

Supplementary Table S4 Fitting of *Hippophae rhamnoides* L. multi-growth factor growth model.

	model	a	b	c	d	b ₀	R ²	RSS
Ground diameter、chcanopy	$W=aD+bC+b_0$	0.06	0.238			-0.227	0.654	0.246
Ground diameter、plant height	$W=aD+bH+b_0$	0.128	0.003			-0.295	0.589	0.292
plant height、chcanopy	$W=aH+bC+b_0$	0.239	0.002			-0.248	0.662	0.24
Ground diameter、plant height	$a^* (D^b) * (H^c) + b_0$	0.059	-2.633	6.624		0.076	0.889	0.079
Ground diameter、plant height	$a^* (D^{0.1}) * (H^c) + b_0$	0.018	0.1	3.981		0.073	0.885	0.082
Ground diameter、plant height	$a^* (D^{0.5}) * (H^c) + b_0$	0.015	0.5	3.637		0.073	0.884	0.082
Ground diameter、plant height	$a^* (D^2) * (H^c) + b_0$	0.006	2	0.074		0.074	0.881	0.085
Ground diameter、chcanopy	$a^* (D^b) * (C^c) + b_0$	3.49E-08	2.872	2.703		2.872	0.879	0.086
plant height、chcanopy	$a^* (H^b) * (C^c) + b_0$	9.55E-05	2.983	1.295		0.072	0.888	0.079
Three growth factors	$W=aD+bH+cC+b_0$	0.032	0.214	0.002		-0.257	0.665	0.238
Three growth factors	$W=aD^b*H^c*C^d+b_0$	8.91E-05	0.1	2.892	1.299	0.072	0.888	0.08

Where D is the ground diameter (cm); H denotes plant height (m); C denoteschcanopy(cm).