



GRA&GREEN established gene-editing delivery technology for commercial tomato varieties

The technology enables GRA&GREEN to gene-edit without *Agrobacterium*-mediated gene insertion, not depending on crop species and varieties

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GRA&GREEN Inc.

GRA&GREEN Inc. (Nagoya, Japan), an Ag-biotech startup company, announced today that it has developed a unique delivery technology that enables gene editing of plants with high efficiency without *Agrobacterium*-mediated transformation. The technology has been applied to commercially available tomato varieties.

GRA&GREEN developed a highly efficient vector system. When introduced into commercially available F1 tomato varieties, GRA&GREEN succeeded in acquiring a gene-edited individual (T0 generation) with a high probability of 11%. Furthermore, with this technology, GRA&GREEN succeeded in gene editing up to eight target genes at the same time with a single introduction. It has also confirmed that foreign genes have not been inserted into the plant genome in individuals that have been edited.

Since this technology does not involve the *Agrobacterium*-mediated gene insertion, there is no need for regeneration from callus (undifferentiated cell mass), drug selection, or selection of null segregants in later generations, which is currently required in many cases in the process of plant gene editing. This makes gene editing easier and faster. In addition, it is a gene-editing technology that does not depend on crop species and varieties, and GRA&GREEN will continue to work on verification to expand the applicable crop species.

■About GRA&GREEN

GRA&GREEN, based in Nagoya, Japan, is an ag-biotech startup company that originated in Nagoya University with a mission to envision future plants. Founded in 2017, GRA&GREEN uses its proprietary plant grafting and gene-editing technologies to work with partners. For further information, please visit our website at <https://www.gragreen.com/en>.

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