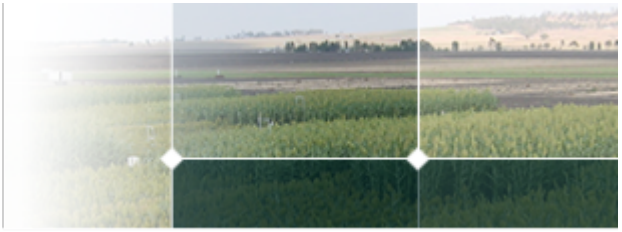

1 MicroClimate

Parameters (Inputs)

Name	Description	Units	Type	Value
a_interception	Gets or sets the a_interception.	mm/mm	double	0
b_interception	Gets or sets the b_interception.	-	double	1
c_interception	Gets or sets the c_interception.	mm	double	0
d_interception	Gets or sets the d_interception.	mm	double	0
MinimumHeightDiffForNewLayer	The minimum height difference between canopies for a new layer to be created (m).	m	double	0
NightInterceptionFraction	The fraction of intercepted rainfall that evaporates at night	0-1	double	0.5
ReferenceHeight	Height of the weather instruments	m	double	2
ResourceName			String	MicroClimate

Name	Description	Units	Type	Value
SoilHeatFluxFraction	Fraction of solar radiation reaching the soil surface that results in soil heating	MJ/MJ	double	0.4

Properties (Outputs)

Name	Description	Units	Type	Settable?
CanopyCover	Gets the total plant cover (0-1).	-	double	False
CanopyHeight	Height of the tallest canopy.	mm	double	False
DryLeafTimeFraction	Gets the fraction of the daytime in which the leaves are dry (0-1).	-	double	False
NetLongWaveRadiation	Gets the net long wave radiation (MJ/m2).	MJ/m^2	double	False
NetRadiation	Gets the total net radiation, long and short waves (MJ/m2).	MJ/m^2	double	False
NetShortWaveRadiation	Gets the net short wave radiation (MJ/m2).	MJ/m^2	double	False
NumLayers	The number of canopy layers.		int32	False
PetAerodynamicTerm	Gets the aerodynamic term of for the Penman-Monteith PET (mm).	mm	double	False
PetRadiationTerm	Gets the radiation term of for the Penman-Monteith PET (mm).	mm	double	False
PetTotal	Gets the total Penman-Monteith potential evapotranspiration (MJ/m2).	MJ/m^2	double	False

Name	Description	Units	Type	Settable?
PrecipitationInterception	Gets the amount of precipitation intercepted by the canopy (mm).	mm	double	False
RadiationInterception	Gets the amount of radiation intercepted by the canopy (MJ/m2).	MJ/m^2	double	False
RadiationInterceptionOnGreen	Gets the amount of radiation intercepted by the green elements of canopy (MJ/m2).	MJ/m^2	double	False
SoilHeatFlux	Gets the flux of heat into the soil (MJ/m2).	MJ/m^2	double	False
SurfaceRS	Shortwave radiation reaching the surface (ie above the residue layer) (MJ/m2)	MJ/m2	double	False

Links (Dependencies)

Name	Type	IsOptional?
clock	IClock	False
eoCalculator	ICalculateEo	False
soilWater	ISoilWater	False
weather	IWeather	False