

Table S2. KASP™ marker assays designed around Sahara-specific gene coding sequence features for *HvBot1*, *HvNIP2;1* and *HvBot2*. These markers are suitable for tracking the introgression of the 4H, 6H and 3H B tolerance alleles, respectively, from the Sahara accessions.

Marker	Gene	Primer sequences (5'-3')
<i>wri57</i>	<i>HvBot1</i> (4H)	wri57_A1:GAAGGTGACCAAGTTCATGCTCACGCAGCACAGCATCCTTCAA wri57_A2:GAAGGTCGGAGTCAACGGATTACGCAGCACAGCATCCTTCAAG wri57_C1:CAGGCTGATTCTGTTGACAAGGACTT
<i>wri58</i>	<i>HvBot2</i> (3H)	wri58_A1:GAAGGTGACCAAGTTCATGCTGTCGTGAGTTGATCCTATTCCACA wri58_A2:GAAGGTCGGAGTCAACGGATTTCGTGAGTTGATCCTATTCCACC wri58_C1:CTTGCAATGATCCTAGCTATGCATATCAA wri58_C2:CAAACCCCTCTCTTTCCGAGAAGAA
<i>wri59</i>	<i>HvNIP2;1</i> (6H)	wri59_A1:GAAGGTGACCAAGTTCATGCTAGCCGCCGAGAGCTCG wri59_A2:GAAGGTCGGAGTCAACGGATTGCTAGCCGCCGAGAGCTCA wri59_C1:TTCCCCCTGCCACTACCGAGTA