Plant Archives Vol. 17 No. 2, 2017 pp. 941-947 *ISSN 0972-5210*

CORRELATION BETWEEN YIELD AND ITS ATTRIBUTES IN CORIANDER

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Abstract

The present study was conducted during rabi season in the year 2015-2016 at HCRI Venkataramannagudem, Andhra Pradesh, India. Thirty coriander (*Coriandrum sativum* L.) genotypes were evaluated to estimate the correlation coefficient in Randomized Complete Block Design with two replications. Grain yield per plant exhibited positive and significant correlation with plant height, number of primary branches per plant, number of secondary branches, number of leaves, leaf area, fresh weight, dry weight, days taken to 50% flowering, number of umbels per plant, number of umbellets per umbel, umbel diameter, number of schizocarps per umbel, number of schizocarps per plant, days taken to maturity, herbage yield, harvest index, thousand seed weight and oil content had significant positive association with fruit yield per plant at both phenotypic and genotypic levels. Therefore, great emphasis should be given for aforesaid characters while selecting for growth and yield related traits.

Key words : Correlation, yield attributes, coriander genotypes.

Introduction

Coriander (*Coriandrum sativum* L.) is a native of Mediterranean region wherefrom its spread to Europe, Asia, North and South – America and Australia. It is the most important seed spice crop cultivated throughout the world both for seed and leaf purpose. It is grown in more than fifty countries with India at ranking 1st, both in area and production followed by Mexico, China, former Soviet Union, Central America and South America (Morales-Payan, 2011). The crop grows in tropics and requires a cool but comparatively dry frost-free climate, particularly at flowering and seed formation stages (Sharma and Sharma, 2004). It is grown in almost all the states of India either for grain or leaf or dual purpose. In India the crop is cultivated mainly in Rajasthan, Madhya Pradesh, Andhra Pradesh, Orissa, Tamil Nadu and Karnataka on an area of 5.43 lakh ha with a production of 5.24 lakh metric tonnes (Tiwari, 2014). The average crop productivity is only 965 kg ha^{-1} and is much lower in rainfed farming situation (477 kg ha^{-1}). The low productivity under rainfed situation is mainly due to terminal moisture stress that affects growth and productivity. Growing coriander in rainfed in Godavari zone farming situation demands highly productive types with short (75 days) to medium (85-100 days) duration for cultivation. Locally grown indigenous genotypes are low in productivity and give poor returns to the farmers. Critical evaluation of available selections of improved types with high yield potential/ traits is of great value to the breeder for crop improvement (Moniruzzaman, 2013). Mengesha and Getinetalemaw (2010) evaluated some Ethiopian coriander genotypes and reported that identification and evaluation of elite or promising genotypes for yield and quality is an important crop improvement strategy. Sarada and Giridhar (2009, 2011) opined that it is possible to realize 1500 kg ha-1 under rainfed conditions if a proper combination of genotypes and management are available to the farmers. Keeping this in view, the present study was undertaken to evaluate promising diverse genotypes from Godavri zone of Andhra Pradesh, India. Correlation will establishes the extent of association between yield and its component and also bring out the relative importance gives a clear understanding of their association with yield. Keeping this in view, the present investigation was done to know the association among characters analysis in coriander.

Materials and Methods

The present investigation entitled "Evaluation of Coriander (*Coriandrum sativum* L.) Genotypes in

Godavari Zone of Andhra Pradesh" was carried out during the year 2015-16 at Horticulture College and Research Institute, Dr. Y.S.R. Horticultural University, Venkataramannagudem, West Godavari District (A.P.), India. The location falls under Agro-climatic zone-10, humid, East Coast Plain and Hills (Krishna-Godavari zone) with an average annual rainfall of 900 mm at an altitude of 34 m (112 feet) above mean sea level. The geo-graphical situation is 16° 63' 120" N latitude and 81° 27' 568" E longitude. It experiences hot humid summer and mild winter. A total of thirty genotypes were taken for evaluation study out of which fifteen genotypes were sourced from HRS Devihosur (Haveri) Karnataka (Ranibennur-1, Ranibennur-2, Ranibennur-3, Byadagi-1, Hangel-1, Hangel-2, Savanur-1, Savanur-2, Savanur-3, Hirekerur-1, Hirekerur-2, Hirekerur-3, Shiggaon-1, Shiggaon-2, Shiggaon-3) whereas, the rest of the accessions were sourced from HRS Lam Guntur, Andhra Pradesh (LCC-200, LCC-331, LCC-321, LCC-323, LCC-325, LCC-334, LCC-335, LCC-316, LCC-328, LCC-320, LCC-317, LCC-319 and LCC-322 and two checks *viz*., AD-1 (local check) and Suguna (commercial check). The experiment was laid out in RBD with two replications and thirty genotypes. The observations were recorded on various growth, seed yield and quality parameters. The crop was raised at a plant spacing of 30 cm × 15 cm. The seed were sown during 2nd of November and harvested during 2nd fortnight of February. A basal fertilizer dose of 35 kg N, 35 kg P_2O_5 and 35 kg K_2O ha^{-1} was given at the time of soil preparation each year. Soil was prepared to a fine tilth and the seed sown in rows using a labor. At 20 days after sowing (DAS), the plants were thinned 15 cm apart to maintain a uniform plant population. Need-based plant protection measures were taken up to raise a healthy crop. Plants were uprooted at harvest. Threshing was done with wooden sticks and seeds winnowed to remove any impurities. Five randomly selected plants from each replication were used for recording of yield attributes. Correlation coefficients for all possible pairs for seed yield were also computed.

Results and Discussion

Plant height (cm)

Plant height recorded significant positive association with fresh weight of the whole plant (r_g: 0.638, r_p: 0.621), dry weight of the whole plant (r_g: 0.627, r_p: 0.587), number of umbels per plant (r_g: 0.572, r_p: 0.571), number of primary branches (r_g: 0.530, r_p: 0.464), herbage yield (r_g: 0.520, r_p: 0.417), number of secondary branches (r_g: 0.371, r_p: 0.379), number of schizocarps per umbel (r_g: 0.331, r_p: 0.361), 1000-seed weight (r_g: 0.326, r_p: 0.339) at both genotypic and phenotypic levels. However, the trait had significant negative correlation with days taken to 50% flowering (r_g: -0.363), days taken for maturity (r_g: -0.337) only at genotypic level. Positively significant association of plant height was also reported by Meena *et al*. (2014) in coriander, Beemnet *et al*. (2013), Anubha *et al*. (2013) and Bandela *et al*. (2014) for grain yield per plant, Mourya *et al*. (2015) for number of branches per plant, Bandela *et al*. (2014) for fresh weight, dry weight, days to 50% flowering and harvest index, number of umbels per plant, number of seeds per umbellets, days to seed maturity in coriander, for thousand seed weight by Mourya *et al*. (2015) for grain yield per plant.

Number of primary branches per plant

The character exhibited significant and positive correlation with fresh weight (r_g: 0.780, r_p: 0.672), dry weight (r_g: 0.618, r_p: 0.571), number of umbel per plant (r_g: 0.411, r_p: 0.332), number of schizocarps per umbel (r_g: 0.466, r_p: 0.373), leaf area (r_g:0.439, r_p:0.380), herbage yield (r_g: 0.408, r_p: 0.532), thousand seed weight (r_g: 0.377, r_p: 0.560) at genotypic as well as phenotypic levels. And with number of secondary branches (r_g: 0.325), grain yield per plant (r_g: 0.318), number of schizocarps per plant (r_g: 0.278) only at genotypic level. And grain yield per plant (r_p: 0.329) and number of schizocarps per plant (r_p: 0.298) only at phenotypic level. The character showed significant negative correlation with days to maturity (r_g:-0.273) and days to 50 per cent flowering (r_g:-0.269) only at genotypic and level. Similar positive association of number of primary branches per plant was also reported by Banerjee and Kole (2004) and Mourya *et al*. (2015) in fenugreek for grain yield per plant, Nilkolay *et al*. (2014) for number of umbels per plant, fruit weight per plant. And negative correlation for thousand fruit weight in coriander.

Number of secondary branches

This trait had significant positive association with leaf area (r_g: 0.399, r_p: 0.314), herbage yield (r_g: 0.380, r_p: 0.468), fresh weight (r_g: 0.340, r_p: 0.271), dry weight (r_g: 0.336, r_p: 0.384) and number of umbels per plant (r_g: 0.327, r_p: 0.273) at both genotypic as well as phenotypic levels. And thousand seed weight (r_p: 0.425) only at phenotypic level. It showed negatively significant correlation with oil content (r_g: -0.282) only at genotypic level. Similar negative association of number of primary branches per plant was also observed by Banerjee and Kole (2004) and Mourya *et al*. (2015) in fenugreek for grain yield per plant.

Number of leaves

This character exhibited significant and positive

correlation with number of primary branches (r_g: 0.439, r_p: 0.380) and number of secondary branches (r_g: 0.399, r_p: 0.314) at both genotypic and phenotypic levels. The trait showed significant negative correlation with days taken to 50% flowering (r_g: -0.688), thousand seed weight (r_g: -0.440) and days taken to maturity (r_g: -0.433) only at genotypic level.

Leaf area (cm^2)

The character exhibited significant and positive correlation with number of primary branches (r_g: 0.780, r_p: 0.672), number of secondary branches (r_g: 0.340, r_p: 0.271), herbage yield (r_g: 0.368, r_p: 0.299), dry weight (r_g: 0.358, r_p: 0.305), fresh weight (r_g: 0.329, r_p: 0.323) and number of umbels per plant (r_g: 0.270, r_p: 0.264) at genotypic as well as phenotypic levels. Similar result recorded by Meena *et al*. (2014) in coriander.

Fresh weight of whole plant (g)

This trait showed significant positive correlation with dry weight (r_g: 0.857, r_p: 0.776), herbage yield (r_g: 0.729, r_p: 0.590), thousand seed weight (r_g: 0.643, r_p: 0.479), plant height (r_g: 0.627, r_p: 0.587), number of primary branches (r_g: 0.618, r_p: 0.571), grain yield per plant (r_g: 0.490, r_p: 0.471), number of secondary branches (r_g: 0.336, r_p: 0.384), number of schizocarps per umbel (r_g: 0.429, r_p: 0.416), number of umbels per plant (r_g: 0.393, r_p: 0.389), leaf area (r_g: 0.358, r_p: 0.305), number of schizocarps per plant (r_g: 0.319, r_p: 0.314) at both genotypic as well as phenotypic levels. The trait showed significant negative correlation with days taken to 50% flowering (r_g: -0.295) and days taken to maturity (r_g: -0.261) only at genotypic level. Similar result found by Bandela *et al*. (2014) for fresh weight in coriander.

Dry weight of whole plant (g)

This trait exhibited significant and positive correlation with herbage yield (r_g: 0.772, r_p: 0.705), number of umbels per plant (r_g: 0.583, r_p; 0.518), grain yield per plant (r_g: 0.420, r_p: 0.453) and number of schizocraps per umbel (r_g: 0.408, r_p: 0.396) at both genotypic and phenotypic levels; and with thousand seed weight (r_p: 0.300) only at phenotypic level. The trait showed significant negative correlation with days taken to 50% flowering (r_g: -0.480, r_p: -0.339) at both genotypic and phenotypic levels. And with number of leaves (r_g: -0.688), days taken to maturity (r_g: -0.348), plant height (r_g: -0.363), fresh weight (r_g: -0.295) and number of primary branches (r_g: -0.269) at genotypic level. Similar results were reported by Bandela *et al*. (2014) for fresh weight in coriander.

Days taken to 50% flowering

This trait had significant and positive correlation with days taken to maturity (r_g: 0.765, r_p: 0.745), dry weight (r_g: 0.583, r_p: 0.518), plant height (r_g :0.572, r_p: 0.571), number of primary branches (r_g: 0.411, r_p: 0.332), fresh weight (r_g: 0.393, r_p: 0.389), number of secondary branches (r_g: 0.327, r_p: 0.273) and leaf area (r_g: 0.270, r_p: 0.264) at genotypic as well as phenotypic levels. It showed significant negative correlation with herbage yield (r_g: -0.520, r_p: -0.413) at both genotypic and phenotypic levels. These findings are in agreement with the earlier findings of Patahk *et al*. (2014) in fenugreek, Bandela *et al*. (2014) in coriander for positive correlation with seed yield. Negative association of this trait with seed yield was in accordance with the results of Anubha *et al*. (20013) in fenugreek.

Number of umbels per plant

This character exhibited significant and positive association with number of schizocarps per umbel (r_g: 0.320, r_p: 0.332) at both genotypic and phenotypic levels. And with herbage yield (r_g: 0.276) only at genotypic level. Similar results were reported by Meena *et al*. (2014) in coriander for positive correlation of number of umbels per plant with grain yield per plant.

Number of umbellets per umbel

Significant positive association was observed with umbel diameter (r_g: 0.420, r_p: 0.327) at both genotypic and phenotypic levels. With herbage yield (r_g: 0.404) only at genotypic level. And with number of schizocarps per umbel (r_p: 0.271) only at phenotypic level.

Umbel diameter (cm)

The character exhibited significant and positive correlation with number of primary branches (r_g: 0.466, r_p: 0.373), fresh weight (r_g: 0.429, r_p: 0.416), dry weight (r_g: 0.408, r_p: 0.396), plant height (r_g: 0.331, r_p: 0.361) and number of umbels per plant (r_g: 0.320, r_p: 0.332) at both genotypic and phenotypic levels. And with number of umbellets per umbel (r_p: 0.271) only at phenotypic level.

Number of schizocarps per umbel

This trait recorded significant positive correlation with thousand seed weight (r_g: 0.445, r_p: 0.377), fresh weight (r_g: 0.319, r_p: 0.314), number of schizocarps per plant (r_g: 0.306, r_p: 0.285) and number of primary branches (r_g: 0.278, r_p: 0.298) at both genotypic and phenotypic levels; with herbage yield (r_g: 0.265) at only genotypic level.

Number of schizocarps per plant

The character exhibited significant positive correlation with days taken to 50 per cent flowering (r_g: 0.765, r_p: 0.745) and thousand seed weight (r_g: 0.289, r_p: 0.279) at genotypic as well as phenotypic levels. It had significant

negative correlation with number of leaves (r_g: -0.433), dry weight (r_g: -0.348), plant height (r_g: -0.337), number of primary branches (r_g: -0.273) and fresh weight (r_g: -0.261) only at genotypic level. Similar results were observed by Anubha *et al*. (20013) in fenugreek for positive correlation between number of seed per plant and grain yield per plant.

Days taken to maturity

Positively significant association was recorded for days taken to maturity with dry weight (r_g: 0.772, r_p: 0.705), fresh weight (r_g: 0.727, r_p: 0.590), plant height (r_g: 0.520, r_p: 0.417), number of primary branches (r_g: 0.408, r_p: 0.532), number of secondary branches (r_g: 0.380, r_p: 0.468) and leaf area (r_g: 0.368, r_p: 0.299) at both genotypic and phenotypic levels. And with number of umbellets per umbel (r_g: 0.404), number of umbel per plant (r_g: 0.276) and number of schizocarps per umbel (r_g: 0.265) only at genotypic level. It had significantly negative correlation with days taken to 50% flowering (r_g: -0.520, r_p: -0.413) and herbage yield (r_g: -0.430, r_p: -0.264) at genotypic and phenotypic levels. Similar results were observed by Bandela *et al*. (2014) in coriander for positive correlation between number of seed per plant and grain yield per plant.

Herbage yield (g)

The character exhibited significant positive correlation with grain yield per plant (r_g: 0.436, r_p: 0.486) at both genotypic and phenotypic levels; with thousand seed weight (r_p: 0.318) only at phenotypic level. It had significantly negative correlation with oil content (r_g : -0.509) only at genotypic level.

Harvest index (%)

This character exhibited significant positive association with grain yield per plant (r_g: 0.648, r_p: 0.615), fresh weight (r_g: 0.643, r_p: 0.479), number of schizocarps per umbel (r_g: 0.445, r_p: 0.377) number of primary branches (r_g: 0.377, r_p: 0.560), plant height (r_g: 0326, r_p: 0.339) and number of schizocarps per plant (r_g: 0.289, r_p: 0.279) at both genotypic and phenotypic levels. And number of secondary branches (r_p: 0.425), herbage yield (r_p: 0.318) and dry weight (r_p: 0.300) only at phenotypic level. It had significantly negative association with oil content (r_g: -0.493, r_p: -0.412) at both genotypic and phenotypic levels. And with number of leaves (r_g: -0.440) only at genotypic level. Similar results observed by Bandela *et al*. (2014) in coriander.

Thousand grain weight (g)

This trait had significant positive association with grain yield per plant (r_g: 0.380, r_p: 0.371), at both genotypic and phenotypic levels; with number of primary branches (r_p: 0.388) and oil content (r_p: 0.322) only at phenotypic level. It had significant negative association with harvest index (r_g: -0.493, r_p: -0.412) at both genotypic and phenotypic levels. and herbage yield (r_g: -0.509) and number of secondary branches (r_g: -0.282) only at genotypic level. These findings are in conformity with the earlier observations by Meena *et al*. (2014) and Anubha *et al*. (2013) for positive correlation of number of umbels per plant with grain yield per plant.

Oil content (%)

This trait had significant positive association with harvest index (r_g: 0.648, r_p: 0.615), fresh weight (r_g: 0.490, r_p: 0.471), herbage yield (r_g: 0.436, r_p: 0.486), dry weight (r_g: 0.420, r_p: 0.453), thousand seed weight (r_g: 0.380, r_p: 0.371), number of primary branches (r_g: 0.318, r_p: 0.329) and plant height (r_g: 0.260, r_p: 0.274) at both genotypic and phenotypic levels. Similar results were observed by Beemnet *et al*. (2013) in coriander for negative correlation between oil content and grain yield per plant.

Grain yield per plant

This trait had significant positive association with harvest index (r_g: 0.648, r_p: 0.615), fresh weight of whole plant (r_g: 0.490, r_p: 0.471), herbage yield (r_g: 0.436, r_p: 0.486), dry weight of whole plant (r_g: 0.420, r_p: 0.453), thousand seed weight (r_g: 0.380, r_p: 0.371), number of primary branches (r_g: 0.318, r_p: 0.329) and plant height (r_g: 0.260, r_p: 0.274) at both genotypic and phenotypic levels. These findings are in conformity with the earlier observations by Meena *et al*. (2014) and Anubha *et al*. (2013).

Correlation study indicated that the plant height, number of primary branches per plant, number of secondary branches, number of leaves, leaf area, fresh weight, dry weight, days taken to 50% flowering, number of umbels per plant, number of umbellets per umbel, umbel diameter, number of schizocarps per umbel, number of schizocarps per plant, days taken to maturity, herbage yield, harvest index, thousand seed weight and oil content had significant positive association with grain yield per plant at both phenotypic and genotypic levels. So, improvement in seed yield per plant is possible by taking above characters as criteria in selection scheme. Among the above traits, number of primary branches per plant, fresh weight (g), dry weight (g), number of umbels per plant, number of schizocarps per umbel, number of schizocarps per plant, herbage yield (g), harvest index (%), oil content (%) and grain yield per plant (g) recorded high heritability coupled with high genetic advance as per cent of mean as evident from the analyses conducted

Table 1 : Genotypic correlation matrix among different characters of coriander genotypes.

	PH60	NPB60	NSB60	NL60	LA60	FW60	DW60	DT50F	NUPP	NULPU	UD	NSPU	NSPP	DTM	HY	HI	1000SW	OC	GYPP
PH60	1																		
NPB60	0.530**	1																	
NSB60	0.371**	0.325*	1																
NL60	-0.234	0.111	-0.169	1															
LA60	0.193	0.439**	0.399**	-0.109	1														
FW60	0.638**	0.780**	0.340**	-0.128	0.329*	1													
DW60	0.627**	0.618**	0.336**	-0.099	0.358**	0.857**	1												
DT50F	-0.363**	-0.269*	-0.145	-0.688**	-0.008	-0.295*	-0.480**	1											
NUPP	0.572**	0.411**	0.327*	-0.140	0.270*	0.393**	0.583**	-0.167	1										
NULPU	0.249	0.227	0.021	0.019	0.036	0.197	0.187	-0.111	-0.140	1									
UD	-0.069	0.028	0.034	0.113	-0.242	-0.024	0.009	0.169	-0.208	0.420**	1								
NSPU	0.331**	0.466**	0.221	0.153	0.107	0.429**	0.408**	-0.130	0.320*	0.185	-0.029	1							
NSPP	0.164	0.278*	0.117	0.139	-0.093	0.319*	0.165	-0.083	-0.088	0.087	0.135	0.306*	1						
DTM	-0.337**	-0.273*	-0.132	-0.433**	-0.122	-0.261*	-0.348**	0.765**	0.056	-0.181	-0.239	-0.059	-0.229	1					
HY	0.520**	0.408**	0.380**	0.062	0.368**	0.727**	0.772**	-0.520**	0.276*	0.404**	-0.189	0.265*	0.215	-0.430**	1				
HI	-0.094	-0.170	0.093	-0.175	-0.145	-0.135	0.006	-0.188	-0.116	0.033	0.085	-0.198	-0.027	-0.183	0.254	1			
1000SW	0.326*	0.377**	-0.065	-0.440**	-0.020	0.643**	0.219	0.083	0.252	0.065	0.028	0.445**	0.289*	0.140	0.052	-0.009	1		
OC	0.218	0.188	-0.282*	0.070	-0.050	0.224	-0.228	-0.032	0.021	-0.169	-0.073	0.053	-0.086	-0.169	-0.509**	-0.493**	0.049	1	
GYPP	0.260*	0.318*	-0.002	-0.169	-0.014	0.490**	0.420**	-0.238	0.205	0.248	0.105	0.163	0.173	-0.158	0.436**	0.648**	0.380**	-0.193	1

PH60 Plant height at 60DAS
NPB60 Number of primary branches at 60DAS
NSB60 Number of secondary branches at 60DAS
NL60 Number of leaves at 60DAS
LA60 Leaf area at 60DAS
FW60 Fresh weight at 60DAS
DW60 Dry weight at 60DAS
DT50F Days taken to 50%flowering
NUPP Number of umbels per plant
NULPU Number of umbllets per umbel
UD Umbel diameter
NSPU Number of schizocarps per umbel
NSPP Number of schizocarps per plant
DTM Days taken to maturity
HY Herbage yield
HI Harvest index
1000SW 1000 seed weight
OC Oil content
GYPP Grain yield per plant

*Significant at 5% level of significance; ** Significant at 1% level of significance.

Table 2 : Phenotypic correlation matrix among different characters of coriander genotypes.

	PH60	NPB60	NSB60	NL60	LA60	FW60	DW60	DT50F	NUPP	NULPU	UD	NSPU	NSPP	DTM	HY	HI	1000SW	OC	GYPP
PH60	1																		
NPB60	0.464**	1																	
NSB60	0.379**	0.494**	1																
NL60	-0.055	0.128	0.074	1															
LA60	0.240	0.380**	0.314*	0.022	1														
FW60	0.621**	0.672**	0.271*	-0.070	0.323*	1													
DW60	0.587**	0.571**	0.384**	0.019	0.305*	0.776**	1												
DT50F	-0.164	-0.214	0.029	-0.182	0.075	-0.217	-0.339**	1											
NUPP	0.571**	0.332**	0.273*	-0.049	0.264*	0.389**	0.518**	-0.064	1										
NULPU	0.310*	0.176	0.178	0.249	0.079	0.187	0.176	0.178	-0.056	1									
UD	0.023	0.024	0.023	0.126	-0.025	-0.007	-0.004	0.161	-0.159	0.327*	1								
NSPU	0.361**	0.373**	0.227	0.250	0.126	0.416**	0.396**	0.020	0.332**	0.271*	-0.008	1							
NSPP	0.168	0.298*	0.155	0.117	-0.065	0.314*	0.160	-0.076	-0.089	0.072	0.157	0.285*	1						
DTM	-0.226	-0.155	0.001	-0.126	-0.023	-0.213	-0.233	0.745**	0.083	-0.027	-0.151	0.016	-0.201	1					
HY	0.417**	0.532**	0.468**	0.083	0.299*	0.590**	0.705**	-0.413**	0.192	0.252	-0.125	0.238	0.242	-0.264*	1				
HI	-0.064	-0.118	0.124	-0.077	-0.121	-0.126	0.031	-0.099	-0.098	0.085	0.067	-0.157	-0.022	-0.130	0.219	1			
1000SW	0.339**	0.560**	0.425**	-0.038	0.057	0.479**	0.300*	0.181	0.209	0.209	0.036	0.377**	0.279*	0.227	0.318*	0.057	1		
OC	0.222	0.388**	0.067	0.100	-0.009	0.213	-0.096	-0.036	0.014	-0.115	-0.042	0.042	-0.015	-0.089	-0.146	-0.412**	0.322*	1	
GYPP	0.274*	0.329*	0.105	-0.047	0.026	0.471**	0.453**	-0.158	0.189	0.243	0.129	0.207	0.185	-0.088	0.486**	0.615**	0.371**	-0.100	1

PH60 Plant height at 60DAS
NPB60 Number of primary branches at 60DAS
NSB60 Number of secondary branches at 60DAS
NL60 Number of leaves at 60DAS
LA60 Leaf area at 60DAS
FW60 Fresh weight at 60DAS
DW60 Dry weight at 60DAS
DT50F Days taken to 50%flowering
NUPP Number of umbels per plant
NULPU Number of umbllets per umbel
UD Umbel diameter
NSPU Number of schizocarps per umbel
NSPP Number of schizocarps per plant
DTM Days taken to maturity
HY Herbage yield
HI Harvest index
1000SW 1000 seed weight
OC Oil content
GYPP Grain yield per plant

* Significant at 5% level of significance; ** Significant at 1% level of significance.

in the present investigation and hence selection based on those traits could be highly beneficial for crop improvement in coriander.

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