

Vasudevan S, Dhanarajan A, Kasim Y, Sankar V, Balasubramani G, Gurunathan S, Raina A. Evaluation of morphophysiological, biochemical and antioxidant activity of green gram (*Vigna radiata* (L.) R.Wilczek) in responses to gamma irradiation. *Plant Science Today*. 2023; 10(2): 289–301. <https://doi.org/10.14719/pst.2141>

Supplementary Tables

Table 1. Pearson's correlation coefficient analysis of morphology

	SEL	SL	RL	FWS	FWR	FWL	DWS	DWR	DWL	CHLa	CHLb	CARO	CATS	CATR	CATL	PODS	PODR	PODL	MDA
SEL	1	.896**	.967**	.726**	.392*	.861**	.896**	.680**	.827**	.897**	.854**	-.824**	-.725**	-.940**	-.928**	-.882**	-.899**	-.878**	-.835**
SL		1	.799**	.653**	.401*	.741**	.820**	.514**	.732**	.781**	.749**	-.806**	-.606**	-.767**	-.816**	-.720**	-.746**	-.786**	-.782**
RL			1	.667**	.393*	.862**	.893**	.717**	.801**	.885**	.842**	-.736**	-.679**	-.929**	-.897**	-.869**	-.893**	-.838**	-.829**
FWS				1	.290	.610**	.722**	.424*	.565**	.634**	.591**	-.712**	-.625**	-.652**	-.684**	-.658**	-.697**	-.690**	-.589**
FWR					1	.413*	.448*	.561**	.524**	.383*	.385*	-.170	-.347	-.381*	-.394*	-.345	-.387*	-.379	-.254
FWL						1	.820**	.723**	.773**	.891**	.875**	-.758**	-.608**	-.871**	-.907**	-.836**	-.839**	-.818**	-.748**
DWS							1	.611**	.737**	.829**	.785**	-.766**	-.703**	-.860**	-.852**	-.827**	-.856**	-.766**	-.821**
DWR								1	.660**	.656**	.601**	-.423*	-.336	-.697**	-.657**	-.575**	-.620**	-.553**	-.450*
DWL									1	.747**	.684**	-.560**	-.637**	-.782**	-.805**	-.717**	-.757**	-.738**	-.630**
CHLa										1	.957**	-.819**	-.629**	-.894**	-.976**	-.872**	-.860**	-.891**	-.863**
CHLb											1	-.775**	-.620**	-.840**	-.908**	-.862**	-.791**	-.829**	-.816**
CARO												1	.687**	.837**	.861**	.834**	.798**	.810**	.851**
CATS													1	.782**	.690**	.776**	.749**	.708**	.641**
CATR														1	.936**	.956**	.939**	.901**	.851**
CATL															1	.906**	.915**	.926**	.873**
PODS																1	.944**	.885**	.868**
PODR																	1	.907**	.874**
PODL																		1	.849**
MDA																			1

SEL: seedling length, **SFW:** Shoot fresh weight, **RFW:** Root fresh weight, **LFW:** Leaf fresh weight, **SDW:** Shoot dry weight, **RDW:** Root Dry weight, **LDW:** Leaf dry weight, **CHLa:** Chlorophyll a, **CHLb:** Chlorophyll b, **CARO:** Carotenoid, Measurement was taken as mg/g fresh weight, **CAT:** Catalase, **POD:** Peroxidase, as Unit/mg protein, **MDA:** Malondialdehyde of gamma irradiated green gram seedling as mM/g fresh weight. Correlation was significant at *P<0.05, **P<0.01.

Table 2. Pearson's correlation coefficient analysis of Biochemical parameters

	SUGAR S	SUGAR R	SUGAR L	STARCH S	STARCH R	STARCH L	PROT S	PROT R	PROT L	AMINO S	AMINO R	AMINO L	PROL S	PROL R	PROL L
SUGAR S	1	.826**	.675**	.697**	.205	.857**	.618**	.636**	.674**	.727**	.160	.666**	.558**	.812**	.581**
SUGAR R		1	.750**	.722**	.347	.868**	.763**	.690**	.834**	.717**	.338	.805**	.720**	.861**	.741**
SUGAR L			1	.976**	.790**	.892**	.968**	.984**	.972**	.861**	.770**	.939**	.962**	.946**	.974**
STARCHS				1	.817**	.860**	.952**	.988**	.947**	.839**	.797**	.907**	.918**	.915**	.952**
STARCHR					1	.464*	.800**	.853**	.735**	.573**	.992**	.677**	.783**	.603**	.817**
STARCHL						1	.879**	.830**	.916**	.843**	.427*	.934**	.816**	.931**	.821**
PROTS							1	.953**	.988**	.768**	.776**	.979**	.921**	.892**	.939**
PROTR								1	.945**	.813**	.836**	.897**	.956**	.921**	.970**
PROTL									1	.805**	.720**	.981**	.941**	.935**	.957**
AMINO S										1	.550**	.777**	.789**	.842**	.829**
AMINO R											1	.647**	.787**	.588**	.822**
AMINO L												1	.881**	.889**	.893**
PROL S													1	.933**	.986**
PROL R														1	.924**
PROL L															1

SUGAR: Reducing sugar, **STARCH-** starch, **PROT:** Protein, **AMNIO:** Aminoacid, **PROL:** Proline and the content were measured as mg/g fresh weight. **S:** Shoot, **R:** Root, **L:** Leaf Correlation was significant at *P< 0.05, **P<0.01