Installing R packages for GLUE program



The GLUE program was developed to estimate genetic coefficients for any of the crops in DSSAT v4.5 based on experiments (or yield trials) that have measurements of phenology (anthesis and maturity dates), peak leaf area index any time during the season, and yield components (e.g., grain yield, biomass yield) available as well as soil and weather for the experiments. The program will estimate genetic coefficients to best match all variables simultaneously. Users should only use this procedure for crops grown under conditions where neither water nor nutrients are limiting (i.e., potential yield) unless they are highly confident that soil water and nutrient conditions are modeled correctly. See Jones et al. (2010) for more information on this approach, and also see the users guide in the DSSAT Documentation folder.

The GLUE program was developed using the R statistical programming language. R is an open source language and environment for statistical computing and graphics, that provides a wide variety of statistical and graphical techniques, and is highly extensible. R is available as Free Software under the terms of the Free Software Foundation's GNU General Public License in source code form. You can find more information at http://www.r-project.org/.

Prior to the first use of the GLUE program, it is necessary to load two R packages, MASS and xlsReadWrite, which are provided on the DSSAT v4.5 installation disk. These instructions show the steps to load the R packages.

Navigation:

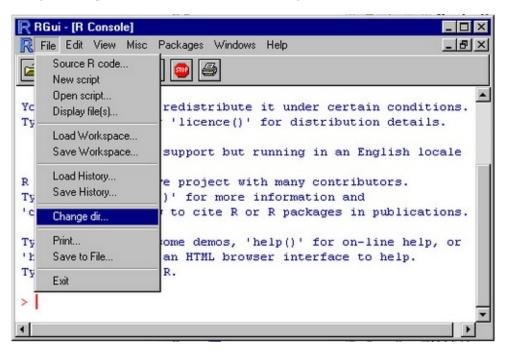
```
<>System Requirements>>
<<Step 1 - Run R as Administrator>>
<<Step 2 - Run GLUE_setup>>
<<Step 3 - Finish>>
```

These instructions assume that you have already installed DSSAT v4.5 and R v2.10 from the DSSAT v4.5 installation disk.

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Run R with Administrator privileges by right-clicking on the R shortcut and selecting 'Run as Administrator'.

Using the File pull-down menu on R, Select change dir .



Browse to the DSSAT45/Tools/GLUE/Install directory.



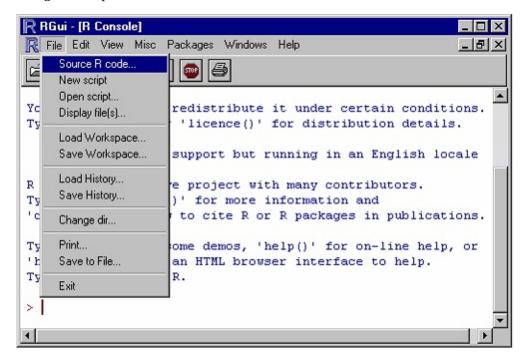
Hit OK to close the window.

Navigation:

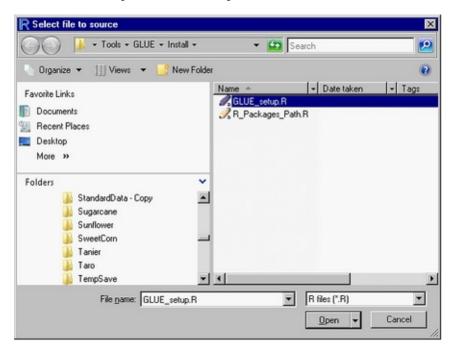
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Using the File pull-down menu on R, Select Source R code



Select GLUE_setup.R and then hit Open.



By selecting this file, both packages needed for GLUE (MASS and xlsReadWrite) will be installed.

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A message will show up in the command space to show you the package has been successfully installed.

You can close R and go back to DSSAT.

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