Demonstration of basic features of CaneCestry.

1. Upon launch a choice of data source is required, for the purpose of demonstration press proceed to use the example Sugarcane Dataset.
2. Click Generate kinship matrix W/ Descendants
3. For demonstration type L01-0299 into the input area under select or paste line names. Select it from the dropdown menu and it should appear above the generate kinship matrix button.
4. Click the Generate Kinship Matrix button. The kinship matrix will be generated as well as the heatmap. The matrix can be downloaded as a csv with the download full matrix button. The heatmap can be downloaded by right clicking and saving as image.
5. Press the home button in the top left corner of the screen to be taken back to the homepage.
6. Click the generate kinship matrix without descendants' button
7. Enter l01-0299 and HoCP14-0885 into the select lines of interest bar.
8. Build subset and compute matrix
9. The heatmap appears smaller than the first module, this is because the heatmap now only takes ancestors into consideration when subsetting the dataset and no progeny.
10. Now put in 0299, 0885, and 0384 in the dropdown by subset the computed matrix, the full variety names will be present when typing these numbers
11. This will now populate the below section with the matrix values for these Individuals.
12. This matrix can be downloaded with the download subset matrix button.
13. Click the home button in the top left corner to navigate back to the home page again.
14. Click the pedigree explorer page
15. In the select up to two functions bar select generate family tree.
16. Enter L01-0299
17. Leave the option as No Highlight
18. Click generate family tree
19. The family tree should be generated and displayed, it can be downloaded by right clicking and saving as image.
20. Navigate back to the bar to select modules
21. Click Lookup Progeny of Single Parent
22. Put in L01-0299

23. A list should be generated for quick reference of the progeny of this variety and the other parent of each progeny.
24. Finally go back and click the Generate combined Family Tree for two lines button
25. Enter HoCP14-0885 and L01-0299, it does not matter which is the first and second
26. Click the generate button
27. The combined tree should generate and be displayed, this can be downloaded by right clicking and saving as image.

This concludes the demonstration of the features included in the manuscript.