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The Relationship between Parthenocarpy and Yield : Traits in Eggplant

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Common Japanese eggplant varieties are non-parthenocarpic and do not bear fruit in forcing culture. Performing this treatment is quite time consuming. Parthenocarpic eggplant requires fewer working hours. Therefore, we investigated the relationship between parthenocarpy and yield and yield-related traits in eggplant. In this study, we used parthenocarpic and non-parthenocarpic doublets originally originated by anther culture of F₁ hybrid between 'Chikuyo' or 'Ko

Japanese common F₁ varieties, as a seed parent and AE-P03 or A1 parthenocarpic pure lines, as a pollen parent. The numbers of flower percentages of parthenocarpic lines were equal to those of non-parthenocarpic lines. However, the fruit set percentages of parthenocarpic lines were low. Especially, the fruit set percentages of parthenocarpic lines in April and June were over 10 points lower than those of non-parthenocarpic lines. The yield of parthenocarpic lines was lower than that of non-parthenocarpic lines. These findings suggest that for the breeding of parthenocarpic eggplant varieties, it is necessary to develop fruit load ability using with hybrid vigor.

Key Words: [doubled haploid](#), [fruit growth percentages](#), [fruit setting of flowers](#)

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