

Reviewer Recommendation and Comments for Manuscript JPOP772 titled “IN VITRO SHOOT ORGANOGENESIS, ROOTING AND ACCLIMATIZATION OF FOUR DIVERSE DIANTHUS PETRAEUS GENOTYPES USING TDZ, NAA AND IBA”.

Format the intuitions to match journal requirement and format.

Line 57: Replace ‘originated’ with ‘originating’

Line 60: Use either the IUPAC name of ‘2-(1-Naphthyl)acetic acid’ or ‘1-naphthaleneacetic acid’ for NAA

Line 61: Replace ‘Vitrification’ with ‘Hyperhydricity’

Line 62: Replace ‘vitrified’ with ‘hyperhydrous’

Line 63: ‘The regenerated microplants...’ sentence should be moved to the end of the abstract.

Line 68: Suggest rewriting ‘TDZ produced a maximum number of 17-24 adventitious shoots per explant’ to ‘TDZ produced variable amounts of adventitious shoots (~17-24) per explant, depending on the genotype.’

Line 71: Vitrification was used in line 61, here the correct term of hyperhydrous is used. This sentence is a replication of Line 61. Suggest combining or eliminating Line 61.

Line 75: Suggest adding ‘thidiazuron’ to the keywords.

Line 77: The term ‘one of the most important crops in the ornamental industry’ is very subjective. Suggest modifying sentence to ‘Carnation is an economically important crop in the ornamental industry...’

Line 79: ‘sp.’ should be ‘spp.’ if referring to the plural.

Line 105(6): Authors suggest that micropropagation is ‘one of the best ways for germplasm conservation.’ I would not agree since the plant is cloned and genetic diversity can become limited as compared to a sexually propagated species. Suggest changing to reflect that maintaining plant stock cultures in vitro is a tool for germplasm conservation.

Line 111: What classifies genotypes of *D. petraeus* to be ‘Greek genotypes’? How do they differ from *D. petraeus* ssp. *simonkaianus*?

Line 132: Move the shoot tips information from plant material section to Culture media and conditions section.

Line 159: This experimental design is not 15 replications; it is 3 replications with 5 samples per replicate.

Line 161: ‘0.0’ should be just ‘0’

Line 168: See comment for line 161

Line 171: See comment for line 159

Line 184: See comment for line 159

Line 185: See comment for line 161

Line 194: See comment for line 159

Line 196: See comment for line 161

Line 197: see comment for line 161

Line 221: 'Selection of plant material'. Results do not come as a surprise. The in vitro explants most likely produced the same amount of shoots as the in vivo explants after they were first subcultured after initial placement in culture. This manuscript could be shorted with either the elimination of this section.

Line 225: 'sterilized' should be 'surface sterilized'

Line 228: Spelling of micropropagation

Line 228: Space needed between '#2888' and 'The'

Line 265: Table 2 mean separation is a bit confusing.

Line 268: This statement is not true. When conducting, analyzing, and reporting factorial data, all that can be said is that 0 NAA in combination with 2 TDZ for #3631 performed the best. Data would have to be reanalyzed looking only at NAA as a factor in order to be able to make this statement.

Line 274: The 21.47 value is not significantly different from 20.53. Statement made in manuscript is not correct. This is true for other statements as well. Mean separation was conducted and any value that has overlapping means is not significantly different.

Line 183: With the significant 3-way interaction, all that can be said is that the combinations are significant, not individual factors.

Line 307: See comment for line 183

Line 329: '#3631 produced the least'. This is not true. #288 produced the same amount of 1.00 at 0.5 NAA so did #1471 at 0 and 0.1 NAA.

Line 379: 'sterilization' should be 'surface sterilization'