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### Effects of Continuous Carnation ‘Nora’ Cropping for Years on the Physical and Chemical Properties of Soil and Quality of Cut Flowers

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The carnation ‘Nora’ was continuously cropped under the same soil fertilization over 25 years in an isolated bed in order to investigate the physical and chemical properties of the soil as well as the yield and quality of cut flowers.

positive correlations between the years of continuous cropping and extractable nitrogen and Trough-phosphate in soil nutrients. There was a positive correlation between years of continuous cropping and the exchangeable magnesium. There was a positive correlation between the years of continuous cropping and the water and air ratio. There was a negative correlation between years of continuous cropping and the solid ratio. There was no correlation between the years of continuous cropping and the plant nutrients. During 25 years of continuous cropping, the total yield of the first year was less than the yields after 11 and 17 years of cropping. However, there was no significant difference in cut-flower yield after 25 years of continuous cropping. Moreover, 6 to 25 years of continuous cropping affect the quality of cut flowers. Thus, it has been indicated that long-term continuous cropping in carnation cultivation is possible if the physical and chemical properties can be maintained at a suitable level in soil sterilized by steam in an

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