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Comparison on the Activities According to Bees' Numbers of *Osmia cornifrons* and *O. pedicornis* Released in the Apple Orchards

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This study was examined the pollinating activity and effect according to bees' numbers of *Osmia cornifrons* and *O. pedicornis* released in the apple orchard. The activities of out-going and in-coming bees of 750 heads and 1,000 heads groups released were more effective than those of 500 heads groups released. Also, the foraging activity and the pollen collecting activity of 750 heads and 1,000 heads groups released were more effective than those of 500 heads groups released. The rate of egg laid by *O. cornifrons* in the bamboo-tube was more higher than that by *O. pedicornis*. The normal fruit rate was showed *O. cornifrons* of 1,000 heads group released ; 41.3%, *O. cornifrons* of 750 heads group released, *O. pedicornis* of 750 heads and 1,000 heads groups released; 32~33%, and *O. cornifrons* and *O. pedicornis* of 500 heads groups released ; 21~27% in those order. Therefore, for producing of high quality fruit, *O. cornifrons* and *O. pedicornis* must be released over 750 heads groups during the apple blossoming season in apple orchard.

Key words: *Osmia cornifrons*, *Osmia pedicornis*, bee, apple orchard, pollinating activity

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Transgene Expression Stability in *CMVP0-CP* Introduced Chili Peppers

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Many genetically modified crops were developed but the genetic instability of the introduced gene came to be a big problem to be solved for application of the transgenic plants. The existence and expression stability of transgene in *CMVP0-CP* introduced transgenic chili peppers was investigated with two lines, H15 and B20. Genomic DNAs, total RNAs and total proteins extracted from young leaves of non-transgenic and transgenic plants were analyzed by PCR, RT-PCR, and Western blot techniques. The transgenes were confirmed to exist stably during two generations of T3 and T4, and transcription and translation of the gene were detected constantly in T3 and T4 plants. It seems that the existence and expression stability of the introduced gene in *CMVP0-CP* transgenic chili peppers keeps up during the generations.

Key words: Instability, transgene, *CMVP0-CP*, chili pepper, PCR, RT-PCR, Western blot, stability