SUPPLEMENTARY MATERIALS

S1 - Supplementary Table S1: Mathematical models applied to the drying curves.

Model	Equation	Model name
1	$MR = \exp(-k\ t)$	Lewis
2	$MR = a \exp(-k\ t)$	Henderson and Pabis
3	$MR = \exp(-k\ t^n)$	Page
4	$MR = \exp[(k\ t)^n)$	Modified Page
5	$MR = 1 + a\ t + b\ t^2$	Wang and Singh

Note: MR (dimensionless) is the moisture ration; t (h) is the drying time; k (h s-1) the drying constants; a, b, c, n (dimensionless), the coeficients of the models.

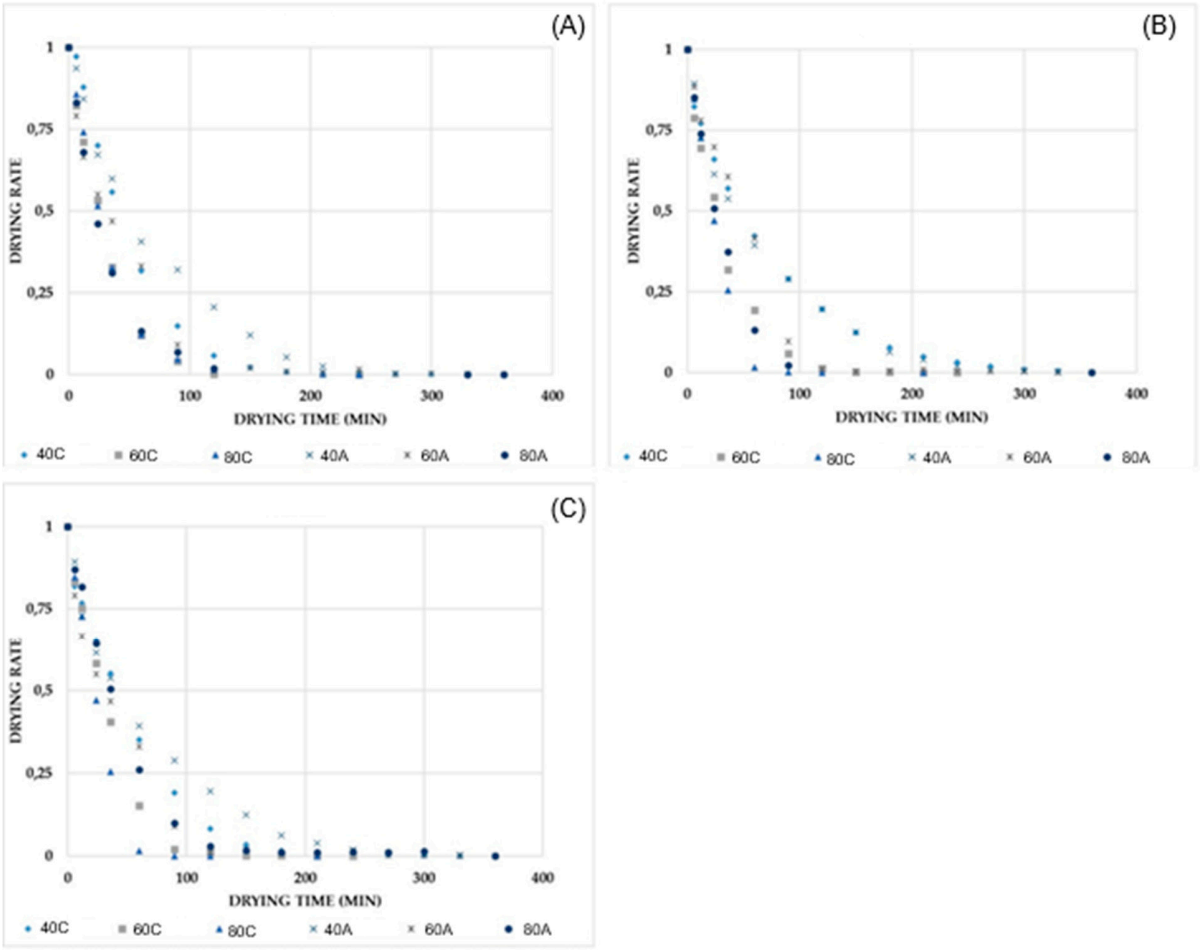
S2 - Supplementary Table S2: Parameter and coefficients of mathematical adjust from inflorescences, leaves and steams drying models at different conditions[1]

Model			Inflorescence		Leaves		Steams	
		Experiment	Model result	R^2	Model result	R^2	Model result	R^2
Lewis	MR=exp(-*k*t)	1 (40/C)	k=0.018619	0.994125	k=0.013689	0.995936	k=0.018201	0.994708
		2 (60/C)	k=0.026995	0.991798	k=0.029464	0.995350	k=0.030549	0.995929
		3 (80/C)	k=0.036898	0.983367	k=0.035368	0.985629	k=0.029975	0.996308
		4 (40/S)	k=0.012183	0.992555	k=0.15936	0.988142	k=0.014355	0.996473
		5 (60/S)	k=0.023828	0.984645	k=0.014671	0.992179	k=0.026701	0.991311
		6 (80/S)	k=0.021207	0.994461	k=0.029498	0.994803	k=0.032364	0.999534
Henderson and Pabis	MR=*a*exp(-kt)	1	k=0.017935; a=0.972190	0.995031	k=0.013689; a=0.938038	0.995936	k=0.019789; a=1.069514	0.994134
		2	k=0.027575; a=1.016886	0.992114	k=0.028774; a=0.982822	0.995694	k=0.030965; a=1.010513	0.996050
		3	k=0.039671; a=1.063139	0.987179	k=0.037334; a=1.046500	0.987879	k=0.031053; a=1.027584	0.997123
		4	k=0.012527; a=1.023619	0.993268	k=0.015936; a=0.944609	0.992179	k=0.014356; a=1.000058	0.996474
		5	k=0.022051; a=0.946106	0.987888	k=0.18783; a=1.0220167	0.980391	k=0.025245; a=0.960416	0.992960
		6	k=0.021854; a=1.023551	0.995025	k=0.030422; a=1.024785	0.995361	k=0.032541; a=1.004015	0.999549
Page	MR = exp (-kt^n)	1	k=0.019592; n=0.987419	0.994152	k=0.027712; n=0.856994	0.996036	k=0.005085; n=1.322528	0.999639
		2	k=0.014180; n=1.179203	0.995640	k=0.032191; n=0.974757	0.995459	k=0.021024; n=1.107981	0.997451
		3	k=0.007991; n=1.475055	0.999210	k=0.010812; n=1.358236	0.997241	k=0.016804; n=1.168676	0.999548
		4	k=0.011996; n=1.142727	0.995945	there was no adjustment		k=0.014453; n=0.998439	0.996474
		5	k=0.037615; n=0.880048	0.987534	k=0.006395; n=1.259496	0.986825	k=0.036735; n=0.912769	0.992643
		6	k=0.010567; n=1.182453	0.998063	k=0.016397; n=1.167510	0.997850	k=0.030666; n=1.016005	0.999566
Modified Page	MR = exp [(-kt)^n]	1	k=0.018634; n=0.987438	0.994153	k=0.015234; n=0.857006	0.996036	k=0.018441; n=1.322738	0.999639
		2	k=0.027076; n=1.17926	0.995640	k=0.029451; n=0.974759	0.995459	k=0.030632; n=1.107978	0.997451
		3	k=0.037853; n=1.475287	0.999210	k=0.035684; n=1.358277	0.997241	k=0.030307; n=1.168690	0.999548
		4	k=0.011996; n=1.143014	0.995945	k=0.016218; n=0.840762	0.995355	k=0.014357 n=0.998475	0.996474
		5	k=0.024054; n=0.880052	0.987534	k=0.018108; n=1.25971	0.986825	k=0.026788; n=0.912769	0.992643
		6	k=0.021325; n=1.182532	0.998063	k=0.029573; 1.167539	0.997850	k=0.032397; n=1.016015	0.999566

Wang and Singh	MR = 1 + *a* t + *b* t^2	1	a= -0.009269; b=0.000019	0.900829	a=-0.008365; b=0.000016	0.917084	a=-0.009389; b=0.000020	0.924370
		2	a=-0.014182; b=0.000044	0.917499	a=-0.014229; b=0.000044	0.874398	a=-0.014603; b=0.000005	0.882069
		3	a=-0.015449; b=0.00005	0.801756	a=-0.01716; b=0.000063	0.876392	a=-0.014479; b=0.000046	0.882812
		4	a=-0.0078888; b=0.000015	0.986606	a=-0.008518; b=0.000017	0.902870	a=-0.008370; b=0.000016	0.920305
		5	a=-0.009803; b=0.000021	0.797019	a=-0.009485; b=0.000020	0.915153	a=-0.010043; b=0.000022	0.755234
		6	a=-0.009683; b=0.000021	0.867946	a=-0.010495; b=0.000023	0.750630	a=-0.010393; b=0.000023	0.681166

[1]Different drying conditions: temperatures (40, 60 and 80 °C) and hot air speed (absence of circulation (A) or 1 m s-1(circulation: C))

S3 – Supplementary Figure S1: Drying kinetics of stem, leaves and inflorescences drying models at different conditions[1]



[1]Different drying conditions: temperatures (40, 60 and 80 °C) and hot air speed (absence of circulation (A) or 1 m s-1(circulation: C)

S4 – Supplementary Figure S2 Response surface and desirability graphs of (A) stems, (B) leaves, and (C) inflorescences UAE optimization

