

Supplementary Figures:

An R2R3-MYB transcriptional factor *LuMYB314* associated with the loss of petal pigmentation in flax (*Linum usitatissimum* L.)

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CDC Bethune	ATGGAATTAGAAGCAGGGTTACGGAGAGGAACATGGGGTGAAGAGGAGGATAGGCTGCTCCGGAGGTGCATTACACTTA	80
Tammes Type 12	ATGGAATTAGAAGCAGGGTTACGGAGAGGAACATGGGGTGAAGAGGAGGATAGGCTGCTCCGGAGGTGCATTACACTTA	80
CDC Bethune	TGGAGAAGGAAGATGGCATCTCGTTCGCCGCCGAGCAGGATTGAATAGATGCAGGAAAAGTTGTAGACTGAGGTGGCTGA	160
Tammes Type 12	TGGAGAAGGAAGATGGCATCTCGTTCGCCGCCGAGCAGGATTGAATAGATGCAGGAAAAGTTGTAGACTGAGGTGGCTGA	160
CDC Bethune	ATTACTTGAAGCCAAACATCAAAAGAGGAGAGTTTGAAGGAGCTGAAGTTGATCTACTCATTAGGTTGCACAAGCTTTTG	240
Tammes Type 12	ATTACTTGAAGCCAAACATCAAAAGAGGAGAGTTTGAAGGAGCTGAAGTTGATCTACTCATTAGGTTGCACAAGCTTTTG	240
CDC Bethune	GGTAACAGATGGTCGCTAATCGCCGGCGTTTGCCGGGAAGGACGGCCAACGACGTGAAAACTATTGGAACACCCACCA	320
Tammes Type 12	GGTAACAGATGGTCGCTAATCGCCGGCGTTTGCCGGGAAGGACGGCCAACGACGTGAAAACTATTGGAACACCCACCA	320
CDC Bethune	CAGGGAGAAGGAGAAGAAGAACTAACCACCATCACGACGTGCTCCTCCATGCCTGCGGCTGCGTTGACTTTTCCATGCA	400
Tammes Type 12	CAGGGAGAAGGAGAAGAAGAACTAACCACCATCACGACGTGCTCCTCCATGCCTGCGGCTGCGTTGACTTTTCCATGCA	400
CDC Bethune	AAAGACAGCGACATTGTACGGAACCACCGTGGTCATCGTGGAAAAAGGAAAGATAACAAAGACCAACATCATAAGACCG	480
Tammes Type 12	AAAGACAGCGACATTGTACGGAACCACCGTGGTCATCGTGGAAAAAGGAAAGATAACAAAGACCAACATCATAAGACCG	480
CDC Bethune	AGGCCTGTGGGCTTGCCCAAAGGATTCTGTTGGCGGGCCGAAACAAATAAGCAGGCCAGAGCCGATGTGTTGCTGCTGG	560
Tammes Type 12	AGGCCTGTGGGCTTGCCCAAAGGATTCTGTTGGCGGGCCGAAACAAATAAGCAGGCCAGAGCCGATGTGTTGCTGCTGG	560
CDC Bethune	TGATATTAACGGCGGCGGAAGTAGTACCGTTTGGGCACAAGAACTGAAGAGGTTTTTGGAGGATGACGTGGATAAATTCC	640
Tammes Type 12	TGATATTAACGGCGGCGGAAGTAGTACCGTTTGGGCACAAGAACTGAAGAGGTTTTTGGAGGATGACGTGGATAAATTCC	640
CDC Bethune	CAGCAGCCACCTGCAACAAAATGACAGAACATGATAATAGTAGTTGTAGTAATGATGAGATTATGAAGTTGGGTGTCGAG	720
Tammes Type 12	CAGCAGCCACCTGCAACAAAATGACAGAACATGATAATAGTAGTTGTAGTAATGATGAGATTATGAAGTTGGGTGTCGAG	720
CDC Bethune	GGTTTGACGATGTTTGACCGTCAGGAGGAAGGCAATCATCAAAGTTGTTGGGGGATGATGATGTAAGCATTGGGAGCT	800
Tammes Type 12	GGTTTGACGATGTTTGACCGTCAGGAGGAAGGCAATCATCAAAGTTGTTGGGGGATGATGATGTAAGCATTGGGAGCT	800
CDC Bethune	CCTTCAGCGATCATCTTGA	819
Tammes Type 12	CCTTCAGCGATCATCTTGA	819

Figure S1. Comparison of CDS sequences of *LuMYB314* between CDC Bethune (reference genome) and Tammes Type 12.

CDC Bethune	MELEAGLRRTGWGEEEDRLLRRCI HTYGEGRWHL VP ARAGLNRCRKSCRLRWLNLYLKPNI KRGEFEGAEVDLLI RLHKLL	80
Tammes Type 12	MELEAGLRRTGWGEEEDRLLRRCI HTYGEGRWHL VP ARAGLNRCRKSCRLRWLNLYLKPNI KRGEFEGAEVDLLI RLHKLL	80
CDC Bethune	GNRWSLI AGRLPGRTANDVKNYWNTHHREKEKKKLTITI TTSSSMPAAALTFPCKRQRHCTEPPVVI VEKGKI TKTNI I RP	160
Tammes Type 12	GNRWSLI AGRLPGRTANDVKNYWNTHHREKEKKKLTITI TTSSSMPAAALTFPCKRQRHCTEPPVVI VEKGKI TKTNI I RP	160
CDC Bethune	RPVGLPKGFCWRAETNKQAQSRCVAAGDI NGGGSSTVWAQELKRFLEDDVDKFP AATCNKMTEHDNSSCSNDEI MKLGVE	240
Tammes Type 12	RPVGLPKGFCWRAETNKQAQSRCVAAGDI NGGGSSTVWAQELKRFLEDDVDKFP AATCNKMTEHDNSSCSNDEI MKLGVE	240
CDC Bethune	GLTMFDRQEEGNHQS CWGDDDDVSI WELLQRS S	272
Tammes Type 12	GLTMFDRQEEGNHQS CWGDDDDVSI WELLQRS S	272

Figure S2. Comparison of amino acid sequences of LuMYB314 between CDC Bethune (reference genome) and Tammes Type 12.

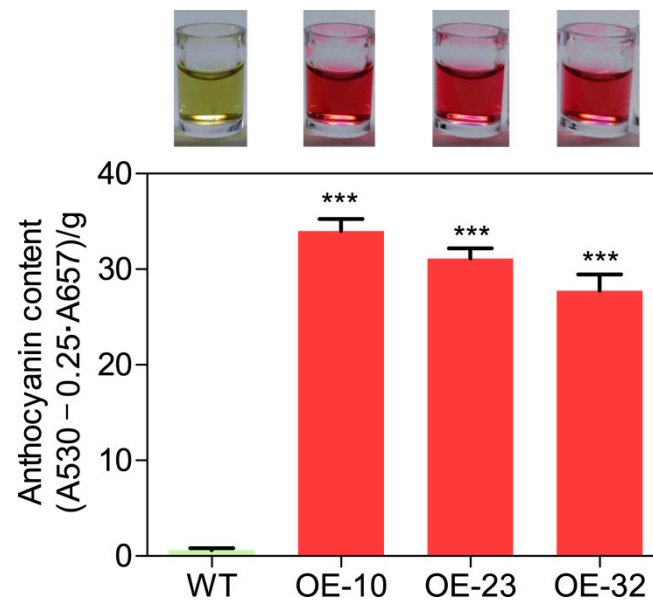


Figure S3. Total anthocyanin contents in *Arabidopsis* seedlings of WT and three independent 35S:LuMYB314^{Col-0} transgenic lines. Asterisks indicate significant differences to the wild-type Col-0 (Student's *t*-test, ****P* < 0.001; values are means ± SD (*n* = 3)).