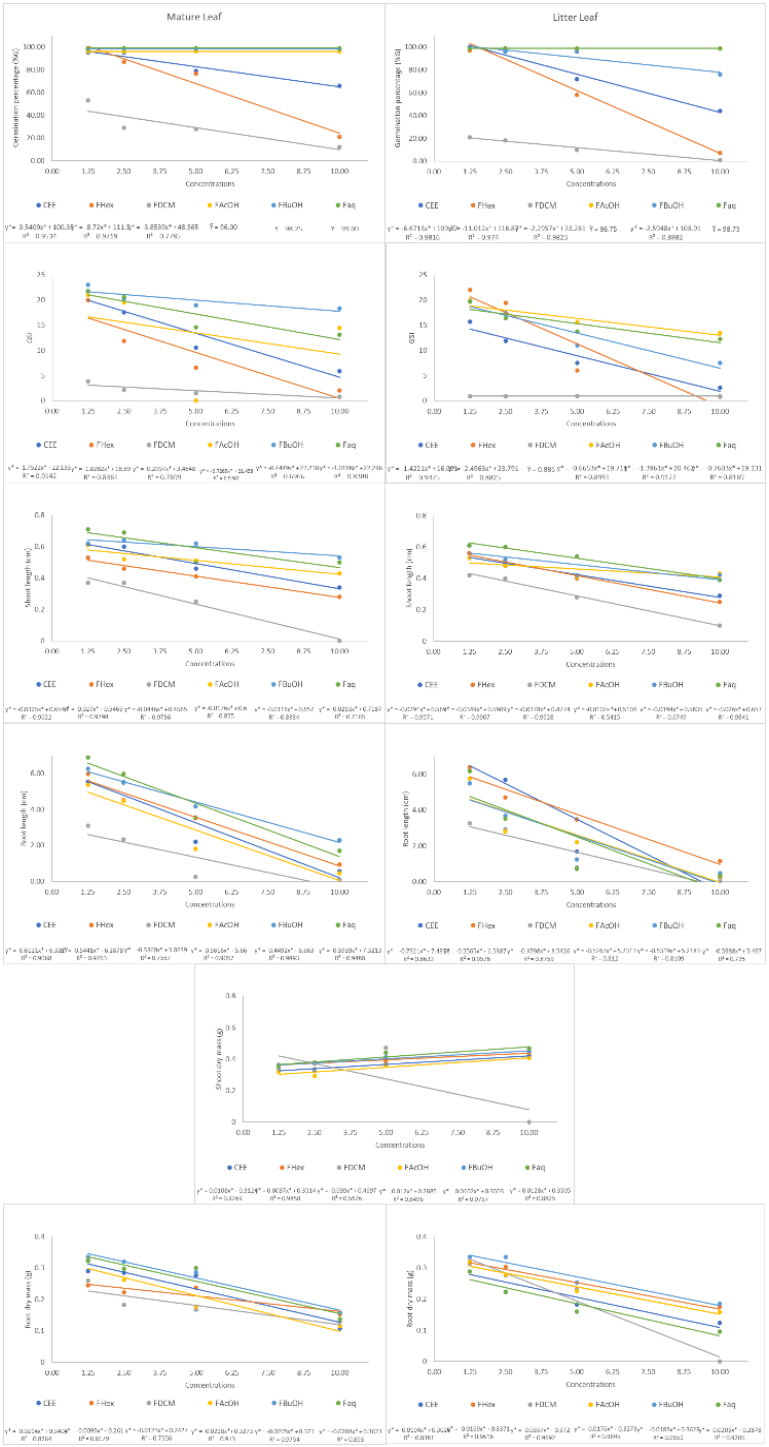
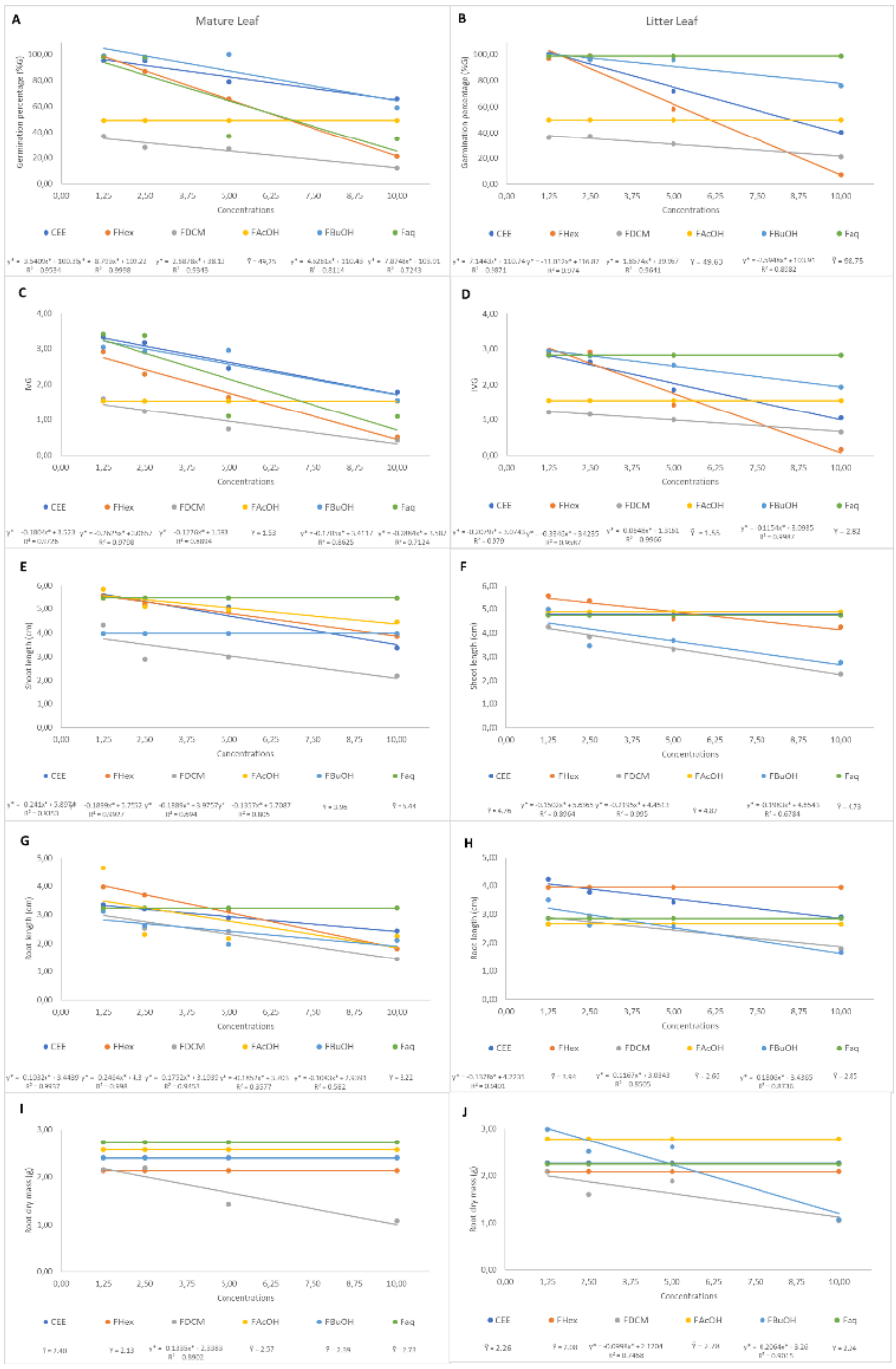
Allelopathic potential of *Eucalyptus urograndis* on lettuce and Brazilian native forest species of *Cedrela fissilis* Vell.

Maria Gabriela Marques de Souza[1], Viviana Borges Corte[1], Elias Terra Werner[1], Hildegardo Seibert França*[2]



Supplementary Fig 1. Polynomial regression of mean values of Germination Percentage (%G) (A-B), Germination Speed Index (GSI) (C-D) and Initial Growth (SL: Shoot length E-F; RL: Root length G-H, expressed in cm/seedling; SDM I: shoot dry mass; RDM: root dry mass J-K, expressed in mg/seedling) measured in *Lactuca sativa* seeds submitted the crude ethanolic extract and their fractions in different Concentrations from the Leaves and Litter of *Eucalyptus urograndis*. (y* = *P-value* ≤ 0.05 in Analysis of variance of the linear model; x* = *P-value* ≤ 0.05 in beta coefficient 1; Ȳ = mean of concentrations). CEE= crude ethanolic extract; FHex = hexane fraction; FDCM = dichloromethane fraction; FAcOH = ethyl acetate fraction; FBuOH = butanolic fraction and FAq = aqueous fraction.



Supplementary Fig 2. Polynomial regression of mean values of Germination Percentage (%G) (A-B), Germination Speed Index (GSI) (C-D) and Initial Growth (SL: Shoot length E-F; RL: Root length G-H, expressed in cm/seedling; RDM: root dry mass I-J, expressed in mg/seedling) measured in *Cedrela fissilis* seeds submitted the crude ethanolic extract and their fractions (Samples - CEE; FHex; FDCM; FAcOH; FBuOH; and Faq) in different Concentrations (1.25; 2.5; 5.0; and 10.0 mg /mL) from the Leaves A, C, E, G, I; and Litter – B, D, F, H, J of *Eucalyptus urograndis*. (y* = *P-value* ≤ 0.05 in Analysis of variance of the linear model; x* = *P-value* ≤ 0.05 in beta coefficient 1; $\bar{Y}$ = mean of concentrations). CEE= crude ethanolic extract; FHex = hexane fraction; FDCM = dichloromethane fraction; FAcOH = ethyl acetate fraction; FBuOH = butanolic fraction and FAq = aqueous fraction.

Supplementary Table 1. Summary of analysis of variance results in factorial scheme design for variables Leaves and Litter of *Eucalyptus urograndis* used for produce crude ethanolic extract and their fractions (Samples - CEE; FHex; FDCM; FAcOH; FBuOH; and Faq) in different concentrations (1.25; 2.5; 5.0; and 10.0 mg /mL) tested on *Lactuca sativa* seeds and measured Germination Percentage (%G), Germination Speed Index (GSI) and Initial Growth (SL: Shoot length; RL: Root length, expressed in cm/seedling; SDM: shoot dry mass; RDM: root dry mass, expressed in mg/seedling)

Source of variation (SV)		Germination				Initial growth							
		%G		GSI		SL		RL		SDM		RDM	
	df	F Statistic	*P-value*	F Statistic	*P-value*	F Statistic	*P-value*	F Statistic	*P-value*	F Statistic	*P-value*	F Statistic	*P-value*
Leaf (L)	1	43.38	$< 2.2e^{-16}$ ***	180.95	$< 2.2e^{-16}$ ***	24.36	$< 2.2e^{-16}$ ***	33.43	$< 2.2e^{-16}$ ***	1.46	0.2284	0.13	$< 2.2e^{-16}$ ***
Samples (S)	5	847.03	$< 2.2e^{-16}$ ***	898.23	$< 2.2e^{-16}$ ***	107.13	$< 2.2e^{-16}$ ***	57.43	$< 2.2e^{-16}$ ***	29.30	$< 2.2e^{-16}$ ***	14.13	$< 2.2e^{-16}$ ***
Concentration (C)	3	228.63	$< 2.2e^{-16}$ ***	707.71	$< 2.2e^{-16}$ ***	153.79	$< 2.2e^{-16}$ ***	579.75	$< 2.2e^{-16}$ ***	17.17	$< 2.2e^{-16}$ ***	183.63	$< 2.2e^{-16}$ ***
L x S	5	12.18	$< 2.2e^{-16}$ ***	49.43	$< 2.2e^{-16}$ ***	8.96	$< 2.2e^{-16}$ ***	21.73	$< 2.2e^{-16}$ ***	4.28	0.0012	9.42	$< 2.2e^{-16}$ ***
L x C	3	9.22	$< 2.2e^{-16}$ ***	4.41	0.0053 **	0.47	0.702 ns	7.54	$1e^{-04}$ ***	2.25	0.0847	3.41	0.0192
S x C	15	53.78	$< 2.2e^{-16}$ ***	48.59	$< 2.2e^{-16}$ ***	4.60	$< 2.2e^{-16}$ ***	6.66	$< 2.2e^{-16}$ ***	31.97	$< 2.2e^{-16}$ ***	1.64	0.0693
F x S x C	15	4.61	$< 2.2e^{-16}$ ***	10.38	$< 2.2e^{-16}$ ***	1.75	0.0465 *	2.33	0.005 *	1.52	0.1049	4.31	$< 2.2e^{-16}$ ***
CV (%)		7.49		12.83		12.53		19.71		13.05		16.84	

df: degree free; CV (%): coefficient of variation; F test significance codes: < 0.001 '***'; < 0.01 '**'; < 0.05 '*'; < 0.1 'ns': not significant; CEE= crude ethanolic extract; FHex = hexane fraction; FDCM = dichloromethane fraction; FAcOH = ethyl acetate fraction; FBuOH = butanolic fraction and FAq = aqueous fraction.

Supplementary Table 2. Summary of analysis of variance results in factorial scheme design for variables Leaves and Litter of *Eucalyptus urograndis* used for produce crude ethanolic extract and their fractions (Samples - CEE; FHex; FDCM; FAcOH; FBuOH; and Faq) in different Concentrations (1.25; 2.5; 5.0; and 10.0 mg /mL) tested on *Cedrela fissilis* seeds and measured Germination Percentage (%G), Germination Speed Index (GSI) and Initial Growth (SL: Shoot length; RL: Root length, expressed in cm/seedling; SDM: shoot dry mass; RDM: root dry mass, expressed in mg/seedling)

Source of variation (SV)		Germination				Initial growth							
		%G		GSI		SL		RL		SDM		RDM	
	df	F Statistic	*P-value*	F Statistic	*P-value*	F Statistic	*P-value*	F Statistic	*P-value*	F Statistic	*P-value*	F Statistic	*P-value*
Leaf (L)	1	19.65	$< 2.2e^{-16}$ ***	0.0039	0.95 ns	1.74	0.1884 ns	7.53	0.0068 **	16.08	0.0001 ***	2.30	0.1314
Samples (S)	5	268.13	$< 2.2e^{-16}$ ***	182.40	$< 2.2e^{-16}$ ***	53.21	$< 2.2e^{-16}$ ***	27.01	$< 2.2e^{-16}$ ***	1.41	0.2206	17.40	$< 2.2e^{-16}$ ***
Concentration (C)	3	186.45	$< 2.2e^{-16}$ ***	231.90	$< 2.2e^{-16}$ ***	42.77	$< 2.2e^{-16}$ ***	54.05	$< 2.2e^{-16}$ ***	0.96	0.4114	5.59	0.0012 **
L x S	5	22.71	$< 2.2e^{-16}$ ***	15.52	$< 2.2e^{-16}$ ***	3.07	0.0115 *	7.17	$< 2.2e^{-16}$ ***	1.29	0.2692	1.91	0.0949
L x C	3	4.01	0.0089 **	6.45	0.0004 ***	0.86	0.4593 ns	3.22	0.0245 *	0.09	0.9639	1.35	0.2578
S x C	15	24.63	$< 2.2e^{-16}$ ***	20.25	$< 2.2e^{-16}$ ***	1.67	0.0612 ns	2.54	0.0022 **	1.48	0.1184	2.73	0.001 ***
F x S x C	15	10.11	$< 2.2e^{-16}$ ***	9.94	$< 2.2e^{-16}$ ***	1.91	0.026 *	2.87	0.0006 ***	1.59	0.0814	2.96	0.0004 ***
CV (%)		12.21		13.33		12.93		16.17		9.93		20.49	

df: degree free; CV (%): coefficient of variation; F test significance codes: < 0.001 '***'; < 0.01 '**'; < 0.05 '*'; < 0.1 'ns': not significant; CEE= crude ethanolic extract; FHex = hexane fraction; FDCM = dichloromethane fraction; FAcOH = ethyl acetate fraction; FBuOH = butanolic fraction and FAq = aqueous fraction.