# 中华蜜蜂授粉对元阳枇杷产量和品质的影响

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# Effects of *Apis cerana cerana* pollination on the yield and quality of loquat

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**Abstract:** As an important native honey bees germplasm resources in China, *Apis cerena cerana* are important pollinators for many wild plants and agricultural crops, play a major role in increasing agricultural production and quality, and maintaining biodiversity of ecosystems. In order to study the effect of *Apis cerana cerana* pollination on loquat yield and quality of Yuanyang dry-hot valley loquat growing region by set up honey bee pollination and control group (isolation pollination insects). The results suggest that the fruit setting rate of loquats increased by 64.78%, and the single branch yield increased by 35.70% by honey bee pollination compared to control group. The soluble solid content (10.29±1.41%) and longitudinal diameter (49.66±5.38 mm) of the fruit by honey bee pollination were signi f cantly higher than control group (10.16±1.02% and 48.00±5.81 mm). The average fruit weight (218.35±69.55 g), transverse diameter (39.45±4.92

*Eriobotrya japonica* Lindl.

Rosaceae Maloideae *Eriobotrya* [1]

2000

1

[2]

GPS

[3, 4]

*Apis cerena cerana*

Hymenoptera Apoidea Apidae

*Apis* *Apis cerena* 12

30

360

[5] 30

[6] [7] [8] [9] [10] 360

40

1.3.1

15 d 6

= ÷

× 100%

1.3.2

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8

500

102 °27 ′~103 °13 ′ 22 °49 ′~23 °19 ′

1300 m 1.3.3

1849.5 h 3.7~44.5

24.5 665.7~1 189.7 mm

899.5 mm

[11] 2022 10

~2023 4 2

3

“ ”

3 1 1~2

| | | | | |
|---|---|---|---|---|
| 72 | 198.7 ± 34.6 a | 27.58 ± 7.38 a | 13.94 ± 3.37 a | |
| 72 | 167.9 ± 34.9 a | 13.85 ± 4.59 b | 8.46 ± 3.24 b | |
| | *p* | *p* | | |

| | | | | | |
|---|---|---|---|---|---|
| 218.35 ± 69.55 a | 37.65 ± 9.61 a | 39.45 ± 4.92 a | 49.66 ± 5.38 a | 1.27 ± 0.11 a | |
| 160.91 ± 64.73 a | 33.65 ± 9.27 a | 37.73 ± 5.00 a | 48.00 ± 5.81 b | 1.29 ± 0.07 a | |
| | *p* | | *p* | | |

| | | | |
|---|---|---|---|
| 10.29 ± 1.41 a | 3.58 ± 0.24 a | 3.65 ± 1.82 a | |
| 10.16 ± 1.02 b | 3.60 ± 0.23 a | 3.42 ± 1.84 a | |
| | | *p* | |
| | *p* | | |
| | 1 | | |

218.35 ± 69.55
g 37.65 ± 9.61 g 39.45 ± 4.92 mm
160.91 ± 64.73 g
33.65 ± 9.27 g 37.73 ± 5.00 mm
p p

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