

## Reviewer comments:

The experimental work entitled “**Study on cultivation of seedling using buds of potato (*Solanum tuberosum* L.)**” is an instant study engaged with emphasis on analysis of morpho-physiological attributes and crop production related technique in potato. It seems that the authors carried out relatively good experimental methods and obtained satisfactory results for cultivation of seedling using buds of potato (*Solanum tuberosum* L.). I think that such type of study is really needed for discovery of the crop production related innovative techniques. This manuscript seems to fall within the universal scope of PeerJ Journal. However, a **minor revision** is necessary before acceptance of this manuscript.

My reviewed comments to this manuscript (ms) are listed below, please go through the entire ms and correct the followings:

1. Treatments abbreviations should be written in subscript style.  
e.g. Line 34. Please use T<sub>1</sub>, T<sub>2</sub>, T<sub>3</sub>, T<sub>4</sub>, T<sub>5</sub>, and T<sub>6</sub>.
2. Please add the citation for each method that you referred to and check all citations.  
e.g. Line 241-244. Insert the citation for software SPSS 20.0 used for statistical analysis in the materials and methods section. Also add its reference in the reference section.
3. Please use the appropriate units for measured traits and the format of each unit should be uniform in the entire ms.  
Please amend! e.g.  
Line 98 ‘200-300 kg/mu’ and Line 340 ‘3506.41 kg/667m<sup>2</sup>’ (1 mu = ~667 m<sup>2</sup>).  
Line 134 ‘8-9d’ and line 138 ‘25 days’. Please use either full or abbreviated form (8-9 d, 25 d would be good).  
Line 150 ‘2 March’. Please use the Month/Date format (March 2<sup>nd</sup>).  
Line 152 ‘1.2m’ and ‘5m’. Please add space between values and units (1.2 m, 5 m).  
Line 168 and 194 ‘°C’. Please pay attention to the font formats.  
Line 310 and 323 ‘μMol CO<sub>2</sub> m<sup>-2</sup> s<sup>-1</sup>’ and ‘μmol CO<sub>2</sub> m<sup>-2</sup> s<sup>-1</sup>’. Please check the capital or lower-case letters and subscript or superscript (μmol CO<sub>2</sub> m<sup>-2</sup> s<sup>-1</sup>).  
I recommend adjusting all the unit format in the ms into a uniform one ‘x<sup>a</sup> y<sup>-b</sup>’ (g/kg to g kg<sup>-1</sup>, m<sup>2</sup>/s to m<sup>2</sup> s<sup>-1</sup>, mol/L to mol L<sup>-1</sup>, etc.).

4. Description should be consistent throughout the main text as well as legends.

Please correct! e.g.

You described the last bud as bottom bud in the legend of Figure 1. However, you described that bud as tail (basal) bud (Line 402) in the main text. Please amend!

In addition, please add a scale bar in Figure 1A.

Line 45-46 Results and Conclusions section. The length of '7 cm' potato bud was proven as the best treatment among the different treatments used for raising of seedling. However, Line 430-432 The obtained results depicted that morphological and physiological growth indexes of plants were significantly different among the treatments and '5cm' potato bud length treatment (T2) was proven as the best treatment for raising of seedlings and in line with actual requirement. Inconsistent! I believe it's 7 cm should be the best treatment. Please double check the results and avoid the wrong description.

5. Please check the entire reference section and list all the references in a uniform format as required by PeerJ Journal.

6. Grammar and writing issues, please revise these issues in the entire ms. Here, I only listed some that I found while reading.

Please check and amend! e.g.

Line 58 hundreds years of its domestication/hundreds of years of domestication???

Line 67 is generally depends upon/generally depends upon (check Line 105)

Line 69 has been/have been

Line 87 3.5-10.5 cm growth? Length?

Line 109 A very little is reported/little has been reported

Line 120 The cultivation of these experimental materials was grown/These experimental materials were grown

Line 143 described in above part 1/described above in part 1

Line 306-309 The sentence is too long and confusing, please describe it more concisely and clearly!

Line 322 It's not a sentence. 'Among them, the chlorophyll content of 'Zhongshu 4' with the highest rate of 3.89 mg/g'.

Line 334-340 This paragraph needs to be revised.

Line 341-348 This paragraph needs to be rewritten, including punctuation use (Line 341-342), grammar issues (Line 343-345) and ways of description (Line 346-348).  
Your description: the T6 treatment of each variety did not increase the yield significantly, 'Zhongshu 4' only increased production by 1.29%.

Revised: The yield was not significantly increased in T6 treatment of each variety.  
For example, production was only increased by 1.29% in 'Zhongshu 4'.

Please amend all the similar issues throughout the ms!