

**Supplementary Table 1.** Explanatory variables chosen by the best ‘temperature-precipitation’ models (+) on the basis of AIC values for the area affected by *Armillaria* root rot in younger (YS) and older stands (OS)

No.	Model <sup>a</sup>	Growing season		Last growing season		Winter		Last winter		Spring		Last spring		Summer		Last summer		Autumn		Last autumn	
		YS	OS	YS	OS	YS	OS	YS	OS	YS	OS	YS	OS	YS	OS	YS	OS	YS	OS	YS	OS
1	Area ~ Temp + Prec + Temp x Prec + Site + (1 Year)	-	-	+	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-
2	Area ~ Temp + Prec + Site + (1 Year)	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	Area ~ Temp + Site + (1 Year)	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	+	-
4	Area ~ Prec + Site + (1 Year)	+	+	-	-	-	-	+	-	-	-	-	-	+	-	-	-	-	-	-	-
5	Area ~ Temp + Prec + (1 Year)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	Area ~ Temp + Prec + Temp x Prec + (1 Year)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	Area ~ Temp + (1 Year)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Area ~ Prec + (1 Year)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Area ~ Site + (1 Year)	-	-	-	+	-	+	-	+	+	+	-	+	-	+	-	+	+	+	-	+
10	Area ~ (1 Year)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AIC		1,997.6	3,682.8	1,993.4	3,683.4	1,996.2	3,683.4	1,994.6	3,683.4	1,997.6	3,683.4	1,990.1	3,683.4	1,995.3	3,683.4	1,995.6	3,683.4	1,997.6	3,683.4	1,993.2	3,683.4

Following seasons were considered: growing season, last growing season, winter, last winter, spring, last spring, summer, last summer, autumn, last autumn.

Temp, temperature; Prec, precipitation; Site, forest district.

AIC, Akaike information criterion; YS, younger stands ≤ 20 y; OS, older stands > 20 y.

<sup>a</sup>In each model ‘Year’ is a random factor.