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CHARACTERIZATION OF PEA (*PISUM SATIVUM* L.) PLANTS TRANSFORMED WITH A GIBBERELLIN 3B-HYDROXYLASE GENE

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To expand our understanding of gibberellin (GA) biosynthesis in reproductive and vegetative growth, pea (*Pisum sativum* L.) plants have been transformed to over-express the GA 3 β -hydroxylase gene, *PsGA3ox1*, which encodes for the enzyme that converts GA₂₀ to bioactive GA₁. Morphological characterization was carried out on a transgenic line carrying one copy of *PsGA3ox1* (assessed by screening the T₂ generation with kanamycin) along with a transformation control line (where the trans-gene had segregated out) and a wild-type line (non-tissue-cultured seed). The transgenic *PsGA3ox1* line produced significantly longer internodes, larger stipules and longer tendrils than the control lines. The total number of internodes was minimally affected in the *PsGA3ox1*-transformed plants compared to the controls. These data suggest that increasing the *PsGA3ox1* transcript level resulted in increased production of GA₁, and thus modified the stature of the plant.

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