Tables

ESI Table 1. The analysis of variance (ANOVA) and regression analysis of quality characteristics of the waffles

| | Special cubic model | | | | | | | | | | | | | |
| | TFC | | TPC | | DPPH | | Appearance and colour | | Texture | | Flavour and sweetness | | Overall acceptability | |
	F	P	F	P	F	P	F	P	F	P	F	P	F	P
Model	12989.06	<0.0001	1.513E + 05	<0.0001	1.170E + 05	<0.0001	27.62	<0.0001	26.92	<0.0001	12.19	<0.0001	9852.58	<0.0001
Linear mixture	56279.82	<0.0001	5.158E + 05	<0.0001	5.070E + 05	<0.0001	103.23	<0.0001	971.18	<0.0001	43.92	<0.0001	36639.30	<0.0001
AB	0.0399	0.8457	31873.22	<0.0001	1.86	0.2022	1.93	0.1950	5.64	0.0389	1.47	0.2535	1111.34	<0.0001
AC	0.4412	0.5216	4192.41	<0.0001	0.0680	0.7996	0.3496	0.5675	2.19	0.01695	1.22	0.2945	875.13	<0.0001
AD	0.0378	0.8498	2637.47	<0.0001	0.0742	0.7909	0.7605	0.4036	0.1009	0.7573	0.0005	0.9821	1.23	0.2937
BC	0.0235	0.8812	46697.09	<0.0001	5.62	0.0392	4.08	0.0709	4.48	0.0603	1.57	0.2390	516.17	<0.0001
BD	0.0502	0.8273	6814.85	<0.0001	5.04	0.0486	0.3843	0.5492	0.4340	0.5249	0.1123	0.7445	2.27	0.1628
CD	0.3082	0.5910	89696.56	<0.0001	0.7879	0.3956	11.72	0.0065	18.23	0.0016	5.56	0.0401	4641.81	<0.0001
ABC	4.44	0.0614	1.00	0.3404	0.0251	0.8772	0.1663	0.6920	0.2854	0.6049	0.1705	0.6884	8.11	0.0173
ABD	0.8647	0.3743	0.0002	0.9883	1.96	0.1919	0.0751	0.7896	0.2381	0.6361	0.2476	0.6296	1.62	0.2318

ACD	0.0337	0.8580	0.0538	0.8213	0.0186	0.8941	0.0380	0.8493	1.93	0.1950	0.1176	0.7387	1.73	0.2172
BCD	0.4807	0.5039	0.2914	0.6011	0.8368	0.3818	0.8689	0.3732	0.3364	0.5747	1.02	0.3363	0.0076	0.9324
Lack of fit	3.13	0.1182	0.9501	0.5217	1.50	0.3818	2.79	0.1426	3.40	0.1.29	1.15	0.4648	2.10	0.2171
R²	0.9999		1.00		1.00		0.9729		0.9722		0.9407		0.9999	
Std. dev	0.0526		0.0143		0.0232		0.3362		0.3315		0.4905		0.0153	
mean	37.65		18.85		11.78		7.01		7.00		6.88		6.98	
C.V. (%)	0.1397		0.0759		0.1968		4.80		4.73		7.13		0.2185	

ESI Table 2. Constraints for selecting the best formulation

Name	Goal	Lower Limit	Upper Limit	Lower Weight	Upper Weight	Importance
A: Jowar flour	In range	25	30	1	1	3
B: Bajra flour	In range	25	30	1	1	3
C: Wheat flour	In range	40	50	1	1	3
D: Seed powder	In range	0	10	1	1	3
Total flavonoid content	In range	32.65	48.17	1	1	3
Total phenolic content	In range	14.64	32.39	1	1	3
DPPH activity	Maximize	3.16	25.43	1	1	5
Appearance and colour	In range	5.13	8.83	1	1	3
Texture	Maximize	5.13	8.85	1	1	4
Flavour and sweetness	Maximize	4.99	8.67	1	1	4
Overall acceptability	In range	5.19	8.48	1	1	3

**ESI Table 3.** The optimized *Ziziphus jujuba* seeds waffles product proximate composition

Proximate composition (%)	Content
Moisture content	10.76±0.15
Ash content	4.26±0.16
Carbohydrate content	16.81±0.12
Protein content	39.34±0.31
Fat content	10.34±0.09
Fiber content	18.49±0.11

Note: The obtained results are represented in mean±standard deviation values (n=3).

Figures
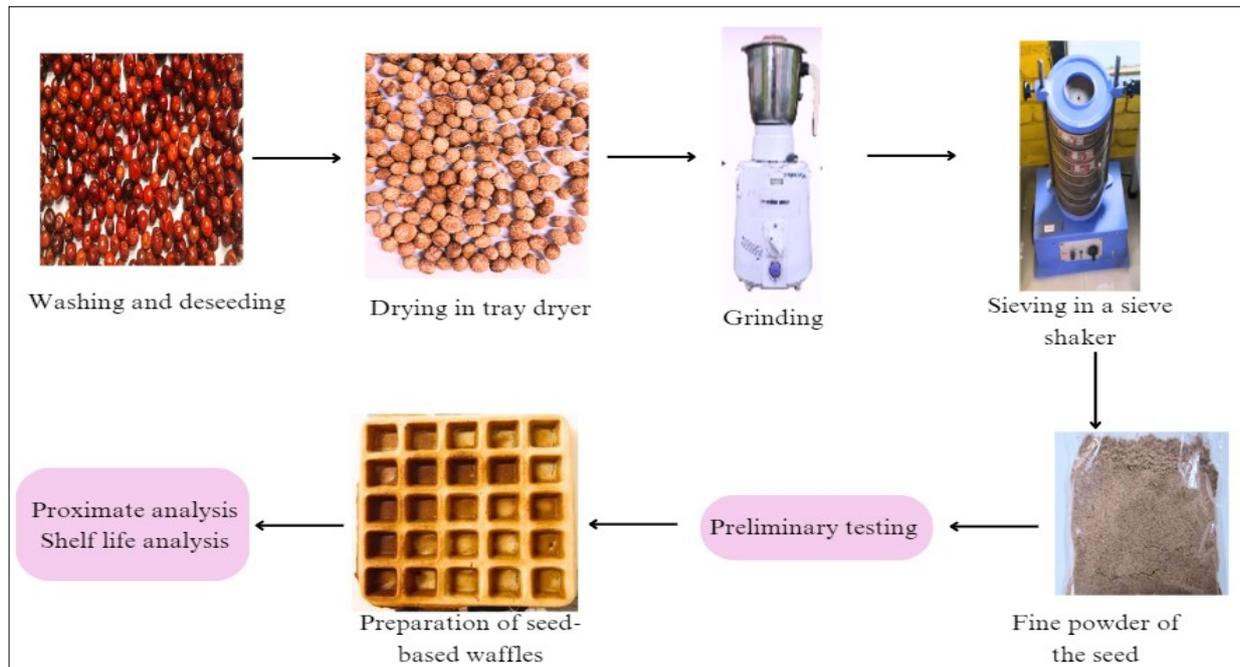
ESI Fig. 1. Preparation of jujuba seed flour-based waffles
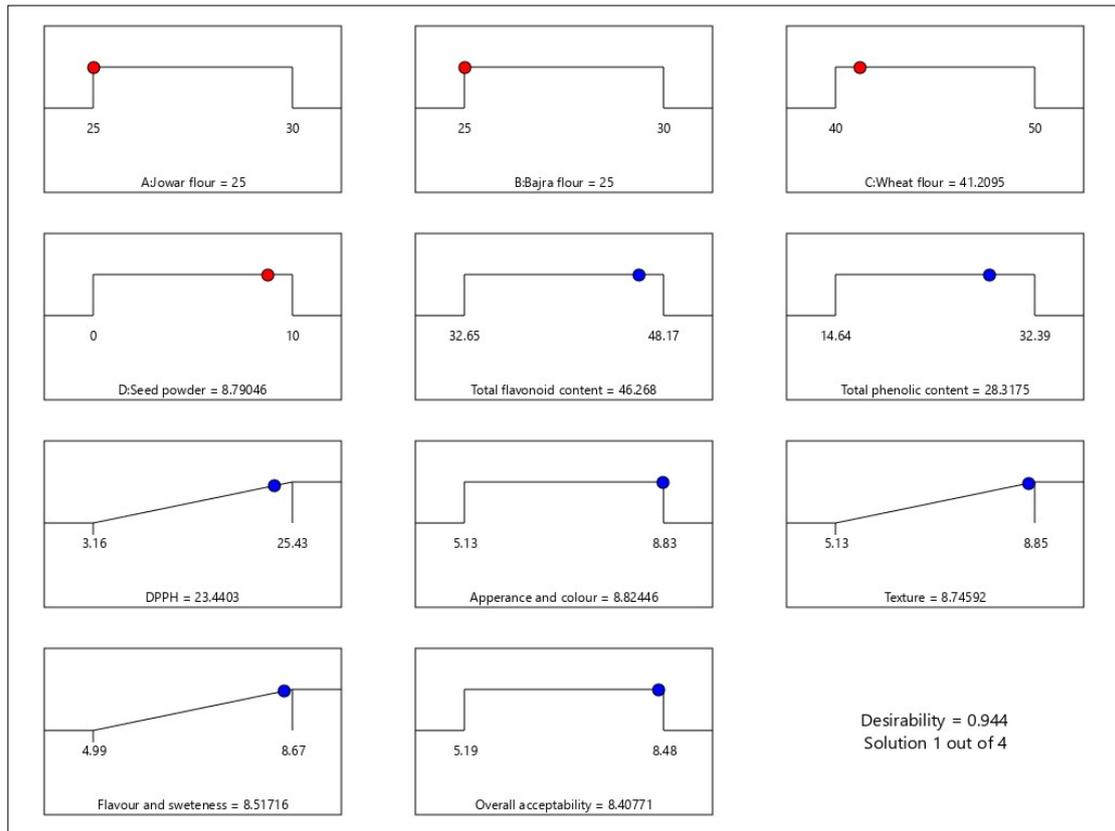
ESI Fig. 2. The desirability of the optimized waffle