ModelUnit

LeafNumber : Inputs(*DeltaTT*, HasFlagLeafLiguleAppeared, *Phyllochron*)

Outputs( LeafNumber, Ntip (Maize))

parameters(switchMaize, atip, Leaf\_tip\_emerg, k\_bl, Nlim)

Phyllochron : Inputs(LeafNumber)

Outputs(Phyllochron)

Parameters(Ldecr,Lincr,Pdecr,Pincr,FixPhyll)

PhyllochronWithPTQ

PhyllochronWOSowingCorrection

PhylSowingDateCorrection

ShootNumber

VernalizationProgress

RegisterZadok

UpdateLeafFlag

UpdatePhase

The calendar is a structure used to store triplets (currentDate, cumulTT, zadokStage) for each zadok stage. Most of the triplet are stored during the estimate of this component but not all of them

Domain Class

**Variables:**

currentDate

cumulTT °C/d

DayLength hours

DeltaTT °C/d

GrainCumulTT °C/d

GAI m2/m2

IsLatestLeafInternodeLengthPotPositive bolean

Calendar ( see specific doc)

LeafNumber leaf

FinalLeafNumber leaf

Phase ( see specific doc)

Phyllochron

Vernaprog : progression on a 0 to 1 scale of the vernalization

HasFlagLeafLiguleAppeared bolean

MinFinalNumber leaf

hasLastPrimordiumAppeared bolean

isMomentRegisteredZC\_39 bolean

cumulTTFromZC\_39 °C/d

cumulTTFromZC\_65 °C/d

currentZadokStage

hasZadokStageChanged bolean

tilleringProfile :store the amount of new tiller created at each time a new tiller appears

leafTillerNumberArray : store the number of tiller for each leaf layer

CanopyShootNumber shoot/m2

AverageShootNumberPerPlant shoot

TillerNumber shoot