

We thank the Editor and the two reviewers (1 and 3) for their very positive assessment of our paper. The review comments provided suggestions for minor editorial revisions, which have been made in the revised paper as described below. In addition we made a few minor spelling and formatting corrections, which are shown in the submitted track-change version of the revised submission.

Response to Reviewer 1

Comment: I would only suggest the authors briefly discuss the meaning of the accumulation of aglycones in ground tissue in relation to what happens when the insect chews the needles (a passive but perhaps significant response to feeding). Constitutive levels are important, but so are those related to mechanical damage.

Response: We have added wording in the discussion about the possibility of increased accumulation of aglycones in disrupted tissue contributing potentially to enhanced resistance in plants overexpressing *Pgβglu-1* (lines 162 -165).

Response to Reviewer 3

Comment: The qPCR data in 3A is based in delta-delta Ct value, and its methodology was given in the method. However, sufficient method was not given for the qPCR-data in Figure 2. The Y-axis seems to indicate absolute abundance of the transcript number; however, it is not clear how authors obtained such data. More methodological information is required.

Response: Requested additional details have been included to the methods section (lines 70-72).

Comment: Figure 1 legend and respective text - "...appeared healthier and tall" read very subjective and non-scientific. Can authors define "healthier and tall" in a more objective manner.

Response: We rephrased the wording in the legend of Figure 1 to "... were taller and appeared more vigorous compared to the seedlings expressing *gfp*." Although we did not measure other parameters, such as for example chlorophyll content, to further substantiate this observation, Figure 1C provides images of the seedlings to support this statement.

Comment: Ranges of the data variations can be provided for Figure 3b. Error bars can be shown, but if the presentation of the error bars may complicate the figure presentation, authors simply state a sentence such as that "for all samples, less than xx% STD or SE was calculated".

Response: Error bars have been added as requested.

Comment: Structures for isopungenin, pungenin, picein, and piceol can be given in Figure 3 or in a separate Figure (possibly Figure 1), together with the catalytic function of the enzyme in the figure.

Response: As requested, structures and a reaction scheme have been added to Figure 3.