

**Table S1.** Leaf net CO<sub>2</sub> assimilation rate (An), stomatal conductance to water vapour (gsw), concentration of internal CO<sub>2</sub> (Ci), transpiration (E), instantaneous water use efficiency (WUEi) and leaf chlorophyll content (chl) of green bean plants irrigated with a timer or based on dielectric sensors at 0.35, 0.30 and 0.25 m<sup>3</sup> m<sup>-3</sup> irrigation set-point.

	An	gsw	Ci	E	WUEi	chl
	μmol CO <sub>2</sub> m <sup>-2</sup> s <sup>-1</sup>	mol H <sub>2</sub> O m <sup>-2</sup> s <sup>-1</sup>	μmol CO <sub>2</sub> mol air <sup>-1</sup>	mmol H <sub>2</sub> O m <sup>-2</sup> s <sup>-1</sup>	μmol CO <sub>2</sub> mmol H <sub>2</sub> O <sup>-1</sup>	μmol m <sup>-2</sup>
<b>TIMER</b>	17.3	0.4	288	8.2	2.1	361
<b>SENSOR_0.35</b>	16.5	0.3	279	7.8	2.1	366
<b>SENSOR_0.30</b>	16.9	0.4	286	8.0	2.1	380
<b>SENSOR_0.25</b>	16.6	0.4	293	8.2	2.0	417
<b>Significance</b>	ns	ns	ns	ns	ns	ns

Mean separation within columns by LSD test. ns: not significant at P≤0.05.

**Table S2.** Nitrogen, calcium, potassium and magnesium content in shoot, roots and fruits; carotenoids, glucose (Glu) and fructose (Fru) content in fruits of green bean plants irrigated with a timer or based on dielectric sensors at 0.35, 0.30 and 0.25 m<sup>3</sup> m<sup>-3</sup> irrigation set-point.

	Shoot				Roots				Fruits						
	N tot	Ca	K	Mg	N tot	Ca	K	Mg	N tot	Ca	K	Mg	Carotenoids	Glu	Fru
	g kg <sup>-1</sup> of DW												mg g <sup>-1</sup> DW	g kg <sup>-1</sup> FW	
<b>TIMER</b>	24.9	34.9	23.9	4.4	24.6	14.8	18.2	5.9	32.0	8.1	29.2	2.5	276	12.2	17.1
<b>SENSOR_0.35</b>	23.2	28.7	24.3	3.1	19.6	22.7	28.1	5.6	31.5	7.3	30.0	2.5	292	13.2	20.3
<b>SENSOR_0.30</b>	26.5	27.3	30.6	3.3	23.5	15.4	18.7	5.0	32.8	8.1	31.3	2.6	309	13.0	21.0
<b>SENSOR_0.25</b>	20.4	31.8	20.9	3.2	24.6	19.0	17.1	5.4	30.3	6.7	32.3	2.7	314	12.1	17.2
<b>Significance</b>	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

Mean separation within columns by LSD test. ns not significant at P≤0.05.