



## 1 SpeciesTable

Listed in the table below are the default values for all parameters for all AgPasture species.

Parameter name	Ryegrass	WhiteClover	Browntop	Cocksfoot
PlantType	AGPRyegrass	AGPWhiteClover	AGPBrownTop	AGPCocksfoot
Albedo	0.26	0.26	0.26	0.26
Gsmax	0.011	0.011	0.011	0.011
R50	200	200	200	200
SpeciesFamily	Grass	Legume	Grass	Grass
PhotosyntheticPathway	C3	C3	C3	C3
ReferencePhotosyntheticRate	1	1	1	1
LightExtinctionCoefficient	0.5	0.8	0.5	0.5
GrowthTminimum	2	4	2	2
GrowthToptimum	20	22.5	20	20
GrowthTEffectExponent	1.6	1.6	1.7	1.7
UseHeatStressFactor	yes	yes	yes	yes
HeatOnsetTemperature	28	30	26	26
HeatFullTemperature	35	36	35	35
HeatRecoverySumDD	30	20	20	20
HeatRecoveryTReference	25	25	25	25
UseColdStressFactor	yes	yes	yes	yes
ColdOnsetTemperature	1	3	1	1
ColdFullTemperature	-5	-3	-3	-3
ColdRecoverySumDD	25	35	20	20
ColdRecoveryTReference	0	2	0	0
MaintenanceRespirationCoefficient	0.03	0.04	0.03	0.03
GrowthRespirationCoefficient	0.25	0.275	0.25	0.25
RespirationTReference	20	20	20	20
RespirationExponent	1.5	1.55	1.5	1.5
DegreesDayForGermination	125	125	125	125
TargetShootRootRatio	3	3.5	2	3

Parameter name	Ryegrass	WhiteClover	Browntop	Cocksfoot
MaxRootAllocation	0.325	0.3	0.45	0.325
ShootRootGlifFactor	0.5	0.5	0.6	0.5
UseReproSeasonFactor	yes	yes	yes	yes
ReproSeasonReferenceLatitude	41	41	41	41
ReproSeasonTimingCoeff	0.14	0.14	0.14	0.14
ReproSeasonMaxAllocationIncrease	0.5	0.5	0.5	0.5
ReproSeasonAllocationCoeff	0.1	0.1	0.1	0.1
FractionLeafMaximum	0.7	0.56	0.6	0.7
FractionLeafMinimum	0.7	0.28	0.6	0.7
FractionLeafDMThreshold	500	500	500	500
FractionLeafDMFactor	2000	2000	2000	2000
FractionLeafExponent	3	3	3	3
FractionToStolon	0	0.2	0	0
SpecificLeafArea	25	27.5	20	22
StolonEffectOnLAI	0	0	0	0
ShootMaxEffectOnLAI	1000	500	1000	1000
MaxStemEffectOnLAI	1	0.5	1	1
LiveLeavesPerTiller	3	3	3	3
TissueTurnoverRefRateShoot	0.05	0.05	0.05	0.05
TissueTurnoverRefRateRoot	0.02	0.02	0.02	0.02
DetachmentRefRateShoot	0.08	0.11	0.06	0.08
TurnoverTemperatureMin	0.5	1	0.5	1
TurnoverTemperatureRef	16	18	17	17
TurnoverTemperatureExponent	1.5	1.5	1.5	1.5
TurnoverDroughtEffectMax	1	1	1	1
TurnoverDroughtThreshold	0.6	0.6	0.6	0.6
TurnoverDroughtExponent	2	2	2	2
TurnoverDefoliationMultiplier	1	1	1	1
TurnoverDefoliationCoefficient	0.5	0.5	0.5	0.5
TurnoverDefoliationEffectOnRoots	0.1	0.1	0.1	0.1
MinimumNFixation	0	0.2	0	0
MaximumNFixation	0	0.6	0	0
SoilSaturationEffectMax	0.1	0.1	0.1	0.2
MinimumWaterFreePorosity	-1	-1	-1	-1

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SoilSaturationRecoveryFactor	0.25	0.25	0.15	0.25
NDilutionCoefficient	3	1	2.75	2.5
GlFGeneric	1	1	1	1
GlFSoilFertility	1	1	1	1
PlantHeightMinimum	250	150	250	250
PlantHeightMaximum	250	150	250	250
PlantHeightMassForMax	10000	7500	10000	9000
PlantHeightExponent	2.8	2.5	2.6	2.6
MinimumGreenWt	75	50	50	50
PreferenceForGreenOverDead	1	1	1	1
PreferenceForLeafOverStems	1	1	1	1
Leaf.NConcMinimum	0.01	0.0135	0.009	0.01
Leaf.NConcOptimum	0.04	0.05	0.034	0.04
Leaf.NConcMaximum	0.0525	0.06	0.04	0.045
Leaf.EmergingTissue.FractionNRemobilisable	0	0	0	0
Leaf.EmergingTissue.FractionSugarNewGrowth	0.5	0.5	0.5	0.5
Leaf.EmergingTissue.DigestibilityCellWall	0.9	0.9	0.7	0.72
Leaf.DevelopingTissue.FractionNRemobilisable	0.1	0.1	0.1	0.1
Leaf.DevelopingTissue.DigestibilityCellWall	0.7	0.8	0.6	0.61
Leaf.MatureTissue.FractionNRemobilisable	0.2	0.2	0.22	0.2
Leaf.MatureTissue.DigestibilityCellWall	0.6	0.7	0.5	0.6
Leaf.DeadTissue.FractionNRemobilisable	1	1	1	1
Leaf.DeadTissue.DigestibilityCellWall	0.2	0.2	0.2	0.2
Stem.NConcMinimum	0.0067	0.0073	0.0057	0.008
Stem.NConcOptimum	0.02	0.0225	0.017	0.021
Stem.NConcMaximum	0.03	0.03	0.023	0.026
Stem.EmergingTissue.FractionNRemobilisable	0	0	0	0
Stem.EmergingTissue.FractionSugarNewGrowth	0.5	0.5	0.5	0.5
Stem.EmergingTissue.DigestibilityCellWall	0.9	0.9	0.6	0.8
Stem.DevelopingTissue.FractionNRemobilisable	0.1	0.1	0.12	0.1
Stem.DevelopingTissue.DigestibilityCellWall	0.7	0.8	0.55	0.7
Stem.MatureTissue.FractionNRemobilisable	0.2	0.2	0.22	0.2
Stem.MatureTissue.DigestibilityCellWall	0.6	0.7	0.5	0.55
Stem.DeadTissue.FractionNRemobilisable	1	1	1	1

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Stem.DeadTissue.DigestibilityCellWall	0.2	0.2	0.2	0.2
Stolon.NConcMinimum	0	0.008	0	0
Stolon.NConcOptimum	0	0.025	0	0
Stolon.NConcMaximum	0	0.0325	0	0
Stolon.FractionStanding	0	0.3	0	0
Stolon.EmergingTissue.FractionNRemobilisable	0	0	0	0
Stolon.EmergingTissue.FractionSugarNewGrowth	0.5	0.5	0.5	0.5
Stolon.EmergingTissue.DigestibilityCellWall	0.9	0.9	0.6	0.6
Stolon.DevelopingTissue.FractionNRemobilisable	0.1	0.1	0.1	0.1
Stolon.DevelopingTissue.DigestibilityCellWall	0.7	0.8	0.55	0.55
Stolon.MatureTissue.FractionNRemobilisable	0.2	0.2	0.2	0.2
Stolon.MatureTissue.DigestibilityCellWall	0.6	0.7	0.5	0.5
Stolon.DeadTissue.FractionNRemobilisable	1	1	1	1
Stolon.DeadTissue.DigestibilityCellWall	0.2	0.2	0.2	0.2
Root.NConcMinimum	0.008	0.01	0.005	0.007
Root.NConcOptimum	0.02	0.0225	0.016	0.02
Root.NConcMaximum	0.0275	0.0275	0.022	0.025
Root.MinimumRootingDepth	50	30	50	50
Root.MaximumPotentialRootingDepth	1000	350	1000	1000
Root.RootElongationRate				
Root.DepthDistributionParamTop	90	70	90	90
Root.DepthDistributionExponent	3.2	2.5	3.2	3.2
Root.DepthDistributionParamBottom	1.05	1.05	1.05	1.05
Root.SpecificRootLength	100	45	75	10
Root.KNO3	0.025	0.01	0.02	0.02
Root.KNH4	0.01	0.005	0.01	0.01
Root.MaximumNUptake	10	5	10	10
Root.Live.FractionNRemobilisable	0.2	0.1	0.2	0.2
Root.Dead.FractionNRemobilisable	1	1	1	1