

Review of: "A Study for Estimation of Greenhouse Gas Emissions of Cotton in Central Greece"

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Potential competing interests: No potential competing interests to declare.

Reviewer Comments to Author:

I have reviewed this manuscript titled "A Study for Estimation of Greenhouse Gas Emissions of Cotton in Central Greece". This manuscript evaluates the main components/driving factors of GHG emissions of cotton crop in Greece based on statistical data (Year 2020 & 2021) using CFT tool. Find the suggestions below for this manuscript:

Comment 1: Page 4, under the "Geographical locations and climate of the study area section", The Latitude/Longitude range of study area is not provided. It is suggested that include a GIS map of the study area (including cotton farms of Greece).

Comment 2: Page 4, Table 1, Provide the source of climatological data used.

Comments 3: Page 4, Table 2, Provide the region of variation in size of farm from year 2020 to 2021 as all the three locations (Kopaida Sterea, Elatia Sterea, Farsala Thessaly) farm size is increasing from 8.97 to 9, 7.58 to 7.87, 8.57 to 8.62.

Comments 4: Page 4-5. Suggestion is to combine the planting and harvesting paragraph in one.

(As only one line information is provided under Harvest)

Comments 5: Page 5, Under "Fertilizer Application" A common fertilization application of 300-450 kg N-P-K 20-10-10 per hectare at sowing and another 250-350 kg N-P-K 20-10-10 per hectare during flowering is mentioned.

As the three test sites are used in this study so it is strongly recommended that provide the fertilizer applications of each three sites individually. Also include the fertilizer used in the different growing stages of cotton (seeding, flowering, cotton bolls formation etc).

Comments 6: Page 5, "The average yield was 4.46 tons per ha in response to the average fertilizer dose of 703 kg per ha". Provide the yield of every test sites.

Comments 7: Page 6, "PH range between 7.3 to 8.5", Specify that how you got those soil PH values? and this range is for all three sites min-max values of PH?

Comments 8: Page 6, Table 4, Use the standard format of the journal as in this table 4 heading is in capital letters while in

others heading is small letters.

Comments 9: Page 7, “Estimation of GHG emissions during the cultivation phase” Cool farm tool (<https://coolfarmtool.org/>) was used in order to calculate greenhouse emissions.

Why Cool Farm tool is used for calculating GHG emissions? Provide the comparisons/advantages of this tool with other available tools such as DND.

General Comment: How many number of field visits is conducted for the 12 fields (4 farm for each sites). Provide the dates of field's visits and field condition photographs. Also include the path to future research in the discussion section.