J. Appl. Res Plant Sci. Vol. 6(1), 08-17, **2025,** https://doi.org/10.38211/joarps.2025.06.300

Research Article

OPEN ACCESS

Available on https://www.joarps.org
Journal of Applied Research in Plant Sciences
(JOARPS)
ISSN: 2708-3004 (Online), 2708-2997 (Print)

Mutagen-induced genetic variability and heritability analysis for yield associated quantitative characters in Canola

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Article Received 12-08-2024, Article Revised 03-12-2024, Article Accepted 14-02-2025

Canola genotypes showing induced diversity for plant height

Canola genotype showing induced diversity for days to flowering

A

Canola genotype showing induced diversity for days to flowering

Table . Induced variability by diverse doses of gamma rays and EMS for number of seed per pod in Canola varieties (Hyola-42 and Shiralee) in M2 and M3 generation.

		M2			M3		
Treatment	**Dose**	**Hyola-42**	**Shiralee**	**Mean**	**Hyola-42**	**Shiralee**	**Mean**
Control	**(0)**	17.300i	18.300g	17.800e	18.367g	19.100f	18.733c
Gamma rays (Gy)	**750**	17.833h	18.867e	18.350d	18.867fg	20.500c	19.683b
	1000	20.400a	19.500c	19.950a	22.067a	21.167b	21.617a
	1250	15.200j	13.367m	14.283f	14.800h	13.100j	13.950e
EMS (%)	**0.5**	18.600f	19.100d	18.850c	19.333ef	10.500k	14.917d
	1.0	19.867b	18.533f	19.200b	20.300cd	19.800de	20.050b
	1.5	14.633k	13.800l	14.217f	14.233i	13.500j	13.867e
Grand Mean		17.690a	17.352b		18.281a	16.810b	

Table. Induced variability by diverse doses of gamma rays and EMS for Number of pod / plant in Canola varieties (Hyola-42 and Shiralee) in M2 and M3 generation.

		M2			M3		
Treatment	**Dose**	**Hyola-42**	**Shiralee**	**Mean**	**Hyola-42**	**Shiralee**	**Mean**
Control	**(0)**	264.33e	305.40cd	284.87b	275.57g	313.70e	294.63d
Gamma rays (Gy)	**750**	261.27e	322.93c	292.10b	266.93g	342.23c	304.58c
	1000	437.33a	410.53b	423.93a	452.90a	396.47b	424.68a
	1250	201.40f	194.73f	198.07d	119.27j	210.53h	164.90f
EMS (%)	**0.5**	255.76e	261.47e	258.61c	300.27f	324.43de	312.35c
	1.0	291.33d	285.67d	288.50b	316.13e	332.97cd	324.55b
	1.5	192.93f	210.60f	201.77d	183.67i	192.40i	188.03e
Grand Mean		272.05b	284.48a		273.53b	301.82a	

Table Induced variability by diverse doses of gamma rays and EMS for 1000 seed weight in Canola varieties (Hyola-42 and Shiralee) in M2 and M3 generation

		M2			M3		
Treatment	**Dose**	**Hyola-42**	**Shiralee**	**Mean**	**Hyola-42**	**Shiralee**	**Mean**
Control	**(0)**	2.3433j	2.6233f	2.4833d	2.4867f	2.8600e	2.6733e
Gamma rays (Gy)	**750**	2.5600g	2.4733h	2.5167d	2.7867e	3.1067d	2.9467c
	1000	3.2300a	3.0667b	3.1483a	4.2433a	3.6667b	3.9550a
	1250	1.2833l	1.5500k	1.4167e	1.1000h	1.3333g	1.2167f
EMS (%)	**0.5**	2.8800d	2.2400j	2.5600c	3.1333d	2.5333f	2.8333d
	1.0	2.7533e	2.9467c	2.8500b	3.4000c	3.0833d	3.2417b
	1.5	1.0600n	1.1900m	1.1250f	1.0667h	1.1667h	1.1167g
Grand Mean		2.3014a	2.2986a		2.6024a	2.5357b	

Table Induced variability by diverse doses of gamma rays and EMS for Seed yield / plant in Canola varieties (Hyola-42 and Shiralee) in M2 and M3 generation.

		M2			M3		
Treatment	**Dose**	**Hyola-42**	**Shiralee**	**Mean**	**Hyola-42**	**Shiralee**	**Mean**
Control	**(0)**	8.923i	8.373j	8.648d	9.533g	9.300h	9.417d
Gamma rays (Gy)	**750**	9.383g	9.817e	9.600c	9.800f	10.400d	10.100c
	1000	11.530a	10.513b	11.022a	12.600a	11.799b	12.200a
	1250	5.260l	6.390k	5.825e	4.800j	5.567i	5.183e
EMS (%)	**0.5**	9.943d	9.717f	9.830b	10.247de	10.163e	10.205c
	1.0	10.077c	9.063h	9.570c	11.300c	10.360d	10.830b
	1.5	4.480n	4.857m	4.668f	3.670k	3.513k	3.592f
Grand Mean		8.5138a	8.3900b		8.8500a	8.7290b	