? Suggest to include some description or discussion in this regard, including model limitations.
	<u>Table 4 was not cited in the text.</u>

My Responses: *I inserted a section on lines 208-228 explaining how the hydrology process is simulated in ALMANAC.*

Table 4 is currently Table 5 after the renumbering and is cited on line 451.

Reviewer IV:

Discussion including related results of other researchers is absent.

This has been addressed on Lines 562 and 662-672.

Lines 503-507. Experimental data have shown that ALMANAC is not a so good tool for grasses biomass production predictions (S/M values ranged from 0.47 to 1.43). This reduced accuracy could partially be attributed to the fact that ALMANAC does not include the CO₂ accumulation in photosynthesis as one of its parameters. Authors should state this in the discussion.

Have added the following wording to address this: Line 194-197; Lines 560-562

Figures. It is not clear why figure do not include the same number of points. Were there different numbers of measurements during years? Also, figure captions should be more informative.

Have added the following wording to address this: Line 173 and 174

Regression equations. There is no evidence that all linear regression equations are significant. Authors should state the adjusted coefficients of determination (R_a^2) and the F ratio of each equation.

This is now addressed by adding a new table (Table 3).

Please, delete all the double spaces between words throughout the manuscript.

Done throughout.

Lines 219-241. Please use passive voice (were simulated instead we simulate, was compared instead we compared, was converted instead we converted).

This has been corrected throughout

Line 248. '... as described by Kiniry et al. (1996).'

This has been changed. This is now on line 275