



**Figure S1** Partial pyrograms obtained with stover from **A.** BTx623, **B.** *bmr30*, **C.** *bmr31*, **D.** *bmr32-1*, **E.** BTx623, and **F.** *bmr29*. Peaks **1** and **2** represent 2-methoxy-4-methyl phenol ( $m/z$  138, 123; derived from guaiacyl residues) and 2,6-dimethoxy-4-methyl phenol ( $m/z$  168, 153; derived from syringyl residues). The difference in retention times between A-D and E, F reflects the slower ramp rate during gas chromatography of the latter two samples, to improve resolution.