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Identification of promising genotypes of coriander (*Coriandrum sativum* L.) for growth and yield attributes

Paras Singh, Dhirendra Singh, JP Singh, SK Verma and Lalit Bhatt

Abstract
The present study was undertaken at Vegetable Research Center, Department of Vegetable Science, G. B. Pant University of Agriculture & Technology, Pantnagar during the *Rabi* season of 2021-2022. An attempt has been made using ninety three genotypes of coriander (*Coriandrum sativum* L.) including three checks (Pant Haritima, Hissar Anand and RCr-728) in Augmented Block Design-II with six blocks. The observations were recorded on twelve growth and yield attributes. Results revealed that significant difference among the genotypes indicating adequate variability in the material and response to selection may be accepted in the breeding programme for seed yield or any of its supporting characters under study. The genotype LCS 32-55, JCr 1-290, CS 57-44, JCr 61-28 and LCS-654 showed significantly superior performance in respect of seed yield over the best performing check Pant Haritima. So, these genotypes further can be utilized in crop improvement programme or can be released as variety suitable for *Tarai* conditions of Uttarakhand.

Keywords: Coriander, performance, seed yield, identification, variability

1. Introduction
Coriander (*Coriandrum sativum* L.) is the most important seed spice crop cultivated throughout the world both for seed and green purpose. Seeds of the crop are used as spice, while its tender green leaves are used as culinary herb. The origin of the crop is considered to be Mediterranean region where from it spread to Europe, Asia, North- and South-America and Australia (Giridhar *et al*., 2014) [5]. It is grown in more than fifty countries with India at ranking1st, both in area and production followed by Mexico, China, former Soviet Union, Central America and South America (Morales-Payan, 2011) [8]. It is grown in almost all the states of India over an area of 638 thousand hectares with an annual production of 769 thousand MT and a productivity of 1.20 MT per hectare (NHB, 2020-21). Most of this is mainly cultivated in Rajasthan, Madhya Pradesh, Andhra Pradesh, Orissa, Tamil Nadu and Karnataka (Tiwari, 2014) [14].
Locally grown indigenous varieties are low in productivity and give poor returns to the farmers. As coriander is an important spice crop, it needs a great deal of critical evaluation of the available types for selection of the improved types with high yield potential. A germplasm collection with good variability for the desirable characters is the basic requirement of any crop improvement programme. Very few studies have been done regarding evaluation of coriander genotypes pertaining to its seed yield performance in *Tarai* condition of Uttarakhand. Therefore, the present investigation was undertaken in order to evaluate the growth and yield related traits of the collected coriander genotypes and to select the promising genotype (s) for higher seed yield.

2. Materials and Methods
The present investigation was carried out at Vegetable Research Center, Department of Vegetable Science, G. B. Pant University of Agriculture & Technology, Pantnagar during the Rabi season of 2021-2022.Topographically, Pantnagar is situated at an elevation of 243.84 meter above the mean sea level and between 29° N latitude and 79° E longitude in the foot hills of Himalayan region (Shivalik hills) and this region falls under humid subtropical zone called *Tarai*. An attempt has been made using 93 genotypes of coriander collected from different sources (Table 1) including three checks (Pant Haritima, Hissar Anand and RCr-728) in Augmented Block Design-II (Federer, 1956; Federer and Raghavarao, 1975) [4, 3] with six blocks.

The healthy seed of 93 genotypes of coriander was sown in field at row to row distance 50 cm and plant to plant distance of 15 cm in 1st fortnight of November 2021. The test genotypes were planted only once randomly and in which only checks were repeated in each block. All the agronomic package of practices was adapted to grow a healthy crop. In each entry five plants randomly selected were marked for observation.

The observations were recorded on twelve metric traits i.e., Stem initiation (Days), 50% flowering (Days), Plant height (cm), Primary branches/plant, Secondary branches/plant (No.), Umbels/plant (No.), Umbellates/umbel (No.), Fruits/umbel (No.), Fruit/umbellate (No.), Test weight (g), Seed yield/plant (g) and Seed yield/m^2 (g). The data was analysed using appropriate statistical method to draw valid inferences (Federer, 1956; Federer and Ragavarao, 1975 and Peterson, 1985) [4, 3, 11].

3. Results and Discussions

The result of analysis of variance for Augmented Block Design-II was carried out for 12 metric characters revealed that adequate amounts of genetic variability were present in the experimental materials for all the growth and yield related characters (Table 2). Hence, provide an opportunity to improve the character through selection. The block effects were significant for all the characters except number of umbellates per umbel. The check varieties showed highly significant differences for all the characters indicating that checks themselves were diverse. Similar results for most of the traits were reported earlier by Meena and Sharma (2014) [7], Natwaria *et al*. (2020) [9] Jain *et al*. (2017) [6] and Sandhu *et al*. (2018) [12]. The per se performance depicted the exact quantified data about the potential of all the genotypes studied. The list of adjusted mean value of 90 genotypes with 3 checks for all the metric characters under study is given in Table 4. Mean performances of coriander genotypes with checks, range of variation and superior genotypes for different metric characters are presented in Table 3 and have been described and discussed below:

1. **Stem initiation (Days):** Different genotypes differed significantly with respect to stem initiation. Stem initiation varied from 49.94 to 75.14 days. As per result, the genotype SC-1 (49.94 days) followed by nineteen other genotype took the minimum number of days for stem initiation then the best performing check RCr-728 (59.07 days)
2. **50% flowering (Days):** General mean for 50% flowering was found to be 95.47 days and range was 74.94 to 103.94 days. Total 12 genotypes were recorded significantly earlier in flowering then the best performing check RCr-728 (90.50 days). Total 12 genotypes flower significantly early as compare to best check for earliness. Therefore, these can be further utilized in crop improvement programme.
3. **Plant height (cm):** High variability was observed for plant height up to top of the plant, which varied from 85.08 to 166.61 cm with general mean was recorded as 139.17 cm. Only four genotypes HD 34-41 (166.61 cm), PD 21-22 (165.68 cm) LCS 65-46 (162.88 cm) and CS-502 (160.88 cm) were found significantly taller than tallest check Pant Haritima (160.73 cm).
4. **Primary branches/plant (No.):** The range of variation for this character varied from 3.78 (JCr 26-21) to 7.98 with mean values of 5.75 (SCr-151). Total 33 genotypes had significantly more number of primary branches per plant over best performing check Pant Haritima (5.97). Out of these 33 genotypes SCr-151 followed by ACr 15-58 (7.78) had significantly more number of primary branches per plant over the best checks. As compare to mean value check variety Hisar Anand (5.62) and RCr-728 (5.17) produce less number of primary branches.
5. **Secondary branches/plant (No.):** Number of secondary branches per plant showed significant variation among the genotypes and checks. General mean recorded for this character was 9.16 which was varied from 3.11 (PD 70-54) to 15.84 (CS 57-44). Total 17 genotypes had significantly higher number of secondary branches per plant than best performing check Pant Haritima (11.67). Out of 17 genotypes, CS 57-44 and ACr 3-50 were marked as top superior genotypes which had significantly higher number of secondary branches than best check.
6. **Umbels/plant (No.):** The present findings revealed a significant variation among the genotypes and checks for number of umbels per plant was recorded. Which ranged from a minimum of 14.61 umbels per plant in PD 19-59 to a maximum of 61.41 umbels per plant in genotype (UD 30-66 and JCr 26-21) with an average of 29.38 number of umbels per plant. Total 22 genotypes had more number of umbels per plant than the best performing check Pant Haritima (35.03). While, check variety Hisar Anand (25.93) and RCr-728 (20.07) produce less number of umbels per plant.
7. **Fruits/umbel (No.):** General mean recorded for this character was 44.57. Number of fruits per umbel varied from 23.67 (CS 2-52) to 110.27 (PD-43-06). Total 23 genotypes had significantly higher number of fruits per umbel than the best check Pant Haritima (50.50) and Hisar Anand (50.13). Out of these 23 genotypes, PD-43-06 (110.27), JCr 61-28 (106.13), PD 21-22 (82.87), PD 17-54 (76.20) and HD 34-41 (74.13) were found to have significantly maximum number of fruits per umbel against best checks.
8. **Umbellates/umbel (No.):** With significant difference for the number of umbellates per umbel was recorded which ranged from a minimum of 4.34 in ACr-013 to a maximum of 8.28 umbellates per umbel in genotype PD 21-22 and having an average of 5.95 umbellates per umbel. Total 21 genotypes had significantly higher number of umbellates per umbel than best performing check Pant Haritima (6.53). Out of 21 genotypes, PD 21-22 followed HD 34-41 (8.14) marked as top superior genotypes which had higher number of umbellates per umbel than best check.
9. **Fruit/umbellate (No.):** The present findings revealed a significant difference for the number of fruit per umbellate which ranged from a minimum of 4.44 fruit per umbellate in CS 2-52 to a maximum of 14.84 fruit per umbellate in genotype PD-43-06 and having an average of 31.89 fruit per umbellate. Total 36 genotypes had significantly higher number of fruits per umbellate than best performing check Hisar Anand (8.47). Out of 36 genotypes, HD (8.64) was observed less number of fruits per umbellate. The other check varieties Hisar Anand (7.37) and RCr-728 (5.90) both showed less number of fruits per umbellate as compared to mean value.
10. **Seed yield/plant (g):** High variability was observed for

seed yield per plant varied from 3.10 g to 19.57 g with an average of 8.96 g seed yield per plant was recorded. Genotype LCS 32-55 (19.57 g) followed by 21 other genotype had significantly higher seed yield per plant than best performing check variety Pant Haritima (11.87 g).

11. **Test weight (g):** Test weight varied from a lowest of 7.38 g in CS 2-52 to a highest of 14.32 g test weight in genotype HD 34-41 and having an average test weight of 31.89 g. Total 40 genotypes had significantly higher test weight than best performing check Pant Haritima (10.49 g). Out of these 40 genotypes HD 34-41 followed by CS 57-44 (13.78 g) and JCr 1-290 (13.75) had significantly higher test weight over the best checks.
12. **Seed yield/m^2 (g):** Seed yield per m^2 varied from 42.67 g to 253.29 g, with an average Seed yield per m^2 136.55 g was recorded. Total 18 genotypes were found with significant high Seed yield per m2 over the best performing check Pant Haritima (180.97 g). Out of 18 genotypes, LCS 32-55 (253.29 g) followed by JCr 1-290 (251.81 g) and CS 57-44 (241.81 g) had recorded significantly higher seed yield per meter square area over the best checks. As compare to mean value, check variety Hisar Anand (131.50 g) and RCr-728 (96.30 g) both were marked as inferior check due to low seed yield per m^2.

A wide range of variability was found for all the characters studied. The range of variation was maximum for seed yield/plant followed by seed yield/m^2 and secondary branches/plant of coriander. Singh and Singh (2013) [13], Meena and Sharma (2014) [7], Ameta *et al*. (2016) [1] and Dhakad *et al*. (2017) [2] had also observed significant differences for most of the traits in various genotype of coriander.

Table 1: List of genotypes along with checks involved in the present study and their sources

S.No.	Genotype	Source of seed	S.No.	Genotype	Source of seed
1.	ACr 15-58	ICAR-NRCSS, Ajmer, Rajasthan	46.	SC 54-14	YUH&F, Solan, Himachal Pradesh
2.	ACr 3-50		47.	SC 64-56	
3.	ACr 45-07		48.	SC 8-17	
4.	ACr 47-29		49.	SC-1	
5.	ACr 50-63		50.	SC-2	
6.	ACr 51-62		51.	HD 28-40	CCSHAU, Hisar, Haryana
7.	Acr 69-62		52.	HD 34-41	
8.	ACr 9-11		53.	HD 4-04	
9.	ACr-013		54.	HD 46-64	
10.	ACr-023		55.	HD 66-63	
11.	UD 23-27	SKNAU, Jobner, Rajasthan	56.	HD-326	
12.	UD 30-66		57.	PD 17-54	
13.	UD 33-03		58.	PD 42-31	
14.	UD 39-47		59.	JCr 10-13	SDAU, Jagudan, Gujarat
15.	UD 44-24		60.	JCr 26-21	
16.	UD 58-35		61.	JCr 71-08	
17.	UD 62-16		62.	JCr 72-32	
18.	UD 6-39		63.	JCr-235	
19.	PD-43-06	Local collection from Sultanpur, Uttar Pradesh	64.	JCr-345	
20.	NDCor 53-61	ANDUA&T, Faizabab, Uttar Pradesh	65.	JCr 1-290	
21.	NDCor-124		66.	JCr 29-48	
22.	NDCor-223		67.	JCr 36-19	
23.	PD 21-22	Local collection from Lucknow, Uttar Pradesh	68.	JCr 49-49	
24.	PD 63-12	GBPUA&T, Pantnagar, Uttarakhand	69.	JCr 60-60	
25.	PD 70-54	Local collection from Rudrapur, Uttarakhand	70.	JCr 61-28	
26.	PD 7-51	Local collection from Haldwani, Uttarakhand	71.	NCor 14-04	NAU, Navsari, Gujarat
27.	LCS 12-08	Guntur, Andhra Pradesh	72.	NCor 20-35	
28.	LCS 13-45		73.	NCor 38-10	
29.	LCS 16-02		74.	NCor 40-26	
30.	LCS 18-20		75.	NCor 48-23	
31.	LCS 24-34		76.	NCor-210	
32.	LCS 25-09		77.	NCor-215	
33.	LCS 32-55		78.	NoCr 27-37	
34.	LCS 35-32		79.	NoCr 59-25	
35.	LCS 41-18		80.	CS 11-57	TNAU, Coimbatore, Tamil Nadu
36.	LCS 56-38		81.	CS 22-36	
37.	LCS -654		82.	CS 2-52	
38.	LCS 65-46		83.	CS 37-42	
39.	LCS 68-59		84.	CS 52-46	
40.	LCS-123		85.	CS 5-53	
41.	LCS-257		86.	CS 57-44	
42.	PD 19-59	Local collection from Samastipur, Bihar	87.	CS 67-24	
43.	PD 55-43		88.	CS 73-56	
44.	SCr-150	AAU, Sanand, Gujarat	89.	CS-502	
45.	SCr-151		90.	CS-758	

Checks		
S.No.	Check genotype	**Source of seed**
C1.	Pant Haritima (Check)	GBPUA&T, Pantnagar, Uttarakhand
C2.	Hisar Anand (Check)	CCSHAU, Hisar Haryana
C3.	RCr-728 (Check)	ICAR-NRCSS, Ajmer, Rajasthan

Table 2: Analysis of variance (ANOVA) for growth and yield attributes under study in coriander

Source of Variation	Mean Sum of Squares						Least significant difference at 5%			
	Block	Entries	Checks	Genotype	Checks vs. genotype	Error	Between checks	Between entries of same block	Between test entries	Between checks vs. genotype
Characters *d.f*	(5)	(92)	(2)	(89)	(1)	(10)	(1)	(1)	(1)	(1)
Stem initiation (Days)	24.72 *	40.45 **	353.17 **	32.41 **	130.54 **	5.02	2.88	7.06	8.16	6.23
50% flowering (Days)	22.79 **	21.63 **	189.56 **	17.71 **	34.76 **	2.42	2.00	4.90	5.66	4.33
Plant height (cm)	1130.24 **	315.68 **	5055.46 **	206.46 **	556.12 **	23.70	6.26	15.34	17.71	13.53
Primary branches/plant	2.52 **	0.93 **	0.97 **	0.93 **	0.47	0.10	0.41	1.01	1.16	0.89
Secondary branches/plant (No.)	32.59 **	8.39 **	19.10 **	8.14 **	9.07 **	0.77	1.13	2.77	3.20	2.44
Umbels/plant (No.)	266.50 **	114.03 **	341.23 **	109.19 **	89.80 **	1.41	1.53	3.74	4.32	3.30
Umbellates/umbel (No.)	350.09 **	223.37 **	315.21 **	223.38 **	39.04	12.44	4.54	11.11	12.83	9.80
Fruits/umbel (No.)	0.62	0.71 *	2.04 **	0.69 *	0.01	0.19	0.56	1.38	1.59	1.22
Fruit/umbellate (No.)	6.05 **	4.88 **	9.95 **	4.64 **	16.50 **	0.48	0.89	2.18	2.51	1.92
Seed yield/plant (g)	28.20 **	18.19 **	72.85 **	17.12 **	4.41 **	0.29	0.69	1.70	1.96	1.50
Test weight (g)	1.92 **	2.69 **	3.76 **	2.60 **	8.81 **	0.29	0.69	1.70	1.96	1.50
Seed yield/m^2 (g)	2367.55 **	2154.65 **	10855.74 **	1983.31 **	1.45	13.97	4.81	11.78	13.60	10.39

*, ** significant at 5% and 1% level of probability

Table 3: Mean performance, range of variation and superior genotypes over best check for twelve characters in coriander

S. No.	Characters	Genotype		Mean performance of check			Number of genotypes significantly superior over best check	Best 3 significantly superior genotypes
		Mean	Range	Pant Haritima	Hisar Anand	RCr-728		
1.	Stem initiation (Days)	64.29	49.94-75.14	74.33	68.03	59.07	19	SC-1, LCS-257, CS-758
2.	50% flowering (Days)	95.47	74.94-103.94	99.50	100.83	90.50	12	SC-1, JCr-235, LCS 68-59
3.	Plant height (cm)	139.17	85.08-166.61	160.73	136.20	102.90	04	HD 34-41, PD 21-22, LCS 65-46
4.	Primary branches/plant	5.75	3.78-7.98	5.97	5.62	5.17	33	SCr-151, ACr 15-58, NCor-215
5.	Secondary branches/plant (No.)	9.16	3.11-15.84	11.67	9.97	8.10	17	CS 57-44, ACr 3-50, SC 64-56
6.	Umbels/plant (No.)	29.38	14.61-61.41	35.03	25.93	20.07	22	UD 30-66, PD 42-31, LCS 18-20
7.	Umbellates/umbel (No.)	44.57	23.67-110.27	50.50	50.13	37.77	23	PD-43-06, JCr 61-28, PD 21-22
8.	Fruits/umbel (No.)	5.95	4.34-8.28	6.53	5.93	5.37	21	PD 21-22, HD 34-41, PD-43-06
9.	Fruit/umbellate (No.)	8.26	4.44-14.84	7.37	8.47	5.90	36	PD-43-06, JCr 61-28, JCr 49-49
10.	Seed yield/plant (g)	8.96	3.10-19.57	11.87	8.53	4.90	22	LCS 32-55, JCr 1-290, JCr 61-28
11.	Test weight (g)	10.36	7.38-14.32	10.49	9.40	8.95	40	HD 34-41, CS 57-44, JCr 1-290
12.	Seed yield/m^2 (g)	136.55	42.67-253.29	180.97	131.50	96.30	18	LCS 32-55, JCr 1-290, CS 57-44

Table 4: Adjusted mean of coriander genotypes for growth and yield contributing characters

S. No.	Characters Genotypes	Stem initiation (Days)	50% flowering (Days)	Plant height (cm)	Primary branches/ plant	Secondary branches/plant (No.)	Umbels/plant (No.)	Umbellates/umbel (No.)	Fruits/umbel (No.)	Fruit/umbellate (No.)	Seed yield/plant (g)	Test weight (g)	Seed yield/m^2 (g)
1.	CS 22-36	68.34	97.94	134.28	7.18	12.44	45.81	52.27	5.74	11.11	14.83	11.76	186.07
2.	LCS-123	59.14	92.94	98.48	3.98	5.04	19.21	32.07	4.74	5.91	6.03	7.97	52.74
3.	ACr-013	75.14	99.94	121.48	5.78	11.24	33.01	39.67	4.34	6.91	9.43	12.45	110.05
4.	SC-1	49.94	74.94	103.08	3.98	4.84	18.41	33.47	6.34	5.71	5.83	8.28	66.07
5.	NCor-215	73.14	100.94	150.68	7.58	10.64	41.01	46.47	5.74	8.31	4.23	9.91	44.36
6.	JCr-235	55.74	81.94	128.48	3.98	10.04	20.21	41.27	5.94	7.11	4.23	9.38	42.67
7.	JCr 72-32	68.94	96.94	113.08	6.78	9.24	30.61	38.47	5.54	6.31	10.63	10.89	125.01
8.	SCr-151	62.74	92.94	139.48	7.98	9.44	38.41	44.07	5.14	8.11	10.43	7.86	102.99
9.	LCS 68-59	53.74	85.94	85.08	4.38	8.04	24.61	36.67	4.54	7.11	16.83	12.37	206.07
10.	SC-2	62.94	90.94	134.08	4.78	9.64	27.61	31.07	4.94	5.71	3.23	10.73	48.91
11.	SCr-150	69.94	90.94	125.48	3.98	7.84	19.01	27.87	5.74	5.51	10.83	13.64	114.96
12.	JCr 26-21	68.34	94.94	120.88	3.78	5.64	14.61	53.27	6.54	9.11	4.03	11.36	110.52
13.	NCor-210	65.94	100.94	151.68	6.18	7.84	26.01	36.27	6.54	6.31	6.43	10.70	114.96
14.	NoCr 27-37	56.24	93.94	135.28	4.78	7.24	16.61	39.47	5.54	11.91	8.03	7.97	103.85
15.	LCS -654	53.14	85.94	130.88	5.78	9.64	37.41	35.67	5.94	7.91	15.63	13.55	212.74
16.	JCr 49-49	67.74	96.61	132.01	5.98	8.11	26.61	58.27	5.41	13.51	10.10	11.81	159.19
17.	ACr 3-50	61.34	97.61	147.81	7.58	15.51	46.21	51.47	6.81	11.11	14.50	12.62	140.89

18.	NDCor-223	61.94	88.61	129.61	5.78	9.91	20.41	36.07	7.01	8.91	6.70	9.95	87.55
19.	JCr 10-13	55.94	95.61	144.81	4.78	8.71	24.01	42.67	6.61	8.91	5.70	8.27	94.16
20.	PD 42-31	67.74	96.61	141.81	7.18	14.91	58.81	45.47	7.41	9.11	16.10	8.99	194.64
21.	JCr-345	56.34	87.61	124.21	5.38	7.51	21.21	38.67	6.01	5.91	5.10	9.45	67.55
22.	Acr-023	66.14	93.61	134.21	6.58	12.31	43.81	47.87	6.61	8.31	16.70	8.49	187.55
23.	NDCor 53-61	60.94	91.61	136.81	7.18	11.71	45.21	36.87	5.81	7.51	15.10	10.41	163.11
24.	NDCor-124	63.14	87.61	100.41	4.98	9.51	36.81	34.07	5.81	9.91	8.50	9.56	94.22
25.	LCS 18-20	68.94	92.61	152.01	7.38	14.31	56.21	34.87	4.61	10.51	10.90	7.85	140.89
26.	UD 30-66	64.04	89.61	158.01	7.18	14.11	61.41	34.27	6.01	9.71	15.30	11.86	194.22
27.	UD 33-03	57.94	94.61	137.81	4.98	7.11	24.01	36.47	4.41	10.91	7.50	10.12	99.40
28.	LCS-257	51.14	89.61	118.41	5.38	9.71	32.81	34.87	6.41	8.71	7.70	8.16	89.78
29.	ACr 15-58	63.74	97.61	147.81	7.78	10.71	49.81	30.87	4.61	11.71	15.70	10.55	200.89
30.	CS-758	52.14	89.61	135.21	5.38	6.91	35.01	39.07	5.81	10.51	12.50	12.13	147.55
31.	UD 44-24	66.28	99.61	153.08	7.58	10.44	40.54	50.07	6.68	5.44	10.63	10.19	149.47
32.	CS 73-56	72.68	99.61	149.08	7.38	13.64	53.94	40.27	5.28	7.04	7.83	10.28	123.47
33.	JCr 71-08	60.08	92.61	151.88	5.58	8.44	28.34	57.87	5.68	11.44	5.43	9.23	69.44
34.	JCr 60-60	56.88	95.61	155.08	6.98	13.44	43.54	38.07	5.48	5.64	15.63	10.44	210.25
35.	CS-502	55.88	96.61	160.88	5.78	8.24	28.54	38.87	5.48	6.64	11.23	10.96	201.26
36.	PD 21-22	72.48	99.61	165.68	6.18	10.84	24.54	82.87	8.28	12.04	9.43	8.91	154.56
37.	CS 11-57	65.28	95.61	152.68	6.38	14.64	33.54	44.87	7.68	7.44	5.23	11.06	116.14
38.	NCor 14-04	74.88	101.61	146.28	5.78	10.04	26.94	41.87	5.28	6.24	4.83	9.61	82.80
39.	CS 2-52	67.08	96.61	142.88	7.58	13.24	29.74	23.67	5.08	4.44	6.63	10.05	131.69
40.	PD-43-06	66.48	95.61	147.08	5.78	10.24	22.14	110.27	8.08	14.84	8.63	8.75	162.80
41.	CS 57-44	68.48	98.61	139.88	7.18	15.84	38.54	60.07	5.48	7.64	15.63	13.78	241.81
42.	HD 4-04	71.28	97.61	150.88	6.98	12.24	25.34	41.47	5.28	12.04	8.43	8.55	142.32
43.	LCS 65-46	66.88	98.61	162.88	5.78	9.64	31.14	30.47	5.28	5.84	6.43	10.76	136.14
44.	NoCr 59-25	67.48	99.61	144.88	5.78	10.84	19.74	38.87	4.88	6.84	5.63	13.61	116.14
45.	HD-326	69.48	96.61	145.28	5.98	9.04	25.34	39.07	5.08	7.64	7.23	9.99	140.58
46.	LCS 32-55	62.88	93.94	150.74	5.65	13.78	36.68	62.07	7.88	7.71	19.57	12.32	253.29
47.	PD 63-12	61.68	94.94	136.14	5.45	5.78	21.08	54.47	6.68	9.11	5.17	10.79	115.51
48.	LCS 35-32	60.48	95.94	142.74	6.65	10.58	24.08	48.27	5.28	8.71	6.77	12.05	125.85
49.	CS 5-53	62.08	97.94	134.34	5.65	5.38	20.08	58.47	6.88	9.51	6.97	8.13	92.57
50.	SC 8-17	62.08	97.94	149.14	4.65	7.38	23.48	55.27	6.08	10.71	8.57	10.01	159.96
51.	CS 37-42	69.88	94.94	146.54	4.45	4.38	18.28	60.47	7.28	10.91	6.77	8.94	122.18
52.	JCr 29-48	58.88	93.94	143.54	5.85	9.98	27.88	37.67	5.48	6.91	4.77	10.87	107.73
53.	PD 55-43	68.88	95.94	145.14	5.85	7.18	32.88	39.07	5.88	6.91	7.57	10.68	144.40
54.	ACr 51-62	62.68	95.94	139.14	5.45	5.38	20.48	31.27	5.48	7.31	3.57	12.33	108.85
55.	UD 58-35	63.68	95.94	139.34	6.45	11.98	40.08	52.47	6.48	8.71	14.57	10.63	188.85
56.	HD 46-64	69.68	95.94	143.74	6.45	5.18	20.68	44.47	6.48	6.31	9.77	10.96	138.46
57.	ACr 9-11	63.08	97.94	140.34	6.05	5.78	26.48	42.07	5.88	9.31	10.77	8.20	117.74
58.	UD 23-27	64.68	96.94	130.94	6.25	13.58	47.08	30.27	6.28	7.71	8.97	10.95	115.79
59.	NCor 20-35	64.48	93.94	124.14	5.85	10.78	31.68	57.47	6.08	10.91	12.37	12.17	139.27
60.	SC 64-56	68.88	98.94	149.54	6.25	15.18	50.88	40.87	5.88	8.31	11.97	9.92	182.18
61.	UD 62-16	71.74	95.94	142.88	5.28	8.11	27.81	39.60	5.74	9.38	7.37	9.62	134.03
62.	LCS 56-38	68.34	96.94	149.48	5.68	6.71	24.61	39.20	5.54	6.58	7.57	10.20	129.63
63.	LCS 24-34	62.54	94.94	144.08	5.68	10.51	36.81	32.40	5.74	6.18	5.77	8.86	144.73
64.	LCS 25-09	72.34	100.94	150.68	6.08	9.31	24.21	48.00	5.74	7.38	6.97	9.28	119.68
65.	PD 70-54	66.34	96.94	127.48	6.08	3.11	14.81	30.40	5.54	6.38	3.17	10.81	107.37
66.	PD 19-59	65.34	98.94	129.08	4.88	4.31	14.61	39.80	7.14	6.98	4.77	12.47	116.25
67.	ACr 50-63	68.34	101.94	131.68	5.28	6.11	18.81	34.00	5.54	8.98	5.97	10.11	131.81
68.	ACr 45-07	65.54	103.94	141.28	5.08	6.71	25.01	56.40	6.54	10.18	9.17	10.71	151.81
69.	LCS 16-02	62.74	96.94	141.88	6.28	7.71	26.61	45.80	6.14	7.98	6.77	9.30	134.03
70.	NCor 40-26	68.34	97.94	138.08	6.28	8.51	29.21	38.60	5.74	7.78	6.17	9.26	130.33
71.	CS 67-24	61.54	96.94	127.68	5.88	9.11	30.81	33.60	6.14	6.98	4.97	9.65	123.93
72.	JCr 36-19	62.74	94.94	131.68	5.28	7.11	30.81	32.00	5.94	5.58	6.37	9.62	122.57
73.	PD 7-51	66.34	94.94	121.48	5.68	4.91	16.41	38.40	6.34	6.18	3.57	10.96	126.13
74.	SC 54-14	56.74	90.94	133.88	5.48	8.31	26.21	41.00	6.54	6.78	7.37	10.16	149.60
75.	PD 17-54	57.14	92.94	131.08	5.48	7.71	25.81	76.20	6.34	10.98	14.17	9.87	194.03
76.	NCor 38-10	57.81	95.94	154.81	4.92	10.31	31.74	54.73	5.94	10.24	10.50	9.07	165.14
77.	LCS 13-45	58.41	94.94	157.61	5.12	7.31	18.34	62.13	5.94	10.44	6.30	9.26	106.50
78.	UD 39-47	56.61	89.94	134.21	4.52	8.51	22.54	39.53	5.74	6.64	5.90	7.38	118.47
79.	HD 66-63	65.51	102.94	141.41	5.72	7.71	20.14	32.93	5.54	6.04	7.10	10.77	134.17
80.	ACr 47-29	63.41	95.94	151.61	5.72	9.71	32.54	35.93	5.94	6.24	6.70	8.33	140.69
81.	JCr 1-290	69.81	94.94	160.21	5.72	10.71	45.74	45.53	5.34	8.04	19.10	13.75	251.81
82.	LCS 12-08	66.41	94.94	137.21	5.52	7.71	21.54	63.53	5.54	11.04	7.70	9.32	139.87
83.	LCS 41-18	62.21	96.94	143.21	5.32	6.11	24.14	51.73	5.74	8.44	12.50	13.32	191.81

84.	CS 52-46	53.61	89.94	142.41	4.12	7.71	18.74	28.73	4.94	5.64	3.10	10.19	98.47
85.	HD 34-41	62.61	97.94	166.61	4.32	8.31	21.54	74.13	8.14	8.64	15.10	14.32	147.36
86.	Acr 69-62	68.41	97.94	146.21	4.92	5.91	21.14	30.13	5.14	5.84	7.50	12.90	138.26
87.	UD 6-39	73.21	99.94	149.41	4.12	6.31	17.14	31.93	5.34	6.24	3.90	11.19	98.47
88.	NCor 48-23	71.01	101.94	146.81	4.72	7.51	25.34	47.93	5.54	7.84	13.30	10.21	194.03
89.	HD 28-40	70.61	100.94	140.01	4.92	7.11	23.54	33.33	6.54	7.64	6.10	10.68	122.92
90.	JCr 61-28	73.41	99.94	131.61	6.12	9.71	25.74	106.13	7.94	14.44	17.10	8.60	231.81
C1	Pant Haritima	74.33	99.50	160.73	5.97	11.67	35.03	50.50	6.53	7.37	11.87	10.49	180.97
C2	Hisar Anand	68.03	100.83	136.20	5.62	9.97	25.93	50.13	5.93	8.47	8.53	9.40	131.50
C3	RCr-728	59.07	90.50	102.90	5.17	8.10	20.07	37.77	5.37	5.90	4.90	8.95	96.30
Minimum		49.94	74.94	85.08	3.78	3.11	14.61	23.67	4.34	4.44	3.10	7.38	42.67
Maximum		75.14	103.94	166.61	7.98	15.84	61.41	110.27	8.28	14.84	19.57	14.32	253.29
CV (%)		3.46	1.63	3.52	5.58	9.49	4.09	7.87	7.35	8.51	6.05	5.25	2.74

4. Conclusions

The findings of present investigation concluded that, the significant variations were observed in growth and yield attributes of coriander. The genotype LCS 32-55, JCr 1-290, CS 57-44, JCr 61-28 and LCS-654 showed significantly superior performance in respect of seed yield over the best performing check Pant Haritima. These top performing genotypes also excelled in various component traits. Hence, these genotypes offer a good scope of selection of better genotypes for desired traits.

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