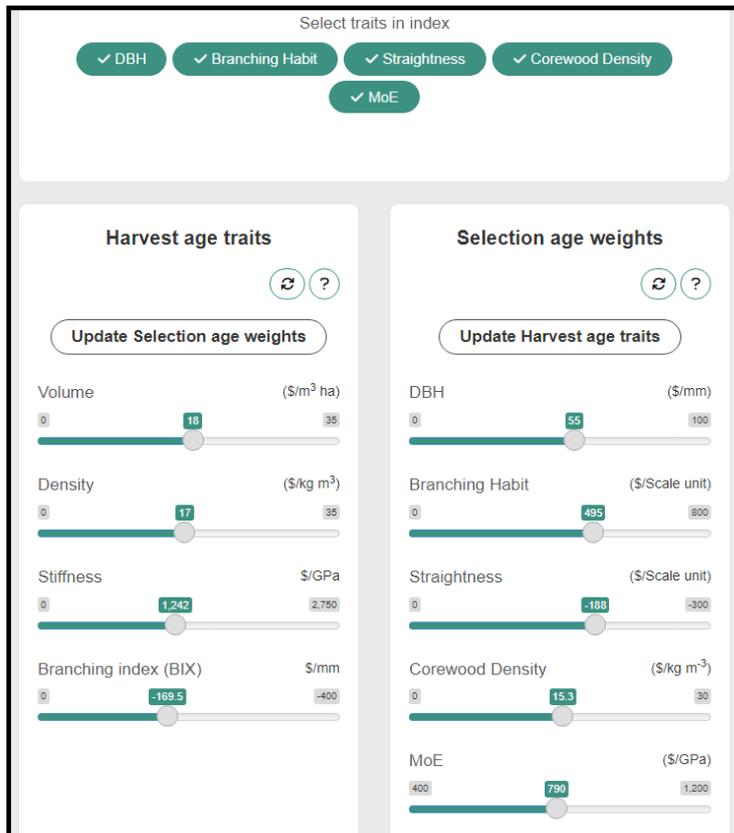


Using the TopTree app

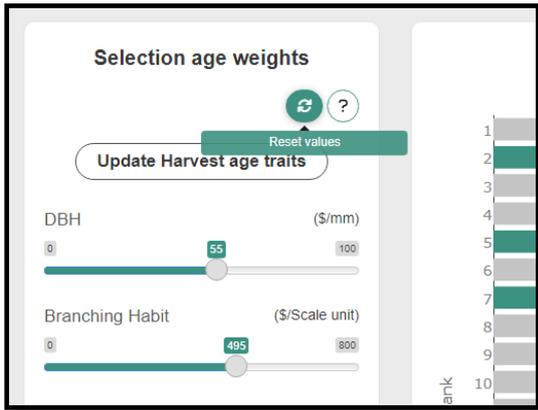
The TopTree app ranks trees based on their RPBC merit index, which is expressed as \$NPV/ha. The default genetic merit rankings are based on the breeding objective and selection weights used in the RPBC’s breeding population (referred to as the ‘Baseline’ index in the app). This may be suitable for the user’s requirements, but if the user wishes to change trait emphasis to help guide their own germplasm purchase and deployment decisions for their own target forest or end-use, then this can be done on either the breeding objective slider (e.g., volume) or the selection index slider (e.g., DBH). Note however that if a greater emphasis is put on one trait, then this will tend to impact, positively or negatively on other traits. For example, putting a greater emphasis on volume at harvest age will tend to impact negatively on a trait such as density in the ranked trees, as these traits have a negative genetic correlation between each other. In other words, altering emphasis on one trait will have consequences for other traits depending on their genetic relationships. Dothistroma is not currently included in the app, but EBVs for Dothi are provided where available, and these can be used in conjunction with an index.

The selection process may include the following steps:

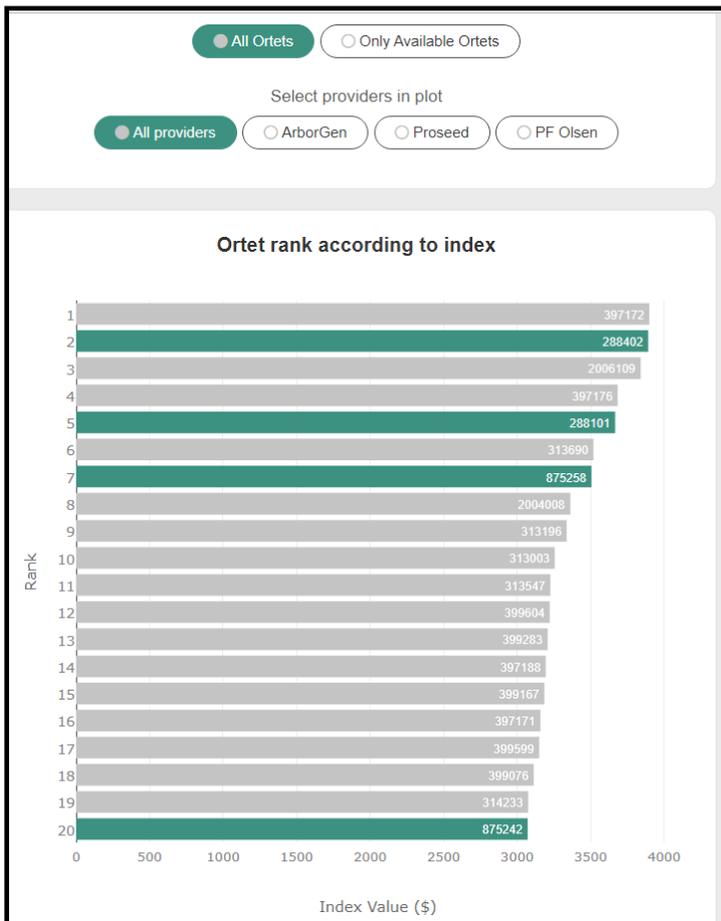
1. If you do not wish to use the RPBC index provided as the default, identify the selection index, or trait emphasis of most relevance to your forest or target end-use by altering the individual sliders for traits. If you alter the Selection age weights, remember to hit the ‘Update Harvest age traits’ tab and vice versa.



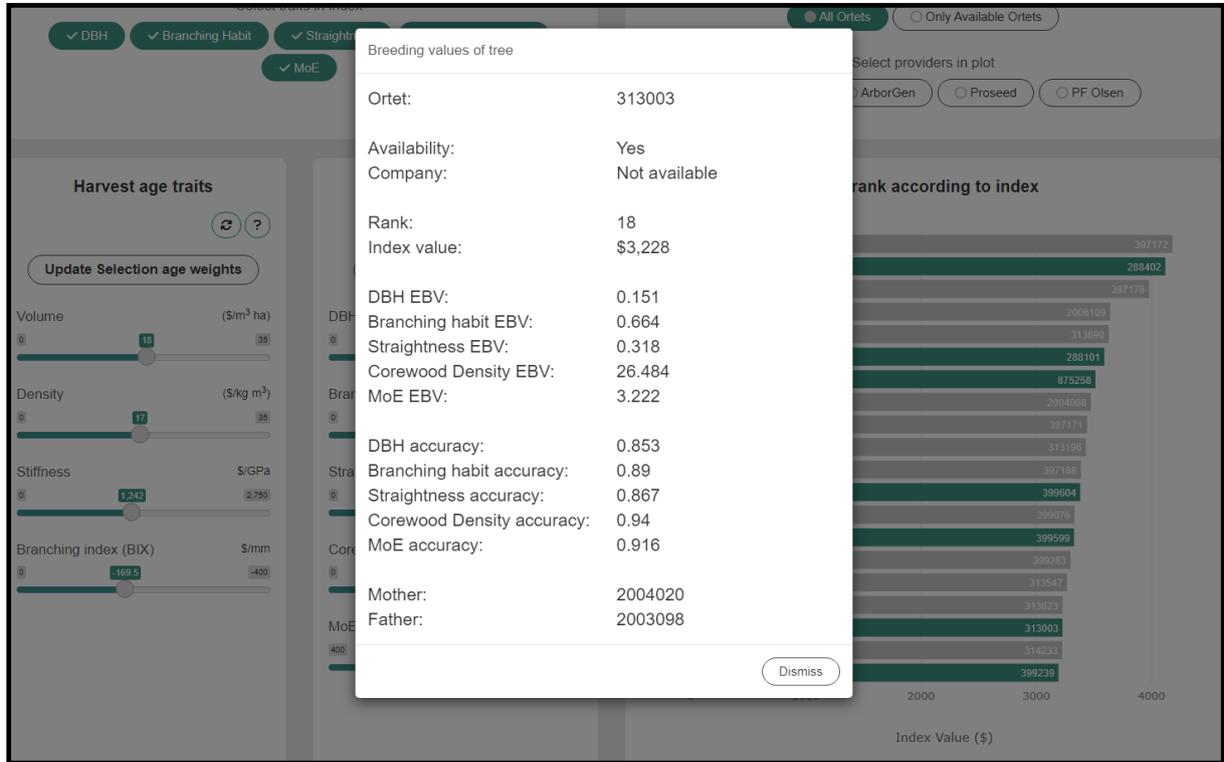
(To return to the 'Baseline' index, hit the 'reset' button).



2. Ortets will be ranked on the selection index chosen.



If you hover over one of the ortets on the bar graph and left click, then the current information for the ortet will appear:

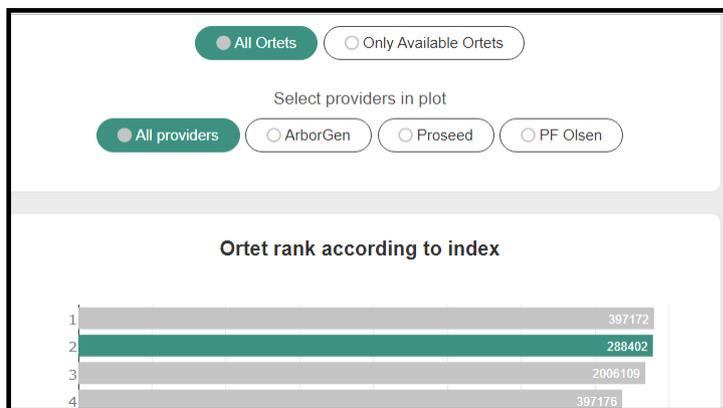


Breeding values of tree

Ortet:	313003
Availability:	Yes
Company:	Not available
Rank:	18
Index value:	\$3,228
DBH EBV:	0.151
Branching habit EBV:	0.664
Straightness EBV:	0.318
Corewood Density EBV:	26.484
MoE EBV:	3.222
DBH accuracy:	0.853
Branching habit accuracy:	0.89
Straightness accuracy:	0.867
Corewood Density accuracy:	0.94
MoE accuracy:	0.916
Mother:	2004020
Father:	2003098

Dismiss

3. Consider the availability of your ranked selections from your preferred seed supplier by selecting the appropriate tab – ArborGen, PF Olsen, Proseed (**note, that this information has yet to be made available, so only 'All Ortets' or 'Only Available Ortets' can currently be shown**).



All Ortets Only Available Ortets

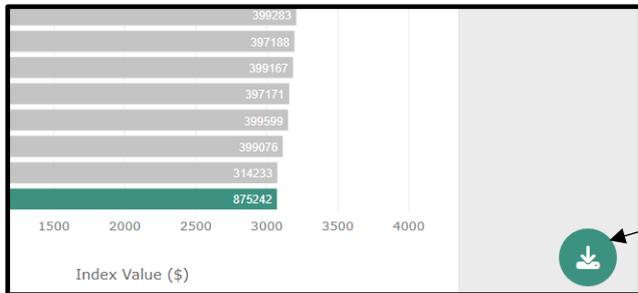
Select providers in plot

All providers ArborGen Proseed PF Olsen

Ortet rank according to index

1	397172
2	288402
3	2006109
4	397176

4. Download the spreadsheet with details of ranked ortets:



5. From the downloaded spreadsheet, consider the individual EBVs of importance to you that are not included in the index when selecting trees, such as Dothistroma resistance.

6. Use this TopTree list in Genselector for a more detailed seedlot prescription, or approach your germplasm producer with a candidate list of potential seedlot parents provided by the app.