



Title	A new source of cytoplasmic male sterility found in wild beet and its relationship to other CMS types
Author(s)	Kawanishi, Yuki; Shinada, Hiroshi; Matsunaga, Muneyuki et al.
Citation	Genome, 53(4), 251-256 https://doi.org/10.1139/G10-003
Issue Date	2010-04
Doc URL	https://hdl.handle.net/2115/43944
Type	journal article
File Information	FigureS1.pdf, Supplementary data : Figure S1



ATGATTGTTTCGAGAATGGCTATTCTTCACAATGGCTCCTTGTGATGCAGCGGAACCATGG 60
M I V R E W L F F T M A P C D A A E P W
CAATTAGGATTTCAAGACGCAGCAACACCTATGATGCAAGGAATAATCGACTTACATCAT 120
Q L G F Q D A A T P M M Q G I I D L H H
GATATCTTTTTCTTCCTCATTCTTATTTTGGTTTTTCGTATCATGGATCTTGGTTCGCGCT 180
D I F F F L I L I L V F V S W I L V R A
TTATGGCATTTCCTACTATAAAAAAATCCAATCCCGCAAAGGATTGTTTCATGGAACTACT 240
L W H F H Y K K N P I P Q R I V H G T T
ATCGAGATTATTCGGACCATCTTTCCAGTATCATCCTGATGTTTCATTGCTATAACCATCA 300
I E I I R T I F P S I I L M F I A I P S
TTTGCTCTGTTATACTCAATGGACGAGGTAGTAGATCCAGCCATTACTATCAAAGCT 360
F A L L Y S M D E V V V D P A I T I K A
ATTGGACATCAATGGTATCGGAgtgcgctcttcacgaaggtgatttaagtgaacgaa 420
I G H Q W Y R T
tgccttaaagtggaatatagttcgcaaagcatctggcttactggtaatctcccattcccg 480
tcgtcgagagacttttctaactatagcatgccagaaacggggagttgattgaggtggtta 540
tacctatacccgaaatgctctcaacataggagcctatggttccattcttgttgttgctg 600
gaggtacacatccctcttctcggtgtagagcgatatacgagaaatagatgctcagcctgc 660
aatgtccgataacggcgctgaagtagtgaatctagcggcaccatagcaatggcatacaac 720
tttggacctaacggccggccagtaacctttcggaatgggggatccccgctggcaacaac 780
cacagtagtagttgcggaactactgggcccgggagaggacaataaccttattgcctgctcc 840
tctttcttcgcttcggggacggaggctctacggtaggtaacagcgggcacaagcaccttg 900
accgaaaggggaccagcgttctactcttccaccgcaccgaggagccgctccagtgagaa 960
gcaagggatgtcgtgaacgggtgggaggtcacagagaattgacctattcatagagtgatcc 1020
tatgatcgatacaggatatgtactatctcttttttttctatagttaggttaaaaaagaa 1080
gggtgactcaacttctcagctagagttggggatgggacctcttggcataatgcacgctgg 1140
aacgtgggaattcgaggtctcatgaacgaccactaaaaaccaactttgtttttgtttgt 1200
tcacgatatccggtcaggcctatgggtggatccttttagatctacgagctttatgccccg 1260
gccgttcacatgagcatagaaaatctatactcgagcgttcaactgggcccctgacaggat 1320
aggtgaggaatcactctggatcttatttcttagagcctacaacttcgccgagccgactag 1380
catccttttccgctgctgcatcttatcgaacaaagaagacgactataagatagaattcgctt 1440
ttcgtgggtgaactggctcgtcccataccttctgcctgtcctatgtgtgtggaaccaggtct 1500

ttttcggttacagccttccccctcgaatacatagggtaggtagggctgggtaagaaggggt 1560
 cccctggtgccaataaacttttcccggccttacttttttaaagtaagtagacttt 1620
 cgtcgccatacttattccttctaagtgaattggcattaccttactctaaagagtcagtcaa 1680
 tttcattgccttcgccttcgattcctccttactcataaagggctttacggctcgggagaact 1740
 acctaaaactaaagaaaaatagtgctctttctaagagtaggcgtggagagctttttgcgg 1800
 ggaaacttgcaagtacagtttggggggaggcgggctcgaccaacCTTATGAGTATTCG 1860

Y E Y S

GACTATAACAGTTCCGATGAACAGTCACTCACTTTTGACAGTTATACGATTCCAGAAGAT 1920
 D Y N S S D E Q S L T F D S Y T I P E D

GATCCAGAATTGGGTCAATCACGTTTATTAGAAGTGGACAATAGAGTGGTTGTACCAGCC 1980
 D P E L G Q S R L L E V D N R V V V P A

AAAACTCATATACGTATTATTGTAACATCCGCTGATGTACTTCATAGTTGGGCTGTACCT 2040
 K T H I R I I V T S A D V L H S W A V P

TCCTCAGGTGTCAAATGTGATGCTGTACCTGGTCGTTTAAATCAGACCTCTATTTTGGTA 2100
 S S G V K C D A V P G R L N Q T S I L V

CAACGAGAAGGAGTTTACTATGGTCAGTGCAGTCAAATTTGTGGAACATAATCATGCTTTT 2160
 Q R E G V Y Y G Q C S E I C G T N H A F

ATGCCTATCGTCGTAGAAAGCTGTTTCTAGGAAAGATTATGGTTCTCGGGTATCTAATCAA 2220
 M P I V V E A V S R K D Y G S R V S N Q

TGAATCCCCCAAACCGGAGAAGCTTAAG

2248

*

Figure S1 Nucleotide sequence of *cox2* gene in FR4-31. Exons are indicated by upper case letters, and intron is by lower case letters. Putative translation product is shown below the nucleotide sequence. In the intronic region, three insertions (underlined) and two nucleotide substitutions (boxed) were different from the AF276430.