

**Supplimentary**

**Effect of modified atmosphere packaging on quality of minimally processed fenugreek (*Trigonella foenum-graecum* L.) microgreens**

**Ranjitha K.<sup>1\*</sup>, Mhasizotuo Y<sup>2</sup>, Vasudeva K.R.<sup>2</sup>, Sudhakar Rao D.V.<sup>1</sup>, Shivashankara K.S.<sup>2</sup> and Roy T.K.<sup>1</sup>**

ICAR- Indian Institute of Horticultural Research, Bengaluru - 560 089, India  
University of Horticultural Sciences, Bagalkot - 587104, India

\*Corresponding author Email : Ranjitha.K@icar.gov.in

**Table 1S : Effect of MAP on sensory quality of fresh and minimally processed fenugreek microgreens (MPFM) stored for 5 days at 8 °C**

Packaging film	Colour	Fresh like odour	Texture	Overall acceptability
Fresh	5.0	5.0	5.0	5.00
Cling film	4.2	4.0	3.0	3.00
PP 25 µm	5.0	4.5	5.0	5.00
PP 40 µm	5.0	5.0	5.0	5.0
LDPE 40 µm	5.0	4.5	5.0	5.0
PD-961	5.0	5.0	5.0	5.0
F test	*	*	*	*
CD at 1%	0.5	0.75	0.5	1.00

**Table 2S : Effect of MAP on sensory and nutritional quality of fresh and minimally processed fenugreek microgreens (MPFM) stored for 5 days at 8°C**

Packaging film	PLW (%)	Protein (mg g <sup>-1</sup> )	Total Carotenoids (mg g <sup>-1</sup> )	Total chlorophyll (mg g <sup>-1</sup> )	FRAP (mg g <sup>-1</sup> AEAC)	Total Phenols (mg g <sup>-1</sup> GAE)
Fresh	NA	28.00±0.50	0.41±0.013	4.47±0.25	0.40±0.001	0.53±0.01
Cling film	1.25±0.05	26.4±0.53	0.39±0.63	1.91±0.07	0.41±0.010	0.63±0.05
PP 25µm	0.14±0.03	28.1±1.42	0.42±0.00	3.18±0.19	0.47±0.001	0.46±0.05
PP 40 µm	0.15±0.02	28.21±0.61	0.44±0.00	4.13±0.42	0.40±0.004	0.55±0.01
LDPE 40 µm	0.01±0.03	27.30±0.26	0.45±0.00	3.02±0.12	0.39±0.000	0.52±0.09
PD-961	0.01±0.02	27.00±1.12	0.45±0.02	4.27±0.54	0.40±0.010	0.52±0.04
F-test	*	NS	NS	*	*	NS
CD at 1%	0.15			1.03	0.04	

All values are expressed as mean of triplicates ± Standard deviation; \*Significant at 1% confidence level; AEAC: ascorbic acid equivalent antioxidant capacity; FRAP: ferric reducing antioxidant potential; GAE: gallic acid equivalent; CE: catechin equivalents; NS-non significant



**Table 3S : Effect of MAP on sensory quality of fresh and minimally processed fenugreek microgreens (MPFM) stored for 10 days at 8 °C**

Packaging film	Colour	Fresh like odour	Texture	Overall acceptability
Fresh	5.0	5.0	5.0	5.00
Cling film	3.2	2.9	2.0	2.00
PP 25 µm	4.2	4.2	5.0	4.00
PP 40 µm	5.0	5.0	5.0	50.0
LDPE 40 µm	4.5	3.8	4.7	32.0
PD-961	5.0	4.6	5.0	4.6
F test	*	*	*	*
CD at 1%	0.5	0.75	0.5	0.5

**Table 4S : Effect of MAP on sensory and nutritional quality of fresh and minimally processed fenugreek microgreens (MPFM) stored for 10 days at 8 °C**

Packaging film	PLW (%)	Protein (mg g <sup>-1</sup> )	Total Carotenoids (mg g <sup>-1</sup> )	Total chlorophyll (mg g <sup>-1</sup> )	FRAP (mg g <sup>-1</sup> ) AEAC)	Total Phenols (mg g <sup>-1</sup> GAE)
Fresh	NA.	28.00±0.50	0.41±0.012	4.47±0.23	0.43±0.001	0.53±0.02
Cling film	5.53±0.04	24.4±0.50	0.32±0.62	1.82±0.05	0.41±0.010	0.67±0.05
PP 25µm	0.04±0.07	27.1±1.40	0.44±0.00	3.78±0.18	0.47±0.001	0.49±0.01
PP 40 µm	0.18±0.05	27.21±0.60	0.44±0.01	4.59±0.40	0.40±0.004	0.52±0.07
LDPE 40 µm	0.15±0.01	27.70±0.20	0.48±0.01	3.78±0.11	0.38±0.002	0.50±0.00
PD-961	0.05±0.01	27.30±1.10	0.49±0.03	4.72±0.51	0.42±0.010	0.51±0.05
F-test	*	NS	NS	*	*	NS
CD at 1%	0.10			1.02	0.030	

All values are expressed as mean of triplicates ± Standard deviation \* Significant at 1% confidence level, AEAC: ascorbic acid equivalent antioxidant capacity, FRAP: Ferric reducing antioxidant potential; GAE: Gallic acid equivalent, CE: catechin equivalents. NS: Not significant

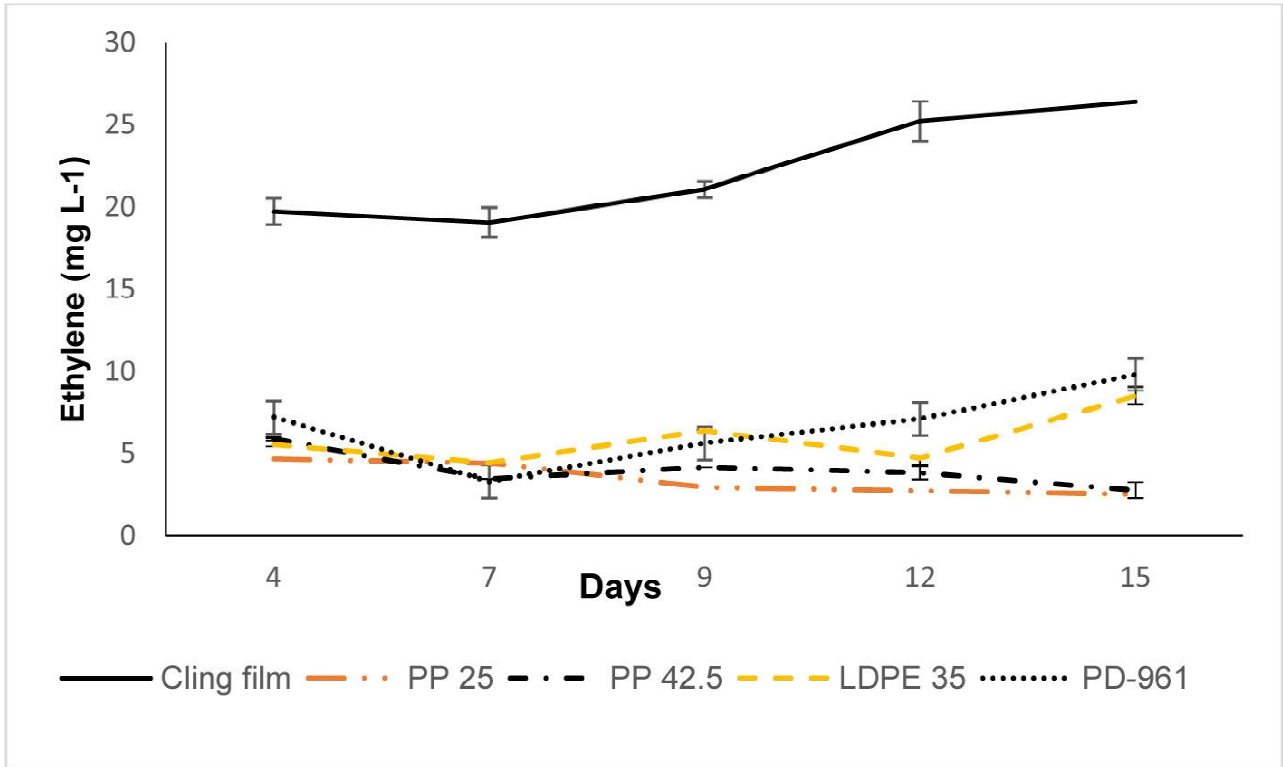


Fig 1S : In- pack ethylene levels in MPFM packages during storage