

Supporting Information

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Jemalong A17      GATTGAATAAAATTTACAATTATTCAATAAAATCAACTGTGGTGGGAATCCCTGACAGGATCG
F83005.5         GATTGAATAAAATTTACAATTATTCAATAAAATCAACTGTGGTGGGAATCCCTGACAG-----
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Jemalong A17      ACTATGTGCAGACTGCTGCATTATTTACTACTTAGTCAAAGTCTTTGAACAGAG
F83005.5         -----CAAGTCTTTGAACAGAG
*****

Jemalong A17      CACTTCCCAACTCCATAGATCTCTTCCTTTCTTTTCCTTAGTGTTCGAAACCACAAATC
F83005.5         CACTTCCCAACTCCATAGATCTCTTCCTTTCTTTTCCTTAGTGTTCGAAACCACAAATC
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Jemalong A17      ATTCATCC
F83005.5         ATTCATCC
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Fig. S1. Alignment of 5' UTR region of the resistant and susceptible alleles in Jemalong A17 and F83005.5, respectively.

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A17-tv2      ATATGGAAGGTGTTGCTAGTTGTGGCTGATTGGTGAATTATAGTTTATGAAAGTGGATTG
A17-tv1      ATATGGAAGGTGTTGCTAGTTGTGGCTGATTGGTGAATTATAGTTTATGAAAGTGGATTG
A17-tv3      ATATGGAAGGTGTTGCTAGTTGTGGCTGATTGGTGAATTATAGTTTATGAAAGTGGATTG
*****

A17-tv2      CAGATTTTATGCTTACATTGGTGGCTACTAATGCTCTTATTGCTGAGGCATGAGGTCCA
A17-tv1      CAGATTTTATGCTTACATTGGTGGCTACTAATGCTCTTATTGCTGAGGCATGAGGTCCA
A17-tv3      CAGATTTTATGCTTACATTGGTGGCTACTAATGCTCTTATTGCTGAGGCATGAGGTCCA
*****

A17-tv2      GGGAAAGTTAAGTTGACTTAGATCTGGTTTCACAGAAATCCAACCTTGAGTTTGACTG--
A17-tv1      GGGAAAGTTAAGTTGACTTAGATCTGGTTTCACAGAAATCCAACCTTGAGTTTGACTG--
A17-tv3      GGGAAAGTTAAGTTGACTTAGATCTGGTTTCACAGAAATCCAACCTTGAGTTTGACTGGT
*****

A17-tv2      -----
A17-tv1      -----
A17-tv3      AAGCTCGGATCCTAATGCTTTAATGGGAGCAAGATAAGGAACTGATCAACAATTTAAT

A17-tv2      ----TATACTTCTACAGAAAATTGTCAGATGGAATCATTTCATGTTTTAAATGAAGGCA
A17-tv1      -----AAAATTGTCAGATGGAATCATTTCATGTTTTAAATGAAGGCA
A17-tv3      ACTAGTATACTTCTACAGAAAATTGTCAGATGGAATCATTTCATGTTTTAAATGAAGGCA
*****

A17-tv2      TTGAAATGCAGCCAATCTTGGAAAATTCAGTATGCTTCAAGAAGAATTCATTGTCTCCAA
A17-tv1      TTGAAATGCAGCCAATCTTGGAAAATTCAGTATGCTTCAAGAAGAATTCATTGTCTCCAA
A17-tv3      TTGAAATGCAGCCAATCTTGGAAAATTCAGTATGCTTCAAGAAGAATTCATTGTCTCCAA
*****

A17-tv2      ACCAATAAACATAAACTGTGAGACTTCTAATGTTAGTTAAGTGGATTTGTTATTCAAG
A17-tv1      ACCAATAAACATAAACTGTGAGACTTCTAATGTTAGTTAAGTGGATTTGTTATTCAAG
A17-tv3      ACCAATAAACATAAACTGTGAGACTTCTAATGTTAGTTAAGTGGATTTGTTATTCAAG
*****

A17-tv2      AGCTATGTGAACCTTCATGCCACAACAGGGTGCGCAAGGGAGTGAATATGTACATCTTGTA
A17-tv1      AGCTATGTGAACCTTCATGCCACAACAGGGTGCGCAAGGGAGTGAATATGTACATCTTGTA
A17-tv3      AGCTATGTGAACCTTCATGCCACAACAGGGTGCGCAAGGGAGTGAATATGTACATCTTGTA
*****

A17-tv2      GTCGAGGAAAGGCACCTTCAATATCGTTAAGTTTGGATATATACATATAAACACCCCAT
A17-tv1      GTCGAGGAAAGGCACCTTCAATATCGTTAAGTTTGGATATATACATATAAACACCCCAT
A17-tv3      GTCGAGGAAAGGCACCTTCAATATCGTTAAGTTTGGATATATACATATAAACACCCCAT
*****

A17-tv2      TGAATGATCCTTTAATTGCTTCAACAAATGAATGTGATATTTTCATCCCCCTCTTAAGCT
A17-tv1      TGAATGATCCTTTAATTGCTTCAACAAATGAATGTGATATTTTCATCCCCCTCTTAAGCT
A17-tv3      TGAATGATCCTTTAATTGCTTCAACAAATGAATGTGATATTTTCATCCCCCTCTTAAGCT
*****

A17-tv2      TGTCATCTGCAAAGAACTTATAATTTGGTTCAGAGGAAAAGCCTTACTCAAATGAGCAA
A17-tv1      TGTCATCTGCAAAGAACTTATAATTTGGTTCAGAGGAAAAGCCTTACTCAAATGAGCAA
A17-tv3      TGTCATCTGCAAAGAACTTATAATTTGGTTCAGAGGAAAAGCCTTACTCAAATGAGCAA
*****

A17-tv2      GAGAGCCTCCTAGTTGTGATCTTTTTTTTTTATTTGAAGGAAAGGAAGGAGGAGGAGTG
A17-tv1      GAGAGCCTCCTAGTTGTGATCTTTTTTTTTTATTTGAAGGAAAGGAAGGAGGAGGAGTG
A17-tv3      GAGAGCCTCCTAGTTGTGATCTTTTTTTTTTATTTGAAGGAAAGGAAGGAGGAGGAGTG
*****

A17-tv2      ATCTTTATAATGTAACAAAGTACAAAAAAATGTAATAATGTTGTTGAGTTATCGAA
A17-tv1      ATCTTTATAATGTAACAAAGTACAAAAAAATGTAATAATGTTGTTGAGTTATCGAA
A17-tv3      ATCTTTATAATGTAACAAAGTACAAAAAAATGTAATAATGTTGTTGAGTTATCGAA
*****

A17-tv2      AGTGATGCTATTTCTATGACC
A17-tv1      AGTGATGCTATTTCTATGACC
A17-tv3      AGTGATGCTATTTCTATGACC
*****

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Fig. S2. Alignment of transcript variants (tv) from the 3' UTR region of the *RCT1* allele in Jemalong A17. tv1 = the regular transcript with an 80-bp intron spliced out; tv2 = the transcript with only 67 bp of the 80-bp intron spliced out; tv3 = the transcript with retention of the 80-bp intron.

JEMALONG A17
F83005.5 ACTCTGAA**T**ACTCTCATTCTAT**C**GGATGTTAATGATTGACAAGTTGGAAGAGGACTTG
ACTCTGAA**A**ACTCTCATTCTAT**C**TGGATGTTAATGATTGACAAGTTGGAAGAGGACTTG

JEMALONG A17
F83005.5 GAACAAATGGAATCTTTAACCCCTGATGCAAATA**T**ACTGGTATAACAAAAGTTCCC
GAACAAATGGAATCTTTAACCCCTGATGCAAATA**C**ACTGGTATAACAAAAGTTCCC

JEMALONG A17
F83005.5 TTTTCAT**T**AGTAAGGTCAAAAAGCATTGGATTTATTTCTCTGTGTGGATATGAAGGATTC
TTTTCAT**G**AGTAAGGTCAAAAAGCATTGGATTTATTTCTCTGTGTGGATATGAAGGATTC

JEMALONG A17
F83005.5 TCACGTGATGTGTTTCCTTCTATCATT**G**GTCTTGGATGTCACCAATAATCTGTCACCC
TCACGTGATGTGTTTCCTTCTATCATT**T**GTCTTGGATGTCACCAATAATCTGTCACCC

JEMALONG A17
F83005.5 GCTTTTCAAACAGCTTCTCACATGTCATCCCTTGTGTCTTTAGAGGCATCAACTGTATT
GCTTTTCAAACAGCTTCTCACATGTCATCCCTTGTGTCTTTAGAGGCATCAACTGTATT

JEMALONG A17
F83005.5 TTCCACGATCTATCATCTATTTCCATTGTCCTTCCAAAGCTTCAAAGCCTTTGGCTGAC**A**
TTCCACGATCTATCATCTATTTCCATTGTCCTTCCAAAGCTTCAAAGCCTTTGGCTGAC**G**

JEMALONG A17
F83005.5 TGTGGATCAGA**A**CTTCAACTATCACAAGATGCAACACGAATTGTGAATGCTTTAAGTGTA
TGTGGATCAGA**A**CTTCAACTATCACAAGATGCAACACGAATTGTGAATGCTTTAAGTGTA

JEMALONG A17
F83005.5 GCAAGTTCTATGGAATTGGAATCAACTGCAACTAC**A**TACAAGTACCAGATGTGAATTCA
GCAAGTTCTATGGAATTGGAATCAACTGCAACTAC**G**TACAAGTACCAGATGTGAATTCA

JEMALONG A17
F83005.5 TTAATTGAATGTCGCAGTCAAGTGAAAGTTTCAACCACTCCAAATCCATGAAATCTCTT
TTAATTGAATGTCGCAGTCAAGTGAAAGTTTCAACCACTCCAAATCCATGAAATCTCTT

JEMALONG A17
F83005.5 TTATTTCAAATGGGAATGA**A**CTCCCTAATCACCAATATTCTGAAAGAGAGGATCTTACAG
TTATTTCAAATGGGAATGA**A**CTCCCTAATCACCAATATTCTGAAAGAGAGGATCTTACAG

JEMALONG A17
F83005.5 AATTTGACTATCGATGAGCATGGTCGTTTTTCACTCCCTTGTGATAATTACCCGATTTGG
AATTTGACTATCGATGAGCATGGTCGTTTTTCACTCCCTTGTGATAATTACCCGATTTGG

JEMALONG A17
F83005.5 TTAGCTTTCAATTCAGAAGTTCTTCTGTAATTTTGAAGTCCCTCAAGTGAAGGACGT
TTAGCTTTCAATTCAGAAGTTCTTCTGTAATTTTGAAGTCCCTCAAGTGAAGGACGT

JEMALONG A17
F83005.5 AGCTTGAAGACAATAATGTGCATTGTCTATTCTTCAAGCCATA**C**GACATAACATCAGAT
AGCTTGAAGACAATAATGTGCATTGTCTATTCTTCAAGCCATA**T**GACATAACATCAGAT

JEMALONG A17
F83005.5 GGCCTTGAAATGTGTTAGTGATAAATCACACAAAGACCACCATTCAACTCTATAAGAGA
GGCCTTGAAATGTGTTAGTGATAAATCACACAAAGACCACCATTCAACTCTATAAGAGA

JEMALONG A17
F83005.5 GA**A**GCATTATCCTCCT**T**GAAAATGAGGAGTGGCAGAGAGTTGT**A**CAAATATGGAACCT
GAG**G**CATTATCCTCCT**A**GAAAATGAGGAGTGGCAGAGAGTTGT**A**TCAAATATGGAACCT
** *****

JEMALONG A17
F83005.5 GGTGACA**A**GGTGGAGATTGTTGT**C**GTTTTTGGGAACAGTTTCATTGTGATGAAGACAGCA
GGTGACA**A**GGTGGAGATTGTTGT**T**GTTTTTGGGAACAGTTTCATTGTGATGAAGACAGCA

JEMALONG A17
F83005.5 GTTTATCTCATATATGATGAACCAGTCGTCGAAATATTGGAGCAATGTCATACACCAGAT
GTTTATCTCATATATGATGAACCAGTCGTCGAAATATTGGAGCAATGTCATACACCAGAT

Fig. S3. Continued.

JEMALONG A17 AAGAATGTTCTTG**T**TGATATCGGTGATGAAAATGAATGTGCTGCCATGAGGATCTCTCGC
 F83005.5 AAGAATGTTCTTG**C**TGATATCGGTGATGAAAATGAATGTGCTGCCATGAGGATCTCTCGC

JEMALONG A17 CAAGTAGAGCCTACAGATGATTTTGAACAAAAACAGAAAAGAAGAAAAAT**CGA**CTGA
 F83005.5 CAAGTAGAGCCTACAGATGATTTTGAACAAAAACAGAAAAGAAGAAAAAT**TGA**TTGA
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Fig. S3. Continued.

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F83005.5-tv1      ATATGGAAGGTGTTGCTAGTTGTGGCTGATTGGTGAATTATAGTTTATGACAGTGGATTG
F83005.5-tv2      ATATGGAAGGTGTTGCTAGTTGTGGCTGATTGGTGAATTATAGTTTATGACAGTGGATTG
*****

F83005.5-tv1      CAGATTTTATGCTTACATTGGTGGTTACTAATGCTCTTATTGCTGAGGCATGAGGTGCCA
F83005.5-tv2      CAGATTTTATGCTTACATTGGTGGTTACTAATGCTCTTATTGCTGAGGCATGAGGTGCCA
*****

F83005.5-tv1      GGGAAAGTTAAGTTGACTTAGATCTTGGTTTCACAGAAATCCAACCTTGAGTTTGACTG--
F83005.5-tv2      GGGAAAGTTAAGTTGACTTAGATCTTGGTTTCACAGAAATCCAACCTTGAGTTTGACTGGT
*****

F83005.5-tv1      -----
F83005.5-tv2      AAGCTCGGATCCTAATGCTTTAATGGGAGTAAGATAAGGAAACTGATCAACAAATTTAAT

F83005.5-tv1      -----AAAATTGTCAGATGGAAATCATTCATGTTTTAAATGAAGGCA
F83005.5-tv2      ACTAGTATACTTCTACAGAAAATTGTCAGATGGAAATCATTCATGTTTTAAATGAAGGCA
*****

F83005.5-tv1      TTGAAATGCAGCCAATCTTGGAAATTTTCAGTATGCTTCAAGAAGAATTCATTGTCTCCAA
F83005.5-tv2      TTGAAATGCAGCCAATCTTGGAAATTTTCAGTATGCTTCAAGAAGAATTCATTGTCTCCAA
*****

F83005.5-tv1      ACCAATAAACATAAACTGTGAGACTTCTAATGTTTGGTTTAAGTGGATTTGTTATTCAAG
F83005.5-tv2      ACCAATAAACATAAACTGTGAGACTTCTAATGTTTGGTTTAAGTGGATTTGTTATTCAAG
*****

F83005.5-tv1      AGCTATGTGAACTTCATGCCACAACAGGGTGCGCAAGGGAGTGAATATGTACATCTTGTA
F83005.5-tv2      AGCTATGTGAACTTCATGCCACAACAGGGTGCGCAAGGGAGTGAATATGTACATCTTGTA
*****

F83005.5-tv1      GTCGAGGAAAGGCACCTTCAATGTAACACCCCTACTAGAAATTACCTAGGATATCTAGCA
F83005.5-tv2      GTCGAGGAAAGGCACCTTCAATGTAACACCCCTACTAGAAATTACCTAGGATATCTAGCA
*****

F83005.5-tv1      TGAGTGTTAACTTGGCAATGGATACATTTAAAATTACTACAATAAAAATTTCTCTGAAT
F83005.5-tv2      TGAGTGTTAACTTGGCAATGGATACATTTAAAATTACTACAATAAAAATTTCTCTGAAT
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F83005.5-tv1      AAGATACAAAAATTTCTCGTC
F83005.5-tv2      AAGATACAAAAATTTCTCGTC
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Fig. S4. Sequence polymorphisms between resistant and susceptible alleles in Jemalong A17 and F83005.5, respectively. The 299-bp 3' end of *RCT1* cDNAs and the 119-bp 3' end of the *rct1* cDNAs are not shared and thus not included in the alignment.

