

Dear Prof. C. Zhao,

Thank you for your comments on “Evaluation of Penman-Monteith model applied to a maize field in the arid area of Northwest China” by Zhao et al. On behalf of co-author, I (i.e., W.-Z. Zhao) wish to reply to your comments as follows:

PS: My response to comments was marked by blue style.

I am interested in this study named “Evaluation of Penman-Monteith model applied to a maize field in the arid area of Northwest China”. After reading the discussion paper, I have my comments as follows:

Thanks for your courteous attention.

1. the topic of the study is comparison of the bulk canopy resistance derived by the Noilhan and Planton (N-P) approach and Jacobs and De Bruin (J-D) approach in their study. But the title is “Evaluation of Penman-Monteith model applied to a maize field in the arid area of Northwest China” is not appropriate.

In this paper, the major objective is to evaluate the Penman-Monteith model with two types of bulk canopy resistance approaches to modeling evapotranspiration of the irrigated maize fields under arid climate, rather than comparisons of two types of bulk canopy resistance. So, the title of this paper should be “Evaluation of Penman-Monteith model applied to a maize field in the arid area of Northwest China”.

2. At page 465, in line 16, bulk canopy resistance r_c is the same as r_s at page 466?

In line 16, and 20 on page 465, the symbol of the bulk canopy resistance “ r_c ” should be changed to “ r_s ”.

3. At page 467, in line 3, r_{smin} is the maximum stomatal resistance, but at page 466, in line 6, r_{smin} is the minimum stomatal resistance, is r_{smin} the same at the two place?

In line 3 on page 467, “ r_{smin} is the maximum stomatal resistance” should be changed to “ r_{smin} is the minimum stomatal resistance”.

4. Some symbols are not explained, for example, in equation (6) and in equation (12). It would be better to explain all symbols for readers to understanding what they mean.

In equation (6), the symbols explanation can be found in lines 4-5 on page 465 and in line 9 on page 467. While in equation (12), there is a spelling mistake, we should change T_{sk} to T_c , and others symbols can be found in lines 9-18 on page 468. So the right form of equation (12) should be:

$$X(T_c) = \frac{X(T_c = 298) Q_{10}^{(T_c - 298)/10}}{\left[1 + e^{0.3(T_1 - T_c)}\right] \left[1 + e^{0.3(T_c - T_2)}\right]}$$

5. There are many words here and there were mistakenly spelled, for example, at page 463, line 12, ‘utilize’ or utilized?; at page 467, line 16, “acanopy”?; at page 464, line 1, at page 473, line 18, at page 474, line 20, at page at page 475, line 19 “filed”?

These spelling mistakes in this paper you pointed out should be revised as:

In line 12 on page 463, “utilized” instead of “utilize”;

In line 16 on page 467, “a canopy” instead of “acanopy”

In line 1 on page 464, “field” instead of “filed”

In line 18 on page 473, “field” instead of “filed”

In line 20 on page 474, “field” instead of “filed”

In line 19 on page 475, “field” instead of “filed”