To set up DSSAT:

1. Move the DSSAT folder to the location you want it

If compiling and running on a Linux cluster (using Intel Fortran Compiler v9.1-10.1):

1. change source code extensions from .FOR or .for to .f90
2. in ModuleDefs.f90, make sure these lines look like this:

! CHARACTER(LEN=5), PARAMETER :: OPSYS = 'WINDO' !DOS, Windows

CHARACTER(LEN=5), PARAMETER :: OPSYS = 'LINUX' !Linux, UNIX

(comment ! character is in front of windows line)

1. in UTIL.f90, make sure these changes have been made:

Line 830:

INTEGER ERR, I, LUN, LUNTMP, SYS !, SYSTEM

becomes

INTEGER ERR, I, LUN, LUNTMP, SYS, SYSTEM

Line 912:

INTEGER i, COUNT, LUNLST, LUNTMP, SYS !, SYSTEM

becomes

INTEGER i, COUNT, LUNLST, LUNTMP, SYS, SYSTEM

(comment ! character before SYSTEM is removed)

1. In CRSIMDEF.f90, make sure these lines look like this:

! CHARACTER(LEN=1),PARAMETER::SLASH = '\' !DOS, Windows

CHARACTER(LEN=1),PARAMETER::SLASH = '/' !Linux, Unix

(comment ! character is in front of windows line)

1. Make sure the beginning of the makefile Make\_CSM046.MAK looks like this:

FC = ifort

FFLAGS = -nowarn -std95 -fixed -traceback

!EFILE = ../DSCSM045.EXE

EFILE = DSCSM045.EXE

.SUFFIXES: .f90

.f90.o:

$(FC)$(FFLAGS) -o $@ -c $<

(a tab must be used between : and .f90 in the suffixes line, and before the first $ in the last line)

Add in the line IPSIM.o \ between IPMAN.o \ and IPSLIN.o \

1. Run the script CSM\_precompile\_list.sh by using the command ./CSM\_precompile\_list.sh
2. Run the makefile by using the following commands:

module load intel (this was necessary on the linux cluster used in this case)

make -f Make\_CSM046.MAK

1. Edit file paths in DSSATPRO.L45 to point to where the DSSAT folder is located
2. To run DSSAT, navigate to the folder of the crop you want to simulate and use the command ~/DSSAT45/DSCSM045.EXE B DSSBatch.v45

If compiling on a Macbook Pro (OSx 10.5.8) using Gfortran compiler v4.3.0:

1. Follow steps 2-5 above
2. Replace all backslashes in CSCRP045.f90 with the $ symbol.
3. Make sure beginning of Mac\_Make\_CSM046.MAK looks like this:

FC = gfortran

FFLAGS = -w -ffixed-form -fd-lines-as-comments -ffixed-line-length-none

!EFILE = ../DSCSM045.EXE

EFILE = DSCSM045.EXE

.SUFFIXES: .f90

.f90.o:

$(FC)$(FFLAGS) -o $@ -c $<

1. Run the Mac\_CSM\_precompile\_list.sh script with the command ./Mac\_CSM\_precompile\_list.sh
2. Run the makefile Mac\_Make\_CSM046.MAK
3. Edit file paths in DSSATPRO.L45 to the following format:
   1. If the DSSAT directory is moved to the root, as in /DSSAT45, use the syntax DDB // DSSAT45/
   2. If the DSSAT directory is within the User’s account, as in /Users/username/DSSAT45, use the syntax DDB // Users/username/DSSAT45/
4. Run DSSAT with the command ../DSCSM045.EXE B DSSBatch.v45

To run from MATLAB, use the command system(‘../DSCSM045.EXE B DSSATBatch.v45’)