

Effect of local pathogen on translocation in clonal plant

What are the disadvantages of clonality?

Generally, there is not much evidence for major disadvantages of clonality. Spread of pathogens might be one of them. The use of resources of the interconnected clonal fragment might be another.

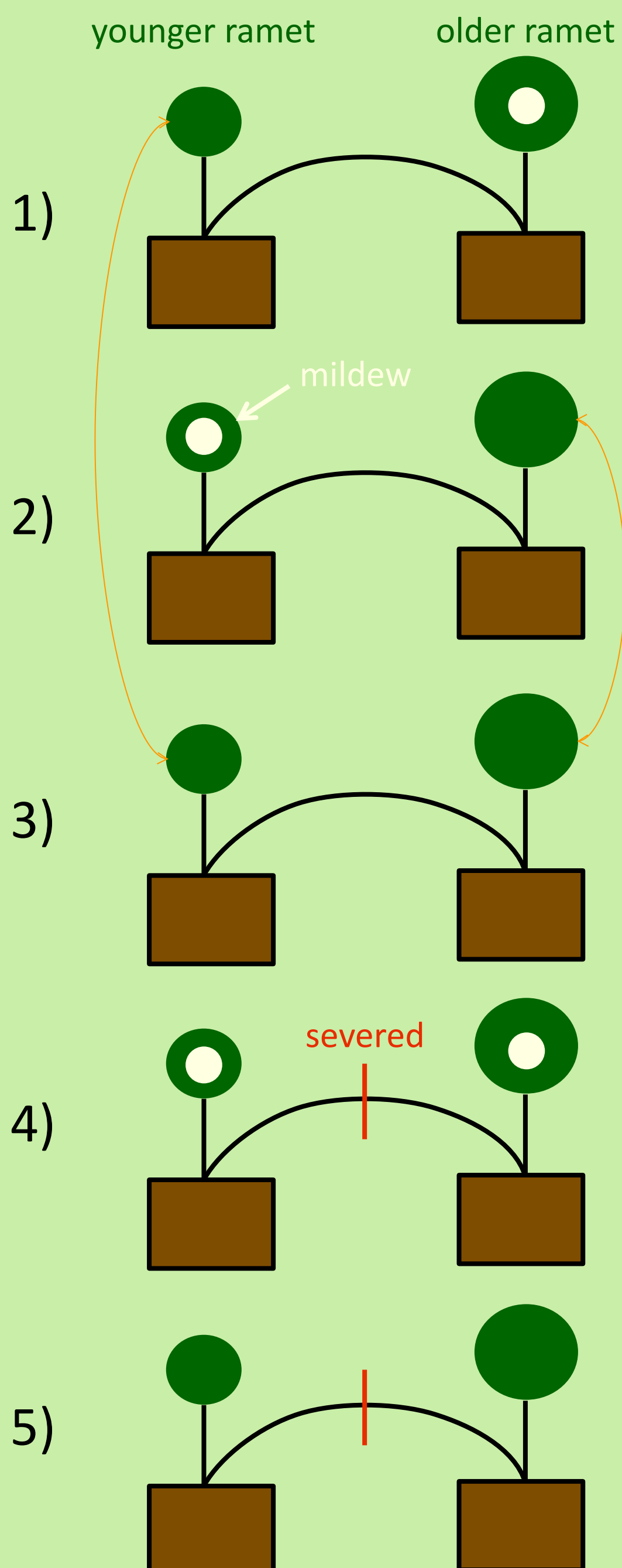
Could a local pathogen use the source-sink system of clonal plant to gain resources? Could it change the plant using hormonal signals?

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design of the experiment:



Good results are not yet available, because the powdery mildew is rather hard to contain and similarly hard to use, when I want to inoculate the plants.

General results in the first trial (2014):

- the effect of ramet age is quite pronounced, the younger ramet usually grows much faster
- if the ramets are too young, they respond negatively to severing of the connection
- the inoculation is often unsuccessful

Improvements in the running experiment (now):

- pairs are let to root and only then severed from the mother plant
- all ramets are contained in fine mesh
- inoculum is collected in the garden and used when fresh (within a week from inoculation of the stock plants)

Possible future improvements

- inoculation might be performed repeatedly
- ...?

Any proposals for a better pathosystem or a ways to contain the disease or to inoculate the plants is most welcome!