# PROPAGATION PROTOCOL

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| **Taxon name** | *Camellia capitata* |
| **Family** | Theaceae |
| **Collection Number/ Accession Number** | **FSIH-002** |

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| **Name/s of propagator/s** | Hong En Le |
| **Institution** | Forest Science Institute of Central Highlands and South of Central Vietnam (FSIH), Vietnam |

## VEGETATIVE PROPAGATION

### ROOTING

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| **Procedures** | **Material used for rooting** | Cuttings |
| | **Propagation Technique (please specify in detail)** | Cuttings were collected from Cat Tien National Park, Lam Dong Province, Vietnam.<br>Twigs of 0.5-0.8 cm in diameter were cut to be 50-60 cm long fragments in the field and kept with wet towels in tight boxes during transport to the nusery in Da Lat City.<br>They were then washed with clean water and cut into 10-15 cm long cuttings with ends at 1 cm from the nearest bud. Then they were sunk in 1.500 ppm IBA solution before sown in rooting media.<br>Monitoring of diseases was done regularly and fungicides may be applied when injection is found. |
| | **Rooting Media** | 50% ground detanned coconut fiber and 50% clean freshwater sand. |
| | **Rooting Hormone** | IBA (Indole-3-butyric acid) |
| | **Container** | Well drained plastic trays of 35 cm long x 26 cm wide x 10 cm high |
| | **Environment (describe place and conditions where rooting is taking place)** | The propagation was conducted in a greenhouse at FISH in Da Lat City, Lam Dong Province, Vietnam (11°56'35"N 108°24'23"E, elev. 1.504 m). Fine mist of water was sprayed automatically for 20 seconds in every two hours. In this city, the annual temperature ranges 18-25°C and the annual rainfall is about 2.200 mm with the rainy season concentrated in May to November. |
| **Rooting Period** | **Time of the year for propagation (month/s)** | January to May |
| | **Number of days to root (approx.)** | 90 days (with 40-55% of cuttings rooting) |

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| **Materials needed** | 1. Sampling and processing in the field: cutting scissors, old newspaper, nylon bags, tight boxes.<br>2. Propagating materials: IBA, NaOH, ground detanned coconut fiber, clean freshwater sand, well drained trays, fungicides.<br>3. Green house with automatical mist spraying system. |

| **GRAFTING** | | |
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| **Procedures** | **Propagation Technique (please specify in detail)** | Cuttings were collected from Cat Tien National Park, Lam Dong Province, Vietnam.<br>Twigs of 0.5-0.8 cm in diameter were cut to be 50-60 cm long fragments in the field and kept with wet towels in tight boxes during transport to the nusery in Da Lat City.<br>They were then cut into 10-15 cm long scions with 2-3 buds, which were cleft or whip grafted on *Camellia oleifera* rootstock.<br>Monitoring of diseases was done regularly and fungicides may be applied when injection is found. |
| | **Rootstock** | *Camellia oleifera* |
| | **Rooting Hormone** | No |
| | **Container for root stock** | 8 x 20 cm |
| | **Environment (describe place and conditions where grafting is taking place)** | The propagation was conducted in a greenhouse at FISH in Da Lat City, Lam Dong Province, Vietnam (11°56'35"N 108°24'23"E, elev. 1.504 m). Fine mist of water was sprayed automatically for 20 seconds in every two hours. In this city, the annual temperature ranges 18-25°C and the annual rainfall is about 2.200 mm with the rainy season concentrated in May to November.<br>Watering was done 3 times a day. |
| | **Time of the year for grafting (month/s)** | May to September |
| **Shooting Period** | **Number of days to shoot (approx.)** | Shoots develop on scions about 30-45 days after grafting.<br>Successful rate: 80-90%. |
| **Materials needed** | 1. Sampling and processing in the field: cutting scissors, old newspaper, nylon bags, tight boxes.<br>2. Propagating materials: *Camellia oleifera* rootstock, grafting knife, plastic film .<br>3. Green house with automatical watering system, fungicides. | |

Fig. 1: Twigs of C. capitata

Fig. 2: *C. capitata* cuttings sown after IBA treatment

Fig. 3: Rooting after approx. 90 days of sowing

Fig. 4: Successfully grafted *C. capitata*