

This file is the README of “OnogiA2015HeadingDatePrediction\_data&results”.

This directory contains the following files and folders.

- Input data files

- ✓ BIL.emergencedate.txt
- ✓ BIL.headingdate.txt
- ✓ BIL.dailytemp.txt
- ✓ BIL.photoperiod.txt

BIL.emergencedate.txt and BIL.headingdate.txt contain the emergence and heading dates, respectively. These files are 176 (number of lines)  $\times$  9 (number of environments) matrices. Missing records are represented by -9.

BIL.dailytemp.txt and BIL.photoperiod.txt contain the daily mean temperatures and photoperiods, respectively. Dates (elements) in BIL.emergence.txt and BIL.headingdate.txt correspond to the row numbers of BIL.dailytemp.txt/BIL.photoperiod.txt. The columns of BIL.dailytemp.txt and BIL.photoperiod.txt correspond to the environments. Missing records are represented by -9.

In all the files, the environments are ordered as follows (from the first column to the last column):

Tsukuba(2007), Fukuoka(2008), HaNoi(2008), Ishigaki(2008), Ishikawa(2008), ThaiNguyen(2008), Tsukuba(2008)Early, Tsukuba(2008)Late, and Tsukuba(2009)

- Marker information files

- ✓ KKBIL\_geno.txt
- ✓ KKBIL\_geno\_map.txt

KKBIL\_geno.txt contains the marker genotypes. This file is a 176 (number of lines)  $\times$  162 (number of markers) matrix. KKBIL\_geno\_map.txt contains the linkage map. The first row is the chromosome numbers, and the second row is the linkage positions.

- R files

- ✓ OnogiA2015Rscript.R
- ✓ OnogiA2015Result.RData
- ✓ NMOptimization.R

OnogiA2015Rscript.R contains all the R scripts used to analyze the data and to plot the results. OnogiA2015Result.RData contains the results of OnogiA2015Rscript.R. NMOptimization.R is the R script for the Nelder-Mead optimization of the DVR model. This function is called in OnogiA2015Rscript.R.

- **Figures folder**

This folder contains the tiff files made by OnogiA2015Rscript.R. The figures in the manuscript were made from these tiff files using Illustrator or power point.

- **FilesForBayesianInference folder**

This folder contains all the files used to perform C-Bay and IM. For the explanations of these files, see the README file included in this folder.

- **ResultsOfBayesianInference**

This folder contains all the results of C-Bay and IM. For the explanations of these files, see the README file included in this folder.