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Which phloem in *Cucumis melo* is exploited by *Aphis gossypii* ?

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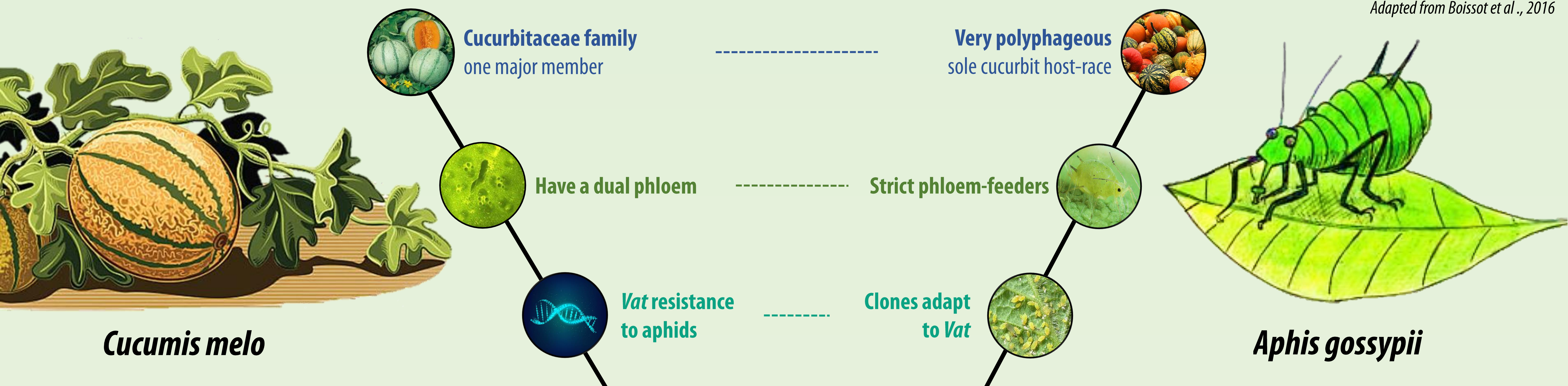
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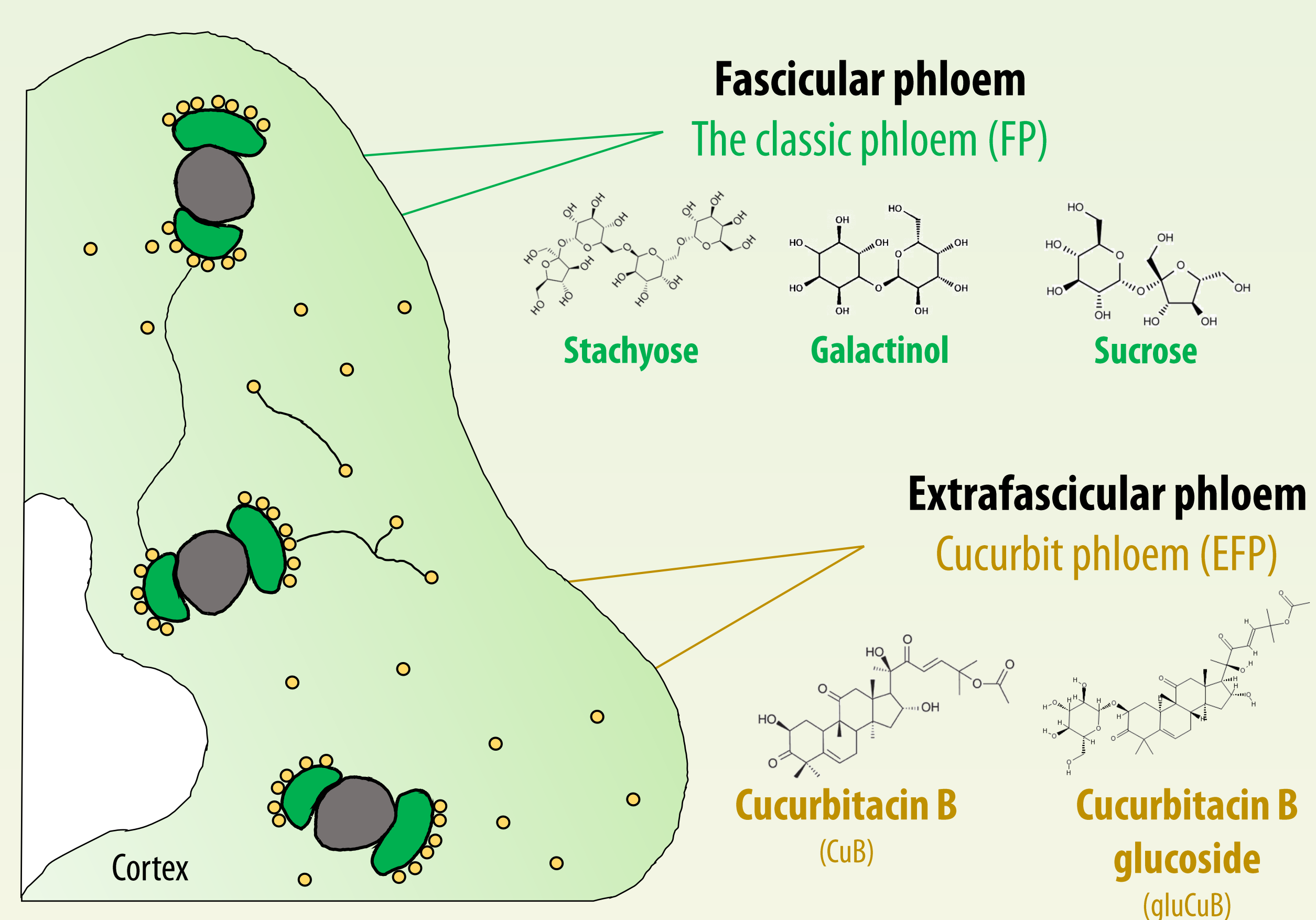


Upon the wounds caused by aphids punctures : The classical phloem cloggs ... but NOT the particular one ! Also, on Vat plants, the classical phloem cloggs upon aphids punctures

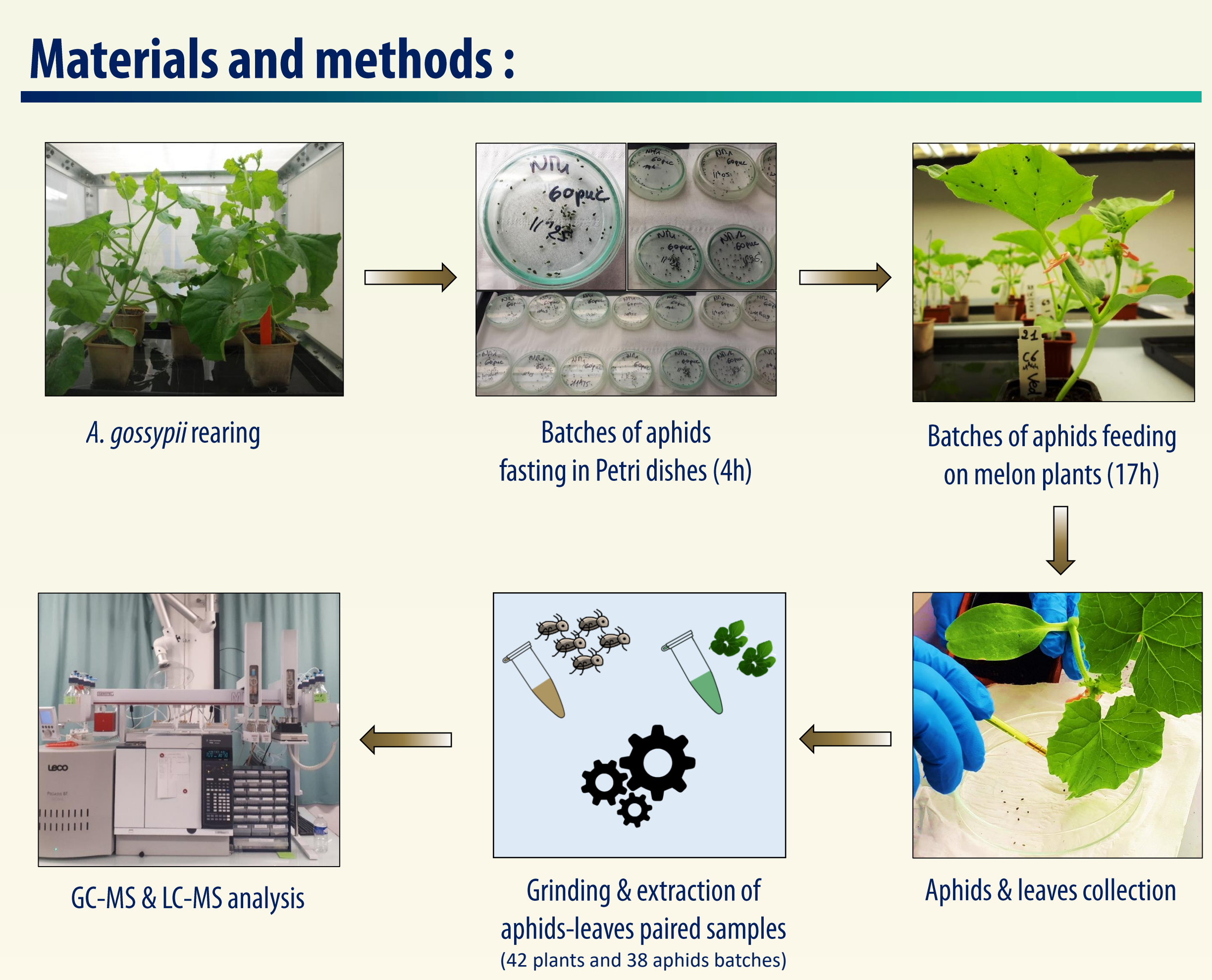
Do the clones adapt to Cucurbit/Vat through the usage of the particular phloem of the cucurbits ?

The strategy :
Infer source phloem with metabolite markers detection in aphids !

Results :
What do the aphid-ingested metabolites tell us ?



Adapted from Turgeon et al., 2016; Zhang et al., 2010 and Gaupels et al., 2013



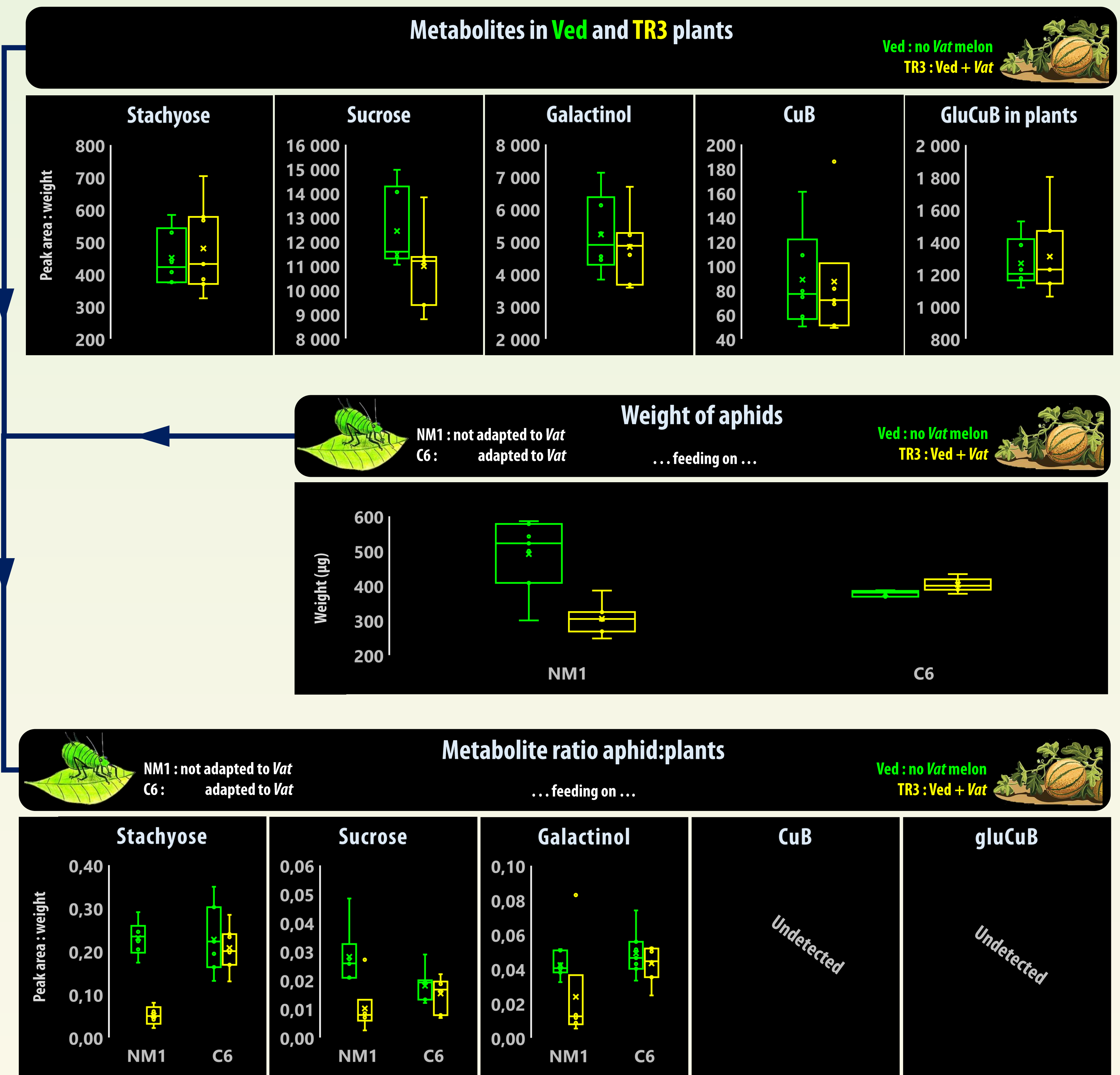
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So what ?

- Control Vat and no-Vat plants had a similar amount of each sugar and cucurbitacin respectively
 - On no-Vat plants, both NM1 and C6 ingested sugars but no cucurbitacin :
On sensitive plants, both adapted and not adapted clones fed from FP and not from EFP
 - On Vat plants, NM1 lost weight, ingested sugars but no cucurbitacin :
On resistant plants, the not adapted clone had a restricted access to FP and did not fed from EFP
 - On Vat plants, C6 maintained its weight, ingested sugars but no cucurbitacin :
On resistant plants, the adapted clone comfortably fed from FP but did not from EFP
- In a near future :** we will confirm our results with a second set of clones ...