

Compare the grafting methods for landscaping roses[©]

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To improve the production quality of roses, several grafting methods were compared. Grafting trial was performed in a greenhouse (covered with single layer polyethylene film, 7.5 m wide, 27 m long) in Kochi Agricultural College. Grafting period was from February 1 to February 6, 2016. Tested rose cultivars were *Rosa* 'Sympathie' (rambling rose), 'Ballerina' (rambling rose), and 'Sunblest', Landora[®] hybrid tea rose (tree rose).

Three different grafting methods were applied:

- 1) A: Grafting by usual way in Kochi, and covered with grafting tape (paraffin tape) and wax.
- 2) B: Grafting usual way and covered with "New Medel[®]" (http://www.aglis.co.jp/agri/agri_02/index.html).
- 3) C: Grafting by David's method and covered with 'New Medel[®]'.

For the details about David's grafting method (Figure 1), see following two websites; <https://rose-sora.blogspot.jp/2015/04/grafting-roses.html> (in Japanese with English summary) and https://rose-sora.blogspot.jp/2013/02/blog-post_7.html. (in Japanese).



Figure 1. In David's method, scion must be put slantingly to the rootstock.

After grafting the roses were each transplanted into 10.5-cm-deep polyethylene pot and kept in unheated greenhouse covered with polyethylene to keep the humidity up. Thirty days after grafting, the polyethylene tunnel removed. On 10 April each of 20 plants investigated about survival rate and their growth.

Results were shown in Table 1. New Medel[®] is used as graft material by David's method. But there were no difference between usual grafting tape and New Medel[®]. Usual grafting method (A) was suitable for both 'Sympathie' and 'Sunblest', Landora[®] hybrid tea rose, but result of David's method (C) was excellent in 'Ballerina'.

Further investigation is needed to make these differences clear.

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Table 1. Effects of several methods for grafting on both sprouting and fixation.

Cultivar	Grafting method	Length and number of sprouting shoots										Fixation (%)
		0~10 cm	10~20 cm	20~30 cm	30~40 cm	40~50 cm	50~60 cm	60~70 cm	70~80 cm			
Sympathie	A	4	1	0	1	4	3	2	6	81		
	B	3	0	2	2	4	3	4	2	85		
	C	7	1	5	3	3	1	0	0	65		
Ballerina	A	2	0	1	0	8	6	3	0	90		
	B	2	0	0	1	7	5	5	0	90		
	C	3	0	3	8	5	0	0	0	84		
Sunblest	A	0	0	1	1	10	7	0	0	100		
	B	5	0	1	8	6	0	0	0	75		
	C	15	1	2	2	0	0	0	0	25		