



SDI Review Form 1.6

Journal Name:	Journal of Experimental Agriculture International
Manuscript Number:	Ms_JEAI_37058
Title of the Manuscript:	Use of Crop Water Stress Index for Irrigation Scheduling of Soybean
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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	Çakır et al., 2017 (Agricultural Water Management 180 (Part A:78-87) 4. In keywords, please not use abbreviation in the keywords (VPD, CWSI). In the introduction, this part are very long and should be reduced in volume by half and avoid repetitions. There are many literatures in the introduction some can be deleted and it should be reduced including only the most relevant. Should incorporate sufficient studies that were related with this experiment but don't use so many old references to support one statement. 5. In material and methods, description of experimental soil on a profile base was provided in Table 1. Also, available soil water holding capacity(mm) in the rootzone depth should be explained clearly. 6. In material and methods, harvest date, growing stages of soybean should be provided in the text. Growth stages of soybean was monitored under different irrigation levels or not? 7. In the Equation 1, pan coefficient (kpc) should be corrected as plant-pan coefficient(kpc). 8. In material and methods, L109-113, Irrigation was applied when the cumulative amount of evaporation in the Class A pan was 25 ± 5 mm. When did you start first irrigation and stop last irrigation? It is not clear, it requires clarification. 9. There is no data on the amount of irrigation water applied to the treatments. 10. For accurate readings, canopy temperature was measured when the sun is highest in the sky between the hours of 11:00 A.M. and 14:00 P.M., from four directions? The readings at 11.00 A.M. is not represent real reading at noon. How to explain the differences in reading at 11.00 A.M. and 14.00 P.M. o'clock? 11. In material and methods, Irrigation treatments were based on the	4- Abbreviation in the keywords is written clearly (L-9) In the introduction section, the importance of soybean in human diet and the use of CWSI in other crops as well as only two studies conducted earlier in soybean using infrared thermometer. We think that previous studies should be given credit. Therefore, we left it as is. However, if a page limit does exist for the journal, we may consider that again. 5- We prefer presenting data as in Table 1. If readers are interested in available soil water holding capacity (mm) in the rootzone depth they can compute using the data given in table 1. 6- Harvest date is provided in the manuscript (L95-96). However, we did not record the growth stages as it was out of scope of this research. 7- Pan coefficient (kpc) in equation 1 has been replaced by plant-pan coefficient (kpc). (L-115) 8- As can be seen in Figure 1, the first irrigation was on the DOY 181 in 2015 and the last irrigation was on the DOY 258. But for better understanding, the first irrigation and last irrigation time have been added to the text (L111-113). 9- Irrigation water applied to the all treatments were already given in Table 3. 10- The relevant measurement hours were chosen according to the study conducted in Antalya, Turkey. he reference is given below and is also included at the end of the sentence on page 4 line 132. (Reference [25]) 11- Although figure legend was in Figure 2, it was not shown because
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	evaporation data (Epan, mm) obtained from a Class A pan located next to the plots and six different irrigation treatments were selected to examine the effectiveness of irrigation scheduling, (Kpc1=0 (unirrigated); Kpc2=0.25; Kpc3=0.50; Kpc4=0.75 Kpc5=1.00; Kpc6=1.25). But, There are only 4 treatments in legend of Figure 2.. Also, triangle point was shown as zero during all growing season of soybean?????? It is not acceptable!!!! 1. The soil moisture should be given as soil water content mm/90cm instead of soil moisture % in Figure 3. Also please show the field capacity and permanent wilting point clearly. Similar figure can be shown as Sezen et al., 2014 (Agricultural Water Management 143(1-2):59-70). Also, evapotranspiration and water use efficiency values of treatments should be calculated in the text. 12. In results and discussion, the amount of irrigation water applied per application and seasonal irrigation amount should be given for all growing season. At least, seasonal irrigation amount of each treatment should be given in the text. How many irrigation was made during the all growing season of soybean? This should be clarified. 13. The relationship between yield and mean CWSI values should be graphed for treatments. Significant linear equations were developed under CWSI experiments. As the amount of applied irrigation water decreased, the transpiration rates of the crop decreased, resulting in increased crop canopy temperatures and subsequent reductions in yield and growth. These results are in agreement with other studies (Orta et al., 2002; Yazar et al., 1999; Wanjura and Upchurch, 2000). These results confirm many earlier studies on different crops (Idso et al., 1981; Jackson et al., 1981; Yazar et al., 1999; 2002; Erdem et al., 2010; Sezen et al., 2014). Thus, the CWSI values proved to be a good indicator of plant to available water for red pepper and it may	of version of Word Software or the problem came in the process of sending the Word file. But they can be shown if their font size makes 9. However, we have corrected this mistake in the revised manuscript. 1. As pointed out by the referee, soil water content can be expressed in % as well as mm in root zone. We prefer presenting data in mm as in figure 3. If readers are interested in available soil water holding capacity (mm) in the rootzone depth, they can compute using the data given in table 1. However, we have changed the color of field capacity legend. Crop water use is given in Table 3 and yield is given in Table 4. Based on the data in table 3 and 4, reader can compute water use efficiency (WUE) and irrigation water use efficiency (IWUE) as it is out of this manuscript scope. 12. All information requested by the referee can be obtained in Table 3. It is thought that writing all the information in the text will cause confusion. The number of irrigation made during the entire growing season of soybean was already shown in Figure 1. The triangles in Figure 1 show the time of the irrigations. 13. Regarding the referees concern, the sentences given below is added to manuscript on page 7, lines 229-235. <i>“Significant linear equations were developed under CWSI experiments. A linear relationship between average CWSI and yield was established as (Yield = -1044.9CWSI+660.35, r²=0.93*) when data given in Table 3 is graphed. As the amount of applied irrigation water decreased, the transpiration rates of the crop decreased, resulting in increased crop canopy temperatures and subsequent reductions in yield and growth. These results confirm</i>
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	be used to predict yield where the CWSI is known. Yazar et al., 1999 (Irrig. Sci.,18:171-180) Wanjura and Upchurch, 2000 (Trans. ASAE, 43:867-875) Orta et al., 2002 (Helia, 37:27-38) Erdem et al., 2010 (Agric. Water Management, 98(1):148-156) Sezen et al., 2014 (Agricultural Water Management 143(1-2):59-70. 14. Small conclusion text should be added. 15. In the references, There are many literature in the reference list some can be deleted, and list should be reduced including only the most relevant. Some bibliographical information is of little relevance. 16. The authors did not provided new information concerning the current topic, The data presented are not sufficient for a paper in Journal of Experimental Agriculture International. The authors have only presented data of crop water stress index of soybean which is derived from only one experimental year. The information presented is insufficient for a full paper in Journal of Experimental Agriculture International. In conclusion, the subject matter is not original and the study is not properly justified, treatments are not properly designed.	<i>many earlier studies on different crops ([34], [35], [36]). Thus, the CWSI values proved to be a good indicator of plant to available water for soybean and it may be used to predict yield where the CWSI is known.”</i> 14. A conclusion sentence given below is added at the end of the Conclusion section. <i>“It is also shown that CWSI values can be used to estimate yield of soybean using yield-CWSI equation established.”</i> 15. We think that all references are relevant and necessary. 16. We left the decision on this issue to the editor of the journal
Minor REVISION comments	In conclusion, the subject matter is not original and the study is not properly justified, treatments are not properly designed.	
Optional/General comments	It is given	