



[Available Issues](#) | [Japanese](#)

Author:  [ADVANCED](#) | Volume  Page

Keyword:



[TOP](#) > [Available Issues](#) > [Table of Contents](#) > [Abstract](#)

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### Development of Automatic Segmentation Software for Measurement of Area on the Digital Images of Plant

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We developed automatic segmentation software for efficient measurement of digital images of plant organs. This software enables to measure area size of a large number of images with less effort. The developed software has two features: (1) We developed the technique for dividing plant organs and background by the difference of digital images. An accurate region extraction of plant organs was achieved compared with a conventional binarization method. (2) We developed

automating repetitive tasks to improve the task efficiency of image analysis functions enable efficient software operations and the processing of analysis. We applied the developed software to analysis of differences in the pattern of petals in *Ipomoea nil* (L.) Roth. We found that the software differences compared with conventional visual comparison methods. The software is available for use free of charge by downloading at <http://www.kazusa.or.jp/picasos/>.

**Key Words:** [area measurement](#), [image analysis](#), [petal senescence](#), [varietal differences](#)

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