







SUPPLEMENTARY MATERIAL

Quantifying and optimising the grey water footprint of crops to enhance the environmental integrity in the Gaza Strip – Palestine

Amjad Mizyed*¹⁾  , Yunes Mogheir¹⁾  , Mazen Hamada²⁾  

¹⁾ Islamic University of Gaza, Faculty of Engineering, Civil and Environmental Department, Gaza, Occupied Palestinian Territories

²⁾ Al-Azhar University, Faculty of Science, Chemistry Department, Occupied Palestinian Territories

* Corresponding author

Table S1. Grey water footprint (*GWF*) assessment for nitrogen fertiliser in the Gaza Strip

Category	Crop	Area (ha)	Average fertiliser application rate (kg·ha ⁻¹)	Total fertiliser applied (Mg·y ⁻¹)	Nitrogen leaching 10% (Mg·y ⁻¹)	Maximum concentration (mg·dm ⁻³)	Total <i>GWF</i> per year (10 ⁶ m ³)	Total production (Mg)	<i>GWF</i> (m ³ ·Mg ⁻¹)
Horticulture trees	olive	3,860	120	463.2	46.32	10	4.63	24,000	193.00
	citrus	2,000	200	400.0	40.00	10	4.00	35,000	114.29
	grape	700	150	105.0	10.50	10	1.05	3,800	276.32
	mango	40	200	8.0	0.80	10	0.08	900	88.89
	date palm	1,150	250	287.5	28.75	10	2.88	10,000	287.50
	almond	240	120	28.8	2.88	10	0.29	4,280	67.29
	guava	230	250	57.5	5.75	10	0.58	4,000	143.75
	other trees	85	180	15.3	1.53	10	0.15	2,000	76.50
	total	8,305	1,470	12,208.0	1,220.80	10	13.65	83,980	162.57
Field crop	wheat	1,250	90	112.5	11.25	10	1.13	4,300	261.63
	barley	200	50	10.0	1.00	10	0.10	650	153.85
	sorghum	50	40	2.0	0.20	10	0.02	1,500	13.33
	green feed	130	40	5.2	0.52	10	0.05	2,000	26.00
	total	1,630	220	358.6	35.86	10	1.30	8,450	153.49

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Vegetables	tomato	800	250	200.0	20.00	10	2.00	79,415	25.18
	potato	1,150	350	402.5	40.25	10	4.03	49,400	81.48
	pepper	241	220	53.0	5.30	10	0.53	22,324	23.78
	aubergine	338	220	74.3	7.43	10	0.74	33,972	21.89
	onion	370	250	92.5	9.25	10	0.93	17,000	54.41
	cabbage	187	200	37.4	3.74	10	0.37	7,094	52.72
	green beans	520	200	104.0	10.40	10	1.04	6,240	166.67
	cucumber	301	350	105.3	10.53	10	1.05	28,774	36.61
	maize	213	250	53.2	5.32	10	0.53	9,904	53.77
	squash and gourd	448	250	112.0	11.20	10	1.12	16,330	68.59
	water melon	450	220	99.0	9.90	10	0.99	50,000	19.80
	muskmelon	220	220	48.4	4.84	10	0.48	12,000	40.33
	small vegetables	592	200	118.4	11.84	10	1.18	23,000	51.48
	strawberry	195	350	68.25	6.82	10	0.68	5,200	131.25
total	6,025	3,530	21.2	2126.80	10	15.68	360,653	43.49	
Total	15,960	5,220	33.8	3383.40	10	30.63	453,083	67.61	

Source: own study.